

ADDIS ABABA UNIVERSITY COLLEGE
OF EDUCATION AND BEHAVIORAL STUDIES DEPARTMENT
OF SPECIAL NEEDS EDUCATION GRADUATE PROGRAM

EDUCATIONAL CHALLENGES AND OPPORTUNITIES OF DEAF
STUDENTS IN INCLUSIVE CLASSROOMS: THE CASE OF MENELIKI
II PREPARATORY SCHOOL

BY
TAMIRAT BALCHA

JUNE 2020
ADDIS ABABA

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**This thesis is submitted to the department of special needs education in partial
fulfillment of the requirement for MA degree in special needs education**

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Table of Contents

Acknowledgments.....	i
Table of Contents.....	ii
List of Tables	v
LIST OF ACRONYMS	vi
<i>Abstract</i>	vii
CHAPTER ONE.....	1
1. INTRODUCTION	1
1.1. Background of the study	1
1.2. Statement of the problem	4
1.3 Research Questions	6
1.3.1. General objectives of the study	6
1.3.2. Specific Objectives	6
1.4 Significance of the study.....	7
1.5 The Scope of the Study	7
1.6 Definition of Terms.....	7
CHAPTER TWO	9
2. REVIEW OF RELATED LITERATURE.....	9
2.1 Definitions and Concept of Deaf and hard of hearing	9
2.2 Sub- classification of hearing loss.....	10
2.3 History of Deaf Education in Ethiopia and over the world.....	11
2.3.1 Views of Deaf education in the world side.....	11
2.3.2 Views of Deaf Education in Ethiopia.....	12
2.4 Ethiopian sign language and its development.....	14
2.5 Definitions and Concept of Inclusive Education.....	15
2.5.1 Inclusive Education	15
2.5.2 Advantage and Disadvantage of Inclusive Education for Deaf learners	17

2.5.2.1 Advantage of inclusive education.....	17
2.5.2.2 Disadvantage of Inclusive education.....	18
2.6 Opportunities of Inclusive Education for Deaf students	18
2.6.1 Curriculum Adaptation.....	19
2.6.2 Develop Positive Attitudes	20
2.6.3 Friendships or social interaction Development	20
2.6.4. Development of self-confidence and academic benefits	21
2.7. Academic performance of Deaf learners in Inclusive school	22
2.8 Academic challenges of Deaf Learners.....	23
2.8.1 Insufficient support and limited attention of the teachers	24
2.8.2 Lack of accommodation and modification	25
2.8.3 Reading, Writing and Mathematics challenges of Deaf learners	26
2.9 Some factors affecting academic achievement of deaf learners	29
2.10 Inclusive Teaching Strategies for Students with hearing loss.....	30
CHAPTER THREE	32
3. METHOD	32
3.1. Research Design.....	32
3.2 Study Area.....	32
3.3 Participants of the Study	33
3.4 Sampling Techniques	34
3.5. Data collection tools.....	35
3.5.1. Primary data source	35
3.5.1.1. Interview	35
3.5.1.2. Focus Group Discussion (FGD)	36
3.5.1.3. Observation.....	36
3.6. Data Collection Procedure	36

3.7. Method of Data Analysis.....	37
3.8. Ethical Consideration	37
CHAPTER FOUR.....	38
4. FINDINGS	38
4.1. Educational Challenges of Deaf Learners in selected school	38
4.2. Challenges of Sign language Interpretation	41
4.3. Limited attention of the teachers and lack of teaching - learning materials	42
4.4. Writing, Reading and Vocabulary Skill of Deaf Students	44
4.5. Academic achievement of Deaf students	46
4.6. Opportunities that provided for the Deaf Learners in selected school.....	47
4.7. Resource center and Support service providing for the Deaf students	48
4.8. Social interaction and Education support b/n Deaf and hearing students	49
4.9. The Possible Solutions to Decrease the Educational Challenges of Deaf Students.....	50
CHAPTER FIVE	53
5. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS.....	53
Introduction.....	53
5.1 Discussion	53
5.1.1. Academic Achievement and challenges of Deaf students.....	53
5.1.2. Challenges of Sign Language Interpretation	54
5.1.3. Opportunities that provided for the Deaf Learners	55
5.1.4. Limited attention of the teachers and lack of teaching-learning materials.....	56
5.1.5. Social interaction and Education support b/n Deaf and hearing students	57
5.2. Conclusion.....	59
5.3. Recommendation.....	61
Reference	62
APPENDIX A.....	69

List of Tables

Table 1: Background of the participants.....	33
Table 2:Background information of the total Deaf students	34

LIST OF ACRONYMS

EthSL	Ethiopian Sign Language
ASL	American Sign Language
SNE	Special Needs Educational
MOE	Minister of Education
HOH	Hard of hearing
SL	Sign language
DB	Decibels
FDRE	Federal Democratic Republic of Ethiopia
WHO	World Health Organization
UNESCO	United Nations Education, Scientific and Culture Organization

Abstract

The main purpose of this study was to investigate and identify the educational challenges and opportunities of Deaf students in Menelik II Preparatory School Addis Ababa. In order to achieve the objective of the study, a total of 18 participants were involved in the study including 10 Deaf students (6 male and 4 female) from grade 11th and 12th, 2 sign language interpreters, 3 class teachers, 2 Special Need professional and a school principal. The study used semi-structured interview, Focus Group Discussion (FGD) and Observation as a data collecting too from the participants. The result of the study was described and analyzed qualitatively and guided by the main research questions. The main finding of this study identified that Deaf student are facing number of educational challenges and given very little opportunities. The study besides showed that lack of teachers' training, problem with sign interpreters and absence of property support are main educational challenges of Deaf students in the school. Each of the participants of the study suggested different of possible solutions for the challenges of Deaf students. The possible solutions includes that the school should hire well sign language trained interpreters, proficiency teachers and should provide support materials. The study also indicated that if Deaf students had property support from the teachers and if there were well sign language trained and fluent interpreters, they could done well on their exam and higher performance on their education.

CHAPTER ONE

1. INTRODUCTION

The purpose of this research is to investigate and identify the educational challenges and opportunities of Deaf student in Meneliki II preparatory school. This chapter is to orient the reader about a brief of background, the statement of the problem, research questions, Objective and significance of the study.

1.1. Background of the study

Basically, education is main necessity for all people which is recognized as a primary means for gaining independence, citizenship rights, appropriate employment, economic power and self-empowerment. Education is also a powerful instrument of social change and often initiates upward movement in the social structure. And it is informative in serving to a long lasting effect on the person's mind and ability. So, since 1948, the UN Universal Declaration on Human Rights, there has been legislations on providing education for all children and all countries in the world are working towards it (UNICEF, 2007). According to Ethiopia MoE (2012) reported that education is supposed to increase the respect of democratic values of equality and human right. It is fundamental human rights, and it can be seen as one of the main factors of reducing poverty, improving social and political development. Therefore, education is universally recognized fundamental human right as well as a national convention that should be accessible for all citizens.

However, the right of education is not being entertained by higher number of people because of different reasons among different society in the world. From many other factors, disability is one of constraints which holding back many people from education in collaboration with culture and religion misunderstanding and policy target gaps (Shiv.K, 2006). According to Ethiopia Ministry of Education (MoE 2012) also reported that the quality of education received by children with disabilities remained to be very low. This is mainly attributed to the inadequate training of teachers in special needs education, unfavorable school facilities and other issues. Student with hearing loss are the main groups which suffered from unqualified and less access to education.

In general of disabilities, hearing loss is also the key concern of this study. (Rafi, 2008) stated that hearing loss is one of the sensory impairment which is well recognized all over the world. Conceptually, hearing loss can be the partial or total loss of the ability to hear in one or both ears caused by damage to or malformation of one or more parts of the ear. According to Asrat, (2013) obviously, in all inclusive classroom, many Deaf students are facing challenges and they had a lower grade point average than their school mates. As mentioned above, the Ministry of Education (2012) stated that in Ethiopian, Deaf students suffered from unqualified education. Thus, this study main focused on identifying and investigating educational challenges and opportunities of Deaf students in Inclusive sexting.

According to Stainback & Stainback (1990) inclusive education is educating of all students in regular classes. It means appropriate educational programs for every student and everyone is accepted and supported. Inclusion assumes that students with disabilities can and should attend ordinary schools. The fundamental principle is that all children are to be together as much as possible". Therefore inclusion in the domain of education means students with disabilities who have special educational needs must spend most or all of their time with non-disabled students in the same classroom.

In integrated classroom, it was considered that schools should accommodate all children regardless of their physical, intellectual, emotional, social, linguistic or other conditions. The focus was on making education accessible for students with all kinds of disabilities, including students with hearing. To successfully implement of inclusion, school curriculum, teaching methods, organization and resources need to be adapted to ensure all learners successfully participate in the regular classrooms (Sentayehu, 2015) and (Asrat, 2013). (Tomlinson, 1996) also stated that inclusion is not just about placing students with disabilities in to mainstream classrooms. It recognizes that all children have individual needs, and that teachers who are trained to facilitate an inclusive classroom, can better meet the needs of all children including students with hearing loss. In inclusive classrooms, it was also revealed that teachers should use the latest techniques and materials for instruction when working with Deaf students. More emphasis should be laid on showing the practical things to students, so that they can easily understand the lesson (Adoyo, 2008). But less motivation among the teachers who teach Deaf students also becoming a great challenge. Many teachers did not show interest to update their

teaching method to use flexible curriculum in order to ease the learning of Deaf learners. Teachers are not willing to attend the training for they think that it is a burden in addition to their daily task. They are not motivated because they are not paid (Gezahegn, 2013).

And many Deaf students are facing challenges in integrated classroom even though there are improvements in some cases. Deaf students are not in a way to be competent with other hearing students and academic success is not equivalent to others. School curriculum, teaching methods, organization and resources related issues are not arranged in a way that it was supposed for integrated classroom. (Susanne et al, 2008). In our existing social context, children with hearing loss are facing numbers of problems regarding their academic, intellectual, linguistic, social and emotional development in inclusive schools. Children with even minimal hearing loss are at risk academically compared to their normal hearing peers. (Burli 2009, p. 28 and (Carrington & Robinson, 2006).

The challenge towards inclusive education could emanate from different directions such as attitudinal factors, resistance to change, rigid school systems and learning environment, lack of clear educational strategies, lack of instructional and learning materials and inadequate budget (Tirusew 1998). According to (Bailey Plessis, 1998) most of the educationists agree that for the implementation of inclusive education money, space, planning, time and smaller number of students in a class are important factors. (Alahmadi, 2010) also stated that it is necessary to consider the facilities and services available in the schools which need to be adapted to the needs of special need students. The design of the classroom requires special consideration to adjust for Deaf students. The teacher of inclusive classroom might make special demands for learners with hearing loss. Most of Deaf students require a specific teaching adjustment and curriculum adaptation while organizational environments of an inclusive classroom, careful attention is required to be paid to classroom space, design, location, lights and supportive material (Schmidt, Cagran, 2008)

Even though there are challenges implementing and practicing of inclusive education, there are some opportunities as well. The opportunities includes, in inclusive setting, student with hearing loss access to hearing students, access to curriculum and textbooks to which most other students are exposed (Disabilities in Ethiopia 2005). Deaf students develop mutual respect, positive

attitudes and benefit socialization opportunity with their hearing peers in inclusive setting (Gadagbui, 2010). (Haward, 1988) also noted that in inclusive classroom, most hearing impaired children are fully capable of developing positive relationship with hearing peers when a satisfactory method of communication can be used.

Menelik II preparatory school is Ethiopia's first modern school and was founded by the emperor menelik II in 1910. Currently it is an inclusive school that welcomes all students including Deaf students and educate within Sign Language Interpreter. The school have total of 48 Deaf students learning with hearing student, therefore the researcher made that school as a study site for the purpose of the study.

1.2. Statement of the problem

Even though there are many benefits of inclusive education for learners with hearing loss, there are also challenges as well. Learners with hearing loss experience problems when attending inclusive classrooms unless they receive proper help and support. In Ethiopia context, many factors continue affecting and regulating the development of integration strategy. A limited understanding and negative attitudes towards persons with disabilities and a hardened resistance to change are the major barrier impeding inclusive education. This piece explores the significance of attitudes, factors that might be affect teachers attitudes, teachers' role and training in an inclusive setting and challenges of inclusive education. Hence, teachers' attitude toward inclusion and hearing impaired students is a key problem for implementation of the program (Asrat, 2013).

A study by Moores (2009) revealed that the learners with hearing loss fall academically far behind their hearing peers in inclusive classrooms. And a study by (Shah and Blevins, 2005) revealed that children with hearing loss impacts what he/she hears. This in turn impacts both his perception and production of speech and language. High receptive and expressive language is a determinant to success in academics, since almost all academics are linguistically based. Vocabulary development, reading and writing are affected leading to limited understanding and problems with deciphering subtle inferences or deductions. (Walter, 2003) also revealed When children are unable to hear the language being spoken, they are also unable to learn its rules until special instruction is provided. The impact of this can be better appreciated when one considers

that the children with normal hearing will usually have acquired all the basic structure of that language that is a vocabulary of up to 700 words by the time they are three years.

Many Deaf learners in Ethiopia often uncomfortable with their teachers for their lack of communication skill in sign language and they believe that their low academic achievements resulted from their teacher's poor competence in communication and lack of commitment in teaching reported by Alemayehu (2003, p.96).

The learning processes of students with hearing impairment may be affected in the different ways. Students who have been deafened in early childhood are very different to students who have lost hearing later in life in terms of educational disadvantage. For example, their range of vocabulary may be limited which in turn may affect their reading ability. Deaf students tend to be visual learners - and this is difficult in an environment where much essential information is delivered exclusively by word of mouth Oyewumi (2008). Hearing impaired students may need to use assistive technology such as FM systems to participate in class.

According to NCF (2005) the unique characteristics, interests and attitudes of children and diversity in learning styles demand differential teaching methods to be used by a teacher in the classroom to facilitate learning. To ensure diversity, an inclusive curriculum is needed. Also emphasizes the need of inclusive curriculum keeping in view the diversity of learners. This calls for curricular adaptations. An inclusive adapted curriculum aims to provide quality education that will enable all children to learn effectively and participate equally in class. It also affords children the dignity and confidence to learn. It is essential to retain all children in school, for which assessment of functional ability of learners is essential. This calls for broad-based curriculum to accommodate diversity of teaching approaches and use of teaching and learning materials in a given classroom.

To be more clearly, this study focused on investigating and identifying the educational challenges and opportunities of Deaf learners in inclusive classroom in Menelik II preparatory schools with basic guiding of research questions.

1.3 Research Questions

1. What are the Educational Challenges of Deaf Students in Menelik II Preparatory School?
2. What are the Educational Opportunities that Deaf Learners are given in Menelik II Preparatory School?
3. What are the Successful Strategies that could be applied to remove the Educational Challenges of Deaf Student?

1.3. Objective of the Study

1.3.1. General objectives of the study

The general purpose of this study was to investigation and identifies the academic challenges and opportunities of Deaf students in Menelik II Preparatory School.

1.3.2. Specific Objectives

- To Investigate the Educational Challenges of Deaf Learners in Menelik II Preparatory School.
- To Identity the Opportunities that Provided for Deaf students in Menelik II Preparatory School.
- To Identity the Academic Achievement of Deaf Students in Menelik II Preparatory School.
- To know the perception of teachers towards Deaf learners in Menelik II Preparatory School.
- To Identity the difference between pre and post-lingual Deaf students on academic achievement in Menelik II Preparatory School.
- To find out the most successful strategies that decrease Educational challenges of Deaf and hard of hearing students in selected school.

1.4 Significance of the study

First the study considered to identify and assess educational challenges and opportunities of Deaf learners in Menelik II Preparatory School. And it considered suggesting the possible solution to address the academic challenges of Deaf learners. The findings of this study are believed to have the following significances:

- Considered to reduce the educational challenges of Deaf learners in Inclusive schools
- It helps to awareness about Deaf culture, their learning ways and Inclusive teaching approach for the teachers of Deaf students.
- Ensure the effective implementation of inclusion for Deaf students
- Expand the opportunities in inclusive schools, particularly for Deaf students.
- It will play an important role in creating of Deaf awareness in education institutions.
- It can be taken as an input for furthering larger research in the country.

1.5 The Scope of the Study

This study was focused on educational challenges and opportunities of Deaf students in Menelik II preparatory school Addis Ababa Ethiopia. It was limited on Deaf learners, special need professional, and School teacher, and sign language interpreters specifically to Deaf learners who enrolled in the school. Deaf students were targeted as a main study population in this study.

1.6 Definition of Terms

Education challenges: In this study it refers to the difficult situations that limit Deaf students' ability and potential to participate fully education program.

Challenges: In the context of this study, challenges refer to barriers that Deaf students encounter in their daily teaching and learning activities.

Opportunities: refers to the access or possibilities that are appropriate and suitable to Deaf students to fully participate in social life.

Academic achievement: is the extent to which a Deaf student has achieved their short or long-term educational goals.

Inclusive Education: In this study Inclusive Education referees learning style designed to in cooperate of all children in standardized program that secure the individual's education unique needs.

Deaf: Learners with hearing loss ranging from hard of hearing to complete deafness and are people whose primary language is sign language.

Sign Language: is a visual system of communication that can use a variation of sourced gesticulations and signs.

Post-lingual Deaf: refers to a deaf child that the impairment occurred after speech and language skills have been acquired ' adventitious' through the sense of hearing.

Pre-lingual Deaf: refers to a deaf child that the impairment was present at birth 'congenital' or occurred before the development of speech and language.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1 Definitions and Concept of Deaf and hard of hearing

The term Deaf and hard of hearing is used to describe individuals who have hearing defects ranging from a very slight loss to a total loss of hearing. Hearing loss affects a large percentage of the population and is indeed probably the single most prevalent chronic physical disability. Hearing could be impaired as a result of many different factors including heredity, disease and accident (WHO 2012).

A person who is not able to hear as well as someone with normal hearing – hearing thresholds of 25dB (decibels) or better in both ears is said to have hearing loss. Hearing loss may be mild, moderate, severe or profound. It can affect one ear or both ears, and leads to difficulty in hearing conversational speech or loud sounds (WHO, 2014).

According to Martin (1996) the most common categories of hearing impairment are mild hearing loss, moderate hearing loss, severe hearing loss and profound hearing loss. These categories are elaborated as follows.

Mild Hearing Loss on average, the quietest sounds that people can hear with their better ear are between 25 and 40 Db. People who suffer from mild hearing loss have some difficulties keeping up with conversations, especially in noisy surroundings.

Moderate Hearing Loss on average, the quietest sounds heard by people with their better ear are between 40 and 70 DB. People who suffer from moderate hearing loss have difficulty keeping up with conversations when not using a hearing aid.

Severe Hearing Loss on average, the quietest sounds heard by people with their better ear are between 70 and 95 DB. People who suffer from severe hearing loss will benefit from powerful hearing aids, but often they rely heavily on lip-reading even when they are using hearing aids. Some also use sign language.

Profound Hearing Loss on average, the most quiet sounds heard by people with their better ear are from 95 dB or more. People who suffer from profound hearing loss are very hard of hearing and rely mostly on lip-reading, and/or sign language.

Hearing impairment affects developmental areas in children such as: language, speech, intelligence, educational achievement and psychological development. The needs of the hearing impaired should therefore be considered when preparing a curriculum. The major difficulties the Hearing Impaired children experienced were language development. This is an important area since difficulties in it affects other areas of hearing since language is crucial in learning all subjects of the school curriculum (Ndurumo 1993).

2.2 Sub- classification of hearing loss

According to WHO (2014) indicated that hearing loss can be sub-classified in to two Hard of hearing and Deaf. Harding of hearing refers to people with hearing loss ranging from mild to severe. They usually communicate through spoken language and can benefit from hearing aids, captioning and assistive listening devices People with more significant hearing losses may benefit from cochlear implants. ‘Deaf’ are people mostly have profound hearing loss, which implies very little or no hearing. They often use sign language for communication and the loss is usually above 70Db.

In the Ethiopian context, ‘hearing impairment’ as indicated by Tirussew (1998) that there is no any document which could be of some help to understand the terms both “ Deaf” and ‘hard-of hearing’, it is rather described in a single term consisting negative connotation such as idiots which means persons who cannot be educated or do not at all understand. further noted that such an erroneous understanding of the hearing –impaired is evident by the widely used Amharic term “ donkoro” as described in the Amharic Dictionary, an individual whose hearing organ does not function at all, mentally handicapped, and a person who blocked the ability to understand any language.

2.3 History of Deaf Education in Ethiopia and over the world

2.3.1 Views of Deaf education in the world side

Charles Michel Abbe de l'Epee (1755) established first free school for the deaf in the world, the royal Institution of Deaf in Paris, France. He supported the school at his own expense until his death and later, the government began to support the school. His successor was the Abbe Roch Concurrou Sicard (1742-1822). It was Sicard who brought Laurent Clerc and Jean Massieu to London where they met Thomas Hopkins Gallaudet.

In the U.S, not much is known about deaf education and deaf history before the 1800s; although it is clear that both deaf and hearing people used sign language. In fact, sign language was used in many parts of North America Davis & McKay-Cody (2010). Accounts indicate that sign language was employed as a lingua franca (or contact language) in order to facilitate cross-cultural communication among at least 40 indigenous nations all of which spoke different languages.

In 1817, the American Asylum for the Deaf and Dumb (later named American School for the Deaf) was established in Hartford, Connecticut, by two men who became America's earliest and most influential educators of the Deaf: Thomas Hopkins Gallaudet, a hearing minister, and Laurent Clerc, an intellectual Deaf leader in France and father of American Deaf education. American Sign Language was created from Clerc's French sign language which was modified and also by signed communication brought to the school by Deaf students. This eventually became American Sign Language (ASL). Deaf students at this school were taught in ASL and became equally as literate as their hearing peers. With teachers being fluent signers and teaching with ASL, literacy skills of their Deaf students was impressive stated by Shapiro (1994).

The next generation of Deaf students then went on to become teachers and principals at schools for the Deaf. Over the years, this school served as the "Mother School" in providing a model educational program. Hundreds of these Deaf students went forth to become teachers to educate and to establish numerous schools for the Deaf all over the country, which spread sign language, and went on to, found Gallaudet University in Washington, D.C in 1864 reported by Gannon, (1981) and Shapiro (1994).

During the early 1800s, more schools for the deaf opened across North America; thus ushering in a golden era of deaf education. Deaf children completed primary schools that employed a signed-based pedagogy as the vehicle for instructing students in the curriculum. In 1837, the sisters of St. Joseph came from France and established the first school for the deaf west of the Mississippi in St. Louis, Missouri. Some places in the U.S. (Hartford and New York) and Europe (Paris) established secondary schools in order to allow academically inclined deaf students an avenue to continue their education and become teachers of the deaf themselves. Later in 1864, Edward M. Gallaudet-Thomas Gallaudet's son established a tertiary institute of higher education for the deaf now known as Gallaudet University stated by Lane & Philip (1984).

2.3.2 Views of Deaf Education in Ethiopia

The first modern public school in Ethiopia was opened in Addis Ababa in 1910 by Emperor Menelik II since Ethiopia did not have educated nationals of her own; she had to depend on foreign personnel. In Ethiopia, for a long time teaching had been associated with religion and the teachers were mostly priests. They used to teach the Amharic script orally and then the reading of the Gospel and religious books in the Geez language, which is still the official language of the Ethiopian Orthodox Church. Writing was not highly esteemed because it was meant for people who sit down and copy the Bible on sheepskin which was used by church scribes. As a result, there were many people who could read but were unable to write (Mulugeta Eteffa, 1971)

Muluget Eteffa also mentioned that: to expand secular education in Ethiopia, Emperor Menelik went to the extent of preparing legislation to make school attendance "compulsory for all boys over 12 years old." Emperor did not include girls because he did not believe in education of women. After the death of Emperor Menelik in 1913, the second public school in Addis Ababa was not opened until 1925. The church schools were encouraged by the regent (the present Emperor Haile Selassie) to expand and improve their instruction so that what they taught was relevant to the situation of the time. After 1925 more schools were opened in Addis Ababa and in the provinces.

To be more specific, some of the schools for the Deaf were established by missionaries. The first school for the Deaf students in Ethiopia was established in 1961 E.C by Mekane Yesus Church believers, called Mekanissa School for the Deaf. It teaches from preschool to grade 8 and is an

inclusion and non-government school. Then the other school called Alpha Special School for the Deaf was established in 1970 E.C by the American missionaries around Bole area. It is now a government-run school for the Deaf that teaches from preschool to Grade 8. The next Hosanna School for the Deaf was established in 1974 which is a boarding school for Deaf children in Ethiopia. The students are from all over the country. Students and teachers use sign language to communicate. Currently the classes start at Kindergarten and run through grade 12. The missionaries brought with them the language which was used in their own country. The schools taught either in sign language or oral language. In addition, the schools were not established with the idea of making the Deaf children literate citizens who can participate as equal citizen in the work life of the society. The aim was rather to teach them Bible (Eyasu Hailu, 2008).

Ethiopian Deaf education is constrained by many factors. Among others is the lack of the development of the Sign Language. Lack of proficient (or nearly the total absence) sign language teachers is another constraint. There are only few deaf people employed at the deaf schools in Addis Ababa without any training in the teaching profession. Only hearing people were trained as teachers of the Deaf. These hearing teachers lack proficiency in Sign Language and tend to promote oral or their spoken languages. Due to these facts, the Ethiopian Deaf students are denied strong role models in their education. The deaf students were, therefore, subjected to the wishes of their hearing teachers and professionals. The other one is the problem of getting qualified sign language interpreters who are familiar with the ethics and conduct of behavior in Sign language interpreting Eyasu Hailu (2008).

According to Alemayehu (2007) the practices in the country also show the increasing recognition of special needs of Deaf learners. The number of schools for the Deaf which use sign language was not more than 10 before the year 2000. By the year 2007, there were about 87 primary schools that have special classes (units) for Deaf student up to grade four and 14 specialized Deaf schools all over Ethiopia. The teachers training colleges in each region also train teachers in EthSL in their departments of special needs education. Sign language is incorporated in the programs as part of a course.

According to Minister of Education (2007), currently there are many special classes, boarding schools, special schools and inclusive schools in Ethiopia. The total schools are more than 100

schools with 22 schools in Amhara, 4 in Tigray, 40 in Oromiya, 1 in Somaliya, 2 in Benshangul Gumuz, 1 in Gambella, 19 in South Ethiopia, 9 in Addis Ababa, 1 in Harari, and 2 in Dire Dawa.

2.4 Ethiopian sign language and its development

Krausneker (2008) stated that sign language is a natural language for many deaf and hard of hearing people. It has its own structure, grammar and rules. Although Deaf children face extraordinary challenges in learning a spoken language, they can easily learn sign language with exposure. In many countries, sign languages have got the status of first language for the Deaf.

Eyasu Hailu (2016) mentioned that sign language use is described in terms of two basic components: the participants' sign language skill and a domain analysis of sign language use. The language skill of the Deaf participants is influenced primarily by the simultaneous use of both signed and spoken language when communicating with family members or other interlocutors. Up to 90 percent of Ethiopian Deaf community's members learn sign language at school and Deaf clubs because their parents are hearing and unable to teach their Deaf children sign language at home.

Ethiopian Sign Language (EthSL) is a language of the Deaf Ethiopian in the geographical boarder of Ethiopia. The first method of communication for the Deaf in Ethiopia was indigenous sign language then American manual system came later after the establishment of the Mekanisa Deaf School, which was a combined method of Amharic signs and speech.

Ethiopian National Association of the Deaf (ENAD) (2008) pointed out that, In Ethiopia, sign language begun to be used formally after 1960s in connection with the appearance of American and Nordic missionaries who opened in Addis Ababa schools for Students who are Deaf. This school was the first to begin sign language in education Abeba (1996).

Eyasu Hailu (2016) mentioned that: more than eighty spoken languages are used in Ethiopia. Some are major languages with more than million users; they serve as media of instruction and have the status of official and/ or prestigious language. By contrast, others are linguistically minor, confined to restricted domains, and thus are less prestigious language. Ethiopia sign language is one of the under-researched languages of Ethiopia although it is used by more than a

million members of Deaf community. Not much is known about the language, particularly its use and current status.

Eyasu Hailu also stated that: it is believed that the Ethiopian Sign Language (EthSL) has its origin in the indigenous signs along with the American Sign Language (ASL) with some influence from the Nordic countries. The arrival of ASL in Ethiopia coincided with the advent of Deaf education, and the ongoing contact between EthSL and ASL has precipitated a number of changes in EthSL. The Ethiopian manual Alphabet (EMA) is modeled on the Ethiopic script, which comprises thirty-four hand shapes representing the consonants; there seven form of vowels, each of which is distinguished by moving the consonants differently.

According to a report on a pilot survey conducted by SIL Ethiopia (2005), a comparison was done between 249 signs that are published in American and Ethiopian books. Out of this number 25% of the signs from the ASL that was brought over have been modified to suit Ethiopian culture. This shows that the two languages are closely related languages than other sign languages.

2.5 Definitions and Concept of Inclusive Education

2.5.1 Inclusive Education

There is much difference of opinion as regards what is meant by Inclusion. For instance, According to UNESCO (2005) Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners. As an overall principle, it should guide all education policies and practices, starting from the fact that education is a basic human right and the foundation for a more just and equal society.

According to T. Booth (1996) inclusive education is a “process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education”

The UNESCO, (2000), states “Inclusive education means that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children, children from

remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalized areas or groups.

According to Stainback & Stainback (1990) inclusive education is educating of all students in regular classes. It means appropriate educational programs for every student. It means everyone is accepted and supported. Inclusion assumes that students with disabilities can and should attend ordinary schools. The fundamental principle is that all children are to be together as much as possible". Therefore inclusion in the domain of education means students with disabilities who have special educational needs must spend most or all of their time with non-disabled students in the same classroom. However such inclusion is to be practiced keeping in mind the nature of disability.

According to Balescut J and Eklindh K The main idea behind inclusion is to rethink and restructure policies, curricula, cultures and practices in schools and educational institution so that diverse learning needs can be met of students with diverse abilities and needs. The important considerations of Inclusive Education are that:

- All students whatever their abilities can learn and benefit from education.
- Schools can and should adapt to the needs of students, rather than students adapting to the needs of the school.
- Differences between students are not obstacles but are a source of richness and diversity.
- The different needs and pace of development of students with differing abilities can be met through a wide and flexible range of responses which are to the benefit of all the students including those with disabilities.

Hence the concept of Inclusion is a philosophy that calls for including all in a single setup and encourages adoption of an educational approach which provides all students equal and non-discriminatory membership of the society and also accords greater opportunities for academic and social achievement.

Inclusive education is therefore a process of removing barriers to the education of the disabled and enabling all students with all kinds of abilities and needs to get education within general

school systems. Inclusive education, therefore tries to satisfy the learning needs of all children, youth and adults and especially those who suffer from disabilities and who are often excluded. It tries to accommodate in the mainstream of education all those who are vulnerable, marginalized and exclusion. Inclusive education means educating all students with or without disabilities together through easy and one-discriminatory access to common pre-school provisions, schools and community educational setting but with proper support services and facilities and infrastructure. It thus calls for a flexible education system which accepts, accommodates and assimilates the needs of a wide range of learners and adapts itself to meet the differing needs. Inclusive education tries to help all the stakeholders in the system made up of learners, parents, community, teachers, administrators, policy makers) to accept diversity of students' abilities at learning and see it as a challenge to impart education to all including the students with disabilities and not to see education of all students carried out together in a same setting as a problem UNESCO (2000).

2.5.2 Advantage and Disadvantage of Inclusive Education for Deaf learners

2.5.2.1 Advantage of inclusive Education

The advantages of Inclusive Education for Deaf students are very noticeable. Deaf students who have been included in regular classrooms have shown stronger academic results when compared to those who have been educated in separate classrooms. This increased performance could be attributed to interaction with higher achieving students and the enjoyment of working with peers and being included in a normal setting. If students no longer feel excluded, and are seen as equals to their peers, there will be fewer barriers to their education and they will be free to expand their knowledge (Tapasak & Walther-Thomas, 1999).

Tapasak & Walther-Thomas also stated that: there are many benefits common to both hearing impaired and non-impaired students. Students with disabilities and their peers typically feel good about their performance in inclusive classrooms. This could be attributed to the development of valuable communication skills, problem solving skills, and both individual and group work skills. The methods used to teach children with special needs greatly benefit the education of all children. Furthermore, teachers participating in Inclusive Education programs often receive

additional training, including exposure overseas. All children benefit from better educated teachers.

2.5.2.2 Disadvantage of Inclusive

Even though there are many advantage of inclusive education for Deaf and hard of hearing students, there are also disadvantage as well. Deaf and hard of hearing students experience problems when attending inclusive school unless they receive proper help and support. They may not become properly integrated, and they tend to keep in the background as they try to avoid standing out from their classmates. In Ethiopia context, many factors continue affecting and regulating the development of integration strategy. A limited understanding of the concept disability, negative attitudes towards persons with disabilities and a hardened resistance to change are the major barrier impeding inclusive education. This piece explores the significance of attitudes, factors that might be affect teachers attitudes, teachers' role and training in an inclusive setting and challenges of inclusive education. Hence, teachers' attitude toward inclusion and hearing impaired students is a key problem for implementation of the program (Asrat, 2013).

In addition, Asrat stated that teachers training programmers, adapted curriculum, teachers' attitudes, materials and equipment provision and financial sources are among the frontiers of challenge in the implementation of inclusive education. As way forward, the shift of thinking from an unnatural segregated setting toward inclusive education must be given the due attention it deserves if inclusive education is to be favored and practiced as educational modality.

2.6 Opportunities of Inclusive Education for Deaf students

Even though there are many challenges of implementing and practicing inclusive education, there are opportunities as well. Educating children with disabilities in the various schools is an advantage for everyone (Mihai, 2017). This chapter will discuss some of these opportunities of inclusive education.

Disabilities in Ethiopia (2005) stated that: Inclusive educative provides students with disabilities access to students without disabilities access to curriculum and textbooks to which most other students are exposed. It developed out of a strong belief in human rights and social justice, it

perceive separate special education as dehumanizing, labeling, ineffective and expensive. Generally, some of the opportunities of inclusive education for Deaf students in Ethiopia include:

2.6.1 Curriculum Adaptation

According to NCF (2005) the unique characteristics, interests and attitudes of children and diversity in learning styles demand differential teaching methods to be used by a teacher in the classroom to facilitate learning. To ensure diversity, an inclusive curriculum is needed.

NCF (2005) also emphasizes the need of inclusive curriculum keeping in view the diversity of learners. This calls for curricular adaptations. An inclusive adapted curriculum aims to provide quality education that will enable all children to learn effectively and participate equally in class. It also affords children the dignity and confidence to learn. As per it is essential to retain all children in school, for which assessment of functional ability of learners is essential. This calls for broad-based curriculum to accommodate diversity of teaching approaches and use of teaching and learning materials in a given classroom.

The following NCF based guidelines will help guide the teacher while developing an inclusive curriculum for all children. The curriculum must:

- Facilitate learning in an inclusive learning environment with accessible material, positive attitude and relevant/adaptive teaching strategies.
- Include all children with and without special needs by providing differential opportunities to demonstrate learnt skills according to their learning abilities;
- Include locally available conditions/opportunities/situations to develop prevocational and vocational competencies;
- Ensure participation of children with special needs in play, games, social and cultural activities to improve the physical and mental health by developing appropriate adaptations;
- Ensure equal access in every possible manner (physical, attitudinal, academic and social) to maximize learning;
- Facilitate learning in an inclusive learning environment with accessible material, positive attitude and relevant/adaptive teaching strategies;

2.6.2 Develop Positive Attitudes

Inclusive education puts both non-disabled and disabled children in the same school and classroom with teaching approaches that benefit all of them. The environment is free and safe. There are facilities to accommodate all children and this encourages everyone to develop positive attitudes towards disabled children. When teachers are educated, trained, and supported in inclusive practice, it helps to develop positive attitude and behavior towards disabled children. This encourages teachers to teach and train their students to do the same (Alhassan, 2014).

Gadagbui (2010) added that as children are encouraged to respect each other, they play, work, study and help one another when one is in a difficult situation or does not understand the subject being taught in the class. It brings about collaborative learning as they study together. This makes children with disabilities feel accepted by their peers and encourages children to stand up for one another to prevent any discrimination among them. They develop mutual respect. Moreover, families and society develop positive attitudes as well when they have knowledge about inclusive education. It promotes a union between the school and parents, making teachers and parents help each other in helping disabled children within schools. This encourages parents who want to withdraw their children from schools to reconsider their choices.

As argued by Slee (2011) everyone should be able to understand the importance of inclusive education which leads people to embrace and support all children with disabilities in the schools and communities. As the children are supported and encouraged, it brings them closer to people which helps us all to develop a positive attitude and good behavior towards them and this leads them to participate in the society as well. Inclusive education leads people to develop positive attitudes towards disabilities.

2.6.3 Friendships or social interaction Development

A key aspect of development for every child whether Deaf or hearing, is the ability to interact socially. Social interactions and friendships in childhood are associated with a wide range of factors related to psychological well-being and can be considered protective factors against life stressors and developmental challenges, such as those faced by deaf children. Having close positive peer relationships is associated with increased self-esteem reported by Bishop & Inderbitzen (1995).

In inclusive classroom, a social constrictive of learning and teaching that requires students in the classroom to interact with one another and the teacher may best promote learning and consistent with a focus on membership. For young children, building relationships with peers is at the core of development, requiring the skills and knowledge necessary for interacting positively and successfully with peers Kemple & Ellis, (2005).

Haward and Orlansky (1988) also noted that most Deaf people are fully capable of developing positive relationship with hearing peers when a satisfactory method of communication can be used. Bunch, (1994) also indicated that deaf students have a better social skills and academic performances in inclusive classroom settings. Thus, studies have reported satisfactory out comes for academic progress and social development of deaf students including positive attitudes towards and acceptance of deaf students in their hearing peers.

2.6.4. Development of self-confidence and academic benefits

According to AlShahrani's (2014) being in inclusive school helps Deaf learners to gain more self-confidence when they are among hearing learners who also allow them to become more independent and not too dependent on the teachers. This finding is in line with that of Gupta (2014) who indicated that higher expectations ultimately lead Deaf learners to achieve more, gain confidence and independence, and develop a stronger sense of self.

Kiriungietal (2014) conducted a study that investigated the assessment of public primary school teachers' attitude towards inclusion of learners with hearing impairments. Their findings revealed that if learners with hearing impairment are taught together with learners without impairments, they are likely going to perform better. The findings further stated that interactions with hearing learners would help learners with hearing impairments improve their academic performance and, in the end, they may develop confidence in their own academic ability.

Bashier (2005) states that learners with hearing impairments who have been included in inclusive classrooms have shown stronger academic results when compared to those who have been educated in separate classrooms. This increased performance could be attributed to interaction with higher achieving hearing learners and the enjoyment of working with peers and being

included in a normal setting. Furthermore, Inclusion also helps learners with hearing impairments to master new skills and it encourages them to strive for great achievements.

2.7. Academic performance of Deaf learners in Inclusive school

Heward (2009) remarked that research on the academic achievement of students with special needs including children with Deafness in inclusive settings indicated mixed results. For instance, some investigations reported better learning outcomes for Deaf students in inclusive regular classrooms than in pull-out programs. On the contrary, other studies reported disappointing performance results.

There are many reports showing that the academic performance of deaf children and adults often lag behind that of their hearing counterparts (Lang, 2003). One must not, however equate academic performance with intelligence. Most children who are deaf have normal intellectual capacity and it has been repeatedly demonstrated that their scores on non-verbal intelligence tests are approximately the same as those of the general population. Deafness imposes no limitations on the cognitive capabilities of individuals (Moore, 1987).

The problems that students who are deaf often experience in academic and adjustment may be largely attributed to a bad fit between their perceptual abilities and the demands of spoken and written English. Command of English is only one indicator of a person's intelligence and ability. Children with deafness, even those with superior intelligence and abilities are at a great disadvantage in acquiring language skills reported by Hoemann & Briga (1981).

Norris (1975) pointed out that the grammar and structure of English in the hearing impaired often do not follow logical rules and a person with congenital hearing impairment must exert a great deal of effort to read and write with acceptable form and meaning. For example, if the past tense of 'talk' is 'talked', why is the past tense of 'go' not 'good'? If the plural of 'man' is 'men', then should not the plural of 'pan' be 'pen'? When standard measures of reading and writing achievement are used with students who are deaf, examiners typically find that the students' vocabularies are smaller and their sentence structures are simpler and more rigid than those of hearing children of the same age or grade level.

Many students who are deaf tend to write sentences that are short, incomplete or improperly arranged. They may omit endings of words, such as the plural-s, -ed, or – ing. They may even have difficulty in differentiating questions from statement. And it has been well established that children with significant hearing losses lag behind hearing children on Mathematics achievement tests by roughly three years, despite displaying normal intelligence quotients. This is important to note since those with deafness like their hearing counterparts need a good knowledge of Mathematics, and they need all that it demands to learn it since is an integral part of the totality of man (Traxler, 2000).

Numbers and number operations such as addition, subtraction, multiplication and division are part of everyday life. For example, man has to know time in order to keep appointments and organize the day's activities. Also, the knowledge of monetary value is highly essential for buying and selling. However, considering the characteristics and problems exhibited by students with deafness, a lot of problems arise concerning the teaching of Mathematics. These problems often account for the lagging behind of children with hearing loss (Olubela, 2003).

2.8 Academic challenges of Deaf Learners

Children with hearing loss have difficulty with many areas of academic achievement, especially reading and mathematical concepts. The gap in academic achievement between children with hearing and those with hearing loss usually widens as they progress through school. The level of achievement is related to parental involvement and the quantity, quality, and timing of the support services children receive (John and Sylod, 2013).

Deaf children's significantly delayed language development, in sign or speech, leads to poor reading achievement; on average it is lower than literate levels. However, many deaf children read as well as their normally hearing peers; successful reading achievement can be based on either successful spoken language development or successful sign language development. Deaf children's incomplete language development also delays their ability to understand the motivations and actions of other people (Carrington and Robinson, 2006).

In addition, children who are born deaf frequently experience severely delayed and impoverished language development regardless of mode of expression, that is, spoken language or sign

language. The delayed and depressed language development of deaf children, as a group, is not caused by, and does not cause, general intellectual deficiencies in cognitive domains that function independent of language. In general, hearing loss affects social experiences, which threatens deaf early adolescents' well-being in school along with their academic progress (Flem et al, 2004).

In the researchers opinion, there could be many reasons why these barriers exist, such as: lack of support; lack of awareness of the modification and accommodation needs of these students; the 'invisibility' and uniqueness of their hearing loss and thus complex support needs; teaching staff ignoring calls to attend disability-related, professional development courses; attitudinal barriers of faculty members; and lack of financial and human resources. The subsequent barriers, as reported by Howell (2006).

2.8.1 Insufficient support and limited attention of the teachers

The influence of teacher attitudes emanates from the fact that the individual classroom teacher remains the most effective variable to influence the performance of students. The inclusion of children with hearing impairment does not depend solely on whether the child is severely or profoundly deaf, or the level of intelligence or the ability to lip read, language development, or availability of resources but also on teachers' attitudes (Booth and Ainscow, 2002).

In inclusive classrooms, it was revealed that teachers should use the latest techniques and materials for instruction when working with Deaf learners. More emphasis should be laid on showing the practical things to students, so that they can easily understand the lesson (Adoyo, 2008). But less motivation among teachers who teach Deaf students also becoming a great challenge. Many teachers did not show interest to update their teaching method to use flexible curriculum in order to ease the learning of Deaf learners. Teachers are not willing to attend the training for they think that it is a burden in addition to their daily task. They are not motivated because they are not paid (Gezahegn, 2013).

Sacks (2001) reports of a study which revealed that the regular teachers were least prepared for inclusive education of children with disabilities. The teachers had little training in dealing with individual differences and specific instructional processes developed for special needs students.

The roles and responsibilities of regular education teachers were never clearly defined in this process. These teachers and their regular education students were not prepared for the inclusion of children with hearing loss.

According to Chimedza and Peterson (2001) to avoid harm to the academic education of students with hearing loss in regular secondary schools full panoply of services and resources is required. These include adequate supports and services for the student, well designed educational programmer, professional development for all teachers' involved, general and special educators alike and reduced class size based on the severity of the students' needs. In addition there is need for professional skill development in the area of cooperative learning, peer tutoring and adaptive curriculum, collaboration between parents, teachers and administrators. There is need to provide sufficient funding so that schools would be able to develop programmer for students based on student need instead of the availability of funding.

2.8.2 Lack of accommodation and modification

As far as children with hearing loss are concerned they are facing a number of problems regarding their academic, intellectual, linguistic, social and emotional development in inclusive schools. Inclusion requires support and assistance to enable children with special needs to perform like non-disabled classmates. Inclusion is the unconditional participation of all children in the educational system, which has to be changed dramatically in order to be able to meet the needs of all children in one school for all (Burli, 2009, p. 28).

There are a number of curricular problems regarding curriculum adaptation and modification to meet the unique needs of students with hearing impairment. In the same way, sign language interpreters and teachers in inclusive classroom have to face the problem of interpreting certain concepts and, as a result, the students with hearing impairment fall academically far behind their hearing peers (Moores, 1996).

According to Bailey Plessis (1998), most of the educationists agree that for the implementation of inclusive education money, space, planning, time and smaller number of students in a class are important factors. The communication problems of children with hearing impairment are the main hurdle in implementing inclusive education.

In inclusive education, it was considered that schools should accommodate and modification all children regardless of their physical, intellectual, emotional, social, linguistic or other conditions. The focus was on making education accessible for students with all kinds of disabilities, including students with hearing loss (Sintayehu, 2015). This integration as a government reform strategy intended to include students with different kind of disabilities in mainstream regular schools. To successfully implement it, school curriculum, teaching methods, organization and resources need to be adapted to ensure that all learners, irrespective of their ability, can successfully participate in the regular classrooms (Asrat, 2013).

2.8.3 Reading, Writing and Mathematics challenges of Deaf learners

2.8.3.1 Reading challenges

Literacy is fundamental to a child's educational progress. Students without well-developed literacy skills find it difficult to participate in the classroom learning. Besides the language reading textbooks, the content knowledge of school subjects such as science or social science is also acquired and expressed through reading and writing. Consequently, students who struggle to read and write are much more likely than their better performing peers to experience failures in school. Why is reading difficult for some children? Reading is a language based activity that requires a good understanding of language. As discussed earlier in this module, hearing impairment at a young age severely affects language development; children with severe and profound hearing loss may find reading difficult (Luckner et al 2005)

Compares reading problems of hearing children to those with hearing impairments: "Hearing children learn to map the spoken language they already know to the printed words, but this is difficult to those with hearing loss as they do not have an easy access to the phonological code." "Unlike their hearing peers, who learn to read and write in a language they already know, many students who are hearing impaired learn to read and write while simultaneously learning their first language". Additionally, if they are sign language users, the signs have their own vocabularies, morphologies, and syntax, which do not parallel those of spoken or printed English. Thus, a vicious circle is created: impoverished vocabularies limit reading comprehension, and poor reading strategies and skills limit students' ability to acquire adequate vocabulary knowledge from context (Marschark and Harris, 1996).

Hence, students with hearing loss do not always develop the independent reading strategies such as, self-questioning, activating prior knowledge, summarizing the main idea, constructing representational images, predicting what text will follow, or drawing inferences (Andrews and Mason, 1991 and Strassman, 1992).

Reading could be developed, and needs to be taught to the children who are hearing loss. Therefore, to be an effective reader, individuals need to be active, self-regulated, and need to be armed with a variety of strategies to help them understand what they are reading. Regrettably, many students who are deaf at a young age continue to struggle with lower-level skills, such as recognition of words, syntactic parsing, and understanding vocabulary (Snow, 2002).

2.8.3. 2. Writing challenges

The act of writing is a cognitive process that involves comprehension of ideas, expressive language, and mechanical skills Writing incorporates both cognitive and motor capabilities occurring simultaneously (Dorn, Soffos, 2001). According to Gunning (2008), writing evolves from pre-speech gestures children make and from the language they hear and later use.

According to Giddens (2009) using Gunning's idea that writing develops from language children hear and use, it would make sense that children who have incomplete access to a language would therefore have problems in the development of written language. Children who have hearing loss have differing access to sound, which depends on many different factors. Since the access to sound is some way impaired, then access to spoken language would also be affected to some degree. As access to spoken language is impeded so the development of written language is also impacted in some way. Most children with hearing impairment would have the basic mechanical skills of writing skills that include scribbling and drawing. Tracing and copying would also not be an issue; however activities such as dictation or creative and independent writing always poses a challenge to them.

Norris (1975) pointed out that the grammar and structure of English in the hearing impaired often do not follow logical rules and a person with congenital hearing impairment must exert a great deal of effort to read and write with acceptable form and meaning. For example, if the past tense of 'talk' is 'talked', why is the past tense of 'go' not 'goed'? If the plural of 'man' is 'men',

then should not the plural of 'pan' be 'pen'? When standard measures of reading and writing achievement are used with students who are deaf, examiners typically find that the students' vocabularies are smaller and their sentence structures are simpler and more rigid than those of hearing children of the same age or grade level (Meadow, 1980). For the developing and accessing the writing skills, the following could be used:

- Completing the word with prompts and gradually reducing prompts with picture alongside.
- Creating a word wall with common sight words that children need to use in writing.
- Integrate writing activities with all other subjects including drawing or painting.
- Have students draw anything they want and write a sentence or words describing the picture. Do not focus on capitalization or punctuation or grammar until later in the year.
- Use guided writing strategies such as experienced based words, lines and paragraphs for e.g. after a birthday celebration in the class prepare worksheets based on it and ask the students to write missing letters, words, sentences for pictures based on the celebration

2.8.3.3 Mathematical challenges

According to Bishop (1999) shown that the importance of the idea of situated cognition which describes the fact that when you learn anything you learn it in a certain situation. Thus for learning to become meaningful, the learner has to actively participate in the formation of mathematical concepts. They should not passively receive knowledge from an authority but should be involved in the construction of knowledge. Thus cognitive neuroscience as well as rich environment plays a very important role in learning mathematics.

(Nunes & Moreno, 1998) have argued that hearing loss cannot be treated as a cause of difficulties in mathematics but as a risk factor. Several findings in the literature suggest that hearing loss is not a direct cause of difficulties in mathematics. First, not all deaf pupils are weaker in mathematics than their hearing counterparts: approximately 15% of the profoundly deaf pupils perform at average or above average levels in standardized tests.

If hearing loss were a direct cause of difficulties in mathematics, there should be no deaf pupils displaying achievements adequate for their age level. Some of Deaf pupils feel difficulties in

learning mathematic because they have fewer opportunities for incidental learning as a consequence of their hearing loss. In order to promote the development of Deaf pupils in mathematics, the teachers must be prepared basic materials relevant to the teaching of each of the key concepts and discussed each set of materials with them (Wood, and Howarth, 1983).

2.9 Some factors affecting academic achievement of deaf learners

Apart from the obvious effects of the degree, type and quality of instruction, five variables appear to be closely correlated with the academic achievement of students with hearing impairment (Moore 1985 and Paul & Quigley 1990).

- The severity of hearing impairment – The greater the hearing loss, the more likely the child will experience difficulty in learning language and academic skills.
- The age of onset of hearing loss – A child who loses his hearing before acquiring speech and language (usually before age 2) is at a much greater disadvantage than a child with a post lingual hearing impairment.
- Intelligence test scores – As with children with normal hearing, higher scores on standardized tests of intelligence are correlated with greater amounts of academic success.
- Socio-economic status of the family – A child with hearing impairment whose parents are affluent and college educated is more likely to achieve academic success than a child with hearing impairment from a low-income and less educated family.
- The hearing status of the parents – A child with deafness from parents with deafness is considered to have better chances for academic success than a deaf child born by hearing parents, particularly if the parents are highly educated.

Several studies have suggested that one of the most potent predictors of educational success for the students with deafness is the amount of personalized attention he receives. This relation was first noticed in Spain during 1600s and 1700s, when children had to be literate in order to inherit the wealth of their parents. Parents of children with deafness engaged private tutors to teach their heirs how to read and write and pursuits in other areas followed. Similarly, studies in the United States over the last 20 years have shown the benefits of intensive, one-on-one education for the

students with deafness. Such environments, with qualified and high-quality teachers, allow the optimal match between a student's skills and needs and his exposure to new material.

2.10 Inclusive Teaching Strategies for Students with hearing loss

There is a range of inclusive teaching strategies that can assist all students to learn but there are some specific strategies that are useful in teaching a group which includes students with hearing impairment. Encourage students with hearing impairment to seat themselves toward the front of the lecture theatre where they will have an unobstructed line of vision. This is particularly important if the student is using an interpreter, lip-reading, relying on visual clues or using a hearing aid which has a limited range. Hearing aids may include transmitter/receiver systems with a clip-on microphone for the lecturer. If using such a microphone it is not necessary to change your speaking or teaching style. Teachers may need to repeat clearly any questions asked by students in the lecture or class before giving a response (John Mpofu and Sylod. C, 2013)

According to Stinson and Whitmire (2000), inclusion has profound effects not only on life in classrooms, but also on other aspects of school organization and teaching: namely pupil grouping, curriculum structure, staffing, timetabling, pastoral care provision, the physical layout of the school, availability of ancillary help, links with specialist agencies, academic structure and the attitudes of staff and pupils. All of these interact to provide an environment in which students with hearing impairment are educated. In addition to completing academic tasks, the student has a need to be accepted as a social member of the teaching group and to be as independent in this situation as possible. Interaction with other students is important and the arrangement of furniture within the teaching area can do much to maximize these opportunities. Classroom design and layout have obviously great importance for these students who require the use of items of special equipment.

Stinson and Whitmire (2000) suggest that students with hearing loss learn a great deal incidentally by watching others. The teacher may also rely on print, pictures, gestures, and movements to support or give instructions. They also suggested the arrangement of the classroom so that students with hearing loss can see facial expressions, read lips, and assess body language of the educator and other students and provide preferential seating. The teacher should repeat questions and comments from the other students and allow the use of index cards to

communicate. Provisions for written or captioned school announcements should be availed. They further suggest the provision of sign language or oral interpreting services, consideration of the use of different words or phrases to express the same thought and providing the student with lecture notes. Inclusion of basic sign language training in the classroom curriculum was also suggested.

Mushoriwa and Gasva (2008) say that parents and teachers should try to understand the problem of the students and try to cooperate with them in helping their navigation of the learning process and work output. In class, a teacher should try to speak slowly and clearly so that they can easily understand the lesson. While teaching, a teacher should stand at one place, so that he or she engages the attention of students with hearing disabilities so as not to distract them with constant movement.

In a study reported by Adoyo (2008) it was revealed that teachers should use the latest techniques and materials for instruction when working with children with hearing impairment. More emphasis should be laid on showing the practical things to students, so that they can easily understand the lesson. Teachers should make diagrams on the chalkboard for explaining the things. If a student with hearing disability asks a question, the teacher should remain calm and answer the question slowly and clearly to provide clarity. Students should be encouraged to express themselves freely in the class. Teachers should try to develop activities that involve all the children together. This helps to keep a healthy and collaborative interaction of students with hearing impairment with their peers in the classroom. It also helps in creating a better social adjustment for them in daily classroom interactions. With the proper care and instruction, children with hearing disabilities can have a positive and productive experience in any learning environment.

On the same note Adoyo (2008) suggest more key teaching adaptations for students with hearing loss. These include adapting the regular classroom materials (e.g. different textbooks), planning assignments and activities that allow mainstreamed hearing impaired students to be successful, providing individual instruction (e.g. plan for one-one sessions), making adaptations for students when developing daily plans (e.g. be alert to problems that could pose special difficulties to students), providing extra time (e.g. for skill reinforcement) and adapting pacing of instruction (e.g. break down material into smaller segments).

CHAPTER THREE

3. METHOD

3.1. Research Design

To collect data, this research was employed a qualitative research design. This is because that qualitative research is a form of social action that stresses on the way of people interpret, and make sense of their experiences to understand the social reality of individuals. It makes the use of interviews, classroom observations and immersions to obtain, analyze, and interpret the data content analysis of visual and textual materials, and oral history (Zohrabi, 2013). Qualitative research answers questions about what is happening and why or how it is happening. It seeks to explain ‘how’ and ‘why’ a particular social phenomenon, or program, operates as it does in a particular context. It tries to help us to understand the social world in which we live, and why things are the way they are (Polkinghorne, 2005).

In this regard of qualitative method, the researcher used case study method to investigate the education challenges and opportunities of Deaf students. As reported by Kothari (2008) suggested Case study is very popular form of qualitative analysis and involves a careful and complete observation of a social unit, a person, a family and an institution.

3.2 Study Area

The study area was at Menelik II Preparatory School which located in Addis Ababa under the Arada sub-city in Arat kilo. It is the oldest and modern school of all others in Ethiopia and established in 1910 by the order of Emperor Meneliki II. Currently it is an inclusive school that welcomes all students with or without disability including Deaf students and educate within Sign language interpreter. The main reason for selecting that school is that because there is no other preparatory school that acceptable and educates Deaf learners within using sign language interpreters. And the school has numbers of Deaf students who are learning with hearing students. So, the researcher decided to select that school for the purpose of the study and believed that adequate information could be obtained easily and transport fee is minimized.

3.3 Participants of the Study

Table 1 Background of the participants

Participants	Sex		Educational qualification
Special needs Education Professional (SNEP)	M	1	Master's Degree
	F	1	Degree
Deaf students	M	6	11 th and 12 th
	F	4	11 th and 12 th
Sign language interpreters	M	1	Degree
	F	1	Degree
Teachers	M	3	1 Degree and 2 Master's D
	F	-	-
School principal	M	1	Master's Degree
	F	-	-
Total	M	12	From G.11 th up to Master Degree
	F	6	
	T	18	

A total of 18 participants were involved in this study. Among the total participants of the study, 10 of them were Deaf students (6 male and 4 female). Among the total participants of Deaf students, 6 of them were from grade 11th (4 male and 2 female) and 4 of them were from grade 12th (2 male and 2 female). Out of 10 Deaf students 7 of them were pre-lingual Deaf students while the remaining were post-lingual Deaf students. And there were two sign language interpreters (1 female and 1 male), 3 teachers of Deaf students (3 male), 2 Special Needs professional including (1 male and 1 female) and one school principal were selected for the purpose of the study.

3.4 Sampling Techniques

Table 2:Background information of the total Deaf students

Grade 11th		Grade 12th		Total
M	16	M	10	26
F	15	F	7	22
T	31	T	17	48

There are total of 48 Deaf students in the school. Out of total, 11 of them are post-lingual Deaf students whose hearing problem occurred after speech and language skills have been acquired ‘adventitious’. The remaining 37 Deaf students are pre-lingual Deaf students whose impair presented at birth or early ago 3.

Concerning the selection of participants, this study used purposive sampling techniques. In purposive sampling the sample is approached having a prior purpose in mind and predefined criteria. Sampling also refers to the method used to select a given number of people from a population (Mertens, 2010). And report by Gray, et al. (2007,) purposive sampling is a general term for judgmental sampling in which the researcher purposely selects certain groups or individuals for their relevance to the issue being studied.

Among the total of 48 Deaf students, 10 of them were selected purposively on the based availability of the study. It is difficult to assess every single element of all students and it is difficult to accomplish on the given time. So a sample is selected for the assessment with the help of special needs education professional by identifying grade Level of student and age of onset (pre and post-lingual Deaf students) who can give more clear feedback on their experience. And the researcher also contacted Deaf student who are volunteer to participant and are fluent in sign language skill.

Two (2) sign language interpreters and 2 Special Needs Education Professionals were selected by considering professional edition on sign language skill and have in depth experience on Deaf students’ challenges.

The criteria used for selecting teachers were:

- Long teaching experience to Deaf students
- Are teachers of Deaf students and have specially knowledge about Deaf students
- Having willing to share their knowledge and experience with the researcher

These participants of the study gave related and more revealed feedback on their experience to the researcher to achieve the purpose of this study.

3.5. Data collection tools

The data was gathered by using two sources, primary and secondary data. The primary data was gathered using interview, Focus Group Discussion (FGD) and Observation from the participants of the study. The secondary data was also obtained from different relevant literatures, books, credential web site and documents

3.5.1. Primary data source

3.5.1.1. Interview

In this study a semi-structured interview was used to collect data from the participants because it is most appropriate method of data collecting tool which provide richest and in-depth sources of information from the respondents. The semi-structured interview is most preferred for qualitative data collection (Di Cicco-Bloom & Crabtree, 2006).

For the purpose of the study, the interview was contacted with total of the participants including 10 Deaf students, 3 class teachers, 2 Special Needs professional, and 1 School principal. So this study was obtained most sources of information from the participants of interviewee's data collecting method to answer the research questions. When interviewing with class teachers and school principal, sign language interpreter was employed to translator the speech told by those participants. And using video recorder used to record sign language interpreter when translating.

3.5.1.2. Focus Group Discussion (FGD)

A focus group discussion (FGD) is a good way to gather together people from similar backgrounds or experiences to discuss a specific topic of interest. Focus groups discussion is mainly data collection method which use semi-structured group interviews to collect the data. These groups are usually supervised by a group leader (Creswell, 2013). This study contacted FGD with 6 participants of Deaf student who contributed difference ideas on their experiences during interviewing. The main reason of focus group discussion was to confirm the information that the researcher collected from the interviewees and Observation. While gathering data from FGD, Note takings were taken by the researcher.

3.5.1.3. Observation

The Observation data gathering method was prepared based on the idea of Schmuck, (1997) that observation helps us determine how much time is spent on various activities, verify nonverbal expression of feelings, and determine who interacts with whom.

Thus, I used close observe with and without participants usually to understand the activities of students both outside and inside of classroom. For the purpose of the study, the observation was employed using observation checklist to all the activities that deaf students are supposed to do. Deaf students were observed inside classroom during teaching – learning process and outside the classroom during the breaks and during sport activities. Outside of the classroom, the observation was used mainly how Deaf student create their social interpreter with hearing students and inside classroom observation was contacted considering the followings below:

- Teachers' teaching method,
- Frequency of support for Deaf learners.
- Students' participation in classroom and their problems in learning process.
- The relationship of Deaf students with hearing students.
- The opportunities that are provided to Deaf learners.

3.6. Data Collection Procedure

I collected the data based on the following procedures. After I received permission letter from the department of special needs Education, I went to the selected site for the purpose of the study and made a contact with school administration to get consent to achieve the purpose of the study.

When the consent is obtained, I started the activities of collecting the data by using Interview and Focus Group Discussion with the participants as well as including observation of the study. Participants of the study helped the researcher by providing valuable information. It is impossible to collect the data from all participants of the study at the same time, so the researcher used timetable and three weeks was spent to complete collecting the data.

3.7. Method of Data Analysis

This research is case study based on the in-depth investigations of the educational challenges and opportunities of Deaf student in Meneliki II preparatory school. In this study, the data collected from participants through interview, FGD and Observation were described, interpreted and analyzed by using qualitative data analysis techniques. The findings of the study were presented under the research questions. These questions were regarding the educational challenges, opportunities and the strategies that resolve educational challenges of Deaf learners. Then the data were categorized by forming some themes. The data which collected through interview was made on one-to-one basis using Ethiopian Sign Language and the observations were clustered into themes and interpreted in order to build up a picture of the phenomena observed. In addition, the data collected through document analysis were also analyzed using the qualitative content analysis.

3.8. Ethical Consideration

First, the permission was obtained from the school manage for the research process. Then the researcher made discussion with the participants and explained them the purpose of the study. The participants were also informed that the information which obtained from them would remain as a main source of information for the research and their names would not be revealed. They were also informed that involving in the study could be voluntary and that they could withdraw from it if there is a feeling of discomfort. After their permission to involve in the study was obtained, the researcher started activities of collecting the data by using Interview and Focus Group Discussion and observation with the participants.

CHAPTER FOUR

4. FINDINGS

As mentioned in the introductory chapter, the purpose of this research was to identify and assess the educational challenges and opportunities of Deaf students in Menelik II preparatory school. The major findings of this study were based on the research's questions. And the analysis is presented in thematic form from the responses of participants through interviews, focus group discussion and observations. The sources of data were provided to the researcher by these respondents, organized and analysed qualitatively. The main findings of the study are presented in the following nine (9) themes manners.

- 4.1. Educational Challenges of Deaf Learners in selected school
- 4.2. Challenges of Sign language Interpretation
- 4.3. Limited attention of the teachers and lack of teaching - learning materials
- 4.4. Writing, Reading and Vocabulary Skill of Deaf Students
- 4.5. Academic achievement of Deaf students
- 4.6. Opportunities that Deaf Learners are given in selected school
- 4.7. Resource center and Support service providing for the Deaf students
- 4.8. Social interaction between Deaf and hearing students and Educational support each other
- 4.9. The Possible Solutions to Decrease the Educational Challenges of Deaf Students

4.1. Educational Challenges of Deaf Learners in selected school

As expressed in previous chapter that the learning process involved by Deaf learners is not difference from hearing students. Many of Deaf learners face numbers of educational challenges in inclusive classroom that hearing students do not face because of inadequate support, poor teaching method, lack of teaching materials and absence of teachers' attentions towards them. In addition, school curriculum, organization and resources related issues are also not arranged in a

way that it was supposed for inclusive school. In Inclusive classroom, these students require highly specialized equipment to help them learn effectively (Al-zyoudi (2006).

Regarding the educational challenges of Deaf learners, the participants mentioned different views. During interviewing, special education professional revealed that: many of students who are born Deaf (pre-lingual Deafness) have problem in academic achievement rather than post-lingual Deafness. They delayed in the development of spoken language those language deficits causes learning problems that result in reduced academic achievement. Deaf students who become Deaf after they had acquired language experience reduced problems in academic performance. This is because of that they have developed spoken language experience before they became Deaf and this leads them successful in school. In addition, many deaf children enter school lacking fluency in either sign language or spoken language. So parents of Deaf children should attend their children to school at early age and they should teach children sign language or spoken language before children attended to school.

Research suggested the similar excerpts that when children are unable to hear the language being spoken, they are also unable to learn its rules until special instruction is provided. The impact of this can be better appreciated when one considers that the children with normal hearing will usually have acquired all the basic structure of that language that is a vocabulary of up to 700 words by the time they are three years (Walter, 2003). This problem is fundamental because unless Deaf are given a suitable curriculum, they will continue to fail in examinations and this will affect their progress in education, work and they will not be able to be self-reliant. Therefore they require special attention or additional instructional support in order to be succeeding in academic performance.

Many of the Deaf learners revealed that: The negative attention (inadequate knowledge and awareness) of their teachers, Lack of teaching materials and unquailed skill of sign language interpreters as their major educational challenges in the school. One of Deaf students stated that *“Many of our teachers have no awareness about us and most of them don’t use teaching materials such as: perception (visual aids) like picture or video and none of them do an accommodation for us. When they are about to provide us homework, they don’t explanatory it articulately. These teachers often tell us to ask our interpreter or hearing peers to help us with*

homework issues. When there is exam, we are not given any extra time as a result we got low marks.”

Only two participants of Deaf learners believed that their educational challenges are due to the problem of hearing. The remaining participants of Deaf students didn't believe this issue and said that: *“Our educational challenges are not due to the problem of hearing but are due to the absences of properly support in learning-teaching process. We can learn like other and performance well on lesson if accuracy supports are given.”*

Some of Deaf students stated that: there are many words which don't have sign language to conservation and many words are revealing with different meaning but use with only one type of sign. Therefore Sign Language interpreter use fingerspelling for those words that don't have sign or words that they don't know. It is very difficult for us to understand the lesson with these problems. And sometimes Interpreters keep quite even when the teacher is speaking. And those interpreters are not professional like the teacher on the subjects. It is good choice if interpreters are well trained on subjects they struggle with signs.

About the problem with homework, one of the Deaf students said that: *“Many times I missed information and come school without doing my homework. Sometimes homework is too difficult and I am unable to do it myself at home because I am not supported by anyone and no one in my family and around my home can sign. So, I often copy it from my friends at school.”*

During classroom observation, it was signed that in grade 11th, there are numbers of students in classroom which is very difficult for Deaf students to follow their interpreter and teacher and it is uncomfortable to work in small group activities. The classroom is dark and interpreter is standing in the shadow space so Deaf students can't see their interpreters clearly and they can't get the place to sit in front or to the side to view their teacher and interpreter.

4.2. Challenges of Sign language Interpretation

According to (Alemayehu, 2000) In Ethiopia many other schools started implementing inclusion approach for Deaf students and started hiring interpreters to deliver teacher information for those who admitted students, because the education system started to integrate deaf students in inclusive classroom. In inclusive school, sign language used as the main communication method for deaf children. Most deaf students who admitted in inclusive school use sign language to communicate with their teachers and students.

In Menlik II preparatory school, there are total of 48 Deaf students and 8 (Eight) sign language interpreters. Between those total numbers of sign language interpreters, 3 (Three) of them have graduated BA degree from Addis Ababa University department of Ethiopia sign language and Deaf culture. The rest others are certified in Ethiopian Sign language.

The data collected from the interviewees with the Deaf students revealed that, their Sign Language interpreter are not coming classroom every day. So when there is no interpreter in the classroom, they students can't follow their teacher because they can't hear what teacher is saying. It challenges them while learning without an interpreter. Sometimes the teacher is talking but the interpreter is just quite. Those interpreters are also straggling with contextualizing, misinterpreting and dropping many words. They also have poor knowledge about the subjects that they struggle with signs.

And special educational professional, stated that there are numbers of sign language interpreters in this school but most of them are not well trained as well. Between the total numbers of the interpreters, we have only three best interpreters who are graduated their bachelor's degree from Addis Ababa University department of Ethiopia sign language and Deaf culture. Those interpreters are fluent and well trained in sign language. The other remaining interpreters are not well trained in interpretation so there are communication barriers between the teachers and Deaf learners.

On the other hand, one of the Deaf learners said "I have some familiar interpreters who are fluent in sign and who have best knowledge and awareness about us. They interpret clearly in class and

sometimes even help us after the class by interpreting the lesson which we didn't understand during lecturing.”

One of the teacher said that *“When there is no interpreter during my class, it was very difficult to convey concepts to all students. So I used to use as many picture, diagrams and Amharic words as possible to help them and on the next class when interpreter is available, it challenge me to replace some concepts that I taught preview class.”*

Some of the interpreters' individual responses were that someone who knows sign language doesn't mean he/she can be an interpreter. Interpreters possess the professional skills and knowledge required for the specific interpreting situation. It is good choice if the school hires a professional, certificated, and well signs trained interpreters. In additionally, SL interpreter stated that, Ethiopia Sign Language (EthSL) is inefficient to mediate of teaching and learning as spoken languages like Amharic and English do. EthSL is an incompletely language which doesn't has sign for each words. So interpreter use gestures sign or facial expressions for the words that don't have sign language. These make interpreters get troubles when translating in class. And many interpreters are designed to translate all the subjects even the subjects that they have no excrescences.

During FGD, Many of Deaf students confirmed that most of their interpreters are not proficiency by using sign language and are not proficient like the teachers on the subjects they designed to translate. It is a good choice if interpreters are assessed by the sign language professional before they are hired at school.

Concerning this, Eyasu.T (2013) stated that there is a problem of getting qualified sign language interpreters who are familiar with the ethics and conduct of behavior in Sign language interpreting during the learning and teaching process.

4.3. Limited attention of the teachers and lack of teaching - learning materials

During the observation season, the researcher identified that there is no any teaching material obtained in the classroom and some teachers have poor teaching method. During the teaching and learning process, the teacher speaks very fast without writing notes or summary on the

blackboard. So Interpreters fail to translate because they cannot keep up with the teacher's speed. And the teachers were not pay attention to the structure of the classroom where students were sitting in horizontal rows. This kind of classroom structure is uncomfortable for Deaf students to discussion with other students and the instructor at the same time and it can lack visual access and understanding of Deaf space greatly contributes to the unsatisfactory outcomes. But some others teachers have good motivation. Those teachers do their best to adaptation Deaf students. They give enough times for Deaf students to ask questions and respond and wait for the interpreter to finish interpreting for them. It would be a great opportunity if all teachers were similar.

According to the Deaf students' responses, some of the common responses responded that: *"We have teachers both who are familiar and unfamiliar with us. In fact, all of the teachers don't know how to use sign language and many of them are not well trained about inclusive teaching approach. They have poor attention and none of them do any accommodation for us. It seem like they think what they do is right for them but unfortunately, it is big challenges for us."*

One Deaf students on the interview stated that *"Teachers need to make special considerations when teaching us. But I don't understand why some teachers in the classroom focus more on hearing learners. I think sometimes they forget us. They do not give us as much attention as they attend on hearing students. When I need support like on my homework or something else, then the teacher mostly tells me to ask my interpreter or classmates. And most of the times, they do not write summary or notes to us. They usually read from the textbook."*

One of the teachers' individual responses was that: *"I am an English teacher. I have been working in this school for 4 years and teaching Deaf students since the time I was employed. I wish but I don't know how to use sign language well and I just token sign language training only once since I join this school. I think special needs education professional should provide us training on sign language once again. During my class, I do have interpreter to translate Deaf learners as I am teaching. Sometime when interpreter is not available, I face challenges because I don't know sign language and Deaf students can't follow my lecture. And this also forces me to come and repeat the lesson that I taught preview class when the interpreter available. I do my best to help Deaf students learn effectively. I always stand a minimal distance from students to*

adapt them for lip reading and ensure good lighting to make sure visual aids can be clearly seen. I don't talk when they are writing because they can't focus on two things at the same time. Sometimes I also give them lecture notes before the class to help them focus on lip reading during lecture."

Another teacher stated that "It is very difficult for interpreter to interpret all subjects like Math, English, physical and others. But I am not saying the sign language interpreters don't know the subjects but he/she may not know all the subjects. For me, it is unbeliever that how can one interpreter assigned to translate for mathematics, physical science, English...etc. How did he/she specialize in those entire fields? May be interpreters are supposed to have the subjects knowledge of which most of them don't have. In addition, during the lecture there always must be note-takers for Deaf students because they can't take notes when following an interpreter. The school manages and other shareholders should focus on these situations."

Concerning this, the research reported by Stinson and Whitmire (2000) suggests that students with hearing loss learn a great deal incidentally by watching others. The teacher may also rely on print, pictures, gestures, and movements to support or give instructions. They also suggested the arrangement of the classroom so that students with hearing loss can see facial expressions, read lips, and assess body language of the educator and other students and provide preferential seating. The teacher should repeat questions and comments from the other students and allow the use of index cards to communicate. Provisions for written or captioned school announcements should be availed. Inclusion of basic sign language training in the classroom curriculum was also suggested.

4.4. Writing, Reading and Vocabulary Skill of Deaf Students

The researchers suggest that the learning processes of students with hearing loss may be affected in different ways. Students who have been deafened in early childhood are very different from students who have lost hearing later in life in terms of educational disadvantage. For example, their range of vocabulary may be limited which in turn may affect their reading and writing ability. Verbal skills are very influential in developing reading and writing skills. And children who have difficulty with verbal production need to be able to associate sounds with letters, and then segment those apart in order to successfully learn to read and write (Flem et al, 2004).

One of the teacher's individual responses was that: *"Reading, writing, Vocabulary and forming the sentences are main challenges for Deaf students. Often, most of them get it difficult to form sentences and to read and answer the questions. When I order some of them to read the passage and describe its meaning in the classroom, it was difficult for them to understand and describe the meaning of the passage. Those students usually write difference structure of sentences from hearing learners, they write backward and broken structure of sentences which make it difficult to understand. But not all Deaf students do this; some of them can write and read as well as hearing students."*

According to the Deaf students' responses, some of the responses from pre-lingual and post-lingual Deafness are illustrated in the following marks: One of the pre-lingual Deafness said that *"I do not understand the wordings because there are many different meaning of words which have only one type of sign language, so we don't have signs for those words expect fingerspelling without knowing its meaning and it is difficult to explain some concepts of those words. Also I am unable to read often because I don't understand the meaning of those words. The words in the books are difficult for me to understand when i want to learn by myself. I need somebody to help. During the exam, it was also very difficult because I could not read and had very short time to complete it. Because of this, I had low marks"*

Some of post-lingual Deafness students stated that, they can read and write in the same way hearing students do because their spoken language is well developed before they became Deaf and they learnt a lot by using their hearing since birth. They don't face as more challenges as pre-lingual Deafness students face in writing and reading.

According to the SL interpreters' responses, some opinions were reflected in the following remarks: *"I have been together with Deaf learners over 9 years in different places mostly at this school. In Deaf community, It is common know that sign language (SL) has its own grammar that is different from English or Amharic. Most of Deaf students, who became deafness in early childhood, often have difficulty understanding grammar and writing structure of English or Amharic sentences. They often write broken sentences which are copied in the way they sign. It is totally different from hearing students and from Deaf learners whose speak language is well developed."*

4.5. Academic achievement of Deaf students

Academic achievement occupies a very important place in education therefore it is more pressing for the students to have high academic achievement and is considered as a key criterion to judge one's total potentialities and capabilities. Research shows that deaf students often lag behind their hearing peers in academic achievement. Most children who are deaf have normal intellectual capacity and it has been repeatedly demonstrated that their scores on non-verbal intelligence tests are approximately the same as those of the general population (Lang, 2003).

Concerning about academic achievement of Deaf students, there were mixed results showed that some of Deaf students perform higher in their academic performance, some others perform above average and the others below average. The data collected from the interviews with the teachers revealed that many of Deaf students' academic achievement is different from hearing students. This is because that hearing students can directly listen to the teacher and understand the subjects but Deaf learners need an interpreter to interpret them what the teacher says. May their interpreter are not well trained and may not transmit correctly what the teacher says.

Each of the Deaf learners stated that: Their academic achievement is different from hearing students. This is because of the barriers they face in learning and teaching process such as, lack of property support, problems with SL interpreters and shortage awareness of the teachers to them. They said that if they were given property support, fluent and well sign language trained interpreters; they could do well on their exam and equally performance with hearing students on their lessons.

Other Deaf learners also stated: that few of Deaf learners have high perform in academic achievement compared with hearing students. Even there are some of Deaf students who stand 5th -10th level in the 1st semester. But so many remaining students have low result because of absence of property support. In addition, some of Deaf students didn't get opportunity to attend their primary school in special need school or inclusion where especially assistance devices are given. They studied in local school where there is no sign language interpreter obtain and any assist devices.

During classroom observation, it was realized that some of the teachers did not show their attention toward to Deaf students. During their class, no teaching material was provided. And the teacher didn't care if sign language interpreter is following him or not. Also they didn't pay attention to the structure of the classroom where Deaf students were sitting in horizontal rows which is missing visual access and difficult for them to have discussions with other students and the teacher at the same time.

4.6. Opportunities that provided for the Deaf Learners in selected school

In inclusive settings, researcher suggest that “Every child has a fundamental right to education and must be given the opportunity to achieve and maintain on acceptable level of learning and every child has unique characteristics, interests, abilities and learning needs.” Even though there are challenges of implementing and practicing inclusive education, there are also some opportunities as well.

During interviewing with school principals and special needs education professional, they mentioned the same opinions that the numbers of sign language interpreters' services and providing tutorial study are major opportunities for Deaf student in Menelik II secondary school. Besides, the school provides meals for parents less and poverty families' Deaf students. Ex-books and the school's uniform are also another opportunities. Additionally, once or twice a year, NGO support Deaf students by providing different training such as HIV/ADIS, and other necessities.

Special needs educational professional stated that: *“To help Deaf learners learn effectively, we provide sign language training for the teachers of Deaf students for short period of times and awareness about Deaf students and how to teach them as well. This is a great opportunity for Deaf students”*

According to the Deaf students' responses, some of their opinion revealed that there are no more Educational opportunities that they are given in the school expect tutorial and numbers of sign language interpreters. The sign language interpreters' views were also similar to that of deaf students' explanation regarding the opportunities.

During observations, it was identified that Deaf student benefit socialization opportunity with their hearing peers in the school. They play, try to communicate and exchange their experiences as well. Supporting this idea, researchers also suggest that: Haward and Orlansky (1988) noted that most hearing impaired children are fully capable of developing positive relationship with hearing peers when a satisfactory method of communication can be used.

4.7. Resource center and Support service providing for the Deaf students

In inclusive settings, researcher suggests that resource center is a pedagogical center which is equipped with specific materials and assistive devices as well as staffed with professionals to give support to special needs education learners, teachers and neighboring schools. Also, Article 7 states: “That all children should learn together, whenever possible, regardless of any difficulties or differences they may have. Inclusive schools must recognize and respond to the diverse needs of their student’s accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnership with communities.” (Disability in Ethiopia, 2005)

According to the special educational professionals’ responses, some of their opinion revealed that, the school has a resource room with some of the support materials such as books, pens, papers and hearing aid only when obtained. Those support materials found in this resource room is not adequate as students needed. The school should add more support materials which relate the learning need of Deaf students. Sometime resource room is used for tutorial study, counseling services, group discussion for Deaf students and sign language training for the teachers of Deaf students and hearing peers.

The school principals also considered that to ensure the effective implementation of inclusion for Deaf students, the National Association of the Deaf has to work in the collaboration of the ministry of Education, the Education bureaus, and other stakeholders who are concerned with it.

During observations, it was realized that there is a resource center in the school without enough support materials and seem like remained non-functioning. But sometimes Deaf students receive

papers, Pens, Ex-books and hearing aid only when obtained. They also use group discussion and doing their homework in that resource room.

4.8. Social interaction and Education support b/n Deaf and hearing students

Concerning about social interaction and education support between Deaf and hearing students, some respondents from Deaf learners were revealed that: all of the participants of Deaf students believed that communication difficult is the major challenges that impact social interaction between them and hearing learners.

On the interviewees, some of Deaf learners stated that: *“We cannot express our views clearly for hearing learners who can’t sign, especially when there is no interpreter. During group discussion, there are always between three to five group members so the interpreter can’t stay with one group member he/she goes from one group to another’s to help them interpreting. Because of this, sometimes we end up giving our contributions to the group as we cannot express ourselves to the hearing learners. This make us mostly excluded from the discussions. When we ask hearing student for academic support, they feel nervous for being not signing. So we think it is very important if they are given on sign language training to communicate with us.”*

One of Deaf learner stated that: *“I have a best hearing friend in class. Sometime, I teach him how to use sign language and he try to improve how to communicate in sign. We have good relationship and helping each other when there is anything to help. Any way I think the school should provide a sign language class for hearing students to learn base of sign language and become able to communicate with Deaf students.”*

One of the Deaf student said that *“I like to make friendship with Deaf learners because my interaction with them is better than hearing learners and it is easy to communicate because we share the same language to understand each other”*.

Another Deaf student said *“I have both hearing and Deaf friends in the class. But my preference is to be with Deaf friends because they may have better understanding of my feelings and they communicate with me in the same language.”* These statements point to the fact that there is intimate relationship among Deaf students because of common language.

During FGD, Many of them confirmed that they prefer to be with Deaf friends rather than hearing friends for different reasons. (This shows that Deaf Students had a better social relationship and interaction with Deaf learners rather than hearing peers). In the end, each of them suggested that the schools should provide sign language classes for hearing students to learn base of sign language and become able to communicate with Deaf students and to ensure the effective implementation of inclusion.

In line with this, the research suggested that in inclusive classroom, a social constrictive of learning and teaching that requires students in the classroom to interact with one another and the teacher may best promote learning and consistent with a focus on membership. Trussew (2005) indicated that hearing impaired students can learn socialization from their peers, siblings, and teachers, but the value of socialization depends on the feelings person interacting towards the disabled person.

Haward and Orlansky (1988) also noted that most hearing impaired people are fully capable of developing positive relationship with hearing peers when a satisfactory method of communication can be used. Supporting this, Bunch, (1994) also indicated that deaf students have a better social skills and academic performances in inclusive classroom settings. Thus, studies have reported satisfactory out comes for academic progress and social development of deaf students including positive attitudes towards and acceptance of deaf students in their hearing peers.

4.9. The Possible Solutions to Decrease the Educational Challenges of Deaf Students

Each participants of the study suggested different of possible solutions for the educational challenges of Deaf students; the following points were raised by the participants of the study:

Deaf students stated that all of their teacher must be given the training on sign language and encouraged to know their backgrounds, learning style and characteristic as well. And those teachers must be well trained on inclusive teaching strategies. They also need to provide copies of lecture notes, extra time for the reading questions exam and handouts to Deaf learners.

Besides, many of our school sign language interpreters are not well skilled in interpretation. So the school administration should hire well trained and fluent sign language interpreters. The resource room also should contain different teaching materials which related for the teachers to assist Deaf students.

Concerning this, the study reported by Adoyo (2008) it was revealed that teachers should use the latest techniques and materials for instruction when working with children with hearing impairment. More emphasis should be laid on showing the practical things to students, so that they can easily understand the lesson. Teachers should make diagrams on the chalkboard for explaining the things. If a student with hearing disability asks a question, the teacher should remain calm and answer the question slowly and clearly to provide clarity. Students should be encouraged to express themselves freely in the class. Teachers should try to develop activities that involve all the children together. This helps to keep a healthy and collaborative interaction of students with hearing loss with their peers in the classroom.

Special needs education professional believed that it is better ways if the teachers of Deaf students are trained on sign language and teach students themselves instead using interpreters. Because interpreters may have short knowledge about the subjects they struggled to interpret. The teachers should encourage Deaf students to participate in different activities learning. Activity learning can be such as role-playing, group project and peer-teaching etc. This is a great opportunity for the process of courses material and can help Deaf students understand the lesson well. The support materials found in this resource room is not adequate as students needed. So the school management should add more support materials which relate the learning need of Deaf students.

Teachers of Deaf students suggested that it is very difficult for interpreter to interpret all subjects such as Math, English, physical and others. It is unbelievable how can one interpreter assigned to translate all subjects. In my opinion the interpreters are supposed to have subjects' knowledge which most of them don't have and each of them should translate only the subject that they studied. During the lecture there always must be note takers for Deaf students because they can't take notes when following interpreter. So the school management must focus on this solution. In other hand, special needs professional should provide sign language training for

teachers and teaching aids to assist Deaf students. Those things can decrease the educational challenges of Deaf students.

The school principals suggested that the school doesn't have sufficient support material to facilitate the learning needs of Deaf learners and still there is financial problem. So the government should focus on this issue. And the National Association of the Deaf has to work in the collaboration of the ministry of Education, the Education bureaus, and other stakeholders who are concerned with to ensure the effective implementation of inclusive education for Deaf students.

Sign language interpreters stated that an Interpreter should not translate all the subjects. Each of them should translate only the subjects that they studied for or that facilitate them to interpret. It would be successfully if the teachers of Deaf students and all school community have the skill in sign language and if the school implemented Sign language training as a medium of teaching and learning in classroom.

Result of the observation, it was identified that the classroom structures were horizontal rows and carry so many students which are uncomfortable for Deaf students to discussion with other students and the instructor at the same time. This kind of classroom structures can lack visual access and understanding of Deaf space greatly contributes to the unsatisfactory outcomes. It would be successfully if the class contains a few numbers of students and C- structured rows.

CHAPTER FIVE

5. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study is to investigate and identify the Educational challenges and opportunities of Deaf students in Menelik II Preparatory School. This chapter is organized in to three major sections. They are, Discussion about the major findings presented in chapter four based on the identified themes and in relation to the existing literatures, Conclusions of the discussion and recommendations are made to the concerned body.

5.1 Discussion

5.1.1. Academic Achievement and challenges of Deaf students

Findings from special needs education professional revealed that many of students who are born Deaf (pre-lingual Deafness) have problem in academic achievement rather than post-lingual Deafness. Pre-lingual Deaf children delayed in the development of spoken language those language deficits causes learning problems that result in reduced academic achievement. Deaf students who become Deaf after they had acquired language experience reduced problems in academic performance because they have developed spoken language experience before they became Deaf and this leads them successful in school. And on the other hand, some of Deaf students didn't get opportunity to attend their preview education in special need school. So they studied their predecessor education in local school where there was no any sign language interpreter and any assistive devices.

Similar argued by (Flemetal 2004), the learning processes of students with hearing loss may be affected in different ways. Students who have been deafened in early childhood are very different from students who have lost hearing later in life in terms of educational disadvantage. For example, their range of vocabulary may be limited which in turn may affect their reading and writing ability. Verbal skills are very influential in developing reading and writing skills. And children who have difficulty with verbal production need to be able to associate sounds with letters, and then segment those apart in order to successfully learn to read and write.

On the other hand, from the participants of Deaf learners the study results confirmed that Deaf learners' academic achievement is difference from the hearing students. This is because of the challenges they face in learning and teaching process, the challenges includes: lack of property support, negative attention of the teachers, lack of teaching materials and lack of getting qualified sign language interpreters. The findings also confirmed that if Deaf student had property support from the teachers, well sign language trained and fluent interpreters and others that required for their learning need, they could done well on their exam and equally performance on their educations with hearing students.

In the researchers opinion, as reported by Howell (2006). there could be many reasons why these barriers exist, such as: lack of support; lack of awareness of the modification and accommodation needs of these students; the 'invisibility' and uniqueness of their hearing loss and thus complex support needs; teaching staff ignoring calls to attend disability-related, professional development courses; attitudinal barriers of faculty members; and lack of financial and human resources.

Similar on the other hand, the researchers suggest that Deaf learners require special attention or additional instructional support in order to escape the labeling of impaired academic performance which is a major element in most current definitions of learning disabled (Hallahan, 2002).

5.1.2. Challenges of Sign Language Interpretation

The findings of the further showed that someone who knows sign language doesn't mean he/she can be an interpreter. Interpreters possess the professional skills and knowledge required for the specific interpreting situation. Many of Deaf students confirmed that their interpreters are not proficiency in using sign language and they have poor experiences about the subjects they designed to translate. Similar the teacher of Deaf students suggested that: it is very difficult for the interpreter to interpret all subjects such as Math, English, physical and others. It is unbelievable how can one interpreter assigned to translate all subjects. Interpreters are supposed to have subjects' knowledge of which most of them don't have or each of them should translate only the subjects they studied.

In the same vein, reported by Eyasu (2013) stated that there is a problem of getting qualified sign language interpreters who are familiar with the ethics and conduct of behavior in Sign language interpreting during the learning and teaching process.

And another researcher suggested that sign language interpreters in inclusive classroom face the problem of interpreting certain concepts and, as a result, the students with hearing loss fall academically far behind their hearing peers (Moore, 1996).

In this section, the study considered that the interpreter should not translate all the subjects. It is good way if each of them translate only the subjects they studied or that facilitate to them to interpret. And it would be successfully if teachers of Deaf students and all the school community have skill in sign language. Additionally, it would be a great opportunity if the school implemented Sign language training as a medium of teaching and learning in classroom.

5.1.3. Opportunities provided for the Deaf Learners

Findings from the observation indicated that Deaf student benefit socialization opportunity with their hearing peers in the school. They play, try to communication and exchange their experiences as well.

Supporting this idea According to McMillan (2008), when learners with hearing loss become part of a general education classroom, they are more likely to become socially accepted by their peers. The more learners with hearing loss have contact with their hearing peers the greater the chance the learners with hearing loss will learn tolerance and have a greater acceptance of others' differences.

On the other hand, the findings from Special needs educational professional also revealed that:
“To help Deaf learners learn effectively, we provide sign language training for the teachers of Deaf students for the short periods of the time and awareness about Deaf students and how to teach them as well. This is a great opportunity for Deaf students”

According to the Deaf students' responses, some of their opinion revealed that there are no more educational opportunities that they are given in the school expect tutorial and numbers of sign language interpreters' services. The sign language interpreters' views were also similar to that of

deaf students' explanation regarding the opportunities. In this section, the results showed that Deaf students are given very little opportunities which are insufficient for their learning need. Therefore, the school management should focus on this issue.

As argued by Slee (2011), everyone should be able to understand the importance of inclusive education which leads people to embrace and support all children with disabilities in the schools and communities. "Every child has a fundamental right to education and must be given the opportunity to achieve and maintain an acceptable level of learning and every child has unique characteristics, interests, abilities and learning needs."

5.1.4. Limited attention of the teachers and lack of teaching-learning materials

The findings of the study confirmed that all of the teachers don't know how to use sign language and many of them are not well trained about inclusive teaching approach. Also they have poor attention on Deaf students and Deaf students are not given copies of lecture notes and handouts before the class started. And no extra time was provided for reading questions exam. The study also indicated that Deaf students are not given a notes taker during lectures.

Similar reported by Sacks, (2001) that the regular teachers were least prepared for inclusive education of children with hearing loss. The teachers had little training in dealing with individual differences and specific instructional processes developed for special needs students. The roles and responsibilities of regular education teachers were never clearly defined in this process.

On the other hand, Alemayehu (2003, p.96) stated that many Deaf students in Ethiopia often uncomfortable with their teachers for their lack of communication skills in sign language. They believe that their low academic achievements resulted from their teacher's poor competence in communication and lack of commitment in teaching.

The study also showed that there is no any teaching aides/material available in the classroom. And the school doesn't have any teaching – learning assistance devices to help Deaf learners learn effectively. Except textbook, there were no any extra materials that teachers used in order to help Deaf students. And the classroom structures were horizontal rows which are uncomfortable for Deaf students to discussion with other students and the instructor at the same

time. This kind of classroom structures can lack visual access and understanding of Deaf space greatly contributes to the unsatisfactory outcomes.

Concerning this, the study reported by Stinson and Whitmire (2000) suggests that students with hearing loss learn a great deal incidentally by watching others. The teacher may also rely on print, pictures, gestures, and movements to support or give instructions. They also suggested the arrangement of the classroom so that students with hearing loss can see facial expressions, read lips, and assess body language of the educator and other students and provide preferential seating. The teacher should repeat questions and comments from the other students and allow the use of index cards to communicate. Provisions for written or captioned school announcements should be availed.

5.1.5. Social interaction between Deaf and hearing students and Educational support each other

Deaf students revealed that all of them believed the communication difficult is the major challenges that impact social interaction between them and hearing learners. They also stated that Deaf students cannot express their views clearly for hearing learners who can't sign. During a group discussion, there are always between three to five group members so the interpreter can't stay with one group member he/she goes from one group to the other groups to help them to interpret. Because of this, sometimes Deaf learners end up giving their contributions to the group as they cannot express themselves to the hearing learners. This makes them mostly excluded from the discussions. When those students ask hearing student for academic support, they feel nervous for being not signing.

Similar the findings were stated by Haward and Orlansky (1988) that most hearing impaired people are fully capable of developing positive relationship with hearing peers when a satisfactory method of communication can be used.

On other hand Vygotsky (1987), also noted using language, particularly verbal speech, is the most important tool to facilitate the communication and interaction.

For this reason, participants suggested to provide sign language classes for hearing students to learn basic sign language and become able to communicate with Deaf and hard of hearing

students. The participants also pointed out those hearing students are curious to learn sign language. They usually ask teachers and interpreters about the meaning of some signs or how they can sign certain words. Therefore, it is useful to provide sign language classes for hearing students in order to reduce the communication difficulty and promotion social interaction with Deaf and hard of hearing students.

5.2. Conclusion

As mentioned in previous chapter that the main objective of this study was to identify and investigate the educational challenges and opportunities of Deaf students in Menelik II preparatory school. The main finding of study identified that Deafness student are facing numbers of educational challenges and given very little opportunities. The challenges include: lack of teachers' training and their shortage awareness, problem with sign interpreters and absence of property support are main educational challenges of Deaf students in the school.

Many of Deaf students reported that they are facing numbers of problem that hearing students don't have. They reported that their academic achievement is difference from hearing students because of the barriers they face in learning and teaching process. The barriers includes: lack of property support from the teachers, Lack of well trained and fluent sign language interpreters and lack of sufficient support materials from school.

It was also evident that the insufficient support materials and teaching aids were very difficult for the teachers to teach Deaf learners to deliver their lesson successful. Another challenge is the structure of the classroom where Deaf students are sitting in horizontal rows which is too difficult for them to discuss with other students and the instructor at the same time. This kind of class structure can trouble Deaf learners with visual access. It is good if the structure of the classroom is a C- Circled shaped which helps Deaf students to see each other clearly.

Another challenge that came out strongly was words which don't have sign language. It was indicated that there are so many words that don't have sign language and so many words with different meaning have only one type of sign. So Sign Language interpreter use fingerspelling for those words that don't have sign or words that they don't know. It is very difficult for Deaf students to understand the lesson with these problems. And sometimes their Interpreters keep quite even when the teacher is speaking. And many of the interpreters are not professional like the teacher on the subjects. It is good if interpreters are well trained on subjects they struggle with signs.

The study also concluded that sign language (SL) has its own grammar that is different from English or Amharic. So most of Deaf students, who became deafness in early childhood (pre-

lingual Deafness), often have difficulty understanding grammar and writing structures of English or Amharic sentences. They often write broken structures of sentences which are copied in the way they sign. It is totally different from normal hearing students and from Deaf learners whose speak language is well developed.”

And Deaf students reported that they are given very little opportunities in the school. The opportunities include: Numbers of sign language interpreters services available, tutorial study and meals services for parentless and poverty Deaf students. Another opportunities indicated that the special needs education professional is providing sign language training for the teachers of Deaf students for short period of times and also awareness about Deaf students and how to teach them as well. This opportunity can help Deaf learners learn effectively.

Lastly each participants of the study suggested different possible solutions for the educational challenges of Deaf students. These solutions were regarding hiring well-trained sign language interpreters, proficiency teachers and providing sufficient support materials and etc... The study indicated that if Deaf students get property support from the teachers and well sign language trained and fluent interpreters, they could do well on their exam and equally performance with hearing students on their lessons.

5.3. Recommendation

Based on the major findings the following recommendations were forwarded to overcome Educational challenges and to extent the opportunity of deaf students.

- The problem with sign language interpreters was considered as a main challenge. Most of the interpreters are not well trained using sign language. To reduce this problem, the School should employ fluent and well sign language trained interpreters.
- Sign language interpreters should view the courses content, handouts and lecture notes from the teachers beforehand so that they can go through the information in advanced and Deaf students will understand the lessons competently.
- All the teachers don't know how to use sign language. So they should be encouraged to learn sign language and inclusive teaching methods as well.
- Teachers should provide copies of lecture notes and handouts to Deaf students and interpreters before learning process started. And there is also need to provide extra time in examinations, particularly extra time for reading questions. Some students will prefer to have questions and instructions signed to them.
- The study indicated that Deaf students are not given a notes taker during learning process and they didn't get extra time during exam. So the teachers need to develop empathy towards Deaf students. They should provide extra times during exam and notes taker while having lecture.
- The study indicated that the school provides very little opportunities to Deaf students. Those opportunities are insufficient for the individual need of students. The school manage should add sufficient opportunities for these students.
- The resource room should be equipped with the necessary materials to provide the support service for the Deaf students. Additionally, necessary materials will be unitized for the teachers to teach Deaf students.
- The numbers of students in the classroom should be decreased and the classroom structure should be C-Circled row or U-Shaped instead horizontal rows which lack visual access and difficult for Deaf students to discusses with other students and the instructor at the same time.

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APPENDIX A

ADDIS ABABA UNIVERSITY COLLEGE

OF EDUCATION AND BEHAVIORAL STUDIES DEPARTMENT OF SPECIAL NEEDS EDUCATION GRADUATE PROGRAM

1. Interviews guide for Deaf students

Dear Respondents

I am a student at Addis Ababa University main campus and carrying out a research on the educational challenges and opportunities of deaf students Menelik II preparatory school Addis Ababa. So this school has been chosen as a source of information for my research. I will be very grateful if you could take some of your precious time to assist me in this study by participating in these interviews. To achieve this study, your genuine response is highly important and valuable therefore you are kindly requested to honestly respond to the interviews presented and the researcher would like to assure that all data collected from you will be treated as confidential and that to protect your privacy, names will not be revealed.

1. What is your Deafness status? Profound or Hard of hearing?
2. When did you become Deaf? And what was its cause?
3. Can you communicate sign language? If No, why? If yes, How long?
4. How do you communicate with hearing people?
5. What are the major Educational opportunities that you get from this school?
6. What support services do you get from SNE professional? Do you think that support is sufficient?
7. Do you think your academic achievement is differing from hearing students? If yes, how
8. What educational challenges do you face? And why
9. Do you think your educational challenges are due to the hearing problem? If yes, How
10. Are there sign language interpreters in your school? If yes, are these interpreters quality in interpretation?
11. Is there any note taker to assist you during classes lecture?

12. Do your interpreters always available during learning? If No, How do you learn without interpreter in the class?
13. How do you observe the teaching method of your teachers? Do they pay extra attention to you during and after the class? And do they make any accommodations to their lessons in order to facilitate your learning?
14. What support do you expect your teachers to give you?
15. Are there cordial relationships between you and hearing students? Do they help you when you need something to help?
16. Is there anything else you would like to say in relation to educational challenges you faced and the opportunities you get in school?

Thank you for devoting your time to participate in this interview!

APPENDIX B

ADDIS ABABA UNIVERSITY COLLEGE

OF EDUCATION AND BEHAVIORAL STUDIES DEPARTMENT OF SPECIAL NEEDS EDUCATION GRADUATE PROGRAM

2. Interviews Guide for the Teachers

I am a student at Addis Ababa University main campus and carrying out a research on the educational challenges and opportunities of deaf students Menelik II preparatory school Addis Ababa. So this school has been chosen as a source of information for my research. I will be very grateful if you could take some of your precious time to assist me in this study by participating in these interviews. To achieve this study, your genuine response is highly important and valuable therefore you are kindly requested to honestly respond to the interviews presented and the researcher would like to assure that all data collected from you will be treated as confidential and that to protect your privacy, names will not be revealed. How long have you teaching in this school?

1. Do you communicate sign language? If yes, when and how long
2. Do you experience any challenge during teaching and learning process with Deaf learners? If yes, how do you attempt to overcome these challenges?
3. What academic opportunities does this school provide for Deaf students?
4. What teaching method do you apply for Deaf learners? Do you think these kinds of method make them understand the lesson?
5. Are there any difference between Deaf and hearing students in academic achievement? If yes explain some?
6. What teaching materials do you give to Deaf students during teaching in the classroom?
7. Do you think Deaf students can write and read as well as hearing students? If not, why?
8. Do you have any plan to minimize educational challenges of Deaf students?
9. Is there anything else you would like to say in relation to educational challenges of Deaf students?

Thank you for devoting your time to participate in this interview!

APPENDIX C

ADDIS ABABA UNIVERSITY COLLEGE

OF EDUCATION AND BEHAVIORAL STUDIES DEPARTMENT OF SPECIAL NEEDS EDUCATION GRADUATE PROGRAM

3. Interview Guide for Sign language interpreters

I am a student at Addis Ababa University main campus and carrying out a research on the educational challenges and opportunities of deaf students Menelik II preparatory school Addis Ababa. So this school has been chosen as a source of information for my research. I will be very grateful if you could take some of your precious time to assist me in this study by participating in these interviews. To achieve this study, your genuine response is highly important and valuable therefore you are kindly requested to honestly respond to the interviews presented and the researcher would like to assure that all data collected from you will be treated as confidential and that to protect your privacy, names will not be revealed.

1. What education level do you have and how long have you been interpreting in this school?
2. Before coming to this school did you have SL interpreting experience at other school?
3. What kinds of challenges do you face during interpreting for Deaf students?
4. How long and how you decided to be sign language interpreter?
5. What do you know about Deaf learners' academic challenges and the opportunities that are given form them in this school?
6. Do you think Deaf students can write and read as well as hearing students? If not, why?
7. Do you think you are Advanced in signing? And are Deaf learners able to understand you when interpreting lecture in class?
8. What kinds of support do you get from this school to facilitate your interpreting work?
9. Do you have any ideas you would like to add?

Thank you for devoting your time to participate in this interview!

APPENDIX D

ADDIS ABABA UNIVERSITY COLLEGE

OF EDUCATION AND BEHAVIORAL STUDIES DEPARTMENT OF SPECIAL NEEDS EDUCATION GRADUATE PROGRAM

4. Interview Guide for SNE Professional

I am a student at Addis Ababa University main campus and carrying out a research on the educational challenges and opportunities of deaf students Menelik II preparatory school Addis Ababa. So this school has been chosen as a source of information for my research. I will be very grateful if you could take some of your precious time to assist me in this study by participating in these interviews. To achieve this study, your genuine response is highly important and valuable therefore you are kindly requested to honestly respond to the interviews presented and the researcher would like to assure that all data collected from you will be treated as confidential and that to protect your privacy, names will not be revealed.

1. Does this school has resource center with support materials for Deaf students? If yes, Please list some of support materials.
2. As a professional what kind of support do you provide for both teachers and deaf students?
3. What kinds educational challenges do Deaf students face in this school?
4. Do you provide sign language training to hearing students and teachers? If yes, How often
5. Do you believe that Deaf student could learn and succeed like others if support is provided?
6. What do you think are the major problem on Deaf learners' academic achievement?
7. Do you think inclusive Education develops the academic achievement of Deaf students? If yes, How
8. Do you think Deaf students can write and read as well as hearing students? If not, why?
9. To which school do you think should Deaf students be replaced for being succession in academically? Inclusive school or special needs school?
10. What do you believe are the possible solution for the educational challenges of Deaf students?
11. Do you have anything to add?

Thank you for devoting your time to participate in this interview!

APPENDIX E

ADDIS ABABA UNIVERSITY COLLEGE

OF EDUCATION AND BEHAVIORAL STUDIES DEPARTMENT OF SPECIAL NEEDS EDUCATION GRADUATE PROGRAM

5. Interview Guide for the school Principals

I am a student at Addis Ababa University main campus and carrying out a research on the educational challenges and opportunities of deaf students Menelik II preparatory school Addis Ababa. So this school has been chosen as a source of information for my research. I will be very grateful if you could take some of your precious time to assist me in this study by participating in these interviews. To achieve this study, your genuine response is highly important and valuable therefore you are kindly requested to honestly respond to the interviews presented and the researcher would like to assure that all data collected from you will be treated as confidential and that to protect your privacy, names will not be revealed.

1. How long have you been working in this school as a principals?
2. What type of support do you think Deaf students need in order to facilitate his/her learning experience?
3. What kind opportunities does this school provide for Deaf students?
4. What kind educational challenges do Deaf students face and why do you think they face these problems?
5. Is there resource center in this school? If yes, are any types of support service sufficient?
6. What should be done to improvement the academic achievement of Deaf students?
7. Do you have anything to add in relate to the educational challenges of Deaf students?

Thank you for devoting your time to participate in this interview!

APPENDIX F

ADDIS ABABA UNIVERSITY COLLEGE

OF EDUCATION AND BEHAVIORAL STUDIES DEPARTMENT OF SPECIAL NEEDS EDUCATION GRADUATE PROGRAM

6. Focus Group Discussion points for Deaf learners

1. What academic challenges do you face and why?
2. Do you think those challenges you encountered are due to the problem with hearing?
3. What kind opportunities do this school provided to you?
4. What kind support do you get from the special education professional? Do you think that support is sufficient? If not, explain why?
5. How do you describe the teaching approach of your teachers and their attentions to you?
6. How do you describe the sign language skill of your interpreters?
7. What challenges do you face during group work/homework and during exams?
8. How can be these challenges are resolved or minimized?

Thank you for devoting your time to participate in this FGD!