

Master in Linguistics by Dissertation

A sociolinguistic and socio-educational evaluation of the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia

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DECLARATION

I declare that the dissertation hereby handed in for the qualification fulfillment of the requirement for the degree of Master in Linguistics at the University of the Free State, is my own independent work and that I have not previously submitted the same work for a qualification at/in another university/faculty.

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ABSTRACT

Sign Language-based Bilingual Education is a known Bilingual-Bicultural model that offers the best chance for a deaf learner to achieve academic success. Even though the Ministry of Education in Namibia also claims to have adopted this approach to teaching deaf learners, the education system still remains unable to produce deaf learners who can exit school with a valid grade twelve certificate.

The study constitutes a programme evaluation design in which a sociolinguistic and socio-educational evaluation of the effectiveness of Bilingual and Biliterate Education was done. A logic model tool for evaluation was used systematically to formulate a design for this evaluation. By drawing up a logic model, the main objectives of the Bilingual-Bicultural programme, together with the overall impact the success of the programme can have, was highlighted. The main intention of the study was to assist schools for deaf learners to enhance the literacy levels of learners in both Namibian Sign Language and English. Literacy in Namibian Sign Language and English can then serve as basis to achieve academic success.

The study was aimed at lower primary deaf learners in the Khomas region of Namibia. The principal of NISE School for Hearing Impaired learners, the head of department, lower primary teachers and learners formed part of the research population. The education officer and school inspector responsible for the school were also included in the research population. Qualitative research was done, and data were collected from documents, different interviews and class observations. An inductive data analysis approach was used to make sense of the information that was collected.

Based on the logic model tool that was created to do the evaluation, it was found that the ground work for the Bilingual-Biliterate programme had been done, as the necessary documents to support the programme were in place. What the programme lacks most seems to be support provided to parents of deaf learners and the involvement of the parents in the educational

programmes of the school. There is also a great need for assessment criteria and tools to be created in order to justly assess the deaf learners. Other grey areas that may hinder the success, or the full impact, that the programme can have, are that staff members still need to develop their Namibian Sign Language skills and knowledge of Deaf Education. A fully trained staff in Namibian Sign Language and Deaf Education will determine the existence of a Sign Bilingual environment at the school; the existence of a Sign Bilingual environment was another grey area of the programme. Adequate teaching materials also need to be developed, to be readily available for instruction within the programme. According to the logic model, planned work for teacher training, creating a Sign Bilingual environment and creating teaching materials were already done. Remaining now only is that the goals of these objectives have to be reached. If the full impact of the programme is reached, it is envisaged that deaf learners could more easily obtain a Grade 12 certificate.

ABSTRAK

Gebaretaal – gebaseer op tweetalige onderrig – is ‘n alombekende Tweetalig-Bikulturele model wat aan ‘n dowe leerder die beste geleentheid bied om sukses op akademiese gebied te behaal. Alhoewel die Ministerie van Onderwys in Namibië daarop aanspraak maak dat hierdie benadering in die onderrig van dowe leerders aanvaar is, kon die onderwysstelsel tot dusver geen dowe leerder met ‘n Graad 12-sertifikaat laat slaag het nie.

Hierdie studie beoog om ‘n progamevalueringsontwerp daar te stel waarin ‘n sosiolinguistiese en sosio-opvoedkundige evaluering van die effektiwiteit van tweetalig-geletterde onderrig gedoen is. ‘n Logiese modelinstrument vir evaluering is gebruik om stelselmatig ‘n plan te beding om die evaluering te doen. Deur ‘n logiese model op te stel, is die hoofdoelstellings van die Tweetalig-Bikulturele program beklemtoon, asook die algehele uitwerking wat die sukses van die program kan hê. Die hoofdoel van die studie was om skole vir dowes by te staan om sodoende die geletterdheidsvlak van leerders in beide Engels en Namibiese Gebaretaal te verhoog. Geletterdheid in Namibiese Gebaretaal en Engels kan dan as basis dien om akademiese sukses te bereik.

Die studie was gemik op junior primêre leerders wat doof is in die Khomasstreek van Namibië. Die hoof van *NISE School for Hearing Impaired Learners*, die departementshoof, die junior primêre onderwysers en leerders vorm deel van die navorsingspopulasie. Die skoolinspekteur en onderwys beampte onder wie se beheer die skool is, is ook ingesluit in die navorsingspopulasie. Kwalitatiewe navorsing is gedoen en data is versamel van dokumente, onderhoude en klaskamerobservasie. ‘n Induktiewe benadering is gevolg om data te analiseer.

Gebaseer op die instrument wat volgens die logiese model ontwerp is om die evaluering te doen, is daar gevind dat die grondslag vir tweetalig-bigeletterde onderrig gelê is en dat die nodige dokumente wat die program rugsteun in plek is. Wat grotendeels in die program ontbreek, is die ondersteuning wat aan die ouers van dowe leerders gegee behoort te word en die betrokkenheid

van die ouers in die opvoedkundige programme van die skool. Daar is ook 'n groot nood vir die ontwikkeling van assesseringskriteria en instrumente wat gebruik kan word om dowe leerders regverdig te assesser. 'n Ander grys area wat die volle sukses van die program verhinder, is die gebrek van personeellede se vaardigheid in gebaretaal. Hulle sal dus eers hulle vaardigheid in die gebruik van gebaretaal asook hulle kennis van en insig in die onderrig van dowes moet verbeter, voordat die program in sy volle impak geïmplementeer kan word. Dit sal bestaan van 'n gebare-tweetalige leeromgewing in die skool bepaal – wat ook 'n grys area in die program was. Voldoende onderrigmateriaal en hulpmiddels moet ook ontwikkel word en moet geredelik beskikbaar wees om in die program te gebruik. Volgens die logiese model is die beplanning van onderwysopleiding om 'n gebare-tweetalige leeromgewing te skep en om toepaslike onderrigmateriaal te skep, alreeds gedoen. Dit is nou slegs nodig om die doelwitte van hierdie doelstelling te bereik. Wanneer die volle impak van die program kan geld, is die hoop dat dowe leerders makliker hul Graad 12-sertifikaat sal kan verwerf.

KEY WORDS

Biliteracy – Literate competencies in two languages

CCDS – Centre for Communication and Deaf Studies

CLaSH – The Association for Children with Language, Speech and Hearing Impairment of
Namibia

Deaf – A linguistic minority group and cultural group who refers to themselves as ‘Deaf’

deaf – A lowercase ‘d’ refers to the auditory hearing impairment

Effectiveness – The success of the teaching method

ICEIDA – Icelandic International Association for the Deaf

Instruction – The activities of educating, teaching or instructing that impart knowledge and the
skill of literacy

NIED – National Institute for Educational Development, Namibia

NISE – National Institute for Special Education, Namibia

NNAD – Namibia National Association for the Deaf

NSL – Namibian Sign Language

SASL – South African Sign Language

LIST OF TABLES AND FIGURES

Table 1: Results of Investigations	13
Table 2: Results of Early Manual Communication	14
Table 3: Monolingual Education for language minority learners	23
Table 4: Weak Bilingual Education	23
Table 5: Strong Bilingual Education	24
Table 6: Assessment sheet for English Grade 1	78
Table 7: Assessment sheet for Namibian Sign Language Grade 1	79
Table 8: Assessment sheet for English Grade 4	80
Table 9: Assessment sheet for Namibian Sign Language Grade 4	81
Table 10: Rudimentary summary of Evaluative Results	94
Figure 1: Duel Iceberg Representation of Bilingual Proficiency	21
Figure 2: Partnership between Learners' Education, Parents and Society	26
Figure 3: Basic Logic Model	39
Figure 4: Logic Model for the Bilingual and Biliterate programme	40
Figure 5: Percentage of teachers using Namibian Sign Language and percentage of teachers using Total Communication	52
Figure 6: Lesson objectives met and not met through Total Communication	68
Figure 7: Assessment for Grade 1 Namibian Sign Language	74
Figure 8: Assessment for Grade 1 English	75
Figure 9: Assessment for Grade 4 Namibian Sign Language	76
Figure 10: Assessment for Grade 4 English	77
Figure 11: Basic Logic Model	85

TABLE OF CONTENTS

DECLARATIONS	ii
ABSTRACT	iii
ABSTRAK	v
KEY WORDS	vii
LIST OF TABLES AND FIGURES	viii
CHAPTER 1	1
GENERAL INTRODUCTION	1
1.1 Introduction	1
1.2 Background to the Study	2
1.3 Research Problem	3
1.4 Problem Statement and Research Questions	3
1.5 Purpose/Aim and Objectives	3
1.6 Research Design	4
1.7 Ethical Considerations.....	5
1.8 Value of the Research	5
1.9 Limitations of the Study	5
1.10 Delimitations of the Study	6
1.11 Conclusion	6
CHAPTER 2	7
LITERATURE REVIEW	7
2.1 Introduction	7
2.2 Viewpoints on Deafness	7
2.2.1 The Clinical-pathological Viewpoint	8
2.2.2 The Cultural Perspective	8
2.2.3 Bio-ecological Theory	9
2.3 Historical Overview and Deaf Education Systems	10
2.3.1 Oral Education	11
2.3.2 Total Communication	17
2.4 Deaf Bilingual-Bicultural Education	19
2.5 Principles of Bilingual-Bicultural Education	26
2.5.1 Sociolinguistic Principles	27
2.5.2 Socio-Educational Principles	30
2.6 Conclusion	35

CHAPTER 3	36
RESEARCH DESIGN AND METHODOLOGY	36
3.1 Introduction	36
3.2 Research Design	36
3.3 Logic Model for the Bilingual and Biliterate Programme	39
3.4 Evaluative Questions	41
3.5 Research Population	42
3.6 Data Collecting Tools and Techniques	42
3.7 Data Analysis	44
3.8 Pilot Study	46
3.8.1 Modification of Interview Questions	47
3.8.2 Modification of Observation Sheet	48
3.9 Validity and Reliability	48
3.10 Conclusion	50
CHAPTER 4	51
DATA PRESENTATION AND DISCUSSIONS	51
4.1 Introduction	51
4.2 The Individual Roles of Namibian Sign Language and English at the School	51
4.3 Teacher Qualifications	54
4.4 Parental Involvement in the School Programme	58
4.5 Support Provided to Parents of Deaf Learners	59
4.6 Policies and Documentation in Regard to Bilingual Education for Deaf Learners	61
4.6.1 Policy on Inclusive Education.....	62
4.6.2 The Curriculum for the Lower Primary Phase	63
4.6.3 Namibian Sign Language Syllabus	64
4.6.4 Language Policy for Schools in Namibia	66
4.7 Prescribed Procedures / Methods for Teachers	67
4.8 Sign Bilingual Environment at the School	69
4.9 Involvement of the Deaf Community	70
4.10 Instructional Materials being used	71
4.11 Assessment Tools Used to Assess the Deaf Learners	73
4.12 Conclusion	83
CHAPTER 5	84
SUMMARY, REFLECTION, RECOMMENDATION AND CONCLUSION	84
5.1 Summary of the Study	84
5.2 Reflection	87
5.2.1 The Individual Roles of Namibian Sign Language and English at School	87

5.2.2 Teacher Qualifications	88
5.2.3 Parental involvement in the School Programmes and Support Provided to Parents of Deaf Learners	89
5.2.4 Policies and Documentation with Regards to Bilingual Education for Deaf Learners and Prescribed Procedures and Methods for Teachers to Follow	90
5.2.5 Sign Bilingual Environment at the School and the Involvement of the Deaf Community	91
5.2.6 Instructional Materials	92
5.2.7 Assessment Tools	93
5.3 Recommendation	95
5.4 Appraisal	99
5.5 Conclusion	100
 REFERENCES	 101
 APPENDICES	
APPENDIX A: Permission letter to the director of the Khomas Education Region	107
APPENDIX B: Permission granted by director of the Khomas Education Region	108
APPENDIX C: Permission letter to school principal	109
APPENDIX D: Permission granted by school principal	110
APPENDIX E: Interview Questions	111
APPENDIX F: Observation sheet	115

CHAPTER 1

GENERAL INTRODUCTION

1.1 Introduction

Namibia, like so many other countries in the world, is still experiencing the growing pains of Deaf Education. There is, however, no doubt that within the Namibian context provision is made for the education of deaf learners, as there are various documents that support education-for-all, including education for deaf learners.

Article 20 of the Namibian Constitution (1998) states that all people should have access to education and basic education shall be free and compulsory. This declaration is also translated into a more clearer vision in a government policy document, *Toward Education for All: A Development Brief for Education, Culture, and Training* (1993). At the helm of this policy are four major goals: *access, equity, quality* and *democracy*. This study will focus on ‘*access*’, which implies that all barriers that keep Namibian learners from going to school must be addressed. These barriers include the barrier of not understanding a particular language. It is also based on this goal (access) that mother tongue instruction has been implemented for the first schooling years of learners.

In further support of education-for-all, including education for deaf learners, the Ministry of Education (2009) states that language should be seen as a tool that enables learning and not as a barrier to learning, and that Namibian Sign Language, accompanied by the Bilingual-Bicultural approach, will be used in teaching deaf learners. It also states that the acquisition of written English for deaf learners should be emphasised as a means of communicating with the hearing world, and that continuous professional development for English, Namibian Sign Language and Braille teaching shall be offered to promote proficiency and decrease learning failure. The Ministry of Lands, Resettlement and Rehabilitation (1997) further paves the way in the support of

education for deaf learners in that it states that, the State shall promote and strengthen communication among deaf people who use Namibian Sign Language as a means of communication.

1.2 Background to the Study

To date, Namibia is still in the trial and error phase of literacy development for deaf learners. The existence of literacy difficulties for deaf learners is not in doubt; however, there is much debate as to the reasons for these difficulties. Central to these are questions about the appropriate language and literacy model for Deaf Education.

One emerging stream of thought is to apply a Bilingual Model. According to Lane, Hoffmeister and Bahan (1996:293), Sign Language-based Bilingual Education is one such model that is within the biological reach of a deaf learner. Sign Language is the language the learner will be able to learn naturally and appropriately. It is a natural language that is rule-governed, predictable and generative; hence it can be used for full communication and as a means for acquiring new knowledge, including the knowledge of another language, for example English. Sign Language fluency, however, will not guarantee English literacy for deaf learners as they will remain at a disadvantage when it comes to using an oral (spoken) language where the written form involves the representation of sounds these learners may never have heard. Sign Language-based Bilingual Education, therefore, involves acquiring English as a second language through the medium of Sign Language. This model offers a chance for the deaf learner to succeed in becoming literate in English (Lane et al., 1996:293).

As Bilingual Education becomes a desirable option, also in oral language contexts, educational establishments increasingly claim to offer it. The question arises whether their offer can be classified as true Bilingual Education. The question can be asked whether these establishments have criteria in place in order to assess the effectiveness of their programmes. Based on extensive work in the field of Bilingual Education, Garcia (1997) has developed a set of sociolinguistic and socio-educational principles from which appropriate criteria can be derived

for such assessment. The success of Bilingualism and Bilitery in regard to Deaf Education in Namibia can be measured in terms of such criteria that have been adapted to local conditions.

1.3 Research Problem

One of the researcher's major concerns is that after many years of Deaf Education in Namibia, the education system is still unable to produce deaf learners who can pass grade twelve (Ellis, 2011:8). The emerging use of a Bilingual-Bicultural approach in Deaf Education has had ripple effects across the world. With Deaf Education's history of oralism, the use of Sign Language only, Cued Speech and Total Communication, the outcomes for deaf learner's reading and writing levels remain lower than that of their hearing counterparts (Mayer and Akamatsu, 2003:136). However, since Bilingual programmes have been introduced in the education of deaf learners, one of the principal claims has been that, as an effect of using a natural sign language as the primary language of instruction, deaf learners will not only have greater and easier access to curricular content but will also develop higher levels of literacy (Mayer and Akamatsu, 2003:136).

1.4 Problem Statement and Research Questions

The Ministry of Education in Namibia also claims to have adopted the Bilingual-Bicultural approach, and yet the education system still remains unable to produce deaf learners who can pass grade twelve and proceed with studies at Higher Education Institutions. If Namibia has adopted the Bilingual-Bicultural approach, the question could be asked whether this is an appropriate approach and if so, whether it is applied correctly and against what criteria the success of this approach is being measured.

1.5 Purpose/Aim and Objectives

This study will, therefore, focus on evaluating the approach to Bilingual Education at the NISE School for Hearing Impaired Learners in the Khomas region of Namibia, based on criteria derived from the sociolinguistic principles of Bilingual Education as stated by Garcia (1997). These principles entail the compartmentalisation principle, the principle of mother tongue use

and the principle of the teaching of a second language. The study will also utilise criteria derived from the socio-educational principles of Bilingual Education, as it is essential for certain characteristics to be present in the educational agents and educational culture of a school in order to develop Bilingualism and Biliteracy. These principles rightly fit with Bronfenbrenner's (1979) bio-ecological theory which argues that a child's development does not take place in isolation but in a complex set of interrelated systems. The sociolinguistic principles together with the socio-educational principles form part of an interrelated system that needs to be in place and functioning for Bilingual and Biliterate Education to be successful for lower primary deaf learners at NISE School for Hearing Impaired learners.

1.6 Research Design

Qualitative research was undertaken in this study. The study constitutes a programme evaluation design as it sought to evaluate the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia.

The research population for this study consisted of lower primary (grades 1 – 4) learners and teachers at NISE School for Hearing Impaired Learners, as well as the head of department for lower primary and the school principal. From the Ministry of Education, the education officer and the school inspector responsible for the school also formed part of the research population. Taking into account the low population for this study, no sampling was done by the researcher. The whole population was, therefore, included in the study.

Data were collected from relevant documents, from interviews with different stakeholders, as well as from class observations. The researcher ensured total anonymity and confidentiality to the participants of the study. Participants were also ensured that the data would be used mainly for information purposes in this study.

An inductive data analysis approach was used to analyse the data. The researcher used the steps for inductive analysis as proposed by Hatch (2002). According to Hatch (2002), inductive data analysis works well with observation data and can be comfortably used with most interview data.

1.7 Ethical Considerations

Conducting research in an ethical manner was an important responsibility. Therefore, the researcher obtained written permission for the intended study from the Ministry of Education (see Appendix), as well as written permission from the principal of the school (see Appendix). The researcher also obtained verbal permission from each of the participants in the interviews. The intention of the researcher was to interpret the data that were collected as precisely and accurately as possible, so that a logical and true conclusion could be drawn from the findings. The subjects of this study were treated in a respectful manner and absolute anonymity was guaranteed in the research instruments.

1.8 Value of the Research

The outcome of this research lies in its potential to assist teachers teaching at schools for the deaf, to enhance the literacy levels of deaf learners in both Namibian Sign Language and English. Educators at Higher Institutions will be better equipped to guide students through the challenges facing Deaf Education in Namibia. Curriculum planners will provide curricula with greater access to curricula content by deaf learners. More importantly, this study will make a contribution towards improving the quality of education provided to deaf learners in Namibia.

1.9 Limitations of the Study

Firstly, this study was carried out at a time when the school was just reopening for the third trimester of the school year. The first week after the school reopened, Deaf Awareness was celebrated in Namibia. Teachers were occupied with the arrangements of the celebrations and could not always be available for class visits. Secondly, 6 teachers and 6 class groups in the

lower primary phase were involved in the study. If one teacher of a particular class group was absent from school it became the responsibility of the next teacher to take the learners of the teacher that was absent. It often happened that teachers were absent from school and other teachers had to take responsibility for their classes. The researcher could not get hold of the sixth teacher to do the interview with him, as he went on study leave in the last trimester. Absenteeism of teachers led to overcrowded classrooms and teachers who were present had to spend most of the time trying to maintain order and not getting to the actual lesson presentations for the day. Thirdly, as the study was based on data collected mostly from the teachers, the responses were dependent on the teachers' ability and willingness to give a true reflection of the situation.

1.10 Delimitations of the Study

In total there are three schools for deaf learners in Namibia and three units where deaf learners are accommodated. Only one of the schools, NISE School for Hearing Impaired Learners, is situated in the central part of Namibia. The rest of the schools and units are situated in the far northern and north-eastern parts of Namibia. An ideal situation would have been to carry out this study at all of these institutes for deaf learners, but due to the geographical vastness of the country and lack of financial resources, the study could only be carried out at the central school, namely at NISE School for Hearing Impaired Learners in Windhoek.

1.11 Conclusion

The purpose of this chapter was to provide an orientation and contextualisation to the study, the research problem, the problem statement, purpose/aim and objectives, research design, ethical consideration, value of the study, limitation and delimitations that were experienced while conducting the study. The next chapter focuses on the literature review related to the study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter will look at how deafness is viewed by different groups of people and how these different schools of thought have developed towards a more bio-ecological approach and way of thinking. A historical overview of Deaf Education, with regards to how Deaf Education has evolved over the years in terms of the Oral Education method, the Total Communication method and lastly the Deaf Bilingual-Bicultural method, is given. In conclusion, principles of the Bilingual-Bicultural method that might determine the success or failure of such a programme in schools will be looked at.

2.2 Viewpoints on Deafness

Deaf Education has historically been dominated by a monolingual philosophy. Education for deaf learners have been based on an audist view of deaf people as audilogically handicapped. This monolingual philosophy was the reason why deaf people have had so little to say in their education. The focus of hearing professionals were more on helping deaf learners succeed as semi-hearing people (Cummins and Corson, 1997:231).

According to Lane et al. (1996:329), deaf people have often been regarded as a problem, not only within the education system, but also in social welfare systems, among doctors as well as psychologists and in the employment market. This has led to deaf learners often being placed in insufficient types of education that submerge them in the language and culture of hearing people only, rather than being exposed to an enrichment model where Sign Language is allowed as the primary language and foundation of a deaf culture (Lane et al., 1996:329).

2.2.1 The Clinical-pathological Viewpoint

Commonly there are two opposing schools of thought when defining deafness (Storbeck, 2011:383). The first viewpoint regarding deaf people is from a medical perspective. It can also be identified as the clinical-pathological viewpoint. According to Baker (2006:372), from this viewpoint deafness is defined as a defect or a handicap that distinguishes ‘abnormal’ deaf people from ‘normal’ hearing people.

Baker-Shenk and Cokely (1991:54) are of the opinion that this clinical-pathological viewpoint has traditionally been held by the majority of hearing people who interact on a professional basis with deaf people. In most cases these professionals will see deafness as a problem that needs to be fixed and will recommend hearing aids and other devices that enhance hearing or they will recommend the understanding of speech through speech therapy. Deaf people are thus expected to become as ‘normal’ as possible. Sign Language and other visual methods of communication are avoided and much focus is given to the learning of spoken language in order for the deaf person to assimilate and fit into mainstream society (Baker, 2006:372).

2.2.2 The Cultural Perspective

The second viewpoint about deaf people is from a cultural perspective. According to Baker (2006:373), this viewpoint is in line with what is also said about hearing bilinguals, namely that deaf people are a group of people that belongs to a linguistic and cultural minority community. Baker further states that the cultural perspective of deafness instigates the assertion that deaf people can do everything except hear.

According to Baker-Shenk and Cokely (1991:54), deaf people are “a group of persons who share a common means of communication (Sign Language) which provides the basis for group cohesion and identity”. In this viewpoint the differences between Deaf people and hearing people relate to natural cultural differences and are not deviations from a hearing norm. A capital letter

‘D’ in the word ‘Deaf’ is then used to denote membership of a Deaf community and the use of an indigenous signed language as a primary or preferred language. The use of the lower case ‘d’ in the word ‘deaf’ refers to people who have medically determined hearing loss (Ladd, 2007:xvii).

Storbeck (2011:383) states that these two definitions broadly represent the medical model and the social model, where the majority of hearing people follow the medical model and the majority of Deaf people follow the social model. More recently, there has been, however, a move away from the polarisation of these two models towards a bio-ecological approach (Storbeck, 2011:383).

2.2.3 Bio-ecological Theory

Urie Bronfenbrenner (1979), the leading advocate of the ecological system theory, has been critical of psychologists and educators who focus only on individual growth and behaviour without regard for the social, political or economic condition in which children grow up. He maintains that the family, local social service agencies, schools, state and federal governments, the media and the political thinking of the time all must be considered in the comprehensive explanation of human development (Trawick-Smith, 2010:58).

Bronfenbrenner extends the ecological theory by adding the morpheme ‘bio’ to the term ‘ecological’ in agreement with his long-held view that the biological resources and attributes are also important to the understanding of human development. Throughout his career Bronfenbrenner has rejected the common assumption that developmental attributes, such as intelligence, achievement and Piagetian type stages, can be measured and understood outside the context of an individual’s life, time and society. He emphasises that a person’s development is the product of a network of interaction, namely cultural, social, economic, political, and not merely psychological (Swart and Pettipher, 2011:11).

In brief, Bronfenbrenner's theory defines the construct of development and the multi-system layers of the environment that influence child development (Lewthwaite, 2011:1). Furthermore, he describes the nature of the process with the environment that affects development. In so doing, Bronfenbrenner's bio-ecological theory goes beyond providing a framework for identifying and conceptualising the multi-system factors that influence development. It considers an individual's topology – his or her setting – and the way in which individuals and external forces interplay or influence development. Most importantly it attempts to underscore processes and the dynamics of these processes that might influence development (Lewthwaite, 2011:1).

In line with Bronfenbrenner's theory, Vijjalakshmi (2009:50) is also of the opinion that the development of a deaf child can be best understood from a bio-ecological perspective since the child's development does not take place in a vacuum, but rather in a complex set of interrelated systems over a period of time. Spencer, Erting and Marschark (2000:xviii) further state that the deaf child is at the centre of this system. However, the child does not live in isolation, but within a family unit which, in turn, does not function in isolation, but within a community. The community is an integral part of society in which other systems, such as the school, clinic or hospital, function in direct or indirect relation to the child and the family.

A bio-ecological perspective of development thus takes into consideration that the characteristics of the deaf child interact with the characteristics of the environment, in order to produce a unique system that influences, and is influenced by, interaction in an ever-lengthening, hierarchically layered context. The deaf child is thus not only looked at from a clinical-pathological viewpoint or a cultural viewpoint, but is looked at as being part of a hierarchical whole.

2.3 Historical Overview and Deaf Education Systems

Educational aspects of deaf people have evolved tremendously and still continue to grow as new techniques and strategies are developing locally, nationally and internationally. Over the years, much has been learnt about the successes, as well as failures, of certain strategies and techniques

that were used to educate deaf learners. At times it was evident that Deaf Education was lacking something, since many deaf learners left school illiterate. At other times it was clear that something was done correctly, as some deaf learners achieved great academic success.

Historically Deaf Education was officially initiated in America in the early 1800s when Laurent Clerc, the first Deaf teacher in America, had been persuaded to move from France by Thomas Gallaudet, who felt strongly that a Deaf person should lead Deaf Education and demonstrate how deaf children should be taught (Geeslin, 2007:13).

The 1850s were considered a golden age for the American Deaf community, because there were many Deaf professionals, including authors, doctors, lawyers and politicians (Geeslin, 2007:14). This golden age ended in the 1880s when the Milan Congress in Italy concluded that Oral Education must spread worldwide. The period from 1890 to the 1940s is known as the dark age of the Deaf community (Lane et al., 1996:61).

2.3.1 Oral Education

According to Lane et al. (1996:61), Alexander Graham Bell was one of the most prominent proponents of oralism in the USA. He spent his life studying the physiology of speech. Bell taught speech to deaf learners using a universal alphabet invented by his father called “Visible Speech” and in 1872 he opened a school in Boston to train teachers of deaf learners (Osborne, 1943:11-13).

In 1883, Bell published a paper, “Upon the formation of a Deaf Variety of the Human Race”, in which he warned of a great calamity facing the nation: Deaf people were forming clubs, socialising with one another and consequently marrying other Deaf people. Bell noted that a special language was in existence, a language as different from English as French or German. Some eugenicists called for legislation outlawing intermarriage by Deaf people, but Bell rejected

such a ban as impractical. Instead he proposed that the causes that promote intermarriages among the Deaf people should be determined and these causes should be removed. The causes he sought to remove were Sign Language, Deaf teachers and residential schools for the deaf. His solution was the creation of special day schools taught by hearing teachers who would enforce a ban on Sign Language (Lane et al., 1996; Stansfield, 2005).

The suppression of Sign Language and the decline of Deaf educators had deleterious effects on the academic, social, cognitive, emotional, cultural and linguistic development of Deaf individuals and on the Deaf community. The repercussion of the Milan Congress of 1880 was immediate as Deaf educators in schools for the deaf lost their jobs. Bell argued that, “the Deaf teacher generally cannot help the learners learn Oral Language and will use Sign Language with them instead” (Lane, 1984:373). Oral Language was the language of instruction and course content was presented in Oral Language. Oral Language was not fully accessible to the deaf learners and this made it hard for them to perform well academically (Cummins and Corson, 1997:232).

Zaitseva, Pursglove and Gregory (1999:9) state that Lev Vygotsky, who began his work in the field of special educational needs at the beginning of the 1920s, had objections concerning the oral method. In Vygotsky’s opinion the oral method failed because teaching language through this approach was ineffective, since it diverted attention from all other aspects of education and became an end in itself. The acquisition of Oral Language took up too much time and became rote learning (a chore) for the deaf child and this could have disastrous consequences (Zaitseva et al., 1999:9).

Evidence slowly began to emerge on the failings of Oral Education. Vernon (1969:549) reported for the Michael Reese Hospital, Chicago, Illinois that, based on investigations done on a large percentage of oral preschool programmes, it showed that by the time the learners who had had oral preschool training had been in school a few years, the effects of their training had washed

out and they were at no higher education level than matched groups who had not had preschool exposure.

Table 1: Results of investigation done as stimulated by Vernon (1969:549).

Investigator	Sample	Results
Craig (1964)	101 deaf learners in control group, 151 deaf children in experimental group (Western Pennsylvania School, American School, and others).	No significant difference in speech reading and reading after a few years in school.
Phillips (1963)	Preschool deaf learners and controls from Eastern U.S. schools including Lexington School, American schools and others.	No significant difference between preschool and non-preschool groups in academic achievements by age 9.

According to Lane et al. (1996:267), numerous studies compared the academic achievement of deaf children of Deaf parents with that of deaf children of hearing parents. The results of these studies were consistent and showed that deaf children of Deaf parents performed significantly better than the deaf children of hearing parents.

Table 2: Results of early manual communication (Communications via Sign Language) as stimulated by Vernon (1969:550)

Investigator	Sample	Results
Stuckless and Birch (1966)	105 deaf children of deaf parents (manual group), 337 matched deaf children of hearing parents (oral group)	<ol style="list-style-type: none"> 1) No difference in speech 2) Early manual group better in speech reading 3) Early manual group better in reading (0.5 months) 4) Early manual group better in written language 5) Early manual group possibly better in psycho-social adjustment.
Montgomery (1966)	59 Scottish children	Exposure to, use of and preference for manual communication did not negatively affect speech or speech reading skills
Meadows (1967)	56 deaf children of deaf parents (manual group), 56 matched deaf children of hearing parents (oral group)	<ol style="list-style-type: none"> 1) Manual group better in reading (2.1 years) 2) Manual group better in maths (1.25 years) 3) Manual group better in overall educational achievement (1.28 years) 4) Manual group better in

		<p>social adjustment</p> <p>5) No difference in speech and lip reading</p> <p>6) Manual group better in written language</p>
Stevenson (1964)	134 deaf children of deaf parents (manual group), 134 deaf children of hearing parents (oral group)	<p>1) 90% of manual group did better than matched oral learners</p> <p>2) 38% of manual group went to college vs 9% of oral group</p>
Quigley and Frisina (1961)	16 non-residential deaf children of deaf parents (manual group), 16 non-residential children of hearing parents (oral group)	Manual group better in vocabulary, the same in speech reading and better in educational achievement. Oral group better in speech.
Quigley (1969)	16 matched pairs of deaf children. All had normal-hearing parents. One group was given fingerspelling and oral education starting at about age 3. The controls had oral education without fingerspelling	<p>1) Fingerspelling group superior in speech reading</p> <p>2) Fingerspelling group displayed superior written language</p> <p>3) Fingerspelling group displayed superior reading skills</p> <p>4) No measure of speech reading intelligibility</p>

Further research in the 1970s and 1980s concurs that deaf children of Deaf parents achieve higher levels than deaf children of hearing parents (Brasel and Quigley, 1977; Trybus and Karchmer, 1977; Quigley and Paul 1984).

According to Powers (2003:58), these findings were influential in leading to the suggestion that deaf children of hearing parents would benefit from the use of Sign Language. Geeslin (2007:14), however, states that the most common argument that was used against the use of Sign Language was that it was not a true language and was not on par with spoken language. Baker (2006:374) is of the opinion that Sign Language is the basis of establishing community culture, a sense of identity, shared meanings and understanding and a way of life that is cultivated by the Deaf community. Sign Language is in this sense a fully developed, authentic language which allows its users to communicate the same, complete meaning as can be communicated by an Oral Language. However, no one variety of Sign Language is universal. Almost every country has different Sign Language varieties. Some countries, like Canada and South Africa, have more than one, corresponding to the multiple Oral languages used in the area (Marschark, Lang and Albertini, 2002:75).

Deaf people are more visually oriented than hearing people, because their knowledge of the world is fed primarily through their visual sense and their language is thus also visual, whereas users of Oral languages are relatively more auditory inclined (Lane et al., 1996:78). Although it can be argued that Sign Language is similar to Oral Language in the manner that it is acquired, in its roles as vendor of identity, values and information, it is different from spoken language in its form (Lane et al., 1996:78). In a spoken language audible words are made by the speaker, using the small muscles and articulators of the mouth and throat, while a user of a signed language makes visible words, moving large articulators of the limbs and body around in space. Signed languages and spoken languages are different in the sense that each has its own grammatical structures and rules as the case would be for any other two spoken languages (Lane et al., 1996:78).

Sign Language has its own rules for pronunciation, word order and sentence structure. While every language has ways of signalling different functions, such as asking a question rather than making a statement, languages differ in how this is done. For example, English speakers ask a question by raising the pitch of their voice and Sign Language users ask a question by raising their eyebrows, widening their eyes and tilting their bodies forward (Lane et al, 1996:78).

Cummins and Corson (1997:232) state that in the 1970s some educators, administrators and teachers recognised the disastrous effects that the Oral Method had on the spoken and written languages of the learners. To remedy the situation, educational professionals adopted Total Communication as a more effective teaching method.

2.3.2 Total Communication

According to Lane et al. (1996:268), Total Communication is a combination of a spoken language, signs used in a spoken language order, finger spelling, visual aids, speech reading and writing. The form of signing used in Total Communication is, however, not the natural language of the Deaf. As Total Communication is actually a method whereby the teacher mobilises all means at his or her command; it has devolved into a spoken language which at the same time signs the prominent words that have been said in the spoken language word order and without the actual grammar structure of Sign Language (Lane et al., 1996:268).

Cummins and Corson (1997:233) are of the opinion that this system places heavy strain on young deaf learners as the method does not follow the principles of a natural visual language. It also alters the natural flow of a spoken language as it laboriously attempts to represent the grammar of spoken language on the hands in a variety of ways. The result is that a rich conversation cannot be sustained as this type of system distorts both Sign Language and the spoken language. Due to the incomplete messages conveyed with the system, deaf learners are placed at an educational disadvantage.

Leeson (2006:9) states that Total Communication has been severely criticised as the rate of speech and signing is not the same. According to Leeson (2006:9), teachers typically simplify the spoken component of their message or leave out aspects of manual communication and since aspects of the grammar of signed languages are expressed on the face (adverbs, questions, negation, etc) the co-occurrence of speech with signed elements blocks out these signals, leading to incomplete messages in both modalities.

Adoyo (2002:4) states that a survey conducted in Kenya revealed that many teachers in schools for the deaf had great difficulty in communicating ideas to deaf learners through Total Communication. Not only is the production of Total Communication difficult for the teachers, but deaf adults have also reported tremendous strain on reception of Total Communication information, arguing that while they can process each item as it appears, they find it hard to process the message content as a whole when all the information in the sign stream is presented as sequential elements. According to Adoyo (2002:4), the pertinent question remains, that if deaf adults experience difficulty and strain in processing Total Communication which is speech driven, what must it be like for young deaf learners without any spoken language background trying to learn and be taught through Total Communication as if it was a natural language.

Schiavetti, Whitehead and Metz (2004:287-290) state that an advantage of Total Communication is that it opens a variety of modes of communication for deaf children, providing more accurate representation of a spoken language than what is provided by lip reading alone. It also contributes beneficial effects in psychosocial and linguistic development. Schiavetti et al. (2004:287-290) further state that a disadvantage of Total Communication includes alteration in the linguistic integrity of both manual and oral forms of communication, abbreviation of spoken language in the manual code, deletion of grammatical markers and slowing of speech. They suggest that the increased cognitive demands of using Total Communication and the inability to represent adequately and completely the structure of one mode in the other are two of the reasons for the difficulties of combining speech and manual communication, but that the use of bimodal input in which the child is not forced to rely on one mode is widely accepted. According to

Schiavetti et al. (2004:287-290), the use of Total Communication is a controversial issue and its pros and cons have remained the subject of continuing debate.

As discussed by Lane et al. (1996:291), the issue of language is clearly central to the education of the deaf child. During the first half of the nineteenth century, when the natural signed language of the Deaf was used in schools for the deaf, many deaf children achieved academic success comparable to that of their hearing peers. One hundred years of Oralism, according to Lane et al. (1996:291), was disastrous for Deaf Education. Twenty-five years of Total Communication programmes had also not produced the rise in achievement that was expected.

Lane et al. (1996:291) further state that efforts to understand the failure of Deaf Education keep leading back to language. Many educators of the deaf and Deaf leaders have concluded that the greatest hope for reform of Deaf Education lies in ensuring that teachers and students have a shared fluent natural language at their command for conducting learning (Lane et al., 1996:291).

2.4 Deaf Bilingual-Bicultural Education

According to Ross and Deverell (2010:285), the most recent approach to gain support in Deaf Education is the Bilingual-Bicultural approach to communication and education. This approach proposes that deaf learners are first introduced to natural Sign Language as a first language, and only once this foundation has been laid are they taught a second language such as English.

According to Mahshie (1995:XIII), strong impetus for Bilingual-Bicultural programmes comes from Sweden, where, in 1981, after years of grassroots activism by Deaf adults and parents of children who are deaf, the Swedish Parliament passed a law stating that people who are deaf need to be Bilingual in order to function successfully in the family, school and society.

Baker and Baker (1997:1) state that a person who is Bicultural can move freely within and between two different cultures. Biculturalism thus implies an understanding of the mores, customs, practices and expectations of members of a cultural group and the ability to adapt to their expectations. Bilingualism, according to Baker and Baker (1997:1), involves the ability to use two different languages successfully. Individuals who are Deaf are considered Bilingual if they are able to communicate effectively in both Sign Language and the spoken language of their country. They are considered Bicultural if they are capable of functioning in both the Deaf community and the majority culture.

According to Marschark et al. (2002:144), the Bilingual-Bicultural approach is an educational alternative of interest to both Deaf and hearing parents of deaf children. This approach seeks to educate learners in both the language of the local Deaf community (Sign Language) and the language of the local hearing community (usually a mainstream language, e.g. English).

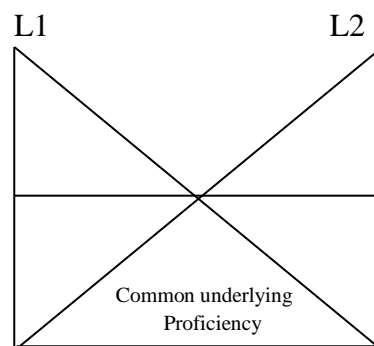
According to Baker (2006:370-373), it has been found that many of the attributes of hearing bilinguals are shared by Deaf bilinguals. As with hearing bilinguals, Deaf bilinguals may use their two languages for different purposes. They may prefer to use Sign Language to communicate with the Deaf community and an oral language in its written modality, to communicate with the hearing community. Deaf people can become Bilingual through learning Sign Language first, followed by acquiring literacy in a particular Oral Language. In this model Sign Language is the minority language and the Oral Language is usually the majority language or mainstream language.

Enns (2006:15) states that Bilingual Deaf Education differs from other Bilingual programmes in three significant ways. The first difference is in language modality (signed, spoken and written); the second is that one language, usually the learner's first language, does not have a written form (signed languages do not have conventional writing systems) and the third key difference is the

inconsistent language exposure and background that deaf learners experience prior to school entry.

Cummins (1996:110) proposes a model as a framework for thinking about the ways in which proficiency in a first language could be seen as positively supporting the learning of a second language. He suggests that a common underlying proficiency across languages allows for a positive transfer to occur, if there is adequate exposure to the second language and motivation to learn it. The nature of this transfer can be represented by means of a “dual-iceberg” model in which common cross-lingual proficiencies underlie the surface of both languages.

Figure 1: The ‘Dual Iceberg’ representation of Bilingual Proficiency (Cummins, 1996:111)



When one looks at this linguistic interdependence model, it can be argued that if deaf learners achieve adequate skills in a native Sign Language as first language, then a positive transfer would occur, which would support the development of literacy in, for example, English, the majority language, as a second language (Mayer and Akamatsu, 2003:137).

According to Mayer and Akamatsu (2003:137), the ‘Duel Iceberg’ model would apply even to deaf learners, despite the aspects that make the context for the deaf learner unique, namely, that the first language (Sign Language) and the second language (spoken language, for example, English) do not share a common mode, that sign languages do not have widely accepted written

forms, and that deaf learners do not have ready access to the face-to-face form of the second language.

Enns (2006:22) states that among learners born deaf, less than 10% come from families with one Deaf parent or older Deaf relative. In the cases where such relatives do exist, deaf learners can acquire Sign Language and develop relatively normal socio-emotional family interaction. Bilingual programming for this minority of deaf learners would follow the typical approach of building on the 'heritage' language, and of introducing a spoken language as a second language.

Enns (2006:22) further states that for the 90% of deaf learners, however, the situation is quite different. Here the deaf child is the first deaf person in the family. According to Lane et al. (1996:30), for the child's parents, encountering deafness in the child is generally unexpected and traumatic. The parents and siblings of deaf learners seldom have those signed language communication skills required to provide these learners with immediate access to the acquisition of a natural language, a circumstance that limits access to the family's cultural knowledge and resources. The learners tend to enter kindergarten without a sophisticated competence in any language, signed or spoken. Bilingual programmes for these learners, therefore, require that they first develop proficiency in Sign Language, before facilitating acquisition in a spoken language as a second language (Enns, 2006:22).

Bilingualism can be defined as the knowledge and regular use of two or more languages, and Bilingual Education involves using two languages in instruction (Garcia, 1997:410). A distinction, however, should be made between education that uses and promotes two languages and education that is used for language minority learners, for instance, in a classroom where formal instruction is to foster Bilingualism and a classroom where Bilingual learners are present, but Bilingualism is not fostered in the curriculum (Baker, 2001:192).

For better understanding, an outline of different types of instructional programmes that Bilingual Education encompasses as stated by Garcia (1997:410) and (Baker, 2006:194) will be discussed.

Table 3: Monolingual Education for language minority learners leads to relative Monolingualism

Type of programme	Type of child	Language used in the classroom	Educational aim	Linguistic aim
Submersion	L minor	Major	Assimilate	Monolingualism
Submersion + withdrawal SL	L minor	Major	Assimilate	Monolingualism
Structured immersion	L minor	Major	Assimilate	Monolingualism
Segregationist	L minor	Major	Assimilate	Monolingualism

According to Garcia (1997:411), when language minority learners are educated only in the language of a majority society, the language of the minority will ultimately be lost. The learners will thus become monolingual speakers of the majority language, unless the language minority community has other institutional or societal support for the maintenance and development of the minority language.

Table 4: Weak Bilingual Education leads to relative Monolingualism and limited Bilingualism

Type of programme	Type of child	Language used in the classroom	Educational aim	Linguistic aim
Transitional	L minor	Minor to Major	Assimilate	Monolingualism
Mainstream +	L minor	Major and FL/SL	Enrichment	Limited

withdrawal F/SL				bilingualism
Mainstream + supplementary F/SL	L minor	Major and FL/SL	Enrichment	Limited bilingualism

Garcia (1997:412) is also of the opinion that learners will only have limited Bilingual ability if schools do not devote enough time and effort within their Bilingual curriculum to the development of the non-dominant language in the society. Both language majority and language minority learners can be affected. Language majority learners will be affected if the second language does not occupy an important place in the curriculum, and language minority learners will be affected if instruction in the mother tongue ceases once the learner has become proficient in the majority language.

Table 5: Strong Bilingual Education leads to relative Bilingualism and Bilinguality

Type of programme	Type of child	Language used in the classroom	Educational aim	Linguistic aim
Separatist + withdrawal F/SL	L minor	Minor and major	Autonomy	Bilingualism
Two-way dual language	L minor + L major	Major and minor	Enrichment, pluralism	Bilingualism
Mainstream + supplementary heritage L	L minor	Major and minor	Enrichment, pluralism	Bilingualism
Maintenance	L minor	Minor and	Enrichment,	Bilingualism

		major	pluralism	
Immersion	L major	Minor and major	Enrichment, pluralism	Bilingualism
Mainstream bilingual	L major	2 major	Enrichment, pluralism	Bilingualism
Two / multi-way mainstream bilingual/multilingual	Many L major	Many major or major and minor	Enrichment, pluralism	Bilingualism

Kannapell (1980:114) explains that most Deaf individuals are Bilingual to some extent because of their unique position of being Deaf but very much in contact with the hearing world. She describes three types of Deaf Bilinguals in the United States:

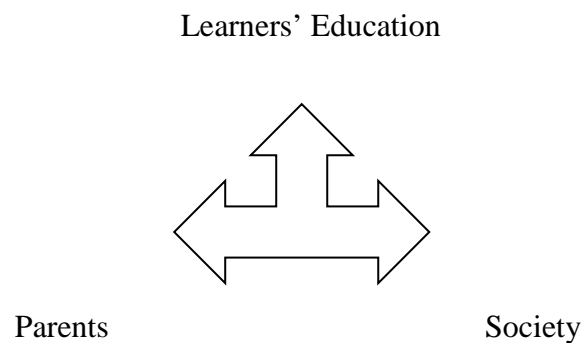
1. Sign Language dominated Bilinguals are comfortable expressing themselves better in Sign Language than in English (in either printed or signed form);
2. English-Dominated Bilinguals are comfortable expressing themselves in English and are able to understand English (in printed and signed form) better than Sign Language;
3. Balanced Bilinguals are comfortable expressing themselves in both Sign Language and English and are able to understand Sign Language and English equally well.

Kannapell (1980:114) is of the opinion that the goal of language education for deaf learners at all ages should be to produce balanced Bilinguals who can interact proficiently in both languages.

According to Garcia (1997:413), learners will have a greater possibility of becoming Bilingual and Biliterate if schools and communities spend a considerable amount of effort and resources to develop Bilingualism. A strong form of Bilingual Education involves much sacrifice on the part of parents and a society that is committed to the success of a Bilingual Education programme.

The success of any school programme is greatly affected by the role that parents play in the education of their children. A successful school programme can also not be separated from the influence that the society has on children. In the end, this strong bond between parents, school and society will determine the success of any school programme, including that of a bilingual education programme.

Figure 2: Partnership between Learners' Education, Parents and Society



Ross and Deverell (2010:285) concur with the above statement by saying that Bilingual Education tends to be more effective when there is a partnership with parents both inside and outside the school, and when the child and his or her family are encouraged to participate in Deaf cultural activities and meet adult Deaf role models. In addition to Sign Language and any spoken language, this model proposes that learners be exposed to both Deaf and hearing cultures. This then clearly relates to what Vijjalaksjmi (2009:50) is stating, namely that the development of a deaf child can be best understood from a bio-ecological perspective which adheres to the fact that the development of a child does not take place in a vacuum, but in a complex set of interrelated systems over a period of time.

2.5 Principles of Bilingual-Bicultural Education

In line with Garcia (1997:416), Ross and Deverell (2010:285) are of the opinion that the effectiveness of Bilingual-Bicultural programmes depends largely on certain principles. Garcia (1997:416) did extensive work on Bilingual schools and programmes and she proposed two sets

of principles, i.e. sociolinguistic principles and socio-educational principles that can be related to the success or failure of Bilingual Education.

2.5.1 Sociolinguistic Principles

Looking at the sociolinguistic principles of Bilingual-Bicultural Education, Garcia (1997:417) argues that the success of Bilingualism and Biliteracy largely depends on the different roles the two languages of instruction play in society at large, especially where minority learners and languages are concerned. The minority language should be used initially as medium of instruction. However, according to Garcia (1997:417), the majority language can also be used as language of instruction, provided the first sociolinguistic principle, which is that the use of two languages should be compartmentalised, as discussed below, is present. In relation to the deaf learner, the minority language will be a natural Sign Language and the majority language will be the spoken language used by the community or, in the case of Namibia, the language prescribed as the medium of instruction in schools, which is English.

Ross and Deverell (2010:285) are of the opinion that natural Sign Language should be the first language of all deaf learners and should be regarded as their primary language. They further feel that Sign Language should be used to teach curriculum subjects such as Geography, Mathematics, History, etc.; thus, Sign Language should be used as medium of instruction. Sign Language should also be used as basis to teach English or another majority language as a second language. Usually Sign Language will be used to teach reading and writing skills rather than oral skills (Ross and Deverell, 2010:285).

The first sociolinguistic principle of Bilingual-Bicultural Education, as stated by Garcia (1997:416), is that the compartmentalisation of the two languages throughout the curriculum plays an important role in Bilingual instruction. Garcia (1997:416) is of the opinion that compartmentalisation is easier when different teachers use different languages for instruction, in other words, Teacher A the Minority Language and Teacher B the Majority Language.

Compartmentalisation can also be achieved by allocating a specific language to a certain time of the day, to a certain day, to certain subjects or to specific physical locations such as different classrooms.

According to Ross and Deverell (2010:285), the teaching situation in a Bilingual programme for deaf learners may involve team teaching. A deaf teacher may be the natural role model for learning Sign Language, while a hearing teacher may act as a model for learning the majority language, for example, English. Ross and Deverell (2010:285) further state that ideally both teachers should be able to communicate in both Sign Language and spoken or written English or any other spoken language. Also, both teachers in the team should have a knowledge and understanding of the Deaf culture and the hearing culture.

A second sociolinguistic principle of Bilingual-Bicultural Education, as stated by Garcia (1997:417), is that the prolonged use of two languages without compartmentalisation, whether subconsciously or consciously, as practised in what is known as concurrent translation, usually leads to language shift to the high-prestige language. Such prolonged use of two languages is thus encouraged in transitional Bilingual Education. The concurrent use of two languages is thus only useful in the beginning stages of acquiring Bilingualism to contextualise second language input in second language instruction.

In the case of Deaf Education this is not a great concern as a primary goal of the Bilingual-Bicultural programme for deaf learners is to provide learners with appropriate levels of both Sign Language and spoken language in the written modality that will fully support their development in education. A concern, however, is that this orientation may favour one language/cultural orientation over another and, indeed, most Bilingual programmes emphasise Sign Language as a learner's first language. The aim, nevertheless, is to provide deaf learners with a natural first language that is fully accessible and to use that base to support the transition to reading and writing (and perhaps speaking) English (Marschark et al., 2002:145).

A third sociolinguistic principle of Bilingual-Bicultural Education, as stated by Garcia (1997:417), is that the mother tongue should always have a place in the school curriculum. Even if it ceases to be used as medium of instruction, it should be continued to be taught as a subject. Mukhopadhyay and Sison (2006:63) state that the mother tongue is the language one acquires first, (provided it is a language one can express oneself fully in) and or (voluntarily) identifies with.

Sign Language is the language that comes more natural to a deaf child. Ross and Deverell (2010:286) state that Sign Language should be learned as early as possible, ideally in infancy. Ross and Deverell (2010:286) further state that nine out of every ten deaf children are born to hearing parents. It is, therefore, important that hearing parents be given opportunities to learn Sign Language and that there be good preschool provision for deaf learners. Parents of deaf children need to be informed about Deaf communities and Bilingual Education for such children. The parents need considerable emotional support, information and guidance to help their deaf children become Bilingual. When deaf children have had the opportunity to develop Sign Language competence during their preschool years, they arrive in school ready to cope with the curriculum and able to socialise with others (Ross and Deverell, 2010:286).

The fourth sociolinguistic principle of Bilingual-Bicultural Education, as stated by Garcia (1997:417), is that the teaching of the second language must go beyond second language instruction methodology. Approaches, such as the natural approach, the notional-functional approach, total physical response, etc., are only valuable in the very beginning stages of Bilingualism. The second language must also be used as a medium of instruction, as well as being taught as a subject in its own right (Garcia, 1997:416).

2.5.2 Socio-Educational Principles

Moving on to socio-educational principles of Bilingual-Bicultural Education, Garcia (1997:418) argues that particular principles also need to be present in the educational agency and school culture in order to ensure that Bilingualism and Bilinguality are developed in all learners.

With regards to the educational agents, Garcia (1997:418) states that all staff, administrative and academic, must be Bilingual or willing to work towards becoming Bilingual. Teachers that teach either one of the languages must be highly qualified in that particular language and must also be Bilingual.

Pickersgill (1998:91) concurs with the importance of staff being Bilingual and with reflecting the range of linguistic, as well as educational, needs of the learners. In terms of Deaf Education, it would imply that Deaf staff with native Sign Language skills should be employed in order to act as role models of Sign Language users to the deaf learners. It is also important that hearing staff with good majority language skills and a good understanding of the majority language are employed. The hearing staff should also be competent in Sign Language. Specific training and relevant qualifications should be expected of, or provided for, staff in order to work collaboratively within a Sign Bilingual setting (Pickersgill, 1998:91).

According to Garcia (1997:418), parents must be actively involved and must participate fully in their children's education. Garcia and Kleifgen (2011:182) are of the opinion that parental involvement in the learners' school-based education programme is a significant positive predictor. Parents should be recognised as important participants within the immediate school community and as allies in their children's education. Parents of emergent Bilinguals have a great deal to teach school personnel about knowledge and skills that originate in their households and that can be translated into academic success in schools.

Deaf parents with a deaf child can model an accessible language to their child from birth onward, as can hearing parents with a hearing child. Hearing parents with a deaf child must make special provision to introduce Sign Language into their homes. Deaf adults, often parents themselves, could teach hearing parents strategies for communicating with their deaf child and for solving the everyday problems they meet (Lane et al., 1996:306).

With regards to educational culture, Garcia (1997:419) is of the opinion that an educational language policy that aims to make learners Bilingual and Biliterate must be in place. Within this policy both languages must be fully recognised as independent languages and must be treated equally. Inclusive educational strategies that support Bilingualism and Biliteracy must be in place.

Language policy is the primary means for organising, managing and manipulating language behaviour as it consists of decisions made about languages and their uses in society. It is through language policy that decisions are made with regards to the preferred languages that should be legitimised, used, learned and taught in terms of where, when and in which contexts (Shohamy, 2006:45).

Shohamy (2006:78) is furthermore of the opinion that in most cases, educational staff and personnel, including teachers, principals and inspectors, are responsible for carrying out the language educational policies in the education systems, classes, schools and districts. These people see it as their job, and apply these policies without asking questions with regard to the quality, suitability and relevance in terms of successful learning for learners in schools. The staff and personnel thus act as soldiers of the system who carry out orders by internalising the policy ideology and its agendas as expressed in the curriculum, textbooks and other materials relating to language.

According to Pickersgill (1998:89), a Sign Bilingual policy places importance on the role of Sign Language and Deaf adults in the linguistic and educational development of deaf learners. Pickersgill (1998:89) further argues that a successful Bilingual Education should reflect a range of criteria beyond those purely related to academic achievement. For example, deaf awareness in hearing learners and adults and the development of a Deaf identity in the deaf child should be priorities.

The practice of Sign Bilingualism has developed principally around the use of Sign Language with those learners for whom it is identified as the preferred language. There is also a need to develop Sign Bilingual programmes for deaf learners with preferred spoken languages to enhance their educational and social opportunities. This suggests a continuum of language use which involves the planned and systematic use of Sign Language and the majority language (Pickersgill, 1998:89).

- For the deaf learner Sign Language should be recognised as a language of education. Sign Language and a spoken language should be accorded equal status, meaning reference should be made to the status and role of Sign Language in the policy document.
- Exposure to Sign Language as a full and natural language should begin as early as possible.
- Sign Language and a spoken language should be used throughout the learners' schooling with high levels of competence and proficiency expected in both.
- The interdependence of Sign Language and spoken language, and the transfer of skills between them, should be encouraged and priority should be given to the development of literacy skills. This implies that teaching strategies should be used to promote the learners' understanding and use of Sign Language in the development of skills in a spoken language and that these interdependent skills should be used to access the curriculum appropriately.
- Sign Language and a spoken language should be kept separately for teaching purposes; that is, the languages could be separated by person, time, topic and place. Boundaries

should be established to avoid the majority language (English) displacing the minority language (Sign Language) (Pickersgill, 1998:89).

It is thus clear that educational staff and personnel, including teachers, principals and inspectors, play an important role in the implementation of policies. Policy and practice, as has been mentioned in this chapter, are inextricably linked to the education of learners. The principles enshrined in policy should be reflected in all aspects of the educational practice. This implies that all stakeholders in education should be equally involved in the development and implementation of policies and the purpose of such policies should be understood by all parties involved, in order to guarantee possible success of such policies.

According to Garcia (1997:419), the school culture must be Bilingual and the two languages must be alive all over the school, inside and outside of the classroom. Pickersgill (1998:89) argues that the linguistic and cultural resources of the Deaf community play an important role in the development of Sign Bilingualism. That is why links with the Deaf community and ethnic minority communities should be promoted and the deaf child should have access to a community of Deaf Sign Language users, peers and adults.

Garcia (1997:420) further states that teaching materials used must be highly varied. The teaching materials that are used at the school must reflect language as used in different societal contexts, including Bilingual ones. Garcia and Kleifgen (2011:178) found that when emergent Bilinguals entered kindergarten, they already faced a disadvantage as about half of those kindergarteners who spoke English at home performed above the 50th percentile in California, whereas no more than 17% of kindergarteners who spoke a language other than English at home performed at this level. According to Garcia and Kleifgen (2011:178), this disparity has to do with the fact that emergent kindergarteners cannot understand English well enough to be assessed in English only. As a result the misplacement of these children into remedial education starts the moment they enter school for the first time.

According to Garcia (1997:420), assessment must be fair and authentic; it must be criterion-referenced or performance-based and conducted in the language of choice of the learner. Assessment strategies for the deaf child play a very important role in his or her success or failure of a subject. Garcia (1997:420) further states that assessment should not compare native language users to second language users. Two main issues are of concern in assessing emergent Bilingual learners: (1) disentangling academic language proficiency from content proficiency and (2) the validity of the test themselves for emergent Bilinguals (Garcia and Kleifgen, 2011:178).

Every assessment is an assessment of language skills (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, 1985 as cited by Garcia and Kleifgen, 2011:178), and thus assessment for emergent Bilinguals who are still learning the language of the test, assessment is not valid unless language is disentangled from the content. A fair assessment framework for emergent Bilinguals should integrate the two dimensions: academic language proficiency and content proficiency (Garcia and Kleifgen, 2011:178).

According to Pickersgill (1998:90), the learning needs of the deaf learners should be recognised as different from those of hearing learners. Decisions about linguistic support, access to the curriculum and relevant assessment should be based on strengths and not perceived weaknesses of the learners. Pickersgill (1998:90) further states that when assessing deaf learners both Sign Language and a spoken language should be languages of instruction and subjects of study. The development of curriculum-based signs should be done by, and in consultation with, Deaf people. Both Sign Language and a spoken language should be used according to the learners' preference, when conducting curriculum assessment.

2.6 Conclusion

The literature review provided in this chapter commenced with a discussion of viewpoints on Deafness. Two viewpoints were looked at, namely the clinical-pathological viewpoint and the cultural viewpoint. It was then briefly mentioned that deafness is currently viewed from a bio-ecological approach. Bronfenbrenner's bio-ecological theory was then examined.

An overall idea of how Deaf Education, in general, progressed over the years to what it is today was outlined. Deaf Education systems like the Oral approach to teaching and the Total Communication approach to teaching were discussed. Lastly, sociolinguistic and socio-educational principles that could be used to measure the success of Bilingual-Bicultural programmes at schools were presented. The way in which these sociolinguistic and socio-educational principles specifically relate to Bilingual-Bicultural programmes in Deaf Education was also studied.

After examining the above literature, it became evident that with the history of the Oral approach, the Total Communication approach and the Bilingual-Bicultural approach, the Bilingual-Bicultural approach is the best option to teach deaf learners. The Bilingual-Bicultural approach, however requires certain sociolinguistic and socio-educational principles to be present that form part of an interrelated system that can determine the success or the failure of such a programme. The next chapter will examine the research design and methodology that were selected to be used in this study.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter will begin by examining the research design used in this study, namely qualitative research. Discussion will follow on the methods and procedures employed in collecting information, with regard to the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia. The data analysis approach used for making sense of the data will also form part of the discussion in this chapter as well as discussion on the validity and reliability of this study.

3.2 Research Design

Qualitative research was undertaken in this study. The aim of qualitative research is to gain a complete understanding of the phenomenon that is being studied. In qualitative research, the researcher collects numerous forms of data and examines them closely in order to add to the understanding of a phenomenon. Qualitative research can contribute to theory, educational practice as well as policy making (McMillan and Schumacher, 2001:393).

According to Hatch (2002:7), qualitative research is a process of trying to understand the world from the perspective of those living in it. It tries to capture the perspectives that subjects use as a basis for their action in specific social settings. The intention is to explore human behaviour within the contexts of its natural occurrence.

In this study, the researcher evaluated the effectiveness of Bilingual and Biliterate Education at NISE School for Hearing Impaired Learners in the Khomas region of Namibia. Mayer and

Akamatsu (2003:136) are of the opinion that since Bilingual programmes have been introduced in the education of deaf learners, it can be claimed that, as an effect of using a natural Sign Language as the primary language of instruction, deaf learners not only have greater and easier access to curricular content but also develop higher levels of literacy. The Namibian Ministry of Education (2009) also claims to have adopted the Bilingual-Bicultural approach to teaching deaf learners; yet deaf learners in Namibia continue struggling to perform academically. The effectiveness of the Bilingual and Biliterate education provided to these deaf learners can thus be questioned.

Evaluation is a highly complex term. It has different meanings for different people. Worthen and Sanders (1987:22) argue that there is no agreed-upon definition for evaluation; they define evaluation as 'the determination of a thing's value', for example, some scholars, according to Worthen and Sanders (1987:22), see evaluation as a measurement; this would be an indication of whether any progress has been made in offering a programme. Other scholars, according to Worthen and Sanders (1987:22), see it as the assessment of the extent to which specific objectives have been achieved. The outcomes of a programme are measured in terms of the aims set at the start of such a programme.

According to Gall, Gall and Borg (2007:558), evaluation research in education is particularly important to policy makers, (for example, school board members), programme managers (for example, school principals) and curriculum developers (for example, teachers, researchers and development specialists).

Gall et al. (2007:558) are, furthermore, of the opinion that educational evaluation is the process of making judgements about the merit, value or worth of educational programmes. (The term, programme, is used as a generic label for the various phenomena – methods, materials, organisations, and individuals, etc. that are the focus of educational evaluation).

Charles (1995:24) describes evaluation research as research whose purpose is to help make sound judgement about the quality of particular:

- a) Programmes
- b) Procedures such as methods of teaching or
- c) Products such as instructional materials.

According to the W K Kellogg Foundation (2001:1), effective programme evaluation does more than collect, analyse and provide data. It makes it possible to gather information and use the information for continuous development and improvement of programmes.

The W K Kellogg Foundation (2001:1) believes evaluation, especially programme logic model approaches, is a learning and management tool that can be used throughout a programme's life. Using evaluation and the logic model results in effective programming and offers greater learning opportunities, better documentation of outcomes and shared knowledge about what works and why. The logic model is a beneficial evaluation tool that facilitates effective programme planning, implementation and evaluation (W K Kellogg Foundation, 2001:1).

In this study, the logic model tool for evaluation was used to systematically design a framework to evaluate the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia. By drawing up a logic model the main objectives of the Bilingual-Bicultural programme were accentuated and together with that the overall impact of the success of such a programme could be ensured.

3.3 Logic Model for the Bilingual and Biliterate Programme

Figure 3: Basic Logic Model

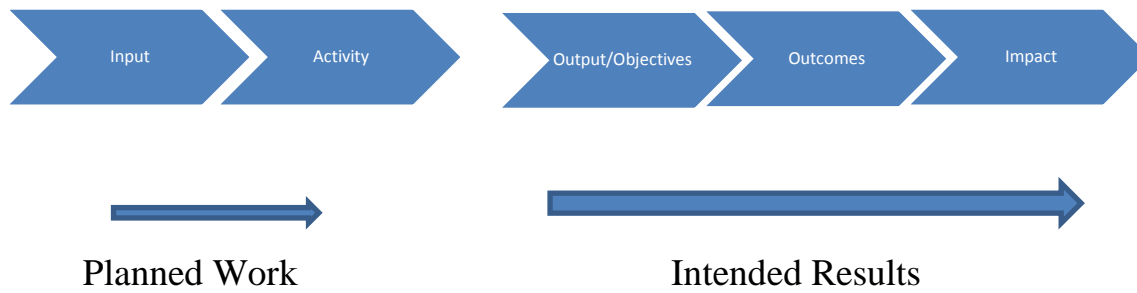
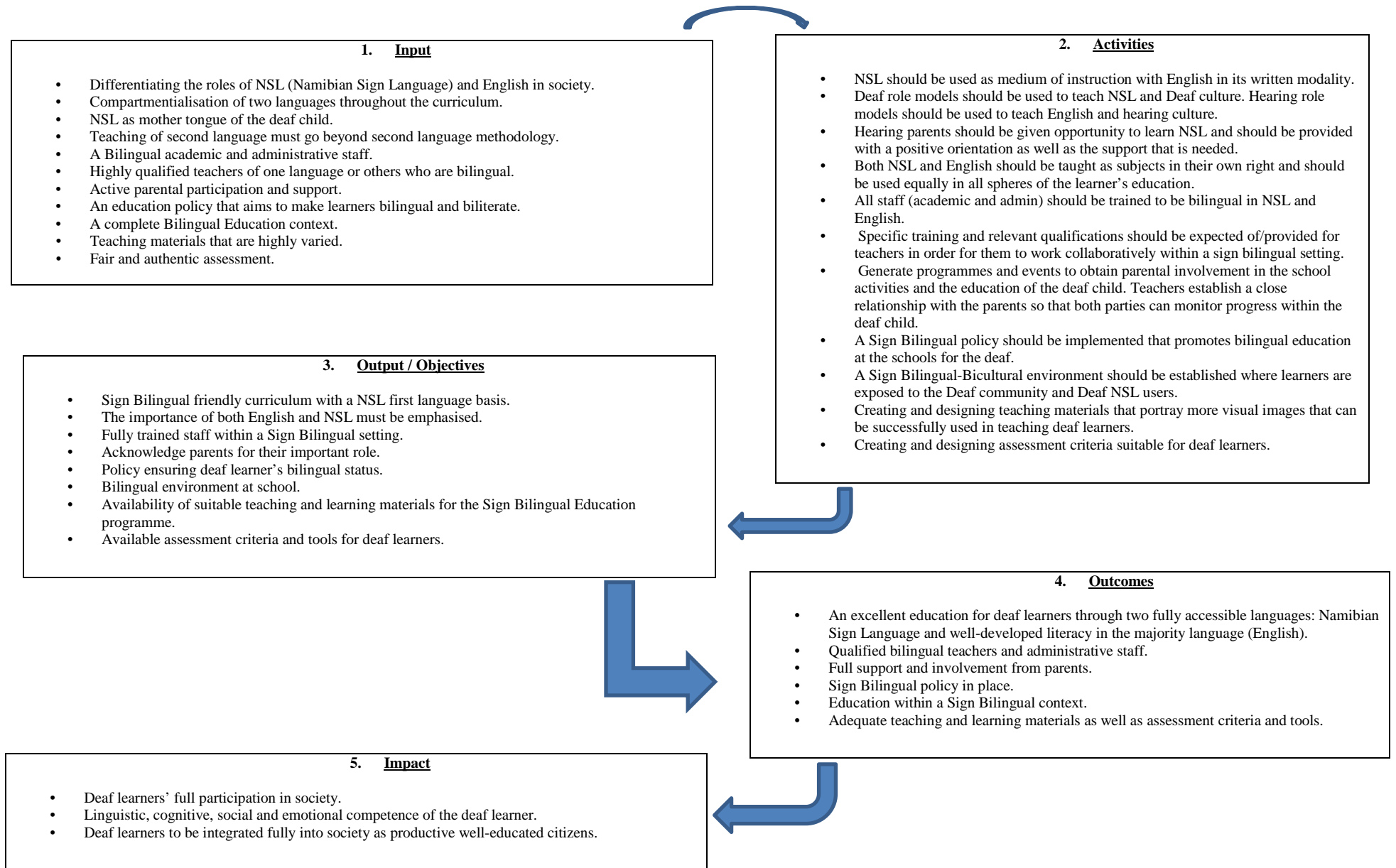


Figure 4 : Logic Model for Bilingual and Biliterate Programme



3.4 Evaluation Questions

There are two different types of evaluation questions – formative and summative. Formative questions help to improve a programme and summative questions help to evaluate whether the programme worked the way that it was planned. Both kinds of evaluation questions generate information that determines the extent to which the programme has achieved the success that was expected and provide groundwork for sharing the successes and lessons learned from the programme (W K Kellogg Foundation, 2001:35). The questions that were asked in this study were mainly of a formative nature as they could help to improve the programme compared to summative questions that are intended to be asked before or after a particular programme.

The focus of formative evaluation is on assessing programme quality implementation and impact to provide feedback and information for internal improvement. Learning how the programme is being implemented, including the challenges and strong points, can provide useful information for improving practice, rethinking how to go about things and identifying future action (Paulsen and Dailey, 2002:3).

The goal of this evaluation is in line with formative evaluation as it aims to provide feedback to improve practice while the programme of Bilingual-Biliterate Education is still in progress, rather than to wait and find out too late that the programme had not been implemented as it was intended and did not have the results it was intended to have.

In order to create a clear focus, certain components of the Bilingual programme at the school were examined to get satisfactory information for the evaluation. The following questions were derived from the logic model in order to focus on the information that was needed.

1. What role does Namibian Sign Language and English individually play at the school?
2. What qualifications are required from teachers to teach at the school?
3. How are parents involved in the school programmes?

4. What support is provided to parents of deaf learners?
5. What is stipulated in educational policies and other ministerial documents with regards to Bilingual Education for deaf learners?
6. What procedures have been prescribed for teachers to follow in their teaching and communication with the learners?
7. Does the school foster a Sign Bilingual environment?
8. To what extent does the school involve the deaf community in its programmes?
9. What instructional materials are being used?
10. What assessment tools are being used to assess the deaf learners and to what extent do they measure what they are supposed to measure?

3.5 Research Population

The population of this research was lower-primary (Grades 1 – 4) learners and teachers at NISE School for Hearing Impaired Learners in the Khomas region of Namibia, as well as the school principal, the head of department for lower primary, the education officer and school inspector responsible for the school. There are currently 155 learners enrolled at the school, 72 are in the lower primary phase (Grades 1 – 4). In these grades there are six teachers. Considering the low population for this study, no sampling was done by the researcher; therefore, the whole population was included in the study.

3.6 Data Collecting Tools and Techniques

Data were collected from relevant documents, such as the basic school curriculum for lower primary, syllabi for lower primary, Language Policy, Policy on Inclusive Education, National Policy on Disability, as well as record sheets of the learners' performances. Permission was obtained from the Ministry of Education and the school principal to conduct the research at the school (see Appendices A - D).

Data were then collected by interviewing lower-primary teachers plus interviewing the school principal, the head of department, an education officer and school inspector. The interviews were informal, which allowed the participants to feel relaxed in elaborating on their answers. Interviews were conducted on an individual basis with each of the teachers, the school principal, the head of department, the education officer and school inspector. Permission was asked from each candidate for the interview to be tape-recorded.

Hatch (2002:91) states that interviews are special kinds of conversations that are used by researchers to explore informants' experiences and interpretations. Interviews can thus be used to uncover the meaning structures that participants use to organise their experiences and make sense of their worlds. These meaning structures are often hidden from direct observation and taken for granted by participants. By using different interviewing techniques these meanings can be brought to the surface (see Appendix E).

Lastly, observation was done in order to collect data from the classroom situation. Permission was obtained from the different teachers teaching in the lower-primary grades to visit their classes in order to do the observations. During the observations the researcher sat at the back of the classroom, taking notes and completing the observation sheet. The main reason for conducting classroom observation was to see what teaching methods were used by the teachers, what means of communication were used with the learners, what teaching aids were used, to what extent the learners showed interest in the lessons that were conducted, to what extent the learners showed understanding in the lessons that were conducted and how this understanding was facilitated by the teachers.

According to Hatch (2002:72), direct observation of a phenomenon can bring about better understanding of a specific context in which that phenomenon occurs. Through first-hand experiences the researcher can discover inductively how the participants understand a specific setting. The researcher has the opportunity to see things that may be taken for granted by

participants and that would probably not have come to the surface if only interviewing was used as a tool. Having the opportunity to get close to the phenomena will allow the researcher to add her own experience in the setting to the analysis of what was happening (see Appendix F).

The evaluation questions above were used as a guideline to draw up the different interview schedules, as well as the observation sheet. These questions also served as a guide as to what to look for in the different documents.

3.7 Data Analysis

In this study the data were analysed by means of the inductive data analysis approach. According to Thomas (2006:238), the inductive approach is a systematic procedure for analysing qualitative data in which the analysis is likely to be guided by specific evaluation objectives. Scriven's (1991:56) description of 'goal free' evaluation is consistent with an inductive approach whereby evaluators wish to describe the actual programme effects, not just planned effects. Hatch (2002:178) is of the opinion that inductive analysis can take many forms and it works well with observation data and can also be comfortably used with most interview data.

Initially the researcher went through all the data that were collected and tried to make sense of what was included in the data set. The data set consisted of all the information that was collected during the interviews, observations and the study that was done on the various documents. Once the researcher became familiar with the dimensions of her data set, she proceeded to break it up into analysable parts.

According to Hatch (2002:16), 'inductive' analysis means to begin with particular pieces of evidence and then to put them together into a meaningful whole. Inductive data analysis is thus a search for meaningful patterns in data, in order to make general statements about the phenomena under investigation. Potter (1996: 15) states that inductive analysis begins with an examination

of the particulars within data, moves on to looking for patterns across individual observations, then argues for those patterns as having the status of general explanatory statements.

In this study the researcher used the evaluation questions as well as the programme objectives, as stated in the logic model, as different categories. The researcher read through the data to search for particulars that could be put into the categories. The researcher specifically looked at the questions that were asked during the interviews and grouped them into the categories; she then looked at the information that was obtained during the observations, as well as the ministerial documents, and identified information that could also fit into the different categories.

The next step was to decide systematically if the categories identified were supported by the data. This could be done effectively as the evaluation questions were drawn up, using the programme objectives as basis to guide the evaluation. The evaluation questions were, in turn, used as basis to draw up the interview questions for the different parties involved. The researcher then went through the observation sheets and identified data that resorted under the main categories. Freestanding categories were created for the data that could not be placed directly under the main categories and that had a different relation to the main categories. The researcher then had to complete the search within the categories. This entailed looking at the possibility that there were sub-categories that could be organised under each category, for example, people in agreement with certain statements and people in disagreement. It also involved considering the possibility that some of the sub-categories in the category might have connections to each other that other sub-categories did not have, for example, the reasons why people agreed or disagreed with certain statements.

After the researcher had looked at each individual category, the next phase was to step back from individual categories and to look for connections among them. This meant to search for patterns that were repeated in the data and for patterns that showed a linkage among different parts of the data, in order to assist in the final presentation and discussion of the data.

Finally, the researcher created a complete representation of how the overall analysis fitted together. This involved creating a master outline expressing relationships within and among categories. As a final check on the analysis done thus far and as further preparation for writing, the researcher read through the data again to search for examples that could be used in the description of the findings to support the elements that made up the presentation of the data.

3.8 Pilot Study

The issue of validity and reliability was a priority in this research, because the research instruments involved the use of interviews and observation. As a first step to check the validity of the interview questions, as well as the observation sheet, a pilot study was carried out before the actual data were collected. According to Bless and Higson-Smith (2000:155), a pilot study is a small study conducted prior to a larger piece of research to determine whether the methods used are appropriate.

The main objective of the pilot study done in this research was to detect whether the research instruments could be misinterpreted, whether there were some ambiguous words or terms that might cause misunderstanding or confuse the respondents and whether the research instruments provided the information needed for the study.

The researcher conducted the pilot study with two of the teachers at NISE School for Hearing Impaired Learners. The participants in the study unfortunately did not have the same characteristics as the main population. This was due to the small number of teachers available in the lower primary phase. They were, however, working at the same school, only with a different phase of learners. The classes of these two teachers were observed at least once; subsequently the teachers were interviewed. As the evaluation questions that were drawn up from the logic model were used as a basis to draw up the different interview schedules, most of the questions to the different interviewees were linked. The researcher thus did not deem it important to conduct a pilot study for each of the different interview schedules.

The piloting of the research instruments was necessary because it gave the researcher an opportunity to experience the kind of responses given by the respondents. It also gave the researcher an opportunity to estimate the effectiveness of the observation sheet. This process enabled the researcher to revise the research instruments and procedures for data collection before starting the fieldwork.

3.8.1 Modification of Interview Questions

After the pilot study some changes were made to the interview questions. The main content of the questions, however, remained unchanged.

The researcher found that the participants were not sure how to answer the question that requested them to elaborate on their educational background. This question was thus changed by adding specific guiding sub-questions to obtain more precise information from the participants, for example, *“What was your area of specialisation when you studied to become a teacher?”* and *“How was Deaf Education incorporated in your training?”*

The question that asked, *“Against what grounds do you measure the success of the method you are using?”* was misunderstood by the participants, so the researcher changed the question to *“How is the success of the method you are using measured?”*

The questions that asked whether the government and school were providing any means of in-service training to the teachers based on the newest teaching methodologies for deaf learners were also changed. The participants were very hesitant in answering the question, so the researcher took it that they were not sure what newest teaching methods entailed. This question was changed to ask what type of in-service training was provided to teachers and staff.

3.8.2 Modification of Observation Sheet

Changes were also made to the observation sheet. While doing the pilot study the researcher found that the observation sheet did not provide a clear focus as to what needed to be observed during each phase of the lesson. The observation sheet also did not provide a clear focus as to what needed to be observed in learners', as well as teachers', actions and reactions during the lessons. The researcher thus changed the observation sheet, giving clear guidelines as to what needed to be observed during each phase of the lesson with regards to the actions and reactions of both teachers and learners, what the lesson objectives were and how objectives were achieved and what methods and materials were used during the lessons.

3.9 Validity and Reliability

According to Lodico, Spaulding and Voegtle (2006:87), validity is the extent to which an instrument measures what it is supposed to measure. Validity is also achieved if the objectives of the research are achieved, and when the research design and methodology are valid. In this study the instruments were constructed and used in such a way that they focused on what the study aimed to find out. Based on the logic model that was designed, evaluative questions were drawn up to guide the research. This was also used as basis to develop the research instruments, especially the interview schedules.

To validate the data, the researcher used methods triangulation. In methods triangulation different methods of data collection can be used (Johnson and Christensen, 2012:269). In this study the different methods that were used were the interviews with the different stakeholders, the observations and the study of the relevant documentation.

According to Johnson and Christensen (2012:269), the objective of using methods triangulation is to combine different methods that have non-overlapping weaknesses and strengths. The weaknesses and strengths of the one method will tend to be different from those of a different

method, which means that when you combine two or more methods, you will have better evidence. During this study the strength of the observational data were that the researcher could actually see what was happening in the classroom, the methods and teaching materials the teachers were using, as well as the learners' responses. A weakness of the interviews was that teachers could have said that they were doing something that they were not doing. During the observations the researcher herself could see what was happening. Furthermore, by conducting interviews, the researcher could delve into the thinking and reasoning of different interviewees, whereas this could not be done during the observations.

According to McMillan and Schumacher (2001:181), reliability refers to the consistency of measurement, the extent to which the results are similar over different forms of the same instrument or occasions of data collection. The goal of developing reliable measures is to minimise the influence of chance or other variables unrelated to the intent of the measure on the results. This works well for a quantitative research; however, according to Shank (2006:110), there is no policy or concept that can ensure qualitative accuracy. Shank (2006:110) is of the opinion that the best approach towards accuracy is to take a method-by-method position by constantly asking the question how to ensure accuracy within a particular qualitative research project.

In order to obtain reliability within this study the researcher verified the information for clarification and followed it up when she was not sure of certain facts. The researcher also verified facts and information with other informants and compared facts from multiple sources (documentation) to ensure accuracy.

3.10 Conclusion

In order for the evaluation to be done of the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia, the researcher had to develop an action plan. The logic model tool for evaluation was used in which the main objectives of the Bilingual-Bicultural programme were emphasised and together with that the overall impact that the success of the programme could have. The logic model then became the helm of the evaluation from which evaluation questions were drawn up. The evaluation questions were then used as guidelines to prepare the data collecting tools. This chapter thus provided an outline of the methods and procedures in collecting the data that were used to do the evaluation. Based on the work done in this chapter the data are presented and discussed in the next chapter.

CHAPTER 4

DATA PRESENTATION AND DISCUSSION

4.1 Introduction

In this chapter, data are presented and discussed in line with the evaluation questions that were drawn up, based upon the logic model that was created as a tool to evaluate the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia. The evaluation questions were drawn up to discover the following:

- I. The individual roles of Namibian Sign Language and English at the school.
- II. Teacher qualifications.
- III. Parental involvement in the school's programmes.
- IV. Support provided to parents of deaf learners.
- V. Policies and documentation with regards to Bilingual Education for deaf learners.
- VI. Prescribed procedures for teachers to follow.
- VII. Sign Bilingual environment at the school.
- VIII. Involvement of the Deaf Community.
- IX. Instructional materials that are being used.
- X. Assessment tools used to assess the deaf learners.

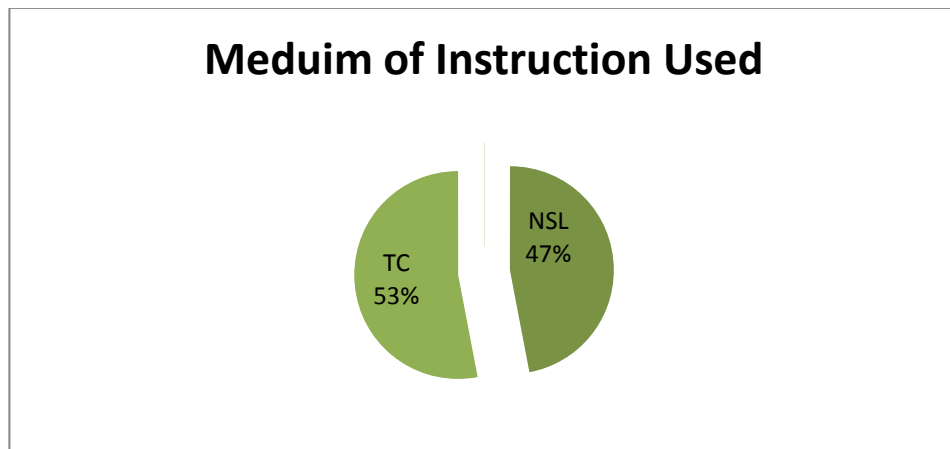
4.2 The Individual Roles of Namibian Sign Language and English at the School

“Developing the learner’s language is the most fundamental aspect of the Lower Primary Phase. Language (including Braille for the blind and Sign Language for the deaf) is the key to understanding. Learning is best achieved through the medium of the mother tongue of the learner” (Ministry of Education, 2005:5).

During one of the interviews that were conducted at the Ministry of Education it was stated that “*Namibian Sign Language is considered as the mother tongue of the deaf learners and it should be used as medium of instruction.*” According to Ministry of Education and Culture (1993:9), mother tongue should be the medium of instruction throughout the first three years, with a transition to English Second Language starting in the fourth year. In addition, all learners should take their mother tongue as a subject from Grade 1.

Based on the observations that were done at the school, it was clear that both Namibian Sign Language and English were offered at the school. Both languages were offered as separate subjects and both NSL and English each had its own syllabus for teachers to follow. In both Namibian Sign Language and English lessons observed, for 53% of the lesson the teachers used Total Communication as medium of Instruction and for 47% of the lessons the teachers used Namibian Sign Language only. The results are given in figure 5.

Figure 5: Percentage of teachers using Namibian Sign Language and Total Communication



TC = Total Communication
NSL = Namibian Sign Language

Even though it is clearly stated that the deaf learner's mother tongue, which in this case is Namibian Sign Language, should be used as medium of instruction, teachers used Total Communication the majority of the time. *“Namibian Sign Language accompanied by Bilingual – Bicultural approach will be used in teaching deaf learners”, “Teaching in mother tongue in early years is priority”* (Ministry of Education, 2009:27). When participants for the interviews were asked whether they used the Oral method, the Total Communication method and the Bilingual-Bicultural method, 80% of the group stated that the Total Communication method was being used. Of the Namibian Sign Language lessons observed, 50% were using the Total Communication method.

Britta Hansen (1989) had done research based on the adoption and later rejection of the use of Total Communication in many schools in Denmark. She describes how teachers themselves began to look at the actual communicative potential of what they had been signing:

“We taped the teachers’ Total Communication, and later on presented the tapes to them without sound – just like it must have been for the deaf learners. The teachers could not understand their own Total Communication when the sound was turned off. Also they realised that, although they believed that they were conveying Danish language to the learners using a sign for every word and some of the grammatical signals to convey the actual grammatical patterns, they never did this consistently. Producing a sign takes longer than producing a spoken word, so to keep up the normal speed of speech, they omitted signs as well as salient grammatical visual clues. The learners did not get a visual version of Danish – instead they got a very inconsistent linguistic input, where they often understood neither the signs nor the spoken words” (Hansen, 1989:2).

Namibian Sign Language and English are two different languages and should be treated as such. According to a Mahshie (1995:170), teachers teaching deaf learners need unshakeable respect for both languages. Mahshie continues that recognition of both languages as equal in status, but different in function and value in the learners' lives, allow them to develop their fullest potential with regards to both languages and their many uses. Namibian Sign

Language and English are two different languages with different structures. Using Total Communication (which is a combination of both languages) is not doing either of the languages any justice.

4.3 Teacher Qualifications

Upon asking participants what qualifications were required for teachers to teach at NISE School for Hearing Impaired Learners, the response from the participants were that the minimum requirement was a Basic Education Teachers' Diploma. In one of the interviews it was stated that it would be good if the teachers could at least have specialised in Special Education; another interviewee, however, said that this was not a requirement. The second interviewee continued, *“the school started to look for teachers who have some knowledge of Namibian Sign Language, but if a post is vacant and a person is needed urgently, this is not taken as a basic requirement.”*

None of the teachers were formally trained in Deaf Education or Namibian Sign Language. Eighty percent of the teachers received a short course on Namibian Sign Language from the NNAD (Namibian National Association for the Deaf) while teaching at the school. Twenty percent of the teachers only learned Namibian Sign Language at the school.

All the teachers had different reasons why they were teaching at NISE School for Hearing Impaired Learners. Responses that were given were desperation for a teaching position, an interest in Inclusive Education, a longing to communicate with deaf people and simply looking for something different to do. One of the teachers stated, *“In the beginning I had no interest in the school. I was finished at the college and was looking for a job. I got a job at the school. My interest only came later as the environment at the school is so different from other schools.”*

According to Magongwa (2010:495), the main barriers to learning for deaf learners in South Africa are the lack of teacher fluency in South African Sign Language and teachers that are not formally trained in Deaf Education. Magongwa (2010:495) further states that there is no policy in South Africa that requires teachers to be trained in Deaf pedagogy and SASL prior to the assumption of duty in schools for deaf learners. As language and communication form integral parts of the learning and teaching process, the situation in South Africa creates a dilemma with regards to gaining access to equal and quality education for deaf learners. If teachers teaching deaf learners cannot use SASL fluently and are not appropriately qualified, deaf learners are denied access to quality education (Magongwa, 2010:495).

The Namibian situation is similar to that of South Africa. However, when the researcher enquired from the interviewees whether any means of in-service training was provided by the school or the Ministry of Education with regards to Deaf Education or Namibian Sign Language, only one of the five teachers that were interviewed stated that no means of training was received. The rest of the teachers received some training from the CCDS (Centre for Communication and Deaf Studies) in collaboration with ICEIDA (Icelandic International Development Agency) and some training from CLaSH (The Association for Children with Language, Speech and Hearing Impairment of Namibia). The CCDS falls under the Ministry of Education, while CLaSH is a non-governmental organisation.

According to the participants in the interviews, the training received from both CCDS and CLaSH focused mainly on interpreting, Namibian Sign Language and basic information on deafness and Deaf Education. The participants, especially the teachers, felt that there also existed a great need in the methodology pertaining how to teach a deaf learner reading and writing skills. One of the teachers responded during the interview by saying, *“People out there in the ministry, like the advisory teachers and inspectors, they really don’t know what is happening in the classroom. They feel that it is the same as the hearing learners. They think that the deaf learners are learning in the same way that the hearing learners are learning, but these learners learn in a special way. We need special people to come and show us how to teach, for example reading to the deaf learners. We are required to teach*

phonics to the deaf learners and they cannot learn phonics, so we need to know of a special method how to teach reading to these learners.”

During one of the interviews conducted at the Ministry of Education one of the participants stated, *“Shortly after Namibia became independent, 22 years ago, the government took over Eluwa Special School. That time it was the first and only school to cater for deaf learners. Eluwa had no formal schooling system, so in order to establish a more formal system for the school, than what it was operating on, all teachers that taught at the school were sent to South Africa to see how the deaf learners in South Africa were taught. Experts from South Africa also came to Namibia, on request, to give training to teachers teaching deaf learners. A lot of training was then given to teachers to upgrade their English skills, as their English was very poor. Training was also given in Signed English, as the Ministry of Education believed that by teaching the deaf child using Signed English it will improve their reading and writing skill in English”*. This theory was proved wrong, as a large number of deaf learners still remain illiterate and not able to pass Grade 12.

Another interviewee from the Ministry of Education stated, *“In 2008, deaf learners for the first time managed to enter the senior secondary phase (Grade 11 and 12). From both NISE School for Hearing Impaired Learners and Eluwa Special School only twelve deaf learners managed to enter this phase from 2008 to 2012”*. Sadly none of these twelve learners managed to pass Grade 12.

Now, almost 22 years later, teachers are still employed at the schools for hearing impaired learners with only basic education training and with little Namibian Sign Language and Deaf Education experience. However, according to Ellis (2011:8), pre-service training of teachers for deaf learners had been improved as the first cohort of teachers trained in Namibian Sign Language graduated from the Windhoek College of Education in May 2012, and other cohorts will follow. From personal experience working at the University of Namibia, the researcher can confirm that the University of Namibia has also started to train teachers in

Deaf Education and Namibian Sign Language from 2011. These teachers will graduate with a Bachelor of Education degree in Namibian Sign Language/Deaf Education in May 2015.

Based on research done by Polat (2003) on factors affecting the psycho-social adjustment of deaf students, it was found that the type of education degree teachers held could be positively associated with the emotional and overall adjustment of learners. Polat (2003:334) states that the teachers with a special degree in Deaf Education received more positive ratings of emotional and overall adjustment of their learners when compared to their colleagues who did not have a special degree in Deaf Education. According to Polat (2003:334), special training in the area of deafness can enable teachers to be aware of the special needs of deaf learners. This knowledge and higher level of skills can thus aid the effectiveness of the teacher. Polat (2003:334) further states that another reason why teachers with a special degree in Deaf Education receive more positive ratings can be due to the fact that they have a fuller knowledge of deafness, Deaf people and the education of deaf learners, which can be associated with more positive attitudes towards their learners.

From the interviews done at the Ministry of Education, one of the participants stated, *“Regardless of the training teachers working at deaf schools are receiving, they also need to be more proactive in upgrading themselves by simply searching on the internet for information.”* This is clearly in line with what is stated by the Ministry of Education (2006:106) regarding Teacher Competence 27 that *“Teachers must engage in own professional development and participate in the professional community.”*

According to Mahshie (1995:163), study of the grammar of both languages is an important component in the training of both Deaf and hearing teachers. Mahshie (1995:163) further states that teachers from the most successful Bilingual classes in Denmark and Sweden have worked to learn as much as they could about the latest research in Sign Language grammar, Swedish grammar and teaching a second language. They have continued to expand their understanding of linguistics and language acquisition and have applied their knowledge in

ways that allow their learners to proceed on a schedule that seems developmentally appropriate (Mahshie, 1995:163).

The professional development of each teacher working at the schools for deaf learners in Namibia remains his and her own individual responsibility. It is only through individual professional development in Namibian Sign Language and Deaf Education that these teachers, currently working at the schools for deaf learners, will successfully teach the deaf learners.

4.4 Parental Involvement in the School's Programmes

All the participants in the interviews stated that parents were not involved in the school programmes. As the majority of the learners resided in the hostel, most parents would only bring their children at the beginning of a trimester and fetch them again when the school closed. During the course of the term the learners had to rely on relatives or guardians living in Windhoek. During the interviews with the management of the school it was stated, *“From the 155 learners at the school, 112 learners are residing in the hostel.”* This comprised 72% of the total learners at the school.

When asked what type of support she was receiving from the parents, one of the teachers responded, *“Ohhh that is total zero. Some do show a little interest, but others just don't give any support. Maybe it is because of the distance as most learners are in the hostel, but than even parents of day scholars simply don't care because they can't even communicate with their children.”*

The interviewees stated that the school had really tried in the past to get parents involved, but without much success. Very few parents would show up for class visits and parent-teacher meetings. The rest would simply stay away. This, according to one of the interviewees, was not only a problem at NISE School for Hearing Impaired Learners, but also at all other

schools for deaf learners in Namibia. She said, *“As a previous teacher of the school for deaf learners, I know that parents only take responsibility to bring their children to school. After that most learners are stuck at the hostel and rely on the mercy of relatives staying in town. Even now that I am working in a different position, I found that this is a problem in all schools for deaf learners in Namibia.”*

The only support that 20% of the teachers were receiving from parents was that they would buy the necessary stationery for their children. The majority of the parents, however, claimed that they could not afford to do this. Of the teachers that were interviewed only one teacher stated that she worked well with the parents of the learners in her class. The reason was that she had a system in place where she would text parents from her cellphone whenever she needed to communicate something to them. The parents, in turn, did the same. They texted her whenever they wanted to enquire about something. Ninety percent of the learners in this teacher’s class were, however, residing at home and not in the hostel.

4.5 Support Provided to Parents of Deaf Learners

According to the responses during the interviews, the only real support that was provided to parents of deaf learners was the financial support given by the Ministry of Gender Equality and Child welfare. The Ministry of Education is currently providing no support, but everybody hoped this would change and that support could be offered by the CCDS. The school only provided support by giving information through to parents as to where they could attend Namibian Sign Language classes. Interviewees responded, *“Apart from the financial support given by Ministry of Gender Equality and Child welfare, no other support is given”, “Well, all support that is given to parents is by providing them with information about where to go for NSL classes”, “At the moment no support is given from the Ministry of Education. In future the CCDS might provide some type of support.”* An interviewee at the Ministry of Education stated, *“No support is provided. As the language is also a barrier between parent and child. There is also nobody to assist the child with its first language. The government is more focused on school related activities and are not providing any kind of support to the*

parents. I do see the need to equipped parents with Namibian Sign Language so that a connection can be established between parent and child.”

The CCDS, in turn, is planning to provide a means of support to parents with regards to learning Namibian Sign Language and providing workshops on the challenges that Deaf people are facing. At the moment this is, however, not yet happening.

According to Mahshie (1995:61), common elements in a well-designed Bilingual environment seem to be 1) trusting the parents' willingness and ability to make the needed adjustments, 2) acknowledging those parents, hearing and Deaf, for their important role and 3) providing parents with a positive orientation, as well as the support and training they need to make informed choices.

The birth of a child is a momentous and happy occasion in the lives of most parents. It can, therefore, come as a shock when hearing parents discover that their child, whom they have considered normal in every way, is in fact unable to hear (Lane et al., 1996:32).

Deaf babies display the same kind of sensori-motor development, such as babbling and gestural behaviour, as hearing babies. The first few months of the baby's life will follow the typical patterns. Babies, both deaf and hearing, track the movement of their parents' hands and distinguish their parents from strangers through visual identification of facial features and physical contact. These normal interactions lead hearing parents to believe, for months, that their child is functioning as expected. Unaware of having a deaf child, parents will experience a time of joy and mother-child interaction will be reciprocal (Lane et al., 1996:32).

At about the ninth or tenth month, when children are expected to produce their first words, the parents can become suspicious when this development is not taking place in their child (Lane et al., 1996:32). Parents of deaf children can compensate for their children's lack of

hearing if they are aware of the loss and are willing and able to learn Namibian Sign Language. Like hearing children, deaf children's success begins with acceptance and communication at home. Attention to their special needs acknowledges that deaf children may be different from their hearing peers, but those differences should not be taken to mean that deaf children are in any way defective. It is essential that parents recognise that deaf children vary greatly, just like hearing children, and they have to treat them as individuals. This, however, is not easy for parents who do not understand what they are dealing with in raising a deaf child (Lane et al., 1996:32). This is why providing support to the parents of deaf learners in Namibia is an important stepping stone to providing quality education.

4.6 Policies and Documentation in Regard to Bilingual Education for Deaf Learners

When participants in the interviews were asked whether any provision was made in any kind of document for a particular teaching method that should be used, 87% answered "No". According to these participants, the school was using the same curriculum as the mainstream schools at the time of the research. There were, however, 13% of the respondents that stated that provision was being made. In the interviews with participants at the Ministry of Education one of the interviewees responded, "*Yes, provision is made because the curriculum that we are using is the one from the government in which Bilingual-Biculture is being promote.*"

The researcher made a study of various documents with regards to Bilingual-Bicultural Education for deaf learners. Among these documents were the Draft Policy on Inclusive Education, the Language Policy for schools, the Curriculum for the Lower Primary Phase and the Namibian Sign Language syllabus.

4.6.1 Policy on Inclusive Education

The Ministry of Education (2009:24) states that “*special schools are transformed into Resource Centers. All learners including those with mental disabilities or any other disabling or chronic health condition have the right to receive tuition in ordinary schools even if it may be for acquiring social skills and learning to be part of a society for all*”.

The policy, however, continues to state under schools for deaf learners (p. 25):

- *It, however, may be necessary to maintain schools for deaf so as to provide an appropriate language stimulating environment. However, deaf learners should be given a choice of where to attend school, either in schools for deaf or in any ordinary school.*
- *The education system should make all necessary reasonable accommodation for deaf learners.*
- *Namibian Sign Language should be developed and used.*
- *The ministry responsible for education should appoint interpreters/teacher trained interpreters at inclusive schools, where deaf learners receive tuition.*
- *Learners who are hard of hearing should be taught in ordinary schools and not schools for learners who are deaf.*

The Ministry of Education (2009:27) also states that one main cause of learning difficulties is the medium of instruction. Learning in a language which is not the mother tongue or another familiar language may create barriers in learning and lead many learners to be identified as having learning problems. Language should thus be seen as a tool that enables learning. It is stated in the policy that challenges creating barriers to learning through language should be addressed as follows:

- *Namibian Sign Language accompanied by Bilingual-Bicultural approach will be used in teaching deaf learners.*
- *Acquisition of written English for deaf learners should be emphasized as a means of communicating with the hearing world.*

- *Learners who are hard of hearing should not be taught in Namibian Sign Language, rather optimise their residual hearing aids, auditory training, and speech and language therapy.*
- *Learners may use an iconic language, e.g. Bliss Symbolic Language, if they cannot use oral language at all.*
- *Using Braille, Namibian Sign Language or an iconic language, e.g. Bliss Symbolic, should be enabled to use the language as medium and learners should take it as a subject.*
- *Teaching in mother tongue in early years is a priority.*
- *English to be firmly established as second language for non-native speakers.*
- *Continuous professional development for English, Namibian Sign Language and Braille teaching shall be offered to promote proficiency and decrease learning failure.*

We can thus clearly see that provision for a Bilingual-Bicultural approach to teach deaf learners is made in the Draft Policy on Inclusive Education. This policy was officially approved in 2013 (Ministry of Education, 2013).

4.6.2 The Curriculum for The Lower Primary Phase

The researcher studied the Curriculum for the Lower Primary Phase – Grades 1 to 4 – and found that it concurs with what is stated in the Draft Policy on Inclusive Education in that it states “*developing the learners language is the most fundamental aspect of the Lower Primary Phase and that languages (including Braille for the blind and Namibian Sign Language for the deaf) are the key to understanding.*”

However, it was peculiar that under learning outcomes for First Language the following was stated, “*On completing Grade 4, the learners can express themselves well orally, read appropriate text and write reasonably correctly for their everyday purpose, in their mother tongue.*”

Under the learning outcomes for Second Language the following was stated, “*On completing Grade 4, the learners can understand, speak, read and write English as Second Language well enough within a limited range to continue learning through the medium of English in the next phase.*”

Some of the expectations set out in the learning outcomes are not possible for a deaf learner to meet, for example, expressing themselves orally or speaking. Upon further study of the Curriculum for the Lower Primary Phase the researcher noted that two of the language skills that needed to be developed would not be possible for the deaf learner. The language skills are listening, speaking, reading and writing. It was also noted that, as this was the mainstream Curriculum for the Lower Primary Phase Grade 1 – 4, it did not cater for deaf learners as such, but only for hearing learners. Sadly it is the same curriculum used at NISE School for Hearing Impaired Learners with the exception of a different Namibian Sign Language syllabus. One of the female teachers stated “*The school is using the same curriculum as the mainstream schools. We are fighting for a specialized curriculum, but as there are procedures to follow it takes time to get this.*”

4.6.3 Namibian Sign Language Syllabus

The Ministry of Education, Sport and Culture (2005:2) states that on completing Grade 4, learners should be able to understand, read and communicate effectively in Namibian Sign Language and be able to use Namibian Sign Language as a medium of instruction in learning other subjects. This syllabus replaces the first language syllabus that had been used for mainstream schools.

In this syllabus, four skills are said to be developed. These are: Receptive and Expression skills, Productive skills, Language uses and Deaf Culture. Under each skill there is a list of themes and topics that the teacher should teach. These themes and topics do not always correlate with the skill that should be developed. Deaf Culture, which is an important aspect of Namibian Sign Language, is not given the attention it deserves. It is only required that learners are made aware of it. Under the Productive skill much attention is given to the fact that learners should read

English texts. In doing this, the two languages are mixed and the focus is shifted from Namibian Sign Language to English. Under Language uses it is required for the teacher to do a little grammar, but this does not do justice to the amount of Namibian Sign Language grammar that should be known by the learner. Baker (2006:374) states that Sign Language is a fully developed, authentic language which allows its users to communicate the same, complete meaning as can be communicated by an Oral language. This means that just like there is a great deal of grammar for a hearing learner to know in an Oral language, there is also a great deal of grammar for a deaf learner to know in Namibian Sign Language.

During one of the interviews conducted at the Ministry of Education, a female interviewee stated, *“Previously stakeholders in Deaf Education were not knowledgeable enough and thus not confident to make suitable changes. The picture has changed now. Stakeholders within Deaf Education are now more informed and feel more confident to make positive changes”*. Some of these changes are in process and were witnessed by the researcher as she was part of a working group that worked on some of these change in September 2012. For example, NIED (National Institute for Educational Development) took it upon itself to revise not only the curriculum, but also the syllabi for First and Second Languages for deaf learners.

Some of these changes entail the changing of the language skills in both subjects (Namibian Sign Language and English) that these learners need to acquire. For Namibian Sign Language the new language skills are as follows: Observation and Comprehension – this is in line with listening and understanding skills in a spoken language; Expression and Communication – this is in line with speaking/oral skills in a spoken language; Signing and Linguistic skills entail the grammar of Namibian Sign Language, and the fourth skill is Deaf Culture and Literature.

A specialised syllabus for English Second Language is being drawn up for deaf learners. The skills that should be developed differ from what is stipulated for the mainstream schools. The four language skills for English Second Language for the deaf are as follows: Reading, Writing,

the use of English grammar and Literature. These skills are more realistic for deaf learners than the Listening and Speaking skills that are currently dealt with.

4.6.4 Language Policy for Schools in Namibia

When the Language Policy for Schools in Namibia was formulated in 1993, it was stated that all the views expressed by language interest groups had been taken into careful consideration by the then Ministry of Education and Culture. Broad criteria and key factors for policy development were also taken into consideration. These entailed among others:

- *Grade 1 – 3 will be taught either through the mother tongue or a predominant local language.*
- *Grade 4 will be a transitional year when the changes to English as medium of instruction must take place.*
- *English is a compulsory subject, starting from Grade 1, and continuing throughout the school system.*
- *Language options available are:*
 - *Afrikaans*
 - *German*
 - *Khoekhoegowab*
 - *Oshindonga*
 - *Rukwangali*
 - *Setswana*
 - *Thimbukushu*
 - *English*
 - *Ju 'hoansi*
 - *Oshikwanyama*
 - *Otjiherero*
 - *Rumanyo*
 - *Silosi*
 - *(Portuguese)*

These are languages spoken in Namibia. Namibian Sign Language was added to the list of languages in the Draft Revised Language Policy for Schools. This forms part of some of the positive developments that are taking place in Deaf Education in Namibia. Namibian Sign Language is now being recognised as a Namibian language.

4.7 Prescribed Procedures/methods for Teachers

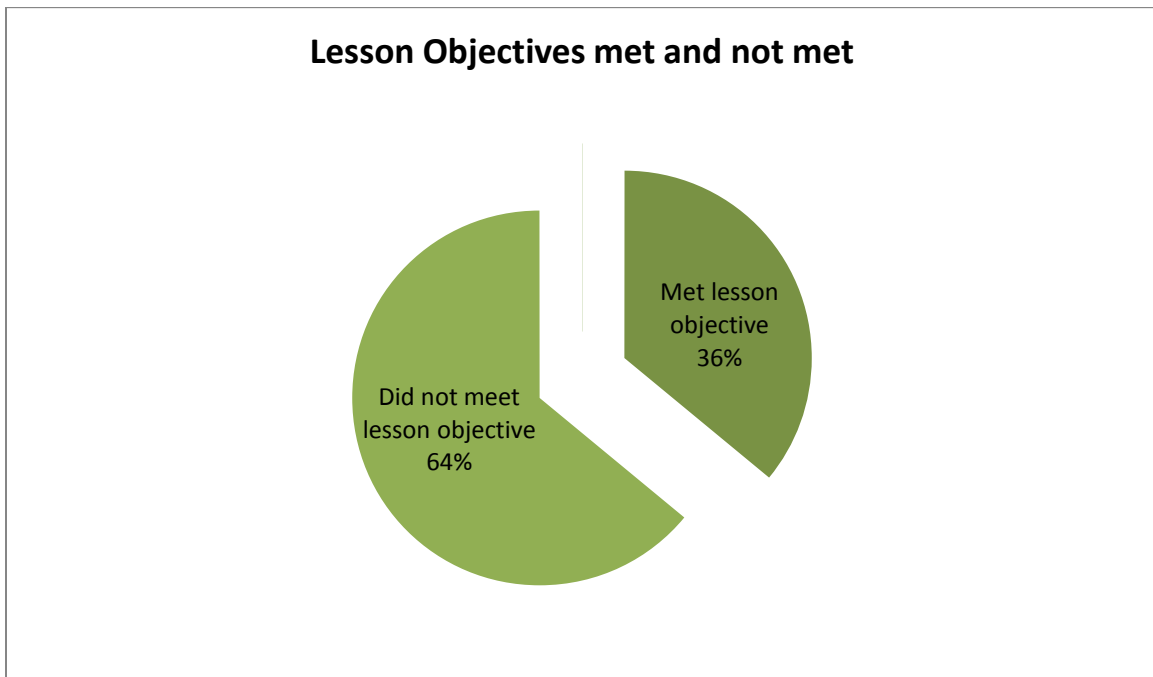
From the interviews conducted at the school, it became clear that nobody was aware of any prescribed procedure/method to follow. One female teacher responded, *“There is not really set procedures that are prescribed for teachers to use, or not that I am aware of.”* A male teacher responded, *“I can’t remember of any procedures that have been prescribed. I was not introduce to any when I started at the school, so if there are anything then I do not know of it.”* However, at the Ministry of Education it was stated that the Bilingual-Bicultural method was prescribed for teachers. As seen earlier in the Draft Policy on Inclusive Education, this is true.

When participants were asked what method of teaching was being used in the classroom, 89% stated that the Total Communication method was used. The reasons that were given by teachers as to why they were using the Total Communication method were that there was one or two learners in their classes that were hard of hearing (not totally deaf). They were thus trying to accommodate these learners in their lessons. Teachers also felt that they could express themselves better when they spoke, when explaining concepts to the learners.

As such a high percentage of the participants in the interviews stated that they were using the Total Communication method to teach the deaf learners, the researcher wanted to know whether the participants thought that this method that they were using was successful. All the teachers that were interviewed felt it was a successful method. The rest of the participants, however, did not agree with this. The reason that was stated by the teachers as to why they thought the method was successful, was that they received some positive responses from the learners. They also felt that the deaf learners could read their lips and understand what they were trying to convey to them. For those learners who could not read lips, it was simply a way for them to learn to do so.

The researcher studied the 53% of the lessons that were observed where teachers used Total Communication as medium of instruction to find out whether lesson objectives were met in these lessons. The results are given in Figure 6.

Figure 6: Lesson objectives met and not met when using Total Communication



Only 36% of these lessons, conducted while using the Total Communication method, actually met the lesson objective. 64% of these lessons did not meet the lesson objective. With the 64% of the lessons that did not meet the lesson objectives it was found that the learners at times did not understand the instruction or explanation given to them. The teachers at times failed to give learners the correct signs for specific objects, as more focus was put on saying the word than on signing the word. At times the teacher only focused on the oral part and forgot to sign, so the learners missed out on much of the information that was given orally.

4.8 Sign Bilingual Environment at the School

From the literature review it has become clear that Sign Bilingualism involves two languages, in this case Namibian Sign Language and English. According to Hermans, Knoors, Ormel and Verhoeven (2007:161), the goal of Bilingual Education is predominantly viewed as dual language mastery and access to both (deaf and hearing) cultures. Both languages are thus viewed as being essential for the academic achievements of deaf learners.

According to the researcher, in order for a school to foster a Sign Bilingual environment both these two languages and their cultures should be equally visible at the school. The researcher found that in a Sign Bilingual context both languages were featuring in the curriculum offered at the school. During the observations done at the school the researcher could also clearly see evidence of Sign Bilingualism in the classrooms. Some items were labeled in English and also had signs attached to them.

On the school grounds, however, this did not happen, as advertisements and notices were only in English. During break time hearing teachers and staff members resorted to speaking English or their various mother tongues and the Deaf were totally left out. Most institutional workers at the school were also not trained in Namibian Sign Language and would often use Oral language with the deaf learners.

During the interviews the researcher found that only one of the female teachers interviewed was trained as a language teacher, the rest had majored in various other subjects. When the above teacher was asked to talk about her educational background she resounded, *“I was trained at Windhoek College of Education. I had lower primary as a minor subject and English as a major subject.”*

During class observations the researcher found that teachers were not very fluent in Namibian Sign Language and had a tendency to resort to Oralism or Total Communication.

In the lower primary phase the learners had no deaf adult as role model. Whenever one teacher would visit another teacher's class, they would conduct their conversation in English; the deaf learners would thus be totally left out of the conversation. In one of the observation sessions the learners were allowed time for free play. During this time the researcher witnessed how learners would pretend to be hearing and pretended that they were talking and not signing to one another. This, according to the researcher, was a sign that the Oral language was more dominantly used than the Sign Language. There were thus some sign of Sign Bilingualism at the school, but the English/Oral language and culture were much more prominently used than the Namibian Sign Language and Deaf culture.

4.9 Involvement of the Deaf Community

All the participants in the interviews stated that the Deaf Community was not formally involved in the programmes, especially in academic programmes, at the school. The only involvement that was shown was that of a Deaf religious group which visited the school on Saturdays, telling the learners some Bible stories. At times former learners of the school would also pay a visit to the school. One female teacher responded, when asked about the involvement of the Deaf Community, *"They are not involved. Maybe this is our fault as a school for not approaching them and inviting them."*

Of the twenty-nine staff members working at the school, comprising academic staff, the school secretary, institutional workers and hostel matrons, only three were Deaf. Of these three individuals only one was a teacher, teaching Namibian Sign Language and Geography to the upper grades. The other two Deaf individuals worked as institutional workers at the school.

The teachers who were interviewed felt that the school should do more to involve the Deaf Community in the academic and social programmes at the school. A male teacher said, when asked about the involvement of the Deaf Community, *"They are not really involved in the school programmes. Maybe from the side of the school more should be done to involve the*

Deaf Community to act as role models to the learner.” A female teacher responded, “The Deaf Community is not very much involved. Even the NNAD is not involved with the school. I know of other countries where the Deaf associations are very involved in Deaf Education, but that is not the case in Namibia.”

The Ministry of Education stated that it had advertised positions for Deaf assistant teachers at the school. These Deaf assistant teachers would assume duty in 2013. Their job description would entail that they assist in the teaching of Namibian Sign Language and at the same time act as role models to the deaf learners. These Deaf assistant teachers would also assist teachers in developing their Namibian Sign Language skills.

Mahshie (1995:158) states that Deaf teachers are absolutely crucial to the success of any Bilingual-Bicultural programme for deaf learners. The importance of their understanding of and rapport with deaf learners, their skill of communicating visually and their role as role models for deaf learners, concerning their culture and heritage, cannot be overstated. Mahshie (1995:159) further states that over 90% of deaf learners (those born to hearing parents) are not likely to encounter native role models of their primary language in their own homes. Therefore, the presence of teachers who are native role models of their primary language (Sign Language) becomes an even more important ingredient in linguistic and academic success.

In Namibia there is only one qualified Deaf teacher who is now working at NISE School for Hearing Impaired Learners. Due to the under-qualified status of the Deaf people in Namibia, the Ministry of Education thus saw it fit to employ Deaf assistant teachers at the schools for deaf learners.

4.10 Instructional Materials being Used

The researcher enquired from the teachers during the interviews about the type of teaching and learning materials they were using in their lessons. The researcher then found that all the teachers understood the importance of using visual aids in their teaching. Pictures and concrete materials were what most of the teachers said they were using. The reason given was simply that it helped learners understand better. A female teacher responded when asked what type of material she was using, *“I mostly use pictures. The learners learn better when one use pictures. The learners see the picture and understand what you mean, so in that way they learn better. The more pictures you use the better they learn.”* Another female teacher also responded, *“I use a lot of pictures and flashcards. Sometimes I also make use of concrete materials as it helps learners to understand things.”*

During the lesson observations the researcher found that in 73% of the lessons observed, the teachers used some sort of visual aid, either a poster or more concrete objects. 27% of the lessons had no support material. These were the more practical lessons or lessons where the teacher only made use of the blackboard.

Very few teaching materials are provided by the government with regards to Deaf Education. One female teacher stated, *“We get books that are given by the CCDS, but other than that nothing is provided by the government. Maybe the government is not aware of our needs.”* The CCDS now develops most of the materials that teachers can use in their teaching, but this is still not enough in comparison to what teachers actually need. The government, however, also provides text books, even though these are the same ones that they are providing to mainstream schools. When the researcher enquired about this, the response that she received from one of the interviewees from the Ministry of Education was, *“Teachers should be aware of different approaches that can be used to accommodate the learners in their classes. It does not matter what type of textbook is used but what type of teaching approach.”*

According to Petty (2009:375), information enters the human brain 87% through the eyes, 9% through the ears and 4% through the other senses. This is an advantage for deaf learners as they use their eyes as their ears as well.

Petty (2009:376) further states that the main advantages of visual aids are that they gain attention. You cannot teach without the attention of your learners. Visual aids add variety to lessons and visual aids aid conceptualisation, which is a major advantage in the sense that many concepts or ideas are understood better visually than verbally. Visual aids aid memory, as most people find visual information easier to remember than verbal information. By preparing visual aids teachers show that they care; going to the trouble of preparing visual aids shows learners that teachers take their learning seriously (Petty, 2009:376).

Teachers for the deaf can thus prepare their own instructional material, for example, models, charts, posters, handouts and DVDs as all these are visuals that can assist their learners in better understanding of the lessons.

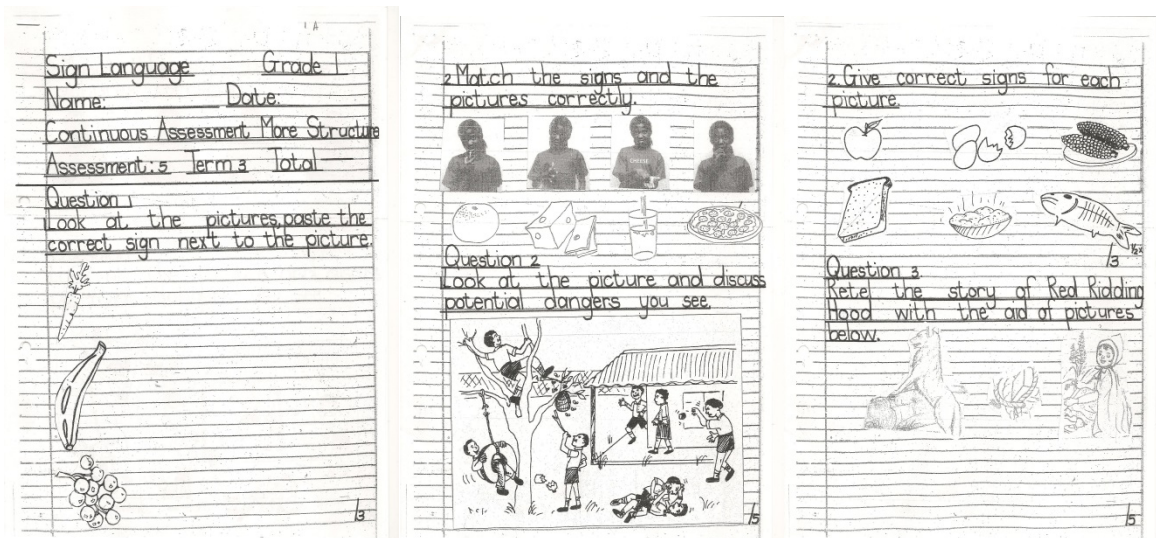
4.11 Assessment Tools Used to Assess the Deaf Learners

As seen earlier, many teachers felt the method they were using was successful. Participants were asked against what criteria they measured the success of the method of teaching they were using. Eighty percent of the teachers said they measured it by tests, quizzes and worksheets. Twenty percent also added that they measured it by letting learners draw pictures, by class work activities and responses learners gave to reinforcement questions posed to them. Twenty percent of the teachers measured it by the way learners were imitating their signs or trying to speak. A response from a female teacher was, *“When I do my assessment, especially Namibian Sign Language it is so interesting to see how the learners try to imitate me when I speak and try to speak and sound words. I think that is good.”* Thirty-eight percent of the total participants responded that the success of the teaching method was measured by the learners’ ability to use both Namibian Sign Language and English, as well as looking at the pass rate of the learners. According to these participants,

the pass rate was very low and the learners did not know how to read and write. These participants were not the teachers, but the school management and interviewees from the Ministry of Education. One such respondent said, “*The passing rate is very poor and the learners are not able to read or write.*”

In order to better understand how learners were being assessed, the researcher studied some of the assessment activities that were given to the learners. Figure 7 shows examples of samples of these activities.

Figure 7: Assessment for Grade 1 Namibian Sign Language




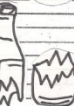



To the researcher this seemed like a fair assessment task for a Grade 1 learner. However, as it is a more formative kind of assessment, all the Namibian Sign Language skills are not catered for. When one looks at the skills that are currently stipulated in the syllabus, which are Receptive and Expression skills, Productive skills, Language uses and Deaf Culture, it becomes clear that this assessment task was only focusing on one skill, the Receptive and Expressive skill.

Figure 8: Assessment for Grade 1 English

Gr. 1

English Second Language
Name: _____ Date: _____
Grade: 1 Marks: 15
Continuous Assessment M/S
Assessment 5 Term 3




Question 1
Match the words with the pictures

a broken bottle	
a blade	
a knife	
a match box	
poison	

/5

Question 2
2.1 I must eat 5/4/3 meals a day. /1
2.2 Healthy/unhealthy food makes you grow and become strong. /1

Question 3
Write in the correct meal

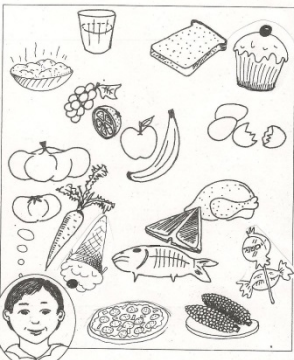
	lunch
	dinner
	breakfast

Question 4
Cut out the food and paste them in the correct box

Healthy food	unhealthy food

/5

Healthy food keep me healthy
Look at the healthy food the boy eats.



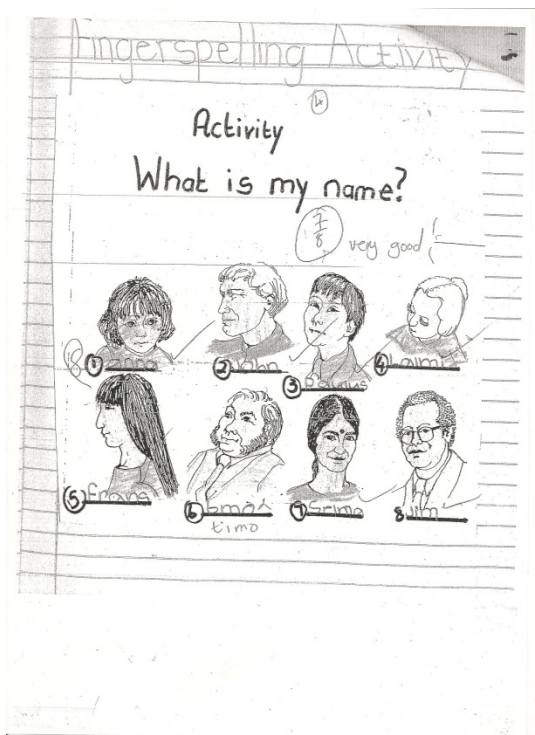
Name five other types of healthy food

17

Again this seems like a fair assessment task for a Grade 1 child. However, the researcher could not make out which language skill was being assessed. The assessment was also closely related

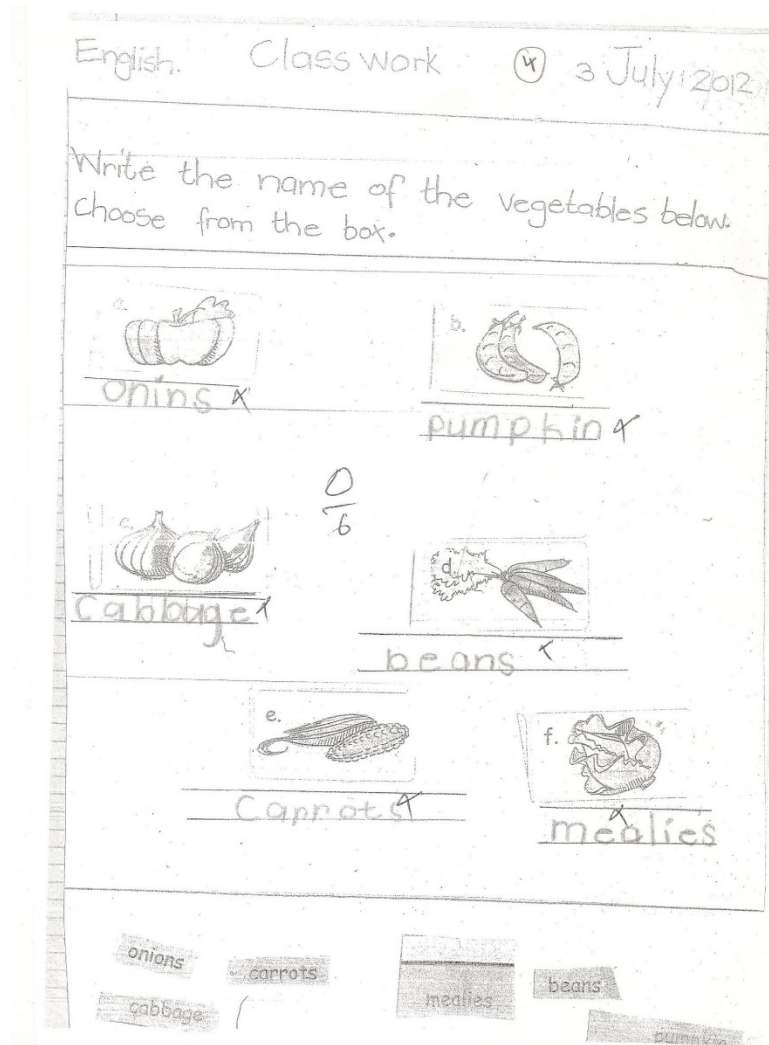
to what could be assessed in an Environmental Studies lesson. One of the observations made by the researcher was that teachers had the tendency to focus mainly on Environmental Studies or Religious and Moral Education in their language lessons. This could be seen as an integration approach, but in the process the necessary language skills of the learners were not being developed.

Figure 9: Assessment for Grade 4 Namibian Sign Language



At first this assessment task was confusing to the researcher as there was no clear instruction. According to the teacher, however, this tested the ability of the learners to read finger spelling. This could then be a more suitable class activity than more formal assessment. This activity was also very easy for a Grade 4 learner as the learners should at this stage be able to read longer vocabulary than the short names given in this task.

Figure 10: Assessment for Grade 4 English



When one looks at this assessment task, it is clear that not a great deal of thought or effort was put into preparing it for the learners, as it appears to be very untidy and unorganised. This is also almost too easy an activity to give to a Grade 4 learner and yet it is evident that the learner was not successful in completing it.

The researcher also had the opportunity to study the assessment sheets compiled by the teachers at the end of a specific term. Table 6 shows examples of some of these sheets.

Table 6: Assessment sheet for English Grade 1

Second Language (English)		Grade 1														
Second Term		Assessment 3						Assessment 4						Total for Ass 3&4	Average	Grade for term
		Listen & Speak	Reading: Incidental	M/S Activity	Total	Average	Grade	Listen & Speak	Reading	M/S Activity	Total	Average	Grade			
N0	Name															
		5	5	5	15	/3		5	5	5	15	/3		30	/6	
1		2	1	3	6	2.0	D	3	2	3	8	2.7	C	14	2.3	D
2		2	2	3	7	2.3	D	2	2	3	7	2.3	D	14	2.3	D
3		3	4	4	11	3.7	B	3	3	2	8	2.7	C	19	3.2	C
4		2	3	4	9	3	C	3	3	2	8	2.7	C	17	2.8	C
5		4	3	1	8	2.7	C	4	3	3	10	3.3	C	18	3	C
6		2	1	2	5	1.7	D	2	1	2	5	1.7	D	10	1.7	D
7		3	2	2	7	2.3	D	2	2	2	6	2	D	13	2.2	D
8		3	2	4	9	3	C	3	2	2	7	2.3	D	16	2.7	C
9		2	2	4	8	2.7	C	3	2	3	8	2.7	C	16	2.7	C
10		3	3	4	10	3.3	C	2	3	3	8	2.7	C	18	3	C
11		4	4	5	13	4.3	B	4	4	4	12	4	B	25	4.2	B
12		4	3	5	12	4	B	4	4	4	12	4	B	24	4	B
13		3	3	4	10	3.3	C	3	3	2	8	2.7	C	18	3	C
					115						107			222		
					2.9						2.7			2.8		
							C						C			C

When looking at the above assessment for English second language, the researcher discovered that learners were being assessed for listening and speaking. The school did not provide speech or auditory training, so this made it very hard for learners at the school to use speech. As the majority of the learners were totally deaf it would be impossible for them to listen to anything. This, according to the researcher, is unfair assessment as there is a possibility that the hard of hearing learners (those that are not totally deaf) might obtain higher marks than the totally deaf learners.

Table 7: Assessment sheet for Namibian Sign Language Grade 1

First Language (NSL)		Grade 1																			
NO	Name	Assessment 3							Assessment 4							Total for Ass 3&4			Average	Grade for term	
		Recep. & Express	Productive Skills	Lang. Users & Deaf Cul.	Finger Spelling	M/S Activity	Total	Average	Grade	Recep. & Express	Productive Skills	Lang. Users & Deaf Cul.	Finger Spelling	M/S Activity	Total	Average	Grade				
		5	5	5	5	5	25	/5		5	5	5	5	5	25	/5		50	/10		
1		3	3	4	2	3	15	5	C	3	2	3	3	3	14	2.8	C	29	2.9	C	
2		4	3	3	3	3	16	3.2	C	4	3	4	3	3	17	3.4	C	33	3.3	C	
3		4	3	4	4	3	18	3.6	B	4	4	4	3	4	19	3.8	B	37	3.7	B	
4		3	4	4	3	4	18	3.6	B	4	3	3	3	3	16	3.2	C	34	3.4	C	
5		5	4	4	4	4	21	4.2	B	4	3	4	5	5	21	4.2	B	42	4.2	B	
6		3	2	2	1	3	11	2.2	D	3	2	2	2	3	12	2.4	D	23	2.3	D	
7		3	3	3	2	3	14	2.8	C	4	3	2	3	3	15	3	C	29	2.9	C	
8		4	4	3	3	3	17	3.4	C	4	3	3	3	4	17	3.4	C	34	3.4	C	
9		4	3	3	3	3	16	3.2	C	4	3	3	2	3	15	3	C	31	3.1	C	
10		4	3	3	3	3	16	3.2	C	4	3	3	3	4	17	3.4	C	33	3.3	C	
11		4	4	4	4	5	21	4.2	B	3	4	4	4	4	19	3.8	B	40	4	B	
12		5	4	4	4	5	22	4.4	B	4	3	3	4	5	19	3.8	B	41	4.1	B	
13		3	3	4	3	4	17	3.4	C	4	3	4	3	3	17	3.4	C	34	3.4	C	
							222								218			440			
								3.4								3.4			3.4		
									C								C			C	

When one looks at the above Namibian Sign Language assessment sheet, it is clear that all four skills as stated in the syllabus were being assessed. What is, however, peculiar about this is that special assessment was done for fingerspelling alone. It is important for learners to be taught the correct use of fingerspelling. According to the researcher’s experience, fingerspelling is only used for names of people, places and brands. It can also be used if there is no sign for a specific word, but other than that it is not recommended to use it too much. According to the researcher, it will be wiser to assess fingerspelling within a skill like Receptive and Expressive, so that the learners are aware of how to use fingerspelling within context.

Table 8: Assessment sheet for English Grade 4

Second Language (English)		Grade 4																		
N0	Name	Assessment 3								Assessment 4								Total for Ass 3&4	Average	Grade for term
		Listen & Speak	Reading: Prep & Unprep	Phonics	Writing	M/S Activity	Total	Average	Grade	Listen & Speak	Reading	Phonics	Writing	M/S Activity	Total	Average	Grade			
		5	5	5	5	5	25	/5		5	5	5	5	5	25	/5		50	/10	
1		4	3	4	3	2	16	3.2	C	3	3	5	3	3	17	3.5	C	33	3.3	C
2		4	3	4	2	1	14	2.4	C	3	3	4	2	4	16	3.2	C	30	3	C
3		2	2	2	1	1	8	1.6	D	1	1	2	1	1	6	1.4	E	14	1.4	E
4		3	2	3	1	1	10	2.0	D	3	1	3	1	1	9	1.8	D	19	1.9	D
5		2	3	3	3	3	14	2.8	C	2	2	3	3	2	12	2.4	D	26	2.6	C
6		4	4	5	4	3	20	4	B	4	4	5	3	2	18	3.6	B	38	3.8	B
7		3	3	2	2	3	13	2.6	C	3	2	4	2	1	12	2.4	D	25	2.5	C
8		1	1	1	1	1	5	1	E	1	1	1	1	1	5	1	E	10	1	E
9		5	4	4	3	3	19	3.8	B	4	3	4	4	4	19	3.8	B	38	3.8	B
10		5	4	4	4	3	20	4	B	5	3	5	4	3	20	4	B	40	4	B
11		4	4	4	3	2	17	3.4	C	4	3	5	4	3	19	3.8	B	36	3.6	B
12		3	2	4	2	1	12	2.4	D	3	2	3	3	2	13	2.6	C	25	2.5	C
13		2	2	4	2	2	12	2.4	D	2	2	2	2	1	9	1.8	D	21	2.1	D
14		3	3	3	4	3	16	3.2	C	3	2	3	3	2	13	2.6	C	29	2.9	C
15		4	4	5	4	2	19	3.8	B	4	3	4	4	3	18	3.6	B	37	3.7	B
							215								206			421		
								2.9								2.7			2.8	
									C								C			C

For the Grade 4 class English phonics and writing were added to the assessment, together with listening and speaking as well as reading. The same as for Grade 1, listening and speaking are not realistic assessment to be given to deaf learners. The same goes for phonetic assessment, as these involve the ability to hear and to speak. When the researcher observed one of the English lessons the teacher was teaching reading to the learners. In this lesson the teacher gave flashcards to the learners to read. Most of the learners could not read the words on the flashcards, so the teacher assisted them. A poster with a story was put on the black board and the teacher signed the story word by word to the learners. The learners then repeated the story with the teacher; they signed it alone without the teacher; they signed it in pairs and they signed it one by one. In the end, the learners could sign (read) all the words on the poster, but they did not understand what

the story was about. When learners were asked specific question relating to the story they could not answer the questions. Some of the English grammatical aspects confused the learners, for example, when ‘s’ is added to a noun it is always plural to them while at times in the story it indicated possession. With all these potholes the question could be asked how some of them obtained a ‘B’ symbol in English and whether that was a true reflection of the learner’s ability.

Table 9: Assessment sheet for Namibian Sign Language Grade 4

First Language (NSL)		Grade 1																		
		Assessment 3								Assessment 4										
		Receptive & Expressive	Productive Skills	Lang. Users & Deaf Cul	Finger Spelling	M/S Activity	Total	Average	Grade	Recep. & Express.	Productive Skills	Lang. Users & Deaf	Finger Spelling	M/S Activity	Total	Average	Grade	Total for Ass 3&4	Average	Grade for term
NO	Name																			
		5	5	5	5	5	25	/5		5	5	5	5	5	25	/5		50	/10	
1		4	4	5	5	4	22	4.4	B	4	3	4	5	5	21	4.2	B	43	4.3	B
2		4	3	4	4	3	18	3.6	B	3	4	4	4	4	19	3.8	B	37	3.7	B
3		2	2	2	2	2	10	2	D	3	2	2	2	3	12	2.4	D	22	2.2	D
4		2	2	2	2	3	11	2.2	D	3	2	2	2	3	12	2.4	D	23	2.3	D
5		3	4	2	3	1	13	2.6	C	4	3	3	3	2	15	3	C	28	2.8	C
6		5	5	4	4	4	22	4.4	B	5	4	5	5	4	23	4.6	A	45	4.5	A
7		3	2	3	3	2	13	2.6	C	4	3	3	4	3	17	3.4	C	30	3	C
8		2	1	2	1	1	7	1.4	E	2	1	1	1	1	6	1.2	E	13	1.3	E
9		5	4	4	5	3	22	4.4	B	5	4	4	5	5	23	4.6	A	45	4.5	A
10		4	3	4	4	4	19	3.8	B	5	4	3	3	5	20	4	B	39	3.9	B
11		4	4	4	3	4	19	3.6	B	4	4	3	4	5	20	4	B	39	3.9	B
12		3	3	4	3	4	17	3.4	C	4	3	4	3	5	19	3.8	B	36	3.6	B
13		3	3	4	4	4	18	3.6	B	3	4	3	3	5	18	3.6	B	36	3.6	B
14		3	3	3	3	1	13	2.6	C	3	3	2	3	2	13	2.6	C	26	2.6	C
15		5	4	4	5	3	21	4.2	B	4	4	4	3	5	20	4	B	41	4.1	B
							245								258			502		
							3.2								3.4			3.4		
									C								C			C

In the Grade 4 Namibian Sign Language assessment, learners were again assessed for fingerspelling. According to the researcher, learners at this stage should have mastered the skill of fingerspelling. This is thus a very easy assessment for Grade 4 learners. The researcher also noted that some learners obtained an 'A' symbol. The question that again came to mind was whether this was a true reflection of the learners' ability in the subject. As seen earlier, the most popular method of teaching was Total Communication. One wonders how it is then possible for learners to obtain an 'A' symbol with this method being used. As none of the teachers were qualified Namibian Sign Language teachers, and as none of them were native users of the language, the reliability of the results of this assessment could raise a doubt.

Evaluation or testing to see how well a learner is learning is an inescapable fact of teaching. Teachers give tests and grade papers because that gives them a sense of how well learners are developing, which is, in part, a reflection of how well they have taught a subject. They assign percentages and letter grades based on their evaluation and write a few words about a learner's overall performance in a subject on their report cards. However, what a "B" on a report card really tells a learner or a parent is a question that teachers must constantly ask themselves (Stewart and Kluwin, 2001:217).

Grading is challenging, time-consuming and requires considerable mental and emotional effort. It is difficult because of the need for fairness, the inherent subjectivity of grading and the absence of uniform standards. Teaching, as parenting, offers conflicting challenges. The teacher wants to nurture but also has to discipline. When it comes to giving a grade, a teacher will want to reward any effort but must justly reflect what has occurred. Teachers need to encourage learners, but at the same time they have to rein in errors. If this does not occur, then the teacher is in danger of not giving the learner the feedback he or she needs to improve and to learn (Stewart and Kluwin, 2001:217)

4.12 Conclusion

The aim of this chapter was to present data on the evaluation of the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia. The data were collected through interviews to various stakeholders, observations and document analysis. The discussion of data were well incorporated in this chapter for interpretation purposes.

The data were presented in accordance with the evaluation questions that were drawn up based on the logic model that became the steering wheel for this study. A lot of insight were gained as to the situation regarding the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia. Based on the evidence and discussions presented in this chapter the study can be summarised and reflected upon in the next chapter. Recommendations and a final conclusion will also be made in the next chapter.

CHAPTER 5

SUMMARY, REFLECTION, RECOMMENDATIONS AND CONCLUSION

5.1 Summary of the Study

The most recent approach to gain support in Deaf Education is the Bilingual-Bicultural approach to communication and education. This approach recommends that deaf learners are first introduced to natural Sign Language as a first language, and only once this groundwork has been laid are they taught a second language such as English in its written form (Ross and Deverell, 2010:285). Since Bilingual programmes have been introduced in the education of deaf learners, one of the principal claims has been that, as an effect of using a natural sign language as the primary language of instruction, deaf learners not only have greater and easier access to curricular content but also develop higher levels of literacy (Mayer and Akamatsu, 2003:136).

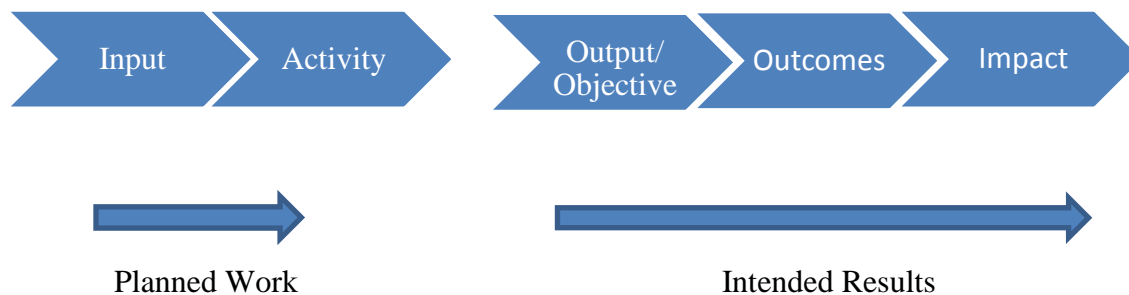
The Ministry of Education in Namibia also claims to have adopted the Bilingual-Bicultural approach and yet after many years of Deaf Education in Namibia the education system is still unable to produce deaf learners that can pass Grade 12. The aim of this study was to conduct a sociolinguistic and socio-educational evaluation of the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners at NISE School for Hearing Impaired Learners in the Khomas region of Namibia.

Garcia (1997) has done extensive work in the field of Bilingual Education. She has developed a set of sociolinguistic and socio-educational principles that the researcher adapted to the local conditions in Namibia to use as basis for the evaluation. The sociolinguistic principles entailed: the compartmentalisation principle that focuses on keeping the two languages separated, the principle of mother tongue usage that focuses on the continued existence of the learner's mother

tongue in his or her education, and the teaching of a second language principle that focuses on the second language not only being used as a medium of instruction, but also taught as a subject (Garcia, 1997:417).

For the evaluation of the effectiveness of Bilingual and Biliterate Education at NISE School for Hearing Impaired Learners, a logic model tool was designed, based on these sociolinguistic and socio-educational principles. A logic model is said to be a systematic way to present and share an understanding of the relationship among the resources one has to operate a programme on, the activities that are planned and the changes or results one hopes to achieve (WK Kellogg Foundation, 2001:1). The logic model for this study had different categories, which flowed from planned work to intended results, for this to take place.

Figure 11: Basic Logic Model



Under each of the five categories of the logic model, systematic goals were set in order for the Bilingual-Bicultural programme to reach the intended results or impact, which are: 1) for deaf learners to fully participate in society, 2) for deaf learners to be linguistically, cognitively, socially and emotionally competent, and 3) for deaf learners to fully integrate into society as productive, well-educated citizens.

From the Output/Objectives of the logic model, which formed part of the intended results for the Bilingual-Bicultural programme, formative evaluation questions were drawn up to create a clearer focus for the evaluation. The goals for the Output/Objectives for the programme were: 1) Sign Bilingual friendly curriculum with a NSL first language basis, 2) The importance of both English and NSL must be emphasised, 3) Fully trained staff within a Sign Bilingual setting, 4) Parents that can communicate with their deaf children, 5) Acknowledging parents for their important role, 6) Policy ensuring deaf learners' bilingual status, 7) Bilingual environment at school, 8) Availability of suitable teaching and learning materials for the sign bilingual education programme, 9) Available assessment criteria and tools for deaf learners.

The evaluation questions, in turn, were used to draw up the different data collecting tools, which were interview schedules and an observation sheet. Data were collected at NISE School for Hearing Impaired Learners where the Grades 1 – 4 learners, teachers, head of department and school principal formed part of the research population. Data were also collected from the Ministry of Education. The education officer responsible for Deaf Education and school inspector responsible for the school also formed part of the research population. Related documents, such as the Basic School Curriculum for lower primary, Syllabi for lower primary, Language Policy, Policy on Inclusive Education, National Policy on Disability as well as record sheets of learners' performance, were studied. The evaluation questions also served as a guide to determine what to search for in the different documents.

The data were analysed by means of the inductive data analysis approach and methods triangulation was used to validate the data. According to Johnson and Christensen (2012:269), in methods triangulation different methods of data collection can be used. The different methods that were used in this study were the interviews with the different stakeholders, the observations and the study of the relevant documentation. In using these different methods for collecting data, the strengths and weaknesses of the one method were neutralised by those of other methods. This meant that when the researcher combined the three methods she obtained data that were more reliable than when only one method is used to collect data.

The researcher did her best to conduct the study in an absolutely ethical manner by obtaining written permission for the study from the Ministry of Education as well as from the principal of the school. She also tried her best to interpret the data that were collected as precisely and accurately as possible.

5.2 Reflection

The evaluation questions that were used in this study were mainly of a formative nature. According to Paulsen and Dailey (2002:3), the focus of formative evaluation is on assessing programme quality implementation and impact to provide feedback and information for internal improvement. Based on the logic model, the evaluation questions that were drawn up and data that were analysed, the following feedback is provided.

5.2.1 The Individual Roles of Namibian Sign Language and English at the School

Garcia (1997:417) argues that the success of Bilingualism and Biliteracy largely depends on the different roles the two languages of instruction play. The evaluative results from the data that were analysed indicate that at Oral languages, Namibian Sign Language and English do have individual roles as both languages are offered as separate subjects. The Draft Policy on Inclusive Education stipulates that Namibian Sign Language is accepted as the mother tongue of the deaf learners and it is prescribed as the medium of instruction together with English in its written form. From the interviews that were conducted and the researcher personally being involved in a Deaf Education Curriculum Development Working Group in September 2012, the researcher can concur that NIED is currently working on a Bilingual-Bicultural friendly curriculum for deaf learners, and through this they are trying to make both Namibian Sign Language and, especially English, more accessible to deaf learners.

Within the logic model some of the goals for the Output/Objectives for the Bilingual-Bicultural programme are to establish a Sign Bilingual friendly curriculum with NSL on a first language basis. The importance of both English and NSL also must be emphasised. It is clear that these goals have been met. According to the logic model, the outcome for these objectives can lead to an excellent education for deaf learners through two fully accessible languages: Namibian Sign Language and well-developed literacy in English. Even though the ground work has been laid for the two languages, NSL and English, to be treated separately, the majority of the teachers continue to use Total Communication as medium of instruction. This can thus hamper the expected impact that was set out for these objectives.

5.2.2 Teacher Qualifications

According to Garcia (1997:418), all staff, administrative and academic, must be Bilingual or willing to work toward becoming Bilingual. Teachers that teach either one of the languages must be highly qualified in that particular language and must also be Bilingual. The evaluative results from the data that were analysed indicate that, at NISE School for Hearing Impaired Learners, none of the teachers teaching in the lower primary phase were formally trained in Namibian Sign Language and only one teacher had formal training in English. However, workshops in Namibian Sign Language and Deaf Education are provided continuously to teachers and the University of Namibia is training specialised teachers in Namibian Sign Language and Deaf Education.

Within the logic model some of the goals for the activities that need to be done in order for the Bilingual-Bicultural programme to reach its Output/Objectives are: 1) for all staff (academic and admin) to be trained to be Bilingual in NSL and English and 2) that specific training and relevant qualifications should be expected of/or provided to teachers in order to work collaboratively within a Sign Bilingual setting.

In line with these activities that are being implemented, as seen in the data analysis, the goals of the Output/Objectives for the programme, which are to have fully trained staff within a Sign Bilingual setting, can be achieved, provided that:

- It becomes a basic requirement for teachers to be qualified in at least Namibian Sign Language when applying at the school.
- Current teachers and staff members working at the school are given a time frame to develop their Namibian Sign Language Skills in order to continue to work at the school.

5.2.3 Parental Involvement in the School Programmes and Support Provided to Parents of Deaf Learners

According to Garcia and Kleifgen (2011:182), parental involvement in the learners' school-based education programme is a significant positive predictor. Parents should be recognised as important participants within the immediate school community and as allies in their children's education. Mahshie (1995:61) is of the opinion that common elements in a well-designed Bilingual environment seem to be 1) trusting the parents' willingness and ability to make the needed adjustments, 2) acknowledging those parents, hearing and Deaf, for their important role and 3) providing parents with a positive orientation, as well as the support and training they need to make informed choices.

Lane et al. (1996:32) state that the birth of a child is a momentous and happy occasion in the lives of most parents, so it can come as a shock when hearing parents discover that their child, whom they have considered normal in every way, is in fact unable to hear. According to the evaluative results from the data that were analysed, it appears that parents are not involved in the school's programmes at NISE School for Hearing Impaired Learners. Currently there is also no support given to parents of deaf learners, except the financial support given by the Ministry of Gender Equality and Child Welfare. However, the CCDS is planning to start a programme that will provide support to parents with regards to learning Namibian Sign Language and to arrange workshops on the challenges that Deaf people are facing.

In the logic model, the goals for the activities that need to be done in order for the Bilingual-Bicultural programme to reach its Output/Objectives with regards to active parental participation and support are: 1) to provide emotional and linguistic support to parents, 2) for the school to generate programmes and events to get parental involvement in the school's activities and the education of the deaf child 3) for the teachers to establish a close relationship with the parents so that both parties can monitor the progress of the deaf child. According to the logic model, these activities should first be implemented before the goals of the Output/Objectives for the programme can be reached.

5.2.4 Policies and Documentation with Regards to Bilingual Education for Deaf Learners and Prescribed Procedures and Methods for Teachers to Follow

Garcia (1997:419) is of the opinion that an educational language policy that aims to make learners bilingual and biliterate must be in place. In this policy, according to Garcia (1997:419), both languages must be fully recognised as independent languages and must be treated equally.

The evaluative results from the data that were analysed indicate that in the Namibian Education system, such a policy is in place, together with other supporting documentation supporting the policy. The Ministry of Education (2009:27) makes provision for the Bilingual Education approach to be followed as it clearly states that Namibian Sign Language accompanied by the Bilingual-Bicultural approach will be used in teaching deaf learners. This is not a Sign Bilingual Policy in autocracy but a section in the Inclusive Education Policy. The Curriculum for the Lower Primary Phase supports this as it states that language is the most fundamental aspect of the Lower Primary Phase and that languages (including Braille for the blind and Namibian Sign Language for the deaf) are the key to understanding. Lastly, Namibian Sign Language has been added as a Namibian Language in the Draft Revised Language Policy for Schools.

However, it was also found in the evaluative results from the data that were analysed that none of the teachers who were interviewed were aware of these prescribed procedures and methods. According to Shohamy (2006:78), the staff and personnel are the people who act as soldiers of a system, the people who carry out orders by internalising policy ideology and its agendas as expressed in the curriculum, textbooks and other materials relating to language. Teachers thus play an important role in the implementation of policies.

In the logic model, the goal for the activities that needed to be done in order for the Bilingual-Biliterate programme to reach its Output/Objectives was to implement a Sign Bilingual policy that promoted Bilingual Education at the schools for the deaf. The goal for the Output/Objective was thus reached as a similar policy with supporting documents was implemented. However, awareness of the Inclusive Education Policy still needs to be created among teachers in order for the Output/Objectives to reach the full impact of intended results contained in the logic model.

5.2.5 Sign Bilingual Environment at the School and the Involvement of the Deaf Community

According to Garcia (1997:419), the school culture must be Bilingual and the two languages must be alive all over the school, inside and outside of the classroom. Pickersgill (1998:89) argues that the linguistic and cultural resources of the Deaf community have an important role in the development of Sign Bilingualism; that is why links with the Deaf community and ethnic minority communities should be promoted and the deaf child should have access to a community of Deaf Sign Language users, peers and adults. Mahshie (1995:158) is of the opinion that Deaf teachers are absolutely crucial to the success of any Bilingual-Bicultural programme for deaf learners. This is because of their understanding of deaf learners, their skills of communicating visually and their role as role models for deaf learners.

The evaluative results from the data that were analysed, indicated that there were some signs of Sign Bilingualism at the school, but the English (oral language) and culture were much more

prominently used than the Namibian Sign Language and Deaf culture. The results from the analysed data also indicated that the Deaf Community was not formally involved in the programmes, especially academic programmes, at the school. It was also found that of the twenty nine staff members working at the school, only three were deaf. Of these three individuals only one was a teacher. The other two individuals worked as institutional workers at the school. However, the Ministry of Education had advertised positions for Deaf assistant teachers at the school. These Deaf assistant teachers assumed duty in 2013. Their job description entails that they must assist in the teaching of Namibian Sign Language and at the same time act as role models to the deaf learners. These Deaf assistant teachers should also assist teachers in developing their Namibian Sign Language skills.

In the logic model the goal for the activities that needed to be done in order for the Bilingual-Bicultural programme to reach its Output/Objectives was to establish a Sign Bilingual-Bicultural environment where learners were exposed to the Deaf community and Deaf Namibian Sign Language users. Only once this had been established, would the goal of the Output/Objective, which entails a comprehensive Bilingual environment at the school, be reached.

5.2.6 Instructional Materials

Garcia (1997:420) is of the opinion that teaching materials used in a Bilingual Education setting must be highly varied. The evaluative results from the data that were analysed indicated that all the teachers understood the importance of using visual aids in their teaching. Pictures and concrete materials were what most of the teachers used and the reason given was that they simply helped learners understand better. However, very few teaching materials were being provided by the Government with regards to Deaf Education. The CCDS has started to develop most of the materials that teachers use in their teaching, but this is still not enough in comparison to what teachers need. The Government does provide text books, even though it is the same ones that they are providing to mainstream schools. Their expressed opinion was simply that teachers should be aware of different approaches that could be used to accommodate the learners in their

classes and that it did not matter what type of textbook was used but rather what type of teaching approach was employed.

In the logic model, the goal for the activities that needed to be done in order for the Bilingual-Biliterate programme to reach its Output/Objectives was to create and design teaching materials that portrayed more visual images that could be successfully used to teach deaf learners. CCDS is in the process of doing this, but this needs to be done first in order to reach the goal of the Output/Objective, which is the availability of suitable teaching and learning materials for the Sign Bilingual Education programme.

5.2.7 Assessment Tools

According to Garcia (1997:420), assessment must be fair and authentic as assessment strategies play a very important role in the success or failure of a subject. The evaluative results from the data that were analysed indicated that the assessment tasks that were done for both English and Namibian Sign Language were not consistent in relation to the language skills of the particular subjects. It was evident that not much thought went into the preparation of assessment tasks as there was often overlapping of the two languages, as well as subjects like Environmental Studies and Religious Education. Learners received high grades for language skills like listening and speaking in English, which is an almost impossible task for a deaf learner to master. These evaluative results from the data that were analysed thus forced the researcher to question whether the assessment results of learners were really a true reflection of their performance. To add, the pass rate of learners for external assessments were low and learners remained unable to read and write in English, even though internal assessment showed progress in learners' academic performances.

In the logic model the goal for the activities that needed to be done in order for the Bilingual-Biliterate programme to reach its Output/Objectives was to create and design assessment criteria and tools suitable for deaf learners. These goals were not met as there were no set assessment

criteria available for teachers to follow when assessing the learners. There were also no suitable assessment tools available to do assessment. Each teacher was thus following his or her own design. As a result there were a great deal of inconsistency in the assessment done at the school in the lower primary phase.

Below is a table summarising the core findings from the evaluation of the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners in the Khomas region of Namibia in terms of the logic model. The table integrates theoretical thinking about Bilingual Education and the principles involved with aspects of the logic model. A rudimentary summary of the findings presented above, which resulted in a reduced overview of the status of matters and challenges ahead, is presented. A cross indicates what still needs to be done and a tick what is already in place for the final impact of the Bilingual Education programme at NISE School for Hearing Impaired Learners to be a success. This reductionist presentation should not be read separately from the presentation of findings above. Recommendations regarding shortcomings will follow thereafter.

Table 10: Rudimentary Summary of Evaluative Results

	PLANNED WORK		INTENDED RESULTS		
	Input	Activity	Output/Objectives	Outcomes	Impact
Individual roles of the 2 languages	✓	✓	✓	✗	✗
Teacher Qualification	✓	✓	✗	✗	✗
Parental Involvement and Parental support	✓	✗	✗	✗	✗
Policies, Documentation and Prescribe Procedures and Methods	✓	✓	✓	✓	✗

Sign Bilingual Environment	✓	✓	✗	✗	✗
Instructional Materials	✓	✓	✗	✗	✗
Assessment	✓	✗	✗	✗	✗

The rudimentary summary of the evaluative results indicates that input for planned work was done in all the areas that were examined, except in the areas of parental involvement and support, and assessment. These areas still need activity to be done under the planned work. Policy documents, as well as prescribed procedures and methods are in place, however the impact that these documents were supposed to have is not yet visible. Sign Language and English are treated as separated languages and subjects on paper, but it is not yet fully implemented in practice. That is why the objectives for the intended results were achieved in regards to this area, but the outcomes and impact of the intended results are not yet visible. It is envisaged that if all planned work and intended results are achieved of all the areas that were examined, the success of the Bilingual and Biliterate Education programme at NISE School for Hearing Impaired Learners will be witnessed.

5.3 Recommendations

In line with the reflection presented above, grounded on the logic model, the evaluative questions and the data that were analysed, some recommendations are made with regards to the Bilingual and Biliterate Education for lower primary deaf learners at NISE School for Hearing Impaired Learners in the Khomas region of Namibia. These recommendations will mainly be on the core aspects of the logic model that have not yet reached the goals of the Output/Objectives.

Based on the evaluative results from the data that were analysed, it can be stated that none of the teachers teaching in the lower primary phase were formally trained in Namibian Sign Language and yet, according to Ellis (2011: 8), the first cohort of teachers formally trained in Namibian Sign Language and Deaf Education graduated in May 2012. Awareness should be created so that

the schools for hearing impaired learners are aware of trained teachers in the field and thus make it a requirement when candidates are interviewed for teaching positions at the school.

Current teachers at the school should be motivated to upgrade and educate themselves as this would be in line with what is stated by the Ministry of Education (2006:106) Teacher Competence 27, “*Teachers must engage in their own professional development and participate in the professional community.*” According to Mahshie (1995:163), teachers from the most successful Bilingual classes in Denmark and Sweden have worked to learn as much as they could about the latest research in Sign Language grammar, Swedish grammar and the teaching of a second language. They have continued to expand their understanding of linguistics and language acquisition, and have applied their knowledge in ways that allow their learners to proceed on a schedule that seems developmentally appropriate.

Polat (2003:334) is of the opinion that special training in the area of deafness can enable teachers to be aware of the special needs of deaf learners and that knowledge and a higher level of skills can aid the effectiveness of the teacher. Polat (2003:334) continues that teachers with a special degree in Deaf Education have a fuller knowledge of deafness, Deaf people and the education of deaf learners, which can be associated with more positive attitudes towards their learners. Magongwa (2010:495) states that the main barriers to learning for deaf learners in South Africa are the lack of teacher fluency in SASL and teachers who are not formally trained in Deaf Education.

It is thus important that teachers engage in professional development to upgrade their Namibian Sign Language skills, their linguistic knowledge of English and Namibian Sign Language as well as their knowledge in Deaf Education. In doing this, the Output/Objectives which are to have trained staff in a Sign Bilingual setting could be reached.

Based on the evaluative results from the data that were analysed, it can be said that parental involvement is non-existent at the school and no emotional and linguistic support is given to parents of deaf learners. However, the CCDS is planning to start a programme that will provide support to parents with regards to learning Namibian Sign Language and providing workshops on the challenges that Deaf people are facing. Providing this positive support to parents and by educating parents on what deafness is and what it entails to be deaf will be ways to motivate parents to become more involved in the education of their children.

The school should be more creative in generating programmes and events to involve parents in the school's activities and education of the deaf learners. Teachers need to establish a closer relationship with the parents so that both parties can monitor the progress of the deaf learners. It is imperative that both teachers and parents work together to achieve the impact of the Bilingual-Biliterate programme at the school. According to Mahshie (1995:61), common elements in a well-designed Bilingual environment seem to be 1) trusting the parents' willingness and ability to make the needed adjustments, 2) acknowledging those parents, hearing and Deaf, for their important role and 3) providing parents with a positive orientation, as well as the support and training they need to make informed choices.

This clearly is in line with the bio-ecological theory, as stated by Vijjalakshmi (2009:50), that the deaf child's development does not take place in a vacuum, but rather in a complex set of interrelated systems over a period of time. Spencer et al. (2000:xviii) further elaborate that the deaf child is at the centre of this system. However, the child does not live in isolation, but within a family unit which, in turn, does not function in isolation, but within a community.

Grounded in the above theory and the evaluative results from the data, specifying that the Deaf Community was not formally involved with the programmes, especially academic programmes at the school, it is recommended that the school should establish a closer relationship with the NNAD and the Deaf community at large. These Deaf individuals are absolutely crucial to the education of the deaf learners as they understand the learners well, and they portray the skills of

communicating visually and, at the same time, act as role models to the deaf learner (Mahshie, 1995:158).

The evaluative results from the data that were analysed indicated that teachers understood the importance of using visual aids in their teaching but that few teaching materials were provided by the Government with regards to Deaf Education. The CCDS has started to develop some materials, but these materials will still not be enough in relation to what is needed. It is thus recommended that teachers should start to work in collaboration with the CCDS in developing teaching and learning materials. Petty (2009:376) believes that by preparing visual aids, teachers show that they care about the education of their learners. Going to the trouble of preparing visual/teaching aids shows learners that teachers take their learning seriously. Working in collaboration can help the Output/Objective to have suitable teaching and learning materials available for the Sign Bilingual programme to be reached.

The evaluative results from the data that were analysed also showed that authentic assessment was not taking place at the school and that currently each teacher had her or his own ideas about assessing the learners. There were no set criteria. It is thus recommended that the CCDS and NIED, together with teachers for deaf learners, should work in collaboration to design a set of criteria for assessment for each grade and for each language (English and Namibian Sign Language). From these set criteria, examples of assessment tools could be designed and made available to the teachers to use as a guide when they develop or draw up their own assessment tools. This also is in line with what was stated by Nambira (2007:13), at a conference on Deaf Education held in Namibia, that for assessment a multidisciplinary evaluation team should be considered. This team, according to Nambira (2007:13), should consist of the following members: an inspector of special education, a speech therapist, a psychologist, the principal, head of department, a class teacher, a remedial teacher and an advisory teacher.

5.4 Appraisal

Namibia is still experiencing the growing pains of Deaf Education, even though it has adopted the Sign Bilingual approach to communication and education, which is the most recent approach to teaching in Deaf Education. These growing pains gave rise to the question about the effectiveness of the Sign Bilingual approach in Namibia.

A sociolinguistic and socio-educational evaluation of the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners at NISE School for Hearing Impaired Learners in the Khomas region was conducted. This specific school was chosen because it was centrally located and because the original goal of the school was to function as a resource centre for provision of special education services in the country (Nambira, 2007:14). Being able to travel easily to the school helped the researcher to conduct a more effective evaluation than she would have done if the school was not located so centrally.

The sociolinguistic and socio-educational principle that served as basis for the evaluation was grounded on the extensive work Ofelia Garcia did in the field of Bilingual Education. These principles fit with the Bio-Ecological theory which argues that a child's development does not take place in isolation. The sociolinguistic and socio-educational principle was also used as roots to develop the logic model that served as a seamless guide to conduct the evaluation. The evaluation brought light regarding the effectiveness of Bilingual and Biliterate Education for lower primary deaf learners at NISE School for Hearing Impaired Learners in the Khomas region, but not to the effectiveness of Bilingual and Biliterate Education to deaf learners in Namibia. For further research a sociolinguistic and socio-educational evaluation of the effectiveness of Bilingual and Biliterate Education for deaf learners in Namibia should be considered.

5.5 Conclusion

In conclusion, the researcher found that the evaluation was conducted at the right time, in order to assess the quality implementation and impact of the Sign Bilingual programme at the school. It is hoped that the feedback provided will serve as a guide for improvement of the programme. The logic model that was designed can serve as a management tool until the final goals that were intended by the Sign Bilingual approach in Deaf Education are achieved. This evaluation study can make an immense contribution towards improving the quality of education offered to the deaf learners in Namibia, provided that all stakeholders in Deaf Education take to heart what was given as feedback in this study.

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APPENDIX A: PERMISSION LETTER TO THE DIRECTOR OF THE KHOMAS EDUCATION REGION

3 August 2011

Mr. J. Udjombala
Director of Khomas Education Region
Ministry of Education
Namibia

Dear Mr. Udjombala

REQUEST FOR PERMISSION TO DO RESEARCH AT NISE SCHOOL FOR THE HEARING IMPAIRED

I, Beausetha J Bruwer, am a Masters student at the University of the Free State. My area of specialisation is Deaf Education and I am planning to do a sociolinguistic and socio – educational evaluation of the effectiveness of bilingual and biliterate education for lower primary deaf learners in the Khomas Region of Namibia.

The outcome of this research lies in its potential to assist teachers teaching at schools for the deaf to enhance the literacy levels of deaf learners in both Sign language and English. Educators at higher institutions will be better equipped to guide students through the challenges facing Deaf Education in Namibia. Curricular planners will provide curriculums with greater excess to curricular content to the deaf learners. More importantly, this study will make an immense contribution towards improving the quality of education provided to the deaf learners in Namibia.

I kindly request you to give your permission to do my research at NISE, School for Hearing Impaired learners in the Khomas Region.

Yours in Education

Beausetha J Bruwer

APPENDIX B: PERMISSION GRANTED BY THE DIRECTOR OF THE KHOMAS EDUCATION REGION



**REPUBLIC OF NAMIBIA
KHOMAS REGIONAL COUNCIL
DIRECTORATE OF EDUCATION**

Tel: [09 264 61] 293 4221
Fax: [09 264 61] 231 367

Private Bag 13236
WINDHOEK

Enquiries: Ms W. Bruwer

04 August 2011

Ms B.J. Bruwer
Sign Language Lecturer
University of Namibia

Dear Ms. Bruwer

**REQUEST FOR PERMISSION TO DO RESEARCH AT NISE: SCHOOL FOR THE
HEARING IMPAIRED**

Your letter on the subject dated 03 August 2011 has reference.

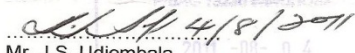
Permission is hereby granted that you may conduct a research study at NISE: School for the Hearing Impaired.

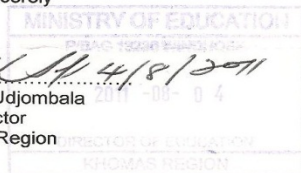
Please take note of the following points:

1. The normal school programmes and/or activities should not be interfered with
2. Participation by both teachers and learners should be on a voluntary basis
3. Participation by under-aged learners requires a written consent of a parent/guardian
4. Confidential and ethical approach should be applied
5. Arrangement should be made with the Principal of the school

It will be highly appreciated if you would share your findings with the Ministry.

Yours sincerely


Mr. J.S. Udjombala
The Director
Khomas Region



APPENDIX C: PERMISSION LETTER TO THE PRINCIPAL OF NISE SCHOOL FOR HEARING IMAIRED LEARNERS

18 August 2011

Mrs. F.J Kleinert
Principal of NISE: School for Hearing Impaired
Ministry of Education
Namibia

Dear Mrs. Kleinert

RESEARCH AT NISE SCHOOL FOR THE HEARING IMPAIRED

I have been granted permission by the Director of the Khomas Region to do research at your school. I am planning to do a sociolinguistic and socio – educational evaluation of the effectiveness of bilingual and biliterate education for lower primary deaf learners. The gathering of data at the school will start on the 12th of September 2011 until the 7th of October 2011.

The outcome of this research lies in its potential to assist teachers teaching at schools for the deaf to enhance the literacy levels of deaf learners in both Sign Language and English. Educators at higher institutions will be better equipped to guide students through the challenges facing Deaf Education in Namibia. Curricular planners will provide curriculums with greater excess to curricular content to the deaf learners. More importantly, this study will make an immense contribution towards improving the quality of education provided to the deaf learners in Namibia.

The plan is to adopt a qualitative method of study. Data will thus be gathered through observation of lessons in order to evaluate whether certain sociolinguistic principles are in place. Furthermore, data will be gathered by interviewing lower primary teachers, the school principal, the head of department for lower primary, educational officers and school inspectors to evaluate whether certain socio-educational principles are in place in the educational agents and culture of the school.

I hereby assure you that there will be no interference with the normal school programme, participation of teachers should be voluntary and learners will not be directly involved. I also assure you that the research subjects will be treated in a respectful manner and I guarantee absolute anonymity and confidentiality. Arrangements will be made with individual teachers for suitable times.

I kindly request the school's assistance in this regard

Yours in Education

Beausetha J Bruwer

APPENDIX D: PERMISSION GRANTED BY THE PRICIPAL

Inquiries: Ms F.J. Kleinert
Ms R. Guritas



25.08.2011

To: Ms B J Bruwer
Namibian Sign Language Lecture
University of Namibia (UNAM)

Subject: Research at the School for Hearing Impaired

Dear Madam

Your letter dated August 18, 2011 has reference.

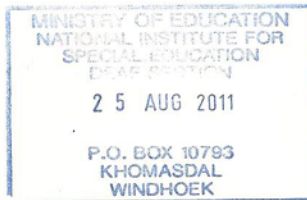
As a former colleague, the school is pleased to give consent, for you to conduct the intended research. As an institution we are aware of the need for such an inquiry and thus welcome this initiative, for vided that it does not interfere with the school programme as indicated in your communiqué.

We wish you all the success with your endeavors.

Yours truly


Ms F.J. Kleinert
Principal

Cc: Inspector of Education - Ms FJ Kleinert
School Board Chairperson: Ms Louw
School Management: Ms Makari & Ms Ndimbarukua



APPENDIX E: INTERVIEW QUESTIONS TO DIFFERENT STAKEHOLDERS

Interview Questions to Teachers

1. For how long have you been a teacher for deaf learners?
2. What was your personal interest in becoming a teacher for deaf learners?
3. Tell me about your educational background.

Guiding Questions only

- Where were you trained to become a teacher?
- What was your area of specialisation?
- Did your training include Deaf Education /
- Namibian Sign Language /
- Languages?
- 4. Have you received any means of in-service training from the school or the Ministry of Education in regards to Deaf Education / Namibian Sign Language? If yes,
 - What type of training?
 - How did this training help you with your teaching?

If no, why do you think this has not happened?

5. What method of teaching are you using in your classroom to teach your learners? For example are you using the Oral method, Total Communication method, or the Bilingual / Bicultural Education method? Elaborate on this.
6. Do you think the method you are using is successful? Why do you say so?
7. Against what grounds do you measure the success of the method you are using?

8. What procedures have been prescribed for teachers to follow in their teaching and communication with the learners?
9. What types of teaching and learning materials are you using in your lessons?
10. Do you get any support with teaching and learning materials from the Ministry of Education? Elaborate.
11. What type of support are you receiving from the parents of the learners?
12. How are the parents involved in the school programmes?
13. How are the Deaf community involved in the school programme?

Interview Questions to School Principal and Head of Department for the Lower primary phase

1. For how long have you been involved in Deaf Education?
2. What was your personal interest in becoming involved in Deaf Education?
3. What procedures have been prescribed for teachers to follow in their teaching and communication with the learners?
4. What method of teaching is being used in the classrooms? For example the Oral method, Total Communication method or the Bilingual / Bicultural method.
5. Do you think that the method of teaching you are currently using at the school is a successful method? Why / why not?
6. How is the success of this teaching method measured?
7. Does the school curriculum, syllabi and policies make any provision for the particular teaching method that you are using? Elaborate.
8. To what extent do you have learning materials available for the method of teaching approach that you are using at the school?
9. In which language do staff members address the learners?
10. Which language/languages do you use as medium of instruction at your school?

11. To what extent would you say are the staff at the school fluent in the following languages:
 - Sign Language?
 - English?
12. What qualifications are required from teachers to teach at the school?
13. How many deaf adults are working at the school?
14. What positions do these deaf adults hold at the school?
15. Does the school provide any means of in-service training to teachers /staff members based on Deaf Education? Elaborate.
16. Does the government provide any means of in-service training to teachers /staff members based on Deaf Education? Elaborate.
17. To what extent are parents involved in the education of their children.
18. What support is provided to parents of deaf learners?
19. To what extent does the school involve the Deaf community in its programmes.
20. Where do you see the school in ten years' time?

Interview Questions to Educational Officers and School Inspector

1. How have you become involved in Deaf Education?
2. For how long have you been involved in Deaf Education?
3. What procedures have been prescribed for teachers to follow in their teaching and communication with the learners?
4. What method of teaching is being used by the teachers at the school? For example the Oral method, Total Communication method or the Bilingual / Bicultural method
5. Do you think that this method of teaching is a successful method? Why / why not?
6. How is the success of this teaching method measured?
7. Does the school curriculum, syllabi and policies make any provision for the particular teaching method that are being used? Elaborate.

8. To what extent is there learning material available for the method of teaching that are being used at the school?
9. Does the government provide any means of in-service training to teachers /staff members based on Deaf Education? Elaborate.
10. What language is being used as medium of instruction at the school?
11. What qualification is required from teachers to teach at the school?
12. What support is provided to parents of deaf learners?
13. How are parents involved in the education of their children?
14. What part does the Deaf community play in the education of the deaf learners?
15. Where do you see the school in ten years' time?

APPENDIX F: OBSERVATION SHEET FOR CLASS VISITS

Class _____

Day/Time _____

Theme/Topic of lesson _____

Subject _____

Number of learners _____

Medium of instruction _____

Lesson Objectives

<p><u>Introduction of lesson</u> What technique is used to get learners' focus? Does it stimulate their interest? What media was used?</p>	
<p><u>Body of lesson</u> Are learners meaningfully involved? Does the activity relate to lesson objectives? Does the teacher give a class activity? How does the teacher monitor the activity? Do the learners understand the activity? What media was used?</p>	
<p><u>Conclusion of lesson</u> Does the activity effectively reinforce the content learnt? Does it allow for effective closure of the lesson? Does it assess learners' knowledge? Were the objectives of the lesson met? What media was used? Was homework catered for? Did any remedial teaching take place?</p>	
<p><u>General Commends</u> <u>What went well?</u></p> <p>_____</p> <p><u>What did not go so well?</u></p> <p>_____</p>	