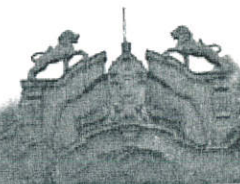


Addis Ababa  
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**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

**THE SOCIAL SKILLS AND ACADEMIC PROGRESS OF  
DEAF AND HARD-OF-HEARING STUDENTS ATTENDING  
TWO SECONDARY SCHOOLS OF ADDIS ABABA: THE  
MOVE TOWARDS INCLUSIVE EDUCATION**

BY  
**ADEM NURHUSSEN MUHAMMED**



**MAY, 2010**

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THE REQUIREMENTS FOR THE DEGREE MASTERS OF ARTS IN  
SPECIAL NEEDS EDUCATION*

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# Table of Contents

<b>Contents</b>	<b>Pages</b>
Acknowledgements.....	i
List of Tables.....	ii
Acronyms and Abbreviation.....	iii
Abstract.....	iv
<b>Chapter One Introduction</b>	
1.1 Background of the study.....	2
1.2 Statements of the problem.....	3
1.3 Objectives of the study.....	5
1.3.1 General objective.....	5
1.3.2 Specific objectives.....	5
1.4 Significance of the study.....	6
1.5 Delimitation of the study.....	6
1.6 Operational definitions of terms.....	8
<b>Chapter Two Review of Literature</b>	
2.1 Definitions and concept of inclusion.....	10
2.2 Perspectives on inclusion in the general field of special needs education and in the education of D/HH students.....	12
2.2.1 Inclusion in special needs education.....	12
2.2.2 Inclusion in the education of D/HH students.....	14
2.3 The education of D/HH students.....	16
2.4 Factors affecting D/HH students' adjustment in classes with hearing students.....	18
2.4.1 Communication skills.....	19
2.4.2 Academic skills.....	20
2.4.3 Social and emotional development.....	20
2.5 The concept of social inclusion.....	21
2.5.1 Social participation.....	23
2.5.2 Social acceptance.....	23
2.6 Communication and social interaction of D/HH students in classes with hearing students.....	24
2.7 Contribution of staffs to students' participation (social integration).....	27
2.8 Pros and cons to inclusion for D/HH students.....	28
2.8.1 Benefits of inclusion for D/HH students.....	28
2.8.2 Risks of inclusion for D/HH students.....	29
2.9 Overview of education of D/HH students and inclusive education in Ethiopia.....	29

## **Chapter Three Methodology and Data Analysis**

3.1	Participants .....	32
3.2	Research settings.....	33
3.3	Instruments .....	34
3.3.1	Questionnaires.....	34
3.3.2	Semi-structured interview schedule.....	35
3.3.3	Observation.....	36
3.4	Pilot testing.....	36
3.5	Data collection procedure.....	37
3.6	Ethical considerations.....	38
3.7	Data analysis and interpretations.....	38

## **Chapter Four Results of the Study**

4.1	Analysis of Results Obtained from D/HH Students.....	40
4.1.1	D/HH students' profiles .....	40
4.1.2	D/HH students' views of their communication with the hearing students and their teachers.....	41
4.1.3	D/HH students' view of their participation in academic and social activities.....	43
4.1.4	D/HH students' view of their social interaction with hearing peers .....	48
4.1.5	D/HH students' views of potential challenges in the move towards inclusive education.....	50
4.1.6	The correlations between communicative skills, classroom participation and social inclusion of D/HH students.....	46
4.1.7	Comparison of gender in communicative skills, classroom participation, and social integration.....	51
4.2	Analysis of Results Obtained from D/HH Teachers.....	52
4.2.1	Profile of teacher participants.....	52
4.2.2	Teachers' views of the communicative skills of their D/HH students.....	53
4.2.3	Teachers views of their D/HH students participation in classroom and social activities.....	54
4.2.4	Teachers views of their D/HH students' social inclusion.....	55
4.3	Analysis of Qualitative Data.....	58
4.3.1	Interview reports from parents.....	58
4.3.2	Interview reports from interpreters.....	60
4.3.3	Results obtained from observation .....	64

## **Chapter Five Discussion, Summery, Conclusion and Recommendations**

5.1	Discussion.....	67
5.2	Summery and conclusion.....	75
5.3	Recommendations.....	78

### **References**

### **Appendices**

## **Acknowledgements**

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## Lists of Tables

<b>Table No</b>	<b>Page</b>
Table 1: D/HH students and teachers selected from two secondary schools.....	32
Table 2: Age, sex, hearing status and educational background of D/HH students.....	40
Table 3: D/HH students' response for communication skills.....	41
Table 4: D/HH students' response for participation in classroom and social activities.....	43
Table 5: D/HH students' response for their social inclusion.....	45
Table 6: Data and results of t-test on the degree of seriousness of the problems.....	48
Table 7: Correlation between communicative skills, classroom participation and social inclusion.....	50
Table 8: Data and results of t-test on the variable behavior between the sexes.....	51
Table 9: Age, teaching experience, sex and training of teachers participants.....	52
Table 10: Teachers' response on communicative skills of their D/HH students.....	53
Table 11: Teachers' response on academic inclusion of their D/HH students.....	54
Table 13: Teachers' response on social inclusion of their D/HH students.....	56

## **Acronyms and Abbreviation**

D/HH- Deaf or hard-of-hearing

EFA- Education For All

FDRE- Federal Democratic Republic of Ethiopia

IEP- individualized Education Program

LRE- Least Restrictive Environment

MOE- Ministry of Education

SD- Standard Deviation

SNE- Students with Special Educational Needs

UNESCO- United Nation Education Scientific and Cultural Organization

UPEC- Universal Primary Education Complition

## **Abstract**

*This paper reports the results of a study which has been carried out, with the main aim of exploring the views of deaf and hard-of-hearing (D/HH) students (who attend secondary regular schools, and use an interpreter), as well as the perceptions of their teachers, parents and teachers on their social and academic inclusion. For the purposes of the study, two questionnaires, and interview schedules were designed to be administered to all D/HH students attending secondary regular schools (n=45), as well as their teachers (n =43). Interview schedules were conducted to their parents (n =5) and to their interpreters (n =5) with a view to investigating their perceptions on inclusion. Moreover, observation sessions were conducted within and outside of class to confirm data obtained from the questionnaire and interview schedules. The data were analyzed statistically and they revealed that the majority of D/HH students had been included well socially and had achieved a reasonable academic standard. This study also revealed that the D/HH students' communicative skills were positively related to their academic and social inclusion. These findings suggest that there are no significance differences between male and female D/HH students concerning their academic, communicative skills and social adjustments. It was emphasized by almost all participants in this study that attending televised instruction delivered through satellite television program was questionable and not suitable for D/HH students.*

# CHAPTER ONE

## *INTRODUCTION*

Inclusive education is an educational movement, which stresses every child's fundamental right to education and in achieving and maintaining an acceptable level of learning (Mastropieri and Scruggs, 2000). It acknowledges that every child has unique characteristics, interests, abilities and learning needs, and therefore argues that education systems should be designed and educational programs implemented, taking into account the wide diversity of these characteristics, aspirations and needs.

Regular schools with inclusive orientation are considered to be the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; and are able to provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness, of the entire education system (UNESCO, 1994).

Deaf or hard-of-hearing (D/HH) students are among special needs student categories considered for placement in inclusive classes. For example, in his study of special needs students in the United States, Heward (2000) reported that approximately 82 percent of schoolchildren who are deaf or have some significant difficulty in hearing do attend public schools in United States. Thirty-six percent of these children receive most of their education in regular classrooms.

Power and Hyde (2002) have reported that inclusion of D/HH in general school is the current tendency in deaf education these days. It has been suggested that the goal of inclusion is to promote the social and academic inclusion of D/HH students. In this regard, a number of studies have been carried out worldwide investigating this issue (Stinson and Liu, 1999; Kluwin, 2002; Lukomski, 2007). With all of the research being done on the inclusion of D/HH students in general classroom, there is still much controversy on this subject.

Recently, in Ethiopia some government and non-government schools have become interested for the education of D/HH students and they have started to include D/HH students by making some needed changes in existing facilities. This study, therefore, was

conducted to explore the social skills and academic progress of D/HH students attending two secondary general schools of Addis Ababa.

The study is organized into five chapters. The first chapter deals with the research problem and its approach, and the second chapter mainly focused reviewing of literatures related to the study. The third and fourth chapters' deals on the methodology used and the findings obtained respectively. The final or fifth chapter deals with the discussions, summery, conclusion and recommendations.

## **1.1 Background of the study**

The constitution of the Federal Democratic Republic of Ethiopia (FDRE) under article 90 declared that “to the extent the country’s resources permit, policies shall aim to provide all Ethiopians access to public health and education” (FDRE,1995). In addition to what has been stated in the constitution, the 1994 Education and Training Policy of the country too favor special needs education. In this policy, emphasis is given to the provision of education both to the handicapped and to the gifted “in accordance with their potential and needs”. In order to achieve the objective of the education and training policy the government has established special needs education classes attached to general schools, but there are still huge targets to achieve.

In recent times, a number of steps have been initiated by the government to promote the education of children with special educational needs in general classrooms. To achieve this goal, the government has planned the Special Needs Education Program Strategy which recommends inclusive education as the preferred placement alternative for the Ethiopian special needs children (MOE, 2006).

As a result, there are a number of schools, which have just targeted on inclusion of different groups of disabilities in regular classrooms. For instance, in Addis Ababa city there are eleven primary schools, which included children with special educational needs in their regular classrooms and special classes. In fact, inclusive education in the country is a recent phenomenon and as such, it is in its infantile stage. However, with this short time period, some successful inclusive education attempts with different groups of students with disabilities have been observed in recent years (Etenesh, 2000).

With regards to D/HH students in Ethiopia, they had their education in boarding special schools, day special schools, special units and special classes in regular schools for a long time. However, the relative lack of schools for D/HH in different parts of the regions resulted in D/HH students being enrolled in general education classes, where neither sign language and interpretation service, nor lip-reading instruction or any other method of education for the D/HH is used.

The education provided for D/HH students in different part of the country through government and non-governmental organizations is also limited in providing instruction only at the elementary level, with no access or opportunity to continue into secondary or higher education, except for a small group of students. The majority of D/HH students who completed primary special schools (special classes) living in different regions of the country, had no opportunity to continue their secondary education in their community.

Recently, D/HH students are enrolled in three secondary schools in the country that provided support to D/HH students' education through interpreters or the sole use of sign language as a medium of instruction. These include 1) Hossana Mekaneyesus School for the Deaf (residential setting), 2) Minilik II preparatory school (regular setting) and 3) Tikur Anbessa secondary school (special class, and regular setting).

Thus, the move towards inclusive education is a new concept and has been practiced in a few schools for D/HH students in different regions of Ethiopia. Therefore, it is a good initiative to conduct research in the area so that the move towards inclusive education for D/HH students will be facilitated and managed in an appropriate and desirable manner.

## **1.2 Statements of the problem**

Educating students with special educational needs (SEN) in inclusive classrooms is an important objective of many countries. In Ethiopia too, attempts are being made to include students with SEN including deaf, in regular classrooms for every educational activity. Recent data in Ethiopia show that an increasing proportion of students with SEN including D/HH students at present are educated in regular education classrooms (World Vision Ethiopia, 2007).

However, the inclusion of students who are D/HH in general education classrooms with hearing peers continue to be a controversial topic. Those who advocate inclusion cite

better academic performance and social development for students who are D/HH (Mastropieri and Scruggs, 2000). Opponents of inclusion refer to problems associated with language and communication, socialization, and cultural identity (Cohen, 1994).

International studies have repeatedly shown that most, but not all, studies did not support the positive aspects of inclusion mentioned above. That is, some studies have reported that D/HH students have encountered negative attitudes held by their hearing peers, have experienced isolation, or loneliness, or have failed to establish close relationships with their hearing peers (Antia,1998; Stinson and Liu,1999; Kreimeyer et al., 2000; Gulp, 2001). On the other hand, a few studies have reported satisfactory outcomes for academic progress and social development of D/HH students, including positive attitudes toward and acceptance of D/HH students by their hearing peers (Kluwin, Stinson and Colarossi, 2002; Power and Hyde, 2002).

Since it is known from the literature with inclusive education that, students who are D/HH generally experienced difficulties in their social, academic and language development, it is important to study the efficacy of the regular education for D/HH students.

Most of the research carried out on D/HH students in Ethiopia to-date tended to focus with those who were educated primarily either in special educational settings or with those integrated within the regular education classroom, with little or often without support services. Moreover, these studies have been limited only on students who were educated in primary level curriculums.

As in many other least developed countries with large youthful population, Ethiopia evidently has many more D/HH students who are educated in regular secondary schools along side with their hearing peers. However, the empirical studies that would investigate the social and academic outcome of including D/HH students in secondary level regular schools have not yet been conducted.

Resulting from the above, the purpose of this study was to explore the views of D/HH students who were attending secondary regular schools (through the support service of interpreters), as well as the perceptions of their teachers, interpreters and parents on their

communicative skills and social inclusion. The further aim of this study was to investigate the participants' views on the D/HH adolescents' academic ability achieved because of their inclusion.

Specifically the study attempts to answer the following basic research questions:

1. How D/HH students' perceive their socialization, communicative skills and participation in classroom and social activities in the regular secondary schools?
2. How do teachers feel about their D/HH students' presence in the regular secondary schools with regard to socialization, communicative and academic competence?
3. To what extent D/HH students cope with the social and academic demand of regular secondary schools as perceived by interpreters and parents?
4. Are there significant differences between male and female D/HH students in their academic, social and communicative skills?
5. What potential problems D/HH students experience in adapting the educational and social demands of the regular secondary school environments?

### **1.3 Objectives of the study**

This study has the following general and specific objectives.

#### ***1.3.1 General objective***

The general objective of the study is to investigate the academic, communicative and social skills of secondary school D/HH students in the regular classroom setting.

#### ***1.3.2 Specific objectives***

The specific objectives of the study are:

1. Identifying the views of stakeholders, namely teachers and interpreters on the social skills and academic progress of D/HH students who attend secondary regular schools.
2. Recognizing the problems and constraints faced by D/HH students that need immediate attention.

3. Identify the attitudes of parents towards inclusion of their children in regular classroom.
4. Examining the extent of D/HH students' ability to communicate, socialize as well as their ability to build friendships with peers as observed by the researcher.
5. Arriving at some concluding and suggestive remarks and provide some relevant recommendations that will facilitate the smooth progress and efficient management of inclusive education for D/HH students in Ethiopian regular secondary schools.

#### **1.4 Significance of the study**

The focus of this study is to assess the social and academic inclusion of D/HH students in general secondary schools in Ethiopia. Doing this kind of efficacy study can provide an insight into various aspects of their academic, communication and social growth. It can also provide valuable information on the roles played by key actors, namely interpreters, special educators and the regular teachers and their contribution towards success or failure of the move towards inclusive education for D/HH students. This can further guide school authorities in responding appropriately to fill in the gaps that contribute negatively towards the success of the move into inclusive education for D/HH students. It is hoped that this study will shed light on some grey areas in the areas of inclusive education in Ethiopia and come up with policy relevant recommendations to improve the efficiency and effectiveness of the move towards inclusive education in the country. Finally, the study may provide background information and as such serves a stepping stone for doing further research in the area.

#### **1.5 Delimitation of the study**

Studying social and academic inclusion of D/HH students in regular secondary schools probably take various dimensions. In this regard, it is very important to define and delimit the scope of analysis and study in this kind of work. In the present study, a social skill is defined as the ability to participate in social activities, achieve good communication and to make friends with and be accepted by peers. Moreover, the concept of academic progress is used throughout the study to indicate two components, namely academic performance and classroom participation. Academic performance can be established

through the classroom academic status and normative academic status, where as classroom participation refers to the students' ability to participate in classroom activities and discussions. This study, therefore, investigates the participants' views on the social skills and academic progress of D/HH students based on the above criteria. As indicated earlier, this study was also delimited only to two secondary schools, namely Minilik II Preparatory School and Tikur Anbessa Secondary School. In addition, the study is delimited to adolescents who are enrolled in programs that provided support to D/HH students in general education through interpreters.

## 1.6 Operational definitions used in the study

- ❖ *A deaf person*- is one who cannot understand and use speech language as a primary means of communication with or without the use of hearing aid.
- ❖ *A hard- of -hearing person*- is one who can understand and use speech language, with or without a hearing aid.
- ❖ *Academic inclusion*- has two components, classroom participation (the students' ability to participate in classroom activities and discussions) and academic performance (classroom academic status and normative academic status) of D/HH students compared to hearing students in the general education classrooms.
- ❖ *Communication skills* – *D/HH student's* language ability in spoken communication or in sign communication or various combinations of the two, in interacting with hearing peers as well as with D/HH students, in different social and academic situations.
- ❖ *Regular teacher* – a teacher who is primarily responsible to teach both D/HH students and their hearing classmates in the general education classroom with the assistance received from the interpreters.
- ❖ *Inclusive education* -is a process of teaching students with various needs in general education classrooms alongside their peers, under the responsibility of the general classroom teacher. The activities in the classroom must be adjusted to meet the needs of all learners.
- ❖ *Interpreter*- is an individual a person who use sign language and/or finger spelling to translate spoken communication, so that D/HH students can participate and communicate in inclusive classrooms.
- ❖ *Residential schools for the deaf students*- are schools, which has academic, health, and socialization programs including dormitory living and cafeteria services for students who are D/HH.
- ❖ *Self- reports of social relationships*- deaf students perceived report of making and keeping friends, emotional security with hearing peers, and participation in social activities.
- ❖ *Sign language*- is a visual gestural language, which has its own grammar and vocabulary, involving the use of hands, eyes, mouth, head and body. It is accepted

as fully developed first language of the deaf and can be acquired naturally through exposure to the language and through instructions provided in the school settings (Alemayehu, 2003)

- ❖ *Social acceptance*- means being acknowledged, respected and preferred by classmates as a friend.
- ❖ *Social inclusion*- is defined in this study as the ability to participate in social activities, and to make friends with and be accepted by peers.
- ❖ *Social integration*- is the ability to interact with, make friends with, and be accepted by peers (the need to be able to participate in social activities and develop close and emotionally secure relationships with peers).
- ❖ *Social interaction*- means dealing with hearing classmates and engagement in linguistic and nonlinguistic communication.
- ❖ *Special classes* - are classes located within general schools where D/HH students are attending their education with specialist teachers and the students have opportunities for social contacts with hearing students outside the classroom.
- ❖ *Special day schools for the deaf students*- are schools established in separate for D/HH students. Students live at home, they go back and forth to these schools daily, and hearing students are not enrolled.

# CHAPTER TWO

## *REVIEW OF LITERATURE*

It is indisputable that there has been a phenomenal growth in research and practice in inclusive education in special needs education and inclusion in the education of D/HH students in the last twenty-five years. This growth and development has been documented in several books and publications. Thus, this chapter reviews samples of scholars' claims on issues related to inclusion of D/HH students in regular schools along with their hearing peers.

### **2.1 Definitions and concept of inclusion**

Definitions of inclusion, as well as models for how best to implement the agreed upon definitions may vary from one country to another, reflecting the unique characteristics of the society and culture. On the other hand, elements of inclusion may be universal, reflecting similar goals, functions, and experiences across countries (Corbett, 2001).

Here the definition of inclusion is presented from three perspectives: placement, philosophy, and pragmatism.

***Placement Perspective-*** In examining the educational process from the perspective of placement, the key issue is the physical setting in which children receive their education (Corbett, 2001). From this perspective, inclusion implies that children who are deaf or hard of hearing receive most, or all, of their education in the regular classroom (Stinson and Antia, 1999:164).

***Philosophical perspective-*** From philosophical perspective, inclusion is more complex than mere physical placement in regular classroom (McGregor and Vogelsberg 1998 cited in Stinson and Antia, 1999:165). According to Stinson and Liu (1999), the philosophical perspective on inclusion derives from the Regular Education Initiative (REI), a concept that was much debated in the 1980s and early 1990s but that now appears to be included under inclusion.

*Philosophically, inclusion implies that the regular classroom will change to accommodate all different learners and that it is desirable to offer*

*special services to all children within the regular classroom. One major assumption is that, in an inclusive setting, the classroom teacher, rather than the special educator, has the primary responsibility for educating all children in the classroom (Stinson and Antia, 1999:165).*

In order to make the classroom inclusive for all learners, teachers should work in partnership with special educations to make adaptations in the curriculum and to structure the classroom in the manner that will allow for learning by a diverse group of learners (Anita and Stinson, 1999). According to these authors, another assumption is that special services that have traditionally been offered outside of the classroom setting will be offered within the classroom.

Some of the philosophical premises for advocating inclusion include preparing individuals for life, learning from typical peers, having normal life experiences, changing attitudes of individuals without disabilities, challenging societal rejection, and teaching democracy (Mastropieri and Scruggs, 2000). While few would disagree with these premises, the gap between philosophy and practice can be cause for concern. Educators may wonder whether the regular classroom can accommodate the needs of the deaf and hard of hearing learners (Cohen, 1994).

In summary, inclusion according to philosophical perspective implies that the regular classroom will adapt to the child and the classroom practices are expected to change to accommodate individual children.

***Pragmatic perspective-*** From a pragmatic perspective, the major question to be answered is whether accommodations can be made, or are being made, in the regular classroom in order to appropriately educate deaf and hard of hearing students (Stinson and Anita, 1999: 165). A pragmatic issue that needs to be resolved according to these authors is whether special educators and regular classroom teachers can work in an equal partnership to provide an adequate education to D/HH of hearing students with in the regular classroom. Central to this issue are concerns as to whether the practices within the regular classroom can be changed sufficiently to accommodate the D/HH child's communication needs, another major question is whether the D/HH child can receive the

appropriate intensity of services within the regular classroom (Taylor, 1987 cited in Stinson and Antia, 1999).

To sum up according to Stinson and Antia (1999) inclusion implies that the D/HH of student is a full time member of the regular classroom, where the classroom teacher, in partnership with the special educator, accommodates the classroom environment and curriculum to the student's needs. The ideal outcome of such an inclusive classroom (environment) is a student who is well integrated both academically and socially. Because the gap between theory and practice, the ideal and the real is usually quite large, we need to examine carefully the processes of inclusion, such as the degree to which classroom practices are modified to accommodate the D/HH child, or the kinds of classroom practices that optimize the D/HH student's academic and social integration. We also need to examine the outcomes of inclusion or the degree to which D/HH students are academically and socially integrated.

## **2.2 Perspectives on inclusion in the field of special needs education and in the education of D/HH students**

### ***2.2.1 Inclusion in special needs education***

Other areas of special education have also seen an increase in placement of students in regular classes (Marschark, Young and Lukomiski, 2002:182). With in both education of D/HH students and special needs education in general, this change in enrollment patterns has generated extensive discussion. Within the general field of special education, this discussion has addressed students with high- incidence disabilities such as learning disabilities, emotional disturbance, and speech or language impairments, as well as those with severe disabilities such as mental retardation (Ramsey, 1994). Part of the impetus for this emphasis stems from the assumption that appropriate placement is that it occurs in a setting as close as possible to students without disabilities (Fuchs, Fuchs, and Firestorm, 1993 cited in Corbett, 2001).

An array of instructional materials and media and teaching strategies has been developed with the intent of fostering learning of students with disabilities within the regular classroom. These strategies include cooperative learning 'collaborative or co

teaching, curriculum-based measurement, and trans-environment planning (Corbett, 2001). *“Some advocates of inclusive approach have called for substantial reduction or elimination of the traditional pull-out special education service delivery model”* (Ramsey, 1994). These advocates have noted that many students with mild disabilities have made limited progress in special education classrooms and that the teaching strategies for effective education in the regular classroom appear to be similar to those for effective instruction in the special classroom.

Several research studies have focused on the pragmatic aspects of inclusive classrooms (Stinson and Anita, 1999). For example, recent studies of students with learning disabilities have indicated that many of their teachers make few adjustments in assignments, teaching routines, expectations, homework, or testing (Vaughn and Schumm, 1996 cited in Stinson and Antia, 1999). These authors explain further that because of lack of accommodations, as well as the lack of specialized remedial instruction, many of these students appear to be falling further behind their classmates.

A study by Hucutt (1996 cited in Hallahan and Kauffman, 1994: 46), in an extensive review that compared academic and social outcomes of regular classes students with various disabilities with those placed in special classes. And concluded that the key factor for academic progress was that instruction to be specifically addressed to student needs, rather than where the instruction was located. Thus, there is no guarantee that special education teachers in resource or self-contained classrooms will provide specialized individual instructions. For example in a study of the instructional methods employed in self contained classrooms Farrugia et al. (1981 cited in Leigh, 1994) gave proof that, special educators used primarily whole-group instruction similar to that provided in the regular classroom and offered little individualized instruction.

A key criticism of the more radical approaches to inclusion is that it is important to maintain the continuum of special education services, programs, and environments, ranging from inclusion in the regular classroom to full-time placement in special schools. This diversity of services is necessary because different instructional approaches and settings are necessary for effective education of students with different disabilities.

Furthermore, within disability classifications, there is a considerable variation among students, which imply further substantial differences in educational needs (Hallahan and Kauffman, 1994; Stinson and Liu, 1994).

### ***2.2.2 Inclusion in the education of D/HH students***

A student with hearing impairments is among other special needs schoolchildren considered for placement in inclusive classes. His or her major disability is the inability to perceive or hear speech or sounds through his or her sense of hearing (Ademakoya, 2008:203). Hearing impairments range in severity from mild to profound, with the greatest educational distinctions occurring between hard-of-hearing and deaf. Students classified as hard-of-hearing can hear speech tones when wearing hearing aids, while students who are deaf cannot hear even with hearing aids (Mastropieri and Scruggs). Heward (2000) reported that approximately, eighty-two percent of the schoolchildren who are deaf or have some significant difficulty in hearing attend public schools in United States. Thirty-six percent of such schoolchildren receive most of their education in regular classrooms.

The inclusion of students who are deaf refers to their being educated within a classroom of students with normal hearing. Inclusion may involve grouping of services including interpreters, note takers, teacher aides, teachers of students who are deaf, and consultants, but these services are provided within the context of the regular classroom (Richard and Josef, 1997).

Expectedly, inclusive education practices are not without some constraints or challenges. Those challenges range from difficulties in securing the necessary social fusion between non-disabled and special needs learners in inclusion classes to the problems of determining the appropriate instructional language acceptable to all learners in an inclusive class. For a D/HH schoolchild, his or her hearing classmate and the teacher (regular or special), choosing the most effective and acceptable communication medium is perhaps the greatest obstacle to crack (Ademokoya, 2008).

As Ademokoya, 2008 and Cohen, 1994 noted, the major problem with the deaf person is the failure of communication. As far as inclusiveness is concerned, the classroom

communication challenge is that of finding an appropriate language of instruction in an inclusive class for hearing and non-hearing learners (Leigh, 1994). The most important issues, when thinking inclusion for a deaf individual, are related to language and communication. At the very least, an individualized education program (IEP) for a child who is deaf must consider the following (John and Muir, 2001)

- 1) Communication needs and the child's preferred mode of communication
- 2) Linguistic needs
- 3) Severity of hearing loss and potential for using residual hearing;
- 4) Social, emotional, and cultural needs, including opportunity for peer interactions and communication.

In deaf education, inclusion is being promoted, and there are many issues that deaf educators and general educators need to be aware of, so they can develop strategies and know where to go for additional resources (Richard and Josef, 1997).

Because deafness is a low incident disability, including the child in the regular classroom for all, or almost all, educational activities implies that the child will often be the only individual with a hearing loss in a classroom and, frequently, one of only a few such children in the neighborhood school (Hallahan and Kauffman, 1994; Stinson and Lui, 1999). Several authors have expressed concern regarding the adequacy of learning deaf students in such a setting (Stinson and Liu, 1999; Leigh, 1994; Cohen, 1994). Research examining the efficacy of special schools or classes, as opposed to regular classroom placement for students with different disabilities, has suggested that frequent placement in a special setting may be more desirable for D/HH students than for those with other disabilities (Stinson and Antia, 1999). The primary reason for the difference appeared to be the greater social benefits of special settings for the D/HH students (Cohen, 1994; Leigh, 1994).

In focusing on students in inclusive settings, this dedicated issue calls for devoting attention to the students currently in such settings and for development of effective strategies to support them. This attention to inclusion is a call neither for inclusion of all students who are D/HH nor for a reduction in the continuum of services for D/HH students (Stinson and Antia, 1999). According to these authors, if programs are to

provide quality education for D/HH students in inclusive settings, they need to provide means for these students to achieve academic and social integration. Programs also need to adapt the support that they provide in response to individual differences in communication skills, proficiency in spoken language, other academic skills, and social behaviors (Cohen, 1994; Leigh, 1994; Stinson and Antia, 1999).

Some of the issues involved with inclusion are unique to D/HH students. As Stinson and Antia (1999) states:

*They may have difficulties in communicating with their hearing classmates and in learning spoken language; often these difficulties can be best addressed in special classes or schools. Even with these considerations, inclusive approach can be appropriate for many students. (PP-167)*

### **2.3 Education of D/HH students**

One of the earliest educational programs for children with special educational needs of any kind was a school for the deaf children of noble families that was established in Spain around 1578 by Pedro Ponce de Leon (Heward and Orlansky, 1988:123). Historically deaf education has been dominated by an ongoing struggle between interest groups regarding methods of communication. *“An ongoing debate exists over what should be considered the best approach for teaching individuals with severe hearing impairments”* (Moore, 2001:14).

Some advocate, “total communication”, which involves using speech (lip reading), gestures, and sign language, or both oral and manual methods (Alemayehu, 2003). As Moore (2001) states:

*Teachers using total communication rely on the structure of the spoken (English) language, and speak while signing during communications with students who are D/HH. Some advocate the use of only oral approaches, eliminating any manual components used in total communication. Teachers using only oral approaches rely heavily on auditory, visual, and tactile methods of presentation. (PP-22)*

Finally, others advocate the use of only sign language or manual approaches. These individuals advocate the exclusive use of sign language because they maintain that a unique "culture of the deaf" exists among those who communicate with sign language (Ramsay, 1994). Ramsay further believe that when individuals with hearing impairments are taught only to speech read or use oral techniques, they are denied full participation in culture of the deaf. Individuals in this position say they are not disabled, but that they are part of another cultural group composed of individuals who are deaf. No clear research evidence exists to promote one approach over the other in teaching students who are deaf. Therefore, it is likely that these debate appropriate approaches will continue into the future (Cohen, 1994).

One theme that will run throughout the development of deaf education is the pervasive influence of general education, an influence that has been growing for more than fifty years (Moore, 2001). This has been manifested in a variety of ways. *"In the past most deaf children were educated in residential schools. The curriculum was specifically designed to emphasize speech, speech reading, and grammar, with little attention devoted to content areas such as math, literacy, and science"* (Hallahan and Kauffman, 1994:125). According to Hallahan and Kauffman, today most D/HH children attend the same schools and sometimes the same classes, as hearing children. To some extent, the curriculum is similar. This is also true for D/HH children attending separate day schools and residential schools. However, implementing a general education may be difficult for the large numbers of D/HH children who may enter the educational system without having a mastery of the oral language and a clear functional communication system.

Educational opportunities for D/HH children in regular public schools have become widespread only in recent years (Hallahan and Kauffman, 1994:125). Although increasing attention is given to the needs of D/HH children, the present state of special education for D/HH children is not a happy one (Cohen, 1994). Many D/HH students leave school unable to read and write their mother tongue proficiently. *"The average deaf student completing a secondary education program is still performing at a level similar to the average 9 or 10 year old hearing students"* (Heward and Orlansky, 1988: 266). Many deaf students are not able to communicate effectively, perhaps not even with

schoolmates or members of their own family. They are faced with the stark choice of attending the local school, where they are likely to fail unless efforts are made to include them, or go without formal education (Heward and Orlansky, 1988:259).

Each of these entities affirms that the deaf child's communication needs, linguistic needs, and social, personal and cultural needs must be the primary factors in considering the provision of appropriate educational services in least restrictive environment. Studies further affirm that in order to provide the least restrictive environment, D/HH students must have access and inclusion in all placements including neighborhood schools, special day classes, or residential schools, etc (Mastropieri and Scruggs, 200:109).

Although many questions remain unanswered, and many challenges remain to be faced in the education of children with hearing impairments, if they receive a good and suitable education, they are every bit as capable as hearing people are. There is the same range of ability. They can be responsible citizens. However, these things only happen if they are given opportunities (UNESCO, 2001).

In conclusion, it can be said that the education of hearing-impaired students has a long history. Most D/HH children were educated in residential schools, today; many of them attend classes in regular school settings. This reflects the desirable shift of thinking from segregated special schools to an inclusive approach.

#### **2.4 Factors affecting D/HH students' adjustment in classes with hearing students**

In order to achieve academic and social integration of D/HH students in classes with hearing students, educators need to adapt support in response to the specific needs of the individual student, especially as there is considerable variation in the characteristics of students in inclusive settings (Antia and Stinson, 1999:229). The students' adjustment to the setting may depend on certain factors. This section describes the factors, which generally influence each deaf student's adjustment to the regular school setting. This includes communication skills, academic skills and social and emotional development, which will be discussed below.

### 2.4.1 *Communication skills*

Students who are relatively skilled in using spoken communication may often experience greater academic success and greater social integration in classes with hearing students (Ademakoya, 2008:204). Data from the national survey of deaf and hard –of- of hearing (D/HH) students in U.S.A. according to Moores (2001), indicate that most of the students whose primary placement was in regular classes had sufficient hearing to rely heavily on this modality in communicating, although the degree of success varies. According to Ademakoya (2008) variation in communication skills is more complex than simply classifying students as proficient in spoken communication or in sign communication because various combinations of the two have implications in terms of how D/HH students will interact with hearing peers as well as with D/HH ones.

Students who are D/HH communicate differently, depending on the situation. For example in communication with hearing peers Antia and Stinson (1999), described as:

*Some students prefer using spoken communication only. Others may use both spoken communication and sign, while still others may use sign communication only. D/HH students may use a variety of styles and strategies for communication, depending on who they are communicating with, with whom, and the setting (pp: 170-171).*

Ademakoya (2008) in his comprehensive review of literature examine variation in communication preference among deaf adolescents in local public high schools in Nigeria, an example of grouping in terms of how they respond in different communication situations. He found that the largest groups of students, were those who use both spoken and sign communication and choose whether to speak, sign or use both, depending on their communication partner. These students seemed to be the most adept at using a variety of modalities in different communication situations. The other group of students were those who spoke to both deaf and hearing audiences , those who signed to D/HH and hearing audiences ,and those who reported only interacting (i.e. signing) with a D/HH audience. These groups generally show variation in communication preference, which in turn affects their adjustment with people in the setting.

Generally, programs which support D/HH students in a variety of ways, including oral, cued speech, sign language interpreters, and note takers. These services can enhance these students' communication access and opportunities for learning (Antia and Stinson, 1999:231). Researches on the impact of these services are, however, quite limited.

#### ***2.4.2 Academic skills***

Other important variation in adjustment of deaf students in inclusive setting is variation in academic skills (Stinson and Antia, 1999). In order for the students in the regular classroom to learn, there need to be a match between on the skill level of students and the learning demands of the classroom environment (Conway, 1990 cited in Antia and Stinson, 1999:242). As students progress through higher grades levels, it may be increasingly difficult to find appropriate matches between the child's capabilities and the demands of the academic tasks they are required to complete, even though students in regular classes tend to have better academic skills than those in self-contained classrooms (Moors, 2001). In particular, more advanced classes may require greater use of independent reading skills, an area in which most D/HH students do not advance as rapidly as their hearing peers. Thus, careful monitoring of students for their academic skills and demands of classes is important for supporting learning and motivation (Conway, 1990 cited in Antia and Stinson, 1999:244).

#### ***2.4.3 Social and emotional development***

Another factor that affects adjustment in the regular class is the extent to which the student is socially mature and emotionally stable (Kulwin, 2002). Meadow-Orlans (1983 Cited in Kulwin, Stinson, and Colarossi ,2002) research in high school deaf students found that students who had greater social maturity were more likely to have been mainstreamed in the 9<sup>th</sup> grade than students with less social maturity, and that these students were likely to continue to have greater social maturity through the 12<sup>th</sup> grade. Concerning emotional development, Schmidt and Cargan (2008) noted that students with emotional difficulties are less likely to be placed in classes with hearing peers.

Because these variations have implications regarding how students can function and adjust in regular classes with hearing peers, it is important for teachers to pay careful

attention to the communication, academic as well as the social and emotional characteristics of deaf students in their classrooms.

## **2.5 The concept of social inclusion**

Maximizing the interaction between pupils with and without special needs is generally considered an important aspect of inclusion. However, it is frequently questioned whether pupils with special educational needs in regular classrooms have interactions and friendships with their peers. In order to be able to evaluate these relationships, it is necessary to clarify concepts such as social participation, social integration, and social interactions and social acceptance (Koster, 2009). There is much ambiguity regarding these concepts. Therefore, this section of the research aims to clarify on these concepts.

Social integration can be defined as the ability to interact with, make friends with, and be accepted by peers. In other words, students need to be able to participate in social activities and develop close and emotionally secure relationships with peers (Anita and Stinson, 1999). Kulwin, Stinson and Colarossi (2002) give a precise definition of social integration. According to the authors, successful social integration in an inclusive education classroom means being visible to other pupils (social impact), being someone with whom other pupils wish to spend time (social preference) and being a member of a group of friends that spend time together (social network affiliation). Lukomski (2007) define social integration as being an accepted member of a group, having at least one mutual friendship and participating actively and equivalently in-group activities.

Stinson and Anita (1999), states that inclusive education aims to promote the social and academic integration of pupils with disabilities. These authors emphasize the importance of peer acceptance and friendship and consider peer interaction to be important for social integration. They define the latter as the ability to interact with peers, make friends with peers and be accepted by peers.

On the other hand, Pavri and Lufting (2000 cited in Koster, 2009) definition emphasizes not only the importance of friendships and peer relations, but also stresses the pupil's self-perception of social acceptance as part of their definition. Guralnick (1999 cited in Koster, 2009) evaluated the social integration of preschool-age pupils with mild

disabilities in inclusive early childhood settings by focusing on three constructs: the connectedness (or extent) of peer interactions, the quality of interpersonal relationships and the nature of adjustments that occur during social exchanges. Social integration of such pupils is achieved when typically developing pupils connect with and maintain the same quality of interpersonal relationships with pupils with mild developmental delays as they do with other pupils. Guralnick (1999 cited in Koster, 2009) points out that this description departs from the viewpoint of typical peers. Similar analyses can be made from the perspective of pupils with special needs. Their ability to connect with their peers, with and without special needs, constitutes an important index of social integration (Koster, 2009).

The definition of social integration by Schmidt (2000 cited in Koster, 2009) is less specific than those described above. Schmidt (2000) holds the view that social integration refers to the frequency and intensity of social contacts between pupils with and without special needs. This view is similar to Biklen's (1985, cited in Higarty, Pocklington and Lucas, 1981) that social integration is about developing positive social interactions between children with and without special needs.

Stinson and Antia (1999) describe social integration as pupils' perceptions of the extent to which they participate in and are accepted as members of the school community. According to Stinson and Liu (1999), one of the factors that play an important role in social integration is 'peer group socialization'. They consider social acceptance to be the essence of social integration. These authors did this by assessing the peer acceptance of pupils in inclusive classrooms. They consider social integration to be synonymous with peer acceptance, which can be measured using a sociometric rating scale.

Pijl and Hamstra (2005 cited in Stinson and Antia, 1999) also hold the view that social integration of pupils with SEN can be assessed by using a sociometric questionnaire. Koster (2009) consider social acceptance as important aspect of social integration and highlight social relationships. For example, the same authors state that focusing on social acceptance provides an incomplete view of social integration and regard the relationships (affiliations) between pupils with special needs and their peers as central to social integration.

### **2.5.1 Social participation**

According to Kennedy, *et al.* (1997 a cited in Koster, 2009) social participation comprises two aspects: social contacts between pupils with special needs and their typical classmates and friendship networks.

Hunt *et al.* (2003 cited in Koster, 2009) investigated the effectiveness of a mainstream/special education collaborative process on the academic and social participation of pupils with severe disabilities and pupils academically at risk in mainstream classrooms. To assess the social participation of the pupils, the level of their engagement and interaction patterns (e.g. initiating and responding to interactions, participating in conversations, working collaboratively) with classmates were systematically observed (Koster, 2009). The research of Hunt *et al.* (2003) shows that social interaction between pupils with special needs and their classmates seems to be at the core of social participation. He also further emphasizes the significance of the quality of interaction between pupils with special needs and their typical peers and the importance of having familiar and equal relationships between pupils. Generally, social participation of pupils with special needs in regular education is characterized by the presence of positive social contact/interaction between these children and their classmates; acceptance of them by their classmates; social relationships/friendships between them and their classmates and the pupils' perception they are accepted by their classmates (Stinson and Antia, 1999).

The analysis of social participation makes clear that interactions comprise the most important part of social participation. In addition, researchers as major aspects of social participation describe friendships, playing together, involvement in group activities and social contacts.

### **2.5.2 Social acceptance**

One of the indicators of social integration is acceptance of deaf students by their peers. Peer perspectives are crucial to identifying the degree to which students who are deaf are socially integrated, because peers have an implicit understanding of the behavioral norms for their peer group (Gurp, 2001). Koster (2009) consider peer acceptance (as measured

by sociometric questionnaires) to be of great importance in inclusive education. Scholtes *et al.* (2002 cited in Koster, 2009) stress the importance of perceived social acceptance. They measured this together with perceived competence. Next to social acceptance, peer acceptance, self-perceived social acceptance, self-reports of social relationships are also used as important aspects of the social integration of students with special needs (Koster, 2009).

Studies of social integration in general include observational studies of peer social interaction, socio-metric studies of acceptance, and studies requiring students to complete self-reports of their social relationships (Anita and Stinson, 1999).

Social integration of students with hearing loss in regular schools is a major concern for educators. At the same time, educators have been developing interventions to promote social and academic integration, and researchers have been conducting studies to identify key factors related to integration (Kluwin, 2002).

*Summary of the definitions of social integration.* The analysis of literature focusing on social integration shows that in examples as, interaction, peer acceptance, friendship and relationships/affiliations, social behavior/skills, many authors as essential aspects of social integration regard pupils' self-perception of acceptance; social contacts social status and participation.

## **2.6 Communication and social interaction of D/HH students in classes with hearing students**

Hearing loss affects many aspects of life, with many psychological consequences and various effects on how well a person with such a loss functions in society or the world at large. A major portrayal of how deaf people interact among hearing people can be found in the inclusive educational setting, in which the majority of deaf people participate (Hung and Paul, 2006:63). It is common knowledge that deaf children face much more adversity than their hearing peers in terms of their educational and social development. Because of this, their psychopathologies are impacted, sometimes in negative ways.

Because of numerous economic, social and legal changes, placement of D/HH students in deaf institutions has become less widespread, and mainstreaming is now the norm. This progression towards inclusion has resulted in much anxiety on the D/HH children's parts (Gjerdingen and Manning, 1991 cited in Stinson and Antia 1999). Their worries are because good academic results are generally seen in D/HH children who are mainstreamed, but they also show higher degrees of isolation and psychological problems when compared with students who associate with other deaf peers (Cohen, 1994; Hung and Paul, 2006; Gurp, 2000; Kulwin, 2002.) One study that focused on the social status of D/HH students compared with hearing students discovered that *“a large number of deaf students were rejected by their hearing peers as compared to only a small number of hearing children who, like the deaf students, also became social misfits”* (Hung and Paul, 2006:64).

A critical part of the development of deaf children is their education, and through that, their social foundations are also built. During the primary-school development period, friendships are formed through common interests, school activities and sports. For these friendships to form, an obvious requirement is communication. For deaf children unable to utilize effective communication methods with the people around them, the difficulty in acquiring new friendships typically leads to a decrease in self-esteem (Gurp, 2001; Lukomski, 2007).

One major factor that has been identified in deaf children's social interactions is a repeated misunderstanding of how deaf children need to communicate with the people around them. Frequently hearing children mistake a request for information to be repeated as lack of interest as to what they were saying. The frequent need for physical contact as a way to attract attention, or facing the hearing peer when speaking can also go against social boundaries that hearing children have learned, which increases the chance of peer dismissal (Martin and Bat-Chava, 2003 cited in Hung and Paul, 2006).

Sign language is a visual language; communication usually involves one or more of these methods: touching, flickering the lights, and using waving motions, all to get someone's attention (Alemayehu, 2003). Therefore, D/HH children's eyes are easily fatigued because they must maintain constant attention to what is being said visually and this

makes it easier for them to adjust. This is more of a problem for them than their hearing peers because simply turning away can cause them to miss information (Harris et al., 1997 cited in Hung and Paul, 2006).

Because of inaccessible communication, deaf students receive incomplete and inaccurate language input when communicating in spoken language. They often leave out critical language elements needed for comprehension by another individual, usually the teacher. As a response, many students who are taught through the primary use of sign language would benefit much more greatly by using spoken language as a secondary language (Hung and Paul, 2006; Moores, 2001). Different studies suggests that the low achievement levels that are sometimes seen are not results of learning problems related to deafness itself but are due to the poor communication between teachers and the deaf students (Cohen, 1994).

The biggest problem and root cause of the increase in isolation and anxiety is communication difficulties fostered by the inclusive setting. A study showed that rather than being actively disliked; the hearing students in terms of socialization (John and Muir, 2001:96) neglected deaf children. Usually a significant amount of effort must be made for a hearing and deaf student to understand one another. The ability to hear as well as understand spoken speech varies greatly with each deaf person. The tendency toward impatience found in hearing children (and any young children in general) combined with unclear speech on the deaf children's parts creates a significant barrier to communication between the two (Foster 1998 cited in Anita and Stinson, 1999:192). These authors further indicate that when a child has any disability, people around him/her lower their expectations for normal social interactions that are suitable for their ages and stage of development. *“For deaf children with poor language development, this leads to a lower level of communication with the people around them, and it further exacerbates their language difficulties”* (Hung and Paul, 2006:67).

## **2.7 Contribution of staffs to students' participation (social integration)**

Efforts to increase participation may have greater success if professional staffs employ specific strategies to foster positive interaction (Antia, 1998:99). Stinson and Liu (1999) point out:

*One strategy for classroom teachers is to explicitly suggest to all the students' specific procedures that will help the D/HH better follow communication. For example, the teacher may explain the need to be aware of the lag-time when there is an interpreter and the need for a pause between speaking turns" (PP-96).*

The mainstreaming classroom teacher can structure small- group as well as whole-class activities in ways that promote D/HH and hearing students learning together. Deaf and hard-of-hearing students may more easily participate in small –group than in all-class discussions if they are set up appropriately (O'Connor and Jenkins, 1996 cited in Stinson and Liu, 1999).

Studies of cooperative learning among D/HH and hearing peers working together indicate that it can increase frequency and complexity of conversation between D/HH and hearing classmates, frequency of interaction, and interpersonal attraction (Antia, 1994 cited in Stinson and Liu, 1999). Teachers of the deaf who work with the mainstreamed students are increasingly moving in to the regular class room to support these students as opposed to pulling these students out of class to work with them individually. This work includes teaming with the regular teacher for the entire class. There is a need to know more about what these teachers do, including the issue of striking a balance between intervening to support interaction and permitting students to contribute (Antia, 1998:101).

The role of the interpreter is complex and crucial for supporting interaction in the classroom (Antia, 1998:102-103). This author identify one practice of interpreters that may facilitate participation of students is to indicate the speaker and break the message into chunks that correspond to these speakers. Moreover, the D/HH students need this information to follow group discussions and to know when to participate. Other practices to support participation according to Stinson and Liu (1999) are "(1) filling 'gaps' when

the D/HH student lacks certain information regarding the topic under discussion, (2) adjusting to the requirement of the specific situations, (3) assisting other members of the educational team with planning of activities in which the D/HH student can participate. However, knowledge of specific practices for interpreters to support students in regular classes appears limited” (Stinson and Liu 1999:198)

## **2.8 Pros and cons to inclusion for D/HH students**

### ***2.8.1 Benefits of inclusion for D/HH students***

While the research is mixed on the benefits of inclusion for D/HH students, studies by Richard and Josef (1997) and John and Muir (2001) summarizes the potential benefits and of educating deaf students in inclusive settings in the following ways:

1. D/HH students interact with the hearing world- Through daily interaction with the hearing world; deaf students are able to develop skills in communicating with those who can hear. This exposure can be powerful training for students as they prepare for communicating in the hearing world.
2. D/HH students become socialized with the hearing world- While the deaf community has developed a strong culture of its own, it is important that deaf students also learn how to operate in the hearing world. By having daily interactions with his/her hearing peers, the student is able to develop important social skills that will be useful in the future.
3. D/HH students have access to academic, vocational and extracurricular programs- By participating with the hearing world, deaf students gain access to a wide range of resources that can help the student develop physically, socially, academically, and emotionally.
4. Deaf students can live close to home- In order to attend a school for the deaf; some students must live at the school because it is too far from their home. By attending a local school, that student can live at home and receive the important support from his/her family and friends.

### ***2.8.2 Risks of inclusion for D/HH students***

Expectedly, inclusive education practices are not without some constraints or challenges (Adomakoya, 2008: 208). Those challenges range from difficulties in securing the necessary social fusion between non-disabled and D/HH children in mainstream classes to the problems of determining the appropriate instructional language acceptable to all learners in an inclusive class. Below are the challenges of including deaf students in inclusive settings (Richard and Josef, 1997 and John and Muir, 2001)

1. D/HH students run a high risk of isolation- If the teacher and/or students are not trained in sign language and other methods to engage and interact with deaf students in a general education classroom, then the deaf student runs high risk of feeling isolated in the classroom. Not only can this be emotionally detrimental for the deaf student, but this could also mean that he/she will miss important learning and skill development.
2. D/HH students may have limited opportunities for direct instruction-When a deaf student is included into a general education class, this usually means that he/she is receiving instruction through a translator.
3. D/HH students may have limited opportunities for direct interaction to build relationships- Not only is a student's learning limited by the lack of direct interaction and instruction from a teacher, but the student may also be unable to directly communicate with other providers at the school. This can limit the amount of support a student receives inside and outside the classroom.
4. School setting may lack quality support staff- Many school districts lack a sufficient number of qualified, trained support staff who can serve D/HH students.

### **2.9 Overview of education of D/HH students in Ethiopia**

Currently in Ethiopia, there are no reliable data available on inclusion or exclusion of disadvantaged groups in education. Until now, planning, data collection and statistics have failed to consider a large minority that of children and students with disabilities or learning difficulties (MOE, 2006). However, according to the population and housing census conducted in 1998 by Central Statistical Authority the number of hearing impaired

people in the country was 50,957. This figure in my view represented those who were identified and reported having severe and profound hearing problems. From this estimation of hearing impaired people, only 6,854 in the elementary and 632 deaf students in the secondary schools have access to education services (MOE, 2008). Thus, from this general estimate it can be said that the majority of the hearing-impaired children in Ethiopia are excluded from education. In spite of the low enrollment rate, the education system is unable to provide schooling for all the enrolled children in general and hearing impaired children in particular (Tilahun, 2002: 4).

The existing educational provisions for students with disabilities in Ethiopia include boarding special schools, day special schools, special units or special classes in regular schools and preparatory programs in the form of community based rehabilitation. These arrangements are all for children with disabilities, primarily for those who have visual, auditory, physical impairments and intellectual disabilities (Mamo, 2001 cited in Tilahun, 2002:24).

Although currently there are no reliable statistical data on the number of schools providing education for students with hearing impairment in Ethiopia, according to the MOE (1999 cited in Tilahun, 2002) report:

*There are 3 boarding special schools, 5 day special schools, and 33 special classes in regular schools in the country. Out of the total boarding and day special schools, 60% are run by non-governmental organizations. All the special classes in regular schools (100%) are however in public government schools. The number of special schools has remained the same or to some extent decreased while the number of special classes in regular schools has been increasing. (PP-27)*

The existing special units and schools are located in urban areas, and most of them have long waiting lists. Consequently, a significant number of children and students are still excluded from all education. It is estimated that less than 1 % of children and students with special needs get access to education (Tirussew, 2005:83). Very few of them continue in vocational, secondary and higher education. Therefore, the need to make a

shift to inclusive education in Ethiopia is a logical choice to overcome particular problems faced in educating children with disabilities in general and children with hearing impairment in particular (Tirussew,2005:86).

Even though the practice of inclusive education for children with different group of disabilities is in its infantile stage, indicators of positive beginnings to the move towards inclusive education in Ethiopia are observed. Pockets of successful inclusive education attempts with children having visual impairment and intellectual disabilities in one government primary school (Gilnesh and Tibebe, 1999 cited in Etenesh, 2000) and German Church primary School (Dagne, 1999 cited in Etenesh, 2000) in Addis Ababa were reported. Furthermore, a study conducted on blind students integrated in Mulugeta Gedle School at Sebeta showed positive experiences on the part of the teachers, sighted students as well as blind students (Etenesh, 2000). However, shortage of adapted materials, inconvenient school environment and lack of back- up support were considered as obstacles encountered in course of their education.

In general, the education of the D/HH in Ethiopia has not as such shown any significant development in the last four decades, and is characterized by high dropout rate and low educational achievement (Berta, 2000 cited in Tirussew, 2005:83-84).

Inclusive education is a new concept for D/HH students and has been implemented in some schools in Ethiopia including Mekanisa School for the deaf, Minilik II preparatory school, Tikur Anbessa secondary school, Awassa School for the deaf, and Yekatit 23 primary school. However, the acute shortage of special skills trained teaching personnel, qualified sign language interpreters and shortage of adapted materials were considered as problem encountered in the beginning of the movement towards inclusive education for students with hearing impairment in the country (Tilahun, 2007).

## CHAPTER THREE

### *METHODOLOGY AND DATA ANALYSIS*

The purpose of this study is to investigate the social skills and academic progress of D/HH students attending two regular secondary schools in Addis Ababa. Hence, the study employed descriptive survey research method to gather information concerning the views of D/HH students as well as the perceptions of their teachers, interpreters and parents on their social skills and academic progress.

#### 3.1 Participants

Table 1: D/HH students and teachers selected from two secondary schools

No	Respondents	Numbers	
		D/HH students	Teachers
1	Minilik II preparatory school	23	26
	Tikur Anbessa secondary school	22	11
	Total	45	37
2	Grade level		
	10 <sup>th</sup> Grade	22	11
	11 <sup>th</sup> Grade	18	18
	12 <sup>th</sup> Grade	5	9
	Total	45	37

The two regular secondary schools were purposefully selected due to the fact that they are the only regular schools in the country that provided support services to D/HH students' education in the regular classrooms

The major sources of data for the study were 45 D/HH students in two secondary schools (Minilik II and Tikur Anbessa Secondary schools) and 37 teachers for D/HH students. Since the pool of D/HH adolescents and teachers in the two secondary schools was relatively small, it was possible to include all of the potential participants. Sampling procedure for this study therefore was available sampling. The students were from 10<sup>th</sup> grade in TikurAnbesa Secondary school and 11<sup>th</sup> and 12<sup>th</sup> grade in Minilik II Preparatory School.

In both schools, the D/HH students were taught entirely in the same classroom with their hearing peers. The number of students and teachers across grade level comprised of twenty- two students and eleven teachers in 10<sup>th</sup> grade, 18 students and 18 teachers in 11<sup>th</sup> grade, and five students and nine teachers in 12<sup>th</sup> grade (see table 1).

The other sources of data were interpreters and parents of D/HH students who supplemented the information obtained from the D/HH students and teachers. The samples include six interpreters from the two regular schools and parents of five D/HH students. These respondents were purposefully selected. The criteria for their selection were the reasons that they know much about the D/HH students' activities and they have much contact with them.

### **3.2 Research Settings**

The schools are located in Addis Ababa. In these regular schools setting, D/HH students have the opportunity to learn in regular classes for hearing students. Socially, deaf students have access to activities for the entire school population. D/HH students were attending classes with hearing peers with sign language interpreter in ordinary classrooms designed for the hearing students. Class size is comparable across school and comprises approximately 40-45 students.

The schools have similar approaches to communication and instruction for both the hearing and D/HH students. The teachers mainly employ speech communication and the interpreters use sign supported Amharic. In both schools the D/HH students spend much of their time attending classes with plasma TV transmission only a ten-minute summary after class is taught provided by the general classroom teacher.

The two schools were well resourced in terms of their physical condition, classroom equipments, books, and human resources. Professional development in the form of in-service training was available for some of the interpreters. Specialist teacher for the deaf (special needs education graduate) was available irregularly in the classroom with hearing students in one of these schools (Tikur Anbessa Secondary school).

### 3.3 Instruments

For the purpose of the study, both qualitative and quantitative data gathering instruments were employed. The researcher used two forms of questionnaires to collect information from a) D/HH students and b) general classroom teachers. Beyond this, semi structured interview schedules with sign language interpreters and parents of D/HH students were held. Systematic observation within and outside the classroom about the nature of classroom activities, students' participation in classroom activities and social situations, social interaction between students, communication involved between D/HH students and their hearing peers. Observations outside the classroom took place during break times.

#### 3.3.1 Questionnaires

For the purposes of assessing the social and academic dimension of inclusion of D/HH students in regular schools, two questionnaires one for D/HH students and one for regular school teachers were developed with reference to the respective literatures (Howarth, 1987; Senit, 2005; Hadjikakou, Petridou and Stylianou, 2008), and distributed to D/HH students and teacher participants.

The questionnaires consisted in the main of closed questions (Multiple choice questions and/or use of Likert scale) for the convenience of the participants who are to great extent had difficulties in understanding written communication, although few open-ended questions were included as well.

- i) **Questionnaire for D/HH students.** The questionnaire for D/HH students consisted of three parts and includes 53 questions (See appendix A). The first part was entitled "Background information and demographics", the second part "D/HH students' view of their social and academic inclusion" and contained questions that required participants' perception of their socialization, school achievement, participation in class and extra-curricular activities and views on their social and academic inclusion, and the third part was entitled "Difficulties and suggestions".

- ii) **Teachers' questionnaire.** The teachers' questionnaire consisted of 33 questions spread over three parts (See appendix B). The first part was entitled "Demographics and personal experiences". The second part was entitled "information on the D/HH students" and consisted of questions that required participants' views on the following issues: student's communication skills, student's academic and social status, and his/her skills to communicate with D/HH students etc. The third part addressed participants' views of support services, attitudes and recommendations.

### ***3.3.2 Semi-structured interview schedule***

To supplement the information gathered from the questionnaire, interview was administered to sign language interpreters and parents of D/HH students. Interview guide questions were prepared by the researcher in reference to literatures in the area. The interviews were semi-structured. The participants were interviewed to describe their perceptions of the D/HH student's inclusion experience in regular secondary schools. Topics of discussion include classroom experiences, relationships with other students and teachers, participation in school activities, and the nature of communication with other students. The appendix presents the major questions for each group of interviewees and the interview questions (see appendix C&D).

All the interviews were conducted in person; the interviewer travelled to each school to meet with each interviewee. Typically, parents were interviewed at their homes. Each interview required approximately 20 minutes to 25 minutes to complete, although some were longer. In order to make the interview procedure more natural and objective information is generated, the process of interviewing was done by taking notes (abbreviated notes) during the interview and expanded after the interview was completed.

Ten interviews were conducted. Five sign language interpreters and parents of five D/HH students were interviewed. Parent's interviewees were selected randomly from those who were asked to participate and indicated in their response that they were willing to take part in an interview. Two interviews were with both parents, two were with their mother only and one with his/her father. All interpreters, three women and two men

working as interpreters in the target classrooms during the study were also included for semi- structured interview schedules.

### **3.3.3 Observation**

In the present study, observation during lesson and free time took place in order to gather data concerning the teaching approaches employed in classroom, participation of students in classroom activities and discussions, as well as their interactions with classmates and teachers.

Observation check lists of 15 items was prepared by the researcher to assess information regarding the nature of inside and outside classroom interaction and participation of D/HH students in the regular school settings (see Appendix E). Totally, twelve - 45 minutes observations inside the classroom were made by the researcher. Eight of the twelve observations occurred during times in which the classroom teacher had a lesson with non-plasma academic subjects (Amharic, physical education and IT). The rest four observations, in the other hand, were carried out when instruction was delivered through satellite television. Detailed field notes were generated after each observation. The notes included information from a few brief interviews with the class teacher, interpreter, and D/HH and hearing students.

Summing up two different sorts of questionnaires, semi-structured interview schedules and participant observations were used as data gathering instruments in the entire study.

## **3.4 Pilot testing**

In consultation with the advisor and all the way through review of literature, the researcher developed the instruments mainly the two questionnaires to be used in the study. The following sequences of activities were maintained during the stages of tools development and pilot testing; (1) the tools prepared by the researcher and given to the academic advisor for comment and approval, (2) each of the instruments that were prepared in English version were translated into Amharic in collaboration with Amharic teachers. In addition, (3) once the questionnaires had been completed, a pilot study was carried out in Hossana College of Teacher Education 10+2 deaf students and their

teachers, the aim of which was to examine the structure and efficiency of the questionnaires in gathering information.

Six D/HH students and six teachers pre-tested the final draft by filling out the questionnaires. The participants were asked to comment on the design, content and direction of the questionnaires, discussing with the researcher any problems they had and giving suggestions regarding the wording, meaning, and ordering of the questions. Consequently, minor changes were made, mainly in terms of meaning and wording in the second and third sections of the questionnaires. The modified questionnaires were retyped, duplicated and administered in the main study (see attachments).

### **3.5 Data collection procedure**

Official letter of consent was given to schools and permission for participation was obtained from the school principals, the regular classroom teachers, the interpreters and then the students.

The school principal, told D/HH students that the researcher wanted to ask each of the students some questions about themselves and their friends, and introduced the researcher to the students. The D/HH students were then asked to fill out the questionnaires individually with a group of five to six students at a place. They were informed again the aim of the research and asked to willingly cooperate.

Besides the researcher, two interpreters who were competent to communicate with and to use sign language of the deaf students were invited to help the researcher and supervised the questionnaire. The two interpreters were oriented about the instruments so that they could help the students when they failed to understand the questions.

Although the questionnaires had detailed written explanation of how to fill, the interpreters explained the direction of the questionnaires for all participants. D/HH students answer the questionnaire after each question was explained to them with sign language. The students were also told that they could sign for the interpreter if they did not able to give written explanations for open-ended questions. The interpreters then wrote what they signed into the questionnaires.

The response rate was quite high. Except one twelve grade student, all D/HH students attending the two secondary schools in the same classroom with their hearing peers filled out the questionnaires.

Regarding the teachers' questionnaires, teachers were contacted on one- to-one basis by the researcher. The purpose of the study was explained, and teachers were asked to participate in the study. The 43 teachers completed the questionnaire represent those who were agreed to participate, approximately two- thirds of the population of teachers with in the target classrooms.

After the questionnaires were administered interview schedules and observations took place. Observation of student-to-student, student-teacher interactions, and classroom participation took place during the investigation to check the reliabilities of the responses participants were provided. This observation took place through regular visits to schools to meet, informally, both D/HH and hearing students. As observation continues, contact was made with the participants in class and school activity situations.

The data collection process for the study took six weeks, and then the data was arranged and tabulated for further analysis and interpretation

### **3.6 Ethical considerations**

The participants were not obliged to fill their names in the questionnaires, in order to keep the data confidential. With the permission of the respondents, the researcher made detailed notes of the interviews and confidentiality will be assured. In addition, the researcher used anonymous names instead of revealing the respondents real identity to assure confidentiality.

### **3.7 Data analysis and interpretations**

A combination of quantitative and qualitative approaches of data analysis techniques was employed. The analysis was generally made through categorizing and describing the results based on the basic research questions. Data gathered through questionnaire was coded and subject to statistical analysis using the SPSS -14 system. The interpretation was made with the help of percentage, mean scores; t-test and Pearson correlation. On the

other hand, data obtained using semi-structured interviews and observation checklist was made qualitatively. The qualitative data was coded in to three categories: 1) parents' views of the social and academic inclusion of their children; 2) interpreters' views of social and academic inclusion of D/HH students; and 3) data obtained through observation. All the details were summarized under these three categories. Following the recommendations of Bogdan and Biklen (1992), these summaries were created by reviewing all comments in a category and generating summary statements about each topic that reflected what participants tended to report. These statements were supported with quotations from interviews. The analysis of quantitative and qualitative data in this study was considered separately in different sections. Nevertheless, in chapter five the findings were discussed by integrating both the quantitative and qualitative data at the same time.

# CHAPTER FOUR

## *RESULTS OF THE STUDY*

In this section of the study, results of assessments made on the views of D/HH students, regular classroom teachers, interpreters and parents associated with the inclusion of D/HH students into the regular classroom along with the discussion are presented as follows.

### **4.1 Analysis of Results Obtained from D/HH Students**

#### **4.1.1 D/HH students' profiles**

Table 2. Age, sex, hearing status and educational background of D/HH students

Age	Mean	SD	Sex	N (%)	Hearing loss	N (%)	Onset of hearing loss	N (%)
School A	20.04	1.89	Male	26(57.8%)	Deaf	24(53.3%)	Since birth	12(26.7%)
School B	19.23	1.54	Female	19(42.2%)	Hard-of- Hearing	21(46.7%)	birth-3 years	10(22.2%)
							After 3 years	23(51.1%)
Total	19.64	1.76		45(100%)		45(100%)		45(100%)
<b>Language used at home</b>					<b>N (%)</b>			
Sign language (home sign)					12(26.7%)			
Speech (verbal)					7(15.6%)			
Non verbal language					20(44.4%)			
Total communication					6(13.5%)			
Total					45(100.0%)			
<b>Previous school placement</b>					<b>N (%)</b>			
Residential school					6(13.3%)			
Special day school					26(57.8%)			
Special class					6(13.3%)			
Regular classes					7(15.6%)			
Total					45(100%)			

The D/HH students included in this study were between the ages of 16 years to 24 years. These students had a mean age of 19.23 years (SD 1.76). Out of the 45 participants, 26 were males and 19 were females. As indicated from the table above, of the 45 respondents, 24 labeled themselves as deaf and 21 as hard-of-hearing. Moreover, 12 out

of 45 students were deaf since birth, 10 were within 3 years from birth, and 23 indicated after 3 years from birth.

As to the language used at home to communicate with family members 44.4% of students responded that they used non verbal language, 26.7% reply that they home signs, the other 15.6% of them indicated verbal (speech) language and the remaining 13.3 % used total communication to communicate with family members in their home.

Regarding previous school placement of D/HH students, twenty- six out of the 45 participants attended special classes integrated in regular schools in their elementary and junior school years. Six reported attendance at a residential school for the deaf during those years. while six went to special day schools for deaf students. Regarding the seven who reported mainstream experiences, teachers used the oral approach to education.

#### 4.1.2 D/HH students' views of their communication with the hearing students and their teachers

This study indicated that the majority of the D/HH students attending regular classes had achieved good communication as indicated by the D/HH student participants' answers.

**Table 3. Selected questions used in the second part of the D/HH students' questionnaire with numbers (n) and valid percentages (%) of the participants' response to each question in the parentheses.**

S.N.	Descriptions	Not at all	Quite well	Very well
1	I can communicate with my teachers	(n=6, 13.3%)	(n=27, 60.0%)	(n=12, 26.7%)
2	I can communicate with the hearing children.	(n=11, 24.4 %)	(n=19, 42.2%)	(n=15, 33.3%)
3	I can understand the verbal communication used in the classroom?	(n=8, 17.8%)	(n=32, 71.1%)	(n=5, 11.1%)
4	I can understand the verbal communication used in the classroom?	(n=8, 17.8%)	(n=32, 71.1%)	(n=5, 11.1%)
5	How well most hearing people in the school understand your speech?	(n=11, 24.4%)	(n=24, 53.3%)	(n=10, 22.2%)
6	Does this school experience affect your general communication skills with hearing people?	(n=7, 15.6%)	(n=29, 64.2%)	(n=9, 20.0%)

Table 3 shows that the overwhelming majority of D/HH students reported that they had obtained quite good communication skills, as indicated by their answers on two separate questions referring to their ability to communicate with their teachers (question 1), and with their hearing peers (question 2). Similarly, when the D/HH students were asked if they could understand the lessons in the classroom, the majority replied that they could do so quite well. Only eight students (17.8%) acknowledged that they cannot understand at all those lessons in the classroom, whereas thirty-two students (71.1%) stated that they have quite good understanding of the lessons, the rest five students (11.1%) stated that they can fully understand the lesson in the classroom (Table 3, questions 2).

D/HH students differed on their response to their ability to communicate orally in classroom with their teachers and hearing peers. About 48.8 % of the students reported that it was difficult to understand teachers and hearing classmates in time of oral communication, the rest 33.3% and 17.8% of the students indicated they were able to understand oral conversation of their teachers and hearing peers “quite well” or “very well” respectively (question 4). The great majority of D/HH students also believed that teachers and hearing peers had “quite well” or “very well” understanding of the D/HH students’ verbal communication (question 5).

When D/HH students were asked about whether the inclusion experience affects their communication skills in general, the great majority of them (84.4%) commented on positive influences while 15.6 % of the participants delineated that inclusion did not helped them to improve their communication skills with hearing people.

Finally, the students were asked to explain the communication challenges they have encountered while attending instruction especially through Plasma TV transmission. Almost all 43 students (95.44%) said that they always had challenges in understanding televised lessons. These students agreed that it was not easy for them to understand quickly the subject matter that was thought even by the general teacher let alone to follow the plasma instruction. Therefore, they had to work hard before the class to understand the summary that could be provided by the classroom teacher and to cope with the demands of the curriculum. This was due to the inappropriateness of the media and the fact that they were not comfortable to the new method of teaching which often forced

them to physically leave the classroom to study with other D/HH students until the classroom teacher could take part the instruction. Modifying the curriculum therefore, is necessary.

#### 4.1.3 D/HH students' view of their participation in academic and social activities

In this part, the views of all D/HH students' regarding their classroom participation, academic status and their ability to participate in social activities have been investigated.

**Table 4. Selected questions used in the second part of the D/HH students' questionnaire with numbers (n) and valid percentages (%) of the participants' response to each question in the parentheses**

S.N.	Descriptions	Not at all	Quite well	Very well
1	I can participate in the classroom activities and discussions	(n=19, 42.2%)	(n=17, 37.8%)	(n=9, 20.0%)
2	Are hearing students helping you to participate in classroom activities and assignments?	(n=13, 28.9%)	(n=23, 51.1%)	(n=9, 20.0%)
3	You are involved in extra-curricular activities took place in school?	(n=31, 68.9%)	(n=10, 22.2%)	(n=4, 8.9%)
4	I have benefited academically from my inclusion.	(n=4, 8.9%)	(n=27, 60.0%)	(n=14, 31.1%)
5	To what extent that the interpreter helping you to participate in classroom activities? a) Help a lot (n=26, 57.8%) b) Help a little (n=14, 31.1%) c) Do not help (n=5, 11.1%)			
6	I prefer to carry out classroom activities and assignments with. a) D/HH students only (n=16, 35.5%) c) Both D/HH and hearing students (n=22, 48.9%) b) Hearing students only (n=7, 16.6%)			
7	How is your academic performance? a) Below average. (n=5, 11.1%) c) Above average (n=8, 17.8%) b) Average (n=30, 66.7%) d) Excellent (n=2, 4.4%)			

D/HH students were asked if they were able to participate in the classroom, and some described their difficulties while participating in the classroom. Thirty one students (58.8%) said that they could participate "quite well" or "very well" in class lesson or discussions, in comparison with fourteen (42.2%) who could not participate in classroom activities (Table 4, question1). This happened when the D/HH students had access to

classroom communication through interpreters. Similarly, when the D/HH students were asked about their academic performance, the majority of them described it as “average” or “above average” (Table 4, question 7). Only five students (11.1%) rated themselves as below average.

D/HH students were asked to state whether they preferred to carry out classroom activities with D/HH or hearing students. Table four (question 6) shows that most of them preferred to carry out classroom activities with both D/HH and hearing students (n=22, 48.9%), and sixteen (35.5%) of the students preferred D/HH students. However, seven students (15.6%) preferred to carry out activities in class with hearing students.

When the D/HH students were asked whether their hearing classmates were able to help them to participate in classroom activities or discussions, the majority (n=36, 80%) reported quite well or very well level of peer assistance in cooperative group activities (Table 4, question 2). Equally, an attempt was made in this study to investigate participants perceptions of the degree to which the interpreter enable the D/HH students to participate in classroom lessons or discussions. Five students (11.1%) stated that the interpreter do not help them at all to participate in the class activities; fourteen students (31.1%) stated that they help a little; and twenty-six students (57.8%) stated that they help a lot (question 5).

In terms of participation in social activities students were asked if they were involved in extra-curricular activities organized to facilitate interaction between students in the school, and only a few reported their participation in clubs and other social situations (Table 4, question 3). Most of them (n=27, 60%) agreed that they were less invited by their hearing peers for extracurricular activities, and they were too busy getting the additional tasks they needed to keep up with their school work.

Finally, D/HH students were asked if they believed that they were benefited academically from their inclusion in the general secondary school. Table 4 (question 7) shows that only four students (8.9%) stated that they did not benefit academically from their inclusion in general schools, whereas the great majority (n=41, 91.1%) had the opinion that that they benefited quite a lot from their inclusion

#### 4.1.4 D/HH students' view of their social interaction with hearing peers

Stinson and Antia (1999) suggest that social inclusion can be defined as the ability to participate in social activities, and to make friends with and be accepted by peers. This part of the study investigated the participants' views on social inclusion of D/HH students based on the above criteria.

**Table 5. Selected questions used in the second part of the D/HH students' questionnaire with numbers (n) and valid percentages (%) of the participants' response to each question in the parentheses**

S.N.	Descriptions	Not at all	Quite well	Very well
1	I have good friendships with hearing classmates	(n=6, 13.3%)	(n=25, 55.6%)	(n=14, 31.1%)
2	I believe that I have the most acceptances by hearing classmates.	(n=10, 22.2%)	(n=28, 62.2%)	(n=7, 15.6%)
3	I believe that hearing students take positive attitude toward D/HH students.	(n=10, 22.2%)	(n=28, 62.2%)	(n=7, 15.6%)
4	I face difficulties in socializing with hearing students	(n=12, 26.7%)	(n=27, 60.0%)	(n=6, 13.3%)
5	Do you have benefited socially from your inclusion?	(n=8, 17.8%)	(n=25, 55.6%)	(n=12, 26.7%)
6	I prefer to socialize with a) D/HH students only (n=13, 28.9%)    c) Both D/HH and hearing students (n=27, 60.0%) b). Hearing students only (n=5, 11.1%)			

The results of this study showed that the majority of D/HH students, well integrated with hearing students. D/HH students were requested to express their views about friendship with hearing students derived from their inclusion into the general school. Specifically, Table 5 (question1) shows that the D/HH students were of the opinions that, the majority, have developed friendships with their hearing classmates. Moreover, D/HH students were asked to state whether they preferred to socialize with D/HH or hearing students. Table 5 (question6) shows that the majority of them preferred to socialize with both D/HH and hearing students (n=27, 60.0%), and five students (11.1%) preferred to socialize with

hearing students only, however, sixteen students (28.9%) had preferred to socialize with only D/HH students.

D/HH students were also quite pleased with the attitude of hearing students towards themselves. Specifically, table five (question 3) shows that the D/HH students were of the opinion that, the majority of hearing students developed positive attitude towards the D/HH classmates.

Regarding the social acceptance of D/HH students associated with the social contacts between hearing and D/HH students. Table 5 (question 2) illustrates that the majority of D/HH students believed that they are quite well, or very well, accepted by hearing peers during social interactions with hearing students (n=35, 78.8%), and only a few described rejection while interacting with hearing students.

Regarding the difficulties associated with social contacts between the hearing and the D/HH students, Table5 (question 4) illustrates that the majority (86.7%) of D/HH students believed that they faced no or only a little, difficulty (e.g., communication) during their social interaction.

D/HH students were also asked if they believed that they benefited socially from their inclusion in the general schools. Table 5 (question 5) shows that only eight students (17.8%) stated that they did not benefit academically from their inclusion in general schools, whereas the great majority (n=37, 82.3%) were of the opinion that that they benefited quite a lot from their inclusion.

As part of the questionnaire, students were given a list of four educational settings (provision) and asked which they would prefer to attend and feel more positive about school experiences. Students were also invited to comment why they feel more positive about attending each of these listed options. The options included (1) residential school for the deaf students; (2) a special day school for the deaf students; (3) special classes integrated in general schools; and (4) a general school, with or without support services. The majority of the students (n=32, 71.1%) preferred general schools and special classes integrated in general schools. Eight students (17.8%) said that they were comfortable

attending special day school for the deaf, and five students (11.1%) preferred residential school for the deaf to any other settings.

Those who preferred special school for the deaf students showed that while they favored this provision, they were mindful of the potential rewards as shown through their comments such as these: freedom of communication, building a lasting network of friends, sense of belonging, and greater variety of extra-curricular activities including deaf clubs, sports and social groups. On the other hand, students' who favored integrated or general school settings attributed their preference to these settings to the fact that they had always lived or attended the mainstream school; I got along quite well with hearing people..., I was happy with my hearing friends..., hearing people didn't mind that I am deaf..., inclusive school better prepare me for living in the future... etc.

Finally, D/HH students were asked to respond to two open-ended questions about their social relationship with hearing students. "What do you like about your relationships with hearing students?" and "What do you not like about them?" Many D/HH students (n=19, 42.2%) did not respond to this question. Those who responded to the question what do you like about your relationships with hearing students forwarded the following points:

- Having assistance from the hearing students in the absence of the interpreter,
- When the hearing student is interested in listening the D/HH students,
- Learning more about hearing people and experiences was interesting,
- Good friends are those who know sign language,
- Working with test questions and project works,
- Keep informed one another with teacher and school announcements, and
- Watching football on TV in weekends.

On the other hand, things, which they did not like more about their relationships with the hearing students, were as follows:

- When hearing student have no genuine desire for friendships or sustained relationships,
- There is no interpreter and I feel frustrated about,
- Hearing students sometimes lost interest in communicating with D/HH person,
- When the pace of oral communication is too fast and I feel discouraged,
- Hearing students do not want to get involved with the deaf world.

#### 4.1.5 D/HH students' views of potential challenges in the move towards inclusive education

Table 6. Data and results of t-test on the degree of seriousness of the problems

No	Behavior Descriptions	Responses							
		Responses with Valid percentages (%)			Test Value( $\mu = 1$ )				
		3	2	1	N	Mean	SD	t-value	P-value
1	Participation in classroom activities or discussions	4.4	37.8	57.8	45	1.44	0.59	5.09	0.00*
2	Making friends with and be related with hearing peers	-	4.4	95.6	45	1.08	0.25	1.77	0.08
3	Lack of meaningful communication with teachers and hearing students		6.7	93.3	45	1.11	0.32	2.35	0.02*
4	Negative attitude of teachers and students	-	6.7	93.3	45	1.07	0.25	1.77	0.08
5	Insufficient support from teachers and interpreter.	-	22.2	77.8	45	1.22	0.42	3.55	0.00*
6	Lack of acceptance and respect from hearing students	-	4.4	95.6	45	1.04	0.21	1.43	0.16
7	Attending instruction delivered through plasma TV.	40.0	42.2	17.8	45	2.18	0.75	10.57	0.00*
8	Limited knowledge of deafness from the members of the school community	6.7	73.3	20.0	45	1.87	0.51	11.50	0.00*
9	Lack of opportunities for social development	2.2	26.7	71.1	45	1.31	0.51	4.06	0.00*
10	Feeling of isolation and lonely in classroom	6.7	13.3	80.0	45	1.27	0.58	3.08	0.00*
11	Copping with the demands of the general curriculum.	4.4	28.9	66.7	45	1.38	0.58	4.40	0.00*

\*A low significance value (typically below 0.05) indicates that there is a significant difference between the test value ( $\mu=1$ ) and the observed mean.

*Note.* Levels of agreement were rated as not a problem= 1, quite a problem =2 and serious problems=3

An investigation was made into the D/HH students' views on the significance of potential problems in relation to their social and academic inclusion in the regular secondary schools. The one sample t-test was used to compare the average degree of seriousness of a problem against the test value for one sample, which is the level of being "not a problem". Therefore, the t-test results tell each characteristic is either "a problem" or "not a problem" to the D/HH students' in the inclusive setting.

According to the test results, item 2, 4 and 6 results in a mean value of 1.07, 1.08 and 1.04 respectively, this is not significantly above the potential problem scale. Therefore, problems in relation to making friends, attitude of hearing people, and getting acceptance through hearing peers was found to be not a serious problem identified on the side of D/HH students.

The t- test discloses that most of the variables listed were found to be quite a problem for the D/HH students. From the computed mean values, attending instruction delivered through plasma TV is the top most serious problems followed by limited knowledge of deafness from the member of the school community (mean=1.87), and participation in classroom activities and discussions (mean= 1.44).

Of all the problems found to be a serious problem, making friends with and be related with hearing friends (mean=1.08) is rated to be the least potential problem according to the view of D/HH students.

*Note.* Levels of agreement were rated as not a problem= 1, quite a problem =2 and serious problems=3

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Of all the problems found to be a serious problem, making friends with and be related with hearing friends (mean=1.08) is rated to be the least potential problem according to the view of D/HH students.

#### 4.1.6 The correlations between communicative skills, classroom participation and social inclusion of D/HH students

Table 7. Correlation between communicative skills, classroom participation and social inclusion

		CS	CP	AC	UL
CP	Pearson Correlation	0.36(*)			
	Sig. (2-tailed)	0.01			
	N	45	45		
AC	Pearson Correlation	0.36(*)	0.23		
	Sig. (2-tailed)	0.02	0.13		
	N	45	45	45	
UL	Pearson Correlation	0.33(*)	0.36(*)	0.14	
	Sig. (2-tailed)	0.03	0.02	0.37	
	N	45	45	45	45
FR	Pearson Correlation	0.34(*)	0.35(**)	0.39(*)	0.32(*)
	Sig. (2-tailed)	0.02	0.02	0.01	0.03
	N	45	45	45	45

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Note- CS= communication skills, CP= classroom participation, AC= academic performance,

UL= understanding of the classroom lesson, and FR= Making friendship with hearing students.

This study indicated that the possession of communicative skills by the D/HH students is related to their classroom participation and academic performance. Pearson's correlation coefficients revealed that the students' communicative skills were positively related to their classroom participation ( $r_s=0.36$ ), their understanding of the classroom lessons ( $r_s=0.33$ ), and to their academic performance ( $r_s=0.36$ ) at the 0.05 level of significance, as evaluated by the students themselves.

Pearson's correlation coefficients also showed that D/HH students' making friendships with hearing students was positively related to their communicative skills ( $r_s=0.34$ ), and to their academic performance ( $r_s=0.39$ ) at the 0.05 level of significance, as well as to their classroom participation ( $r_s=0.35$ ) at the 0.01 level of significance, as assessed by the D/HH students themselves.

#### 4.1.7 Comparison of gender in communicative skills, classroom participation, and social integration

Table 8. Data and results of t-test on the variable behavior between the sexes

Characteristics	Sex	N	Mean	Std. Deviation	Sig. (2-tailed)	T-value
Communication skills	Male	28.00	15.41	2.92	0.08	-1.79
	Female	17.00	14.04	2.22		
Participation in classroom and social activities	Male	28.00	19.71	3.31	0.58	-0.56
	Female	17.00	19.25	2.17		
Social interaction and relationships	Male	28.00	19.59	1.91	0.24	-1.20
	Female	17.00	18.61	3.02		
Composite	Male	28.00	54.94	5.48	0.07	-1.89
	Female	17.00	52.00	4.25		

Mean scores, standard deviation and t-test value results of communication skills, participation in classroom and social activities as well as their social interaction and relationships for male and female students were calculated and used to test whether the differences are significant or not between male and female students .

A t-test result based on weighted responses of the Likert- type scale has shown that statistically gender based-differences were not observed in their communication skill among D/HH students attending general secondary school. It turned out that boys communication skill was better (M=15.41, SD=2.92) than girls (M =13.89, SD=2.22). This difference is not significant at  $t = -1.79$ ,  $P > 0.07$ .

As presented in table 8 boys had the more participation in classroom and social integrations, compared to girls. However, the difference between the two groups of D/HH students is not significant: t-test revealed no significant group differences between boys and girls in terms of participation in classroom activities at  $t = -0.56$ ,  $p > 0.5$  and interaction with hearing peers  $t = -1.20$ ,  $p > 0.2$ . When the three characteristics are considered together by gender, no statistically significant differences were found at  $t = -1.95$ ,  $P > 0.07$

## 4.2 Analysis of Results Obtained from Teachers

### 4.2.1 Profile of teacher participants

Table 9. Age, teaching experience, sex and training of teachers participants

<u>Demographic characteristics</u>				
	N	<u>Age</u>		
		Mean	Stand.dev.	
School A	30	31.60	8.83	
School B	13	36.92	15.76	
Total	43	33.21	11.44	
<u>Teaching experience</u>				
	N	Mean	Stand.dev.	
School A	30	7.43	7.60	
School B	13	11.54	14.34	
Total	43	8.67	10.11	
<u>Sex</u>				
	N	Male	Female	
School A	30	26(86.67%)	4(13.33%)	
School B	13	10(76.92%)	3(23.08%)	
Total	43	36(83.72%)	6(16.28%)	
<u>Educational qualification</u>				
	N	Certificate	First degree	Postgraduate degree
School A	30	4(13.33%)	25(83.33%)	1(3.33%)
School B	13	2(15.38%)	10(76.92%)	1(7.70%)
Total	43	6(13.95%)	35(81.39%)	2(6.96%)
<u>Training in inclusive education</u>				
	N	Yes	No	
School A	30	16(53.33%)	14(46.67%)	
School B	13	9(69.23%)	4(29.77%)	
Total	43	25(58.14%)	19(41.86%)	

The teacher participants had a mean age of 33.2 years (SD11.44) and an average of 8.67 years (SD 10.11) teaching experience. Most of the participants (83.72%) were male teachers and only n=13 were female teachers. Most of the teachers (81.39%) who participated in the study had first degree, and only 6.96% of the participants possessed a postgraduate degree. All interpreters (n=6) held certification in sign language interpretation. Seventy-five percent of the teachers in regular schools have been teaching the hearing-impaired students for less than 2 years.

Furthermore, 58.14% of the teachers reported that they had training in teaching in inclusive setting or had attend a seminar on special education but 41.86% of the respondents neither attend a seminar nor had training in special needs education.

#### 4.2.2 Teachers views of the communicative skills of their D/HH students.

Teachers views of the level of communication between hearing students, themselves and the D/HH students is presented in the table below.

**Table 10. Selected questions used in the second part of the teachers' questionnaire with numbers (n) and valid percentages (%) of the participants' response to each question in the parentheses**

S. N.	Descriptions	Not sure	Not at all	Quite well	Very well
1	D/HH students in my class communicate with their hearing peers	(n=8, 18.6%)	(n=6, 14.0%)	(n=25, 58.1%)	(n=4, 9.3%)
2	I can communicate with my D/HH students	(n=6, 14.0%)	(n=25, 58.1%)	(n=9, 20.9%)	(n=3, 7.0%)
3	Can most D/HH students in my class understand verbal communication?	(n=11, 25.6%)	(n=12, 27.9%)	(n=13, 30.2%)	(n=7, 16.3%)
4	D/HH students in my class understand the lesson in the classroom	(n=7, 16.3%)	(n=5, 11.6%)	(n=21, 48.8%)	(n=10, 23.3%)
5	On average, do D/HH Students attending my school improve communication skills from their inclusion?	(n=5, 11.6%)	(n=5, 11.6%)	(n=22, 51.2%)	(n=11, 25.6)

This study indicated that the majority of the teachers teaching in regular classes had not achieved good communication with their D/HH pupils as indicated by the participants' answers. Table 10 shows that the majority of the teachers reported that they could not communicate effectively with their D/HH pupils (question 2) and that according to them, the great majority (n=29, 67.4%) of the D/HH pupils could communicate with their hearing peers (question1). The same table 10 (question 3), illustrates that nearly half (n=20, 46.5%) of the teachers believed that their D/HH pupils could use verbal language

quite well or very well with hearing students and their teachers in their school. In contrary, (n=12, 27.9%) believed that D/HH students in their classroom could not communicate at all through the use of verbal language with their teachers and hearing peers their school. Surprisingly eleven teachers (25.6%) were not sure of whether D/HH students were able to use efficiently verbal language to communicate with teachers hearing students in their classroom.

Teachers were asked to rate how inclusive experiences affected D/HH students' communication skills, thirty-three out of 43 teachers commented on positive influences while the other five teachers thought that D/HH pupils did not show any significant improvement in their communication skills because of the inclusion experience. The rest five teachers were not sure of whether D/HH students were improved in their communication skills as result of inclusion experiences.

#### 4.2.3 Teachers views of their D/HH students participation in classroom and social activities

**Table 11. Selected questions used in the second part of the teachers' questionnaire with numbers (n) and valid percentages (%) of the participants' response to each question in the parentheses.**

S.N.	Descriptions	Not sure	Not at all	Quite well	Very well
1	Can D/HH students in my class participate in the classroom?	(n=2, 4.7%)	(n=22, 51.2%)	(n=15, 34.8%)	(n=4, 9.3%)
2	Are D/HH students participating in extra-curricular activities take place in the school?	(n=10, 23.3%)	(n=22, 51.2%)	(n=8, 18.6%)	(n=3, 7.1%)
3	Are Hearing students supportive and cooperative to D/HH students in the classroom?	(n=2, 4.7%)	(n=0, 0%)	(n=29, 67.4%)	(n=12, 27.9%)
4	Can D/HH students in my class keep up academically with the rest of the class?	(n=2, 4.7%)	(n=12, 27.9%)	(n=9, 44.2%)	(n=10, 23.3%)
5	On average, do D/HH students attending my school benefit academically from their inclusion)?	(n=4, 9.3%)	(n=2, 4.7%)	(n=19, 44.2%)	(n=18, 41.9%)

Teachers differed on their response to their D/HH students' classroom participation. About twenty-five teachers (44.1%) said that the D/HH students could participate "quite well" or "very well" in class lesson or discussions, in comparison with eighteen teachers (51.2%) who said that D/HH students could not participate in classroom activities (Table 11, question 1).

Teachers seemed not quite pleased with their D/HH students' participation in extra-curricular activities. Table 11 shows that when the teachers were asked if D/HH students were involved in extra-curricular activities organized to facilitate interaction between students in the school. Only few teachers (n=11, 19.7%) reported their students participation in clubs and extracurricular activities, whereas more teachers (n=22, 51.6%) reported that D/HH students had no or limited involvement in extracurricular activities. Ten teachers (23.3%) were not sure whether D/HH students were able to participate in different extracurricular activities.

Teachers were asked if they believed that D/HH and hearing students could support each other or cooperate in general schools. Table 11 (question 3) shows that not a single teacher stated that D/HH and hearing students were not cooperative to one another, whereas the great majorities were of the opinion that the hearing students assisted quite a lot the D/HH classmates.

Finally, an attempt was made in this study to ascertain whether D/HH students in secondary schools were able to keep up academically with the rest of the class with the views of the general classroom teachers. Table 11 (question 4) shows that, according to their teachers D/HH students could usually attain the same academic level as most hearing classmates. Finally, when the teachers were asked about the students' overall academic inclusion, the overwhelming majority were of the opinion that academic inclusion of D/HH students was quite improved (question 5).

#### **4.2.4 Teachers views of their D/HH students' social inclusion**

This study indicated that teachers were on the whole, quite pleased with the social inclusion of the D/HH students into the general school as indicated by the teacher participants' answers.

**Table 12. Main questions used in the second part of the teachers' questionnaire with numbers (n) and valid percentages (%) of the participants' response to each question in the parentheses.**

S. N.	Descriptions	Not sure	Not at all	Quite well	Very well
1	Can D/HH student in my class develop friendships with their hearing classmates?	(n=6, 14.0%)	(n=0, 0%)	(n=17, 39.5%)	(n=20, 46.5%)
2	I believe that hearing students take positive attitude toward D/HH students.	(n=4, 9.3%)	(n=0, 0%)	(n=13, 30.2)	(n=26, 60.5 %)
3	D/HH students in my class face difficulties in socializing with hearing students.	(n=3, 7.0%)	(n=14, 32.6%)	(n=17, 39.5%)	(n=9, 20.9%)
4	D/HH students' relationship with hearing students increased as they have passed more time in this school.	(n=5, 11.6%)	(n=1, 2.3%)	(n=15, 34.9%)	(n=22, 51.2%)
5	On average, do D/HH students attending my school benefit socially from their inclusion?	(n=4, 9.3%)	(n=0, 0.0%)	(n=24, 55.8%)	(n=15, 34.9%)

As shown from the table an investigation was made into the teachers' perception of their D/HH students' ability of making or relating with hearing friends in the general schools. Table 12 (question1) shows that the teachers were of the opinion that, generally, D/HH students developed friendships with their hearing students. Only six teachers (14.0%) were unsure whether the D/HH students developed friendship with hearing students.

Concerning to the attitude of hearing students, teachers were also quite pleased with the attitude of hearing students towards the D/HH classmates. Specifically, table 12 (question 4) shows that the teachers were of the opinion that, in the main, hearing students developed positive attitude towards the D/HH classmates.

Regarding the difficulties associated with social contacts between the hearing and the D/HH students, Table 12 (question 3) illustrates that the majority of teachers (n=30, 72.1%) believed that their students did not face, or only little, difficulty during the social interaction with hearing people.

Equally, an attempt was made in this study to investigate participants perceptions of the degree to which the inclusion experience enable the D/HH students to relate with hearing students as they have passed more time in the general school. Only one teacher (2.3%) stated that the inclusion did not help them at all to improve in their relationships with hearing peers. Fifteen teachers (34.9%) stated that they help quite well; and twenty- two teachers (51.2%) stated that they help very well, whereas five teachers (11.6%) were unsure of the opinion that D/HH students' social relationships with hearing students improved or not (question 4).

Finally, teachers were requested to express their views about the social benefits deriving from the inclusion of the D/HH students into the general secondary school. Apart from a few exceptions, the general classroom teachers believed that these children benefited, "quite well" or "very well", of their inclusion in the general schools (Table 12, question 5).

## 4.3 Analysis of Qualitative Data

### 4.3.1 Interview reports from parents

In this study, five parents of the D/HH students were invited in semi structured interview schedule with the researcher to discuss about their attitude towards inclusion and their child's inclusion experience in the general education environments. The summaries of statements about these topics that reflected their comments presented as follows.

An undisputed finding, which emerged from interviewing parents, was that parents wanted inclusion for their D/HH children. The five parents with whom direct contact was made all wanted their children to continue their education in inclusive environment, although they agreed that because of their children's communication difficulties, additional support (e.g., tutorial sessions) and facility might be necessary on regular basis. One parent of a grade ten female student said: *"I am very satisfied that she had the opportunity to attend a normal school. I knew she will have to go away to a residential school far too long from us"*.

Not all the parents interviewed were fully aware of whether their children received the best education. The majority, four parents, stated they were satisfied with their child's progress at school. One parent strongly endorsed the school's effort as follows:

*The school gave my child the chance to learn with in his neighborhood and together with hearing students in preparatory school, which is amazing for me and unthinkable before. Besides the school hired interpreters for deaf students to facilitate their communication with the teachers, which is fantastic.*

When parents were asked if they felt overall that the inclusive setting was the right kind for their child, the following responses represent their various views:

- *'Since going to this school, he has made no different things now as when he was at special school.'*
- *'We are pleased with his motivation and progress since he went to this school.'*
- *'She is happy there, and has met new friends and developed habits since she went to this school. She is now interested in everything, and wants to work.'*

Five parents interviewed agreed without hesitation that their children had clearly benefited socially from placement in a regular school, and had been extremely happy and reported their children made many good friends. One parent commented that, *“his friends were only deaf students when he was in special school, within a semester he noticed his child developing interest to communicate and relate with hearing people around the neighborhoods to which he did not before”*. Similarly, one mother felt that inclusion helped her son to improve in his communication. The mother’s responses depicted that: *My son was in a residential school for the deaf for about five years. He was silent and not communicative at home. He preferred to relate only to his deaf peers found around the National Association of the Deaf. After joining the inclusive setting and he gradually developed interaction with his family and other people too. We used gestures only to communicate with him in his earlier years of schooling, but currently he also uses more oral communication approach. The mother, further, stated that such type of progress is because of his schooling in the regular school.*

Concerning the parental involvement in the education of their children, with no exception, all parents replied that due to lack of knowledge on how to help their children and the distance of the school from home, they did not support their child at home nor visited their children school even once.

Parents were asked about the school that their children do not like and wish that it would change. In response to this question, four of the parents replied that their children are very happy with the school, enjoy going to it and did not know what should in particular to be changed. One of the respondent, on his side, said, ‘D/HH students had difficulty of understanding lessons when it is provide through plasma TV transmissions, therefore, there should be a change in this aspect.’

In response to the suggestions on inclusive setup, two parents felt that inclusive education provided an opportunity for a hearing impaired child to grow up more socially or to extend social contacts (made good friends), to develop confidence and better communication skills. However, the children had to work hard to succeed academically; therefore, the need of extra support for D/HH students should be provided by teachers and hearing students. Three parents expressed the need for early inclusion while two

parents felt that the child should be totally ready for inclusive system before being included with hearing students. One parent felt that *'more awareness on inclusion should be spread through TV so that regular schools accept D/HH children more willingly'*. This respondent said: It is a great idea. There is a need for positive attitude to give further equal opportunity and quality education to all D/HH students throughout the country.

#### **4.3.2 Interview reports from interpreters**

To supplement the data obtained through questionnaires, five sign language interpreters were involved in semi structured interview schedule with the researcher to discuss about the academic, communicative, participation, and social relationships of D/HH students in the general education environments. The summaries of their statements confirmed with some quotations from the interview are, presented below.

With respect to the D/HH students' confidence in communicating with hearing people, two of the respondents from the school B reported that the D/HH students are confident in expressing themselves particularly using both sign and spoken language. The other respondent in the same school, however, indicated that only some of the students are confident in expressing themselves. This respondent said that, *"it is only when the teacher or hearing peers approach them friendly and not too fast at talking to them that the students feel free and comfortable in expressing themselves"*. In this regard all respondents in school A indicated that most of the time the D/HH students freely expressed/discussed their ideas regarding personal and educational issues more often through oral, sign and gestures since they know that their interpreters do not belittle them. One of them also indicated that, *"the D/HH students expressed their feelings particularly depending up on the approach of the regular teacher and the hearing students"*.

Concerning the general classroom teachers' ability to communicate with D/HH students in classroom instruction all of the interviewee replied that almost all general classroom teachers tried to communicate verbally as well as through gestures and writing notes. One of the interpreters indicated that, *"almost all teachers did not have sign language skills; they primarily rely with interpreters to meaningfully communicate with D/HH students. Therefore, they are reluctant to ask questions or to give chance D/HH students to*

*respond for questions rose unless the interpreter asked so. The reason for these all difficulties is lack of sign language abilities”.*

The interpreters in the two schools were asked about the academic performance and classroom participation of D/HH students as compared to hearing students. All of the respondents seemed quite pleased with their D/HH students’ academic achievement and classroom participation. All of the respondents from school A responded that academically D/HH students could usually attain an average to excellent academic level as their hearing classmates. One of these respondents was in the opinion that ‘academic inclusion of deaf students was quite improved as they have passed more time in this setting.

Respondents from the school B also explained that, though they need extra work to succeed academically most of the D/HH students were capable doing things as other students. One of the respondents from this school also stated that, “*D/HH students study together after class hour and worked hard to clear their exams and to keep up with the other students”.*

All the interpreters reported that D/HH students experienced obstacles to academic success in plasma classes due to their hearing impairment. The obstacle ranged from a lack of basic support services (no interpreter in plasma classes) to unresponsiveness of the media to the needs of deaf learners. Some class activities were especially difficult for the D/HH students while attending plasma classes. For example, one interpreter described D/HH students’ discomfort with group work and other activities requiring interaction between students while the plasma teachers asked so.

With regard to participation in extracurricular activities all of the respondents indicated that D/HH students showed little progress compared to their classroom participation. Respondents said that:

*They did not have as much time for extracurricular activities as their hearing peers to due to the demands of the schoolwork. However, since so much of social life in high school revolves around these kinds of activities, they sometimes participated. Few D/HH students joined clubs, which did not consume much time and did not required intensive*

*conversations. Others joined sports activities as a means for interacting with hearing peers.*

Regarding to the attitude of hearing students towards the D/HH students, all of the respondents from the two schools indicated that due the frequent contact and socialization between the D/HH and hearing students, hearing students were more positive and cooperative with D/HH students. One of the interpreters in school A elaborated this by saying that, *“the hearing students and those D/HH students are very friendly to each other, they study, work, eat together, etc”*. All of the respondents also clarified that there is not such a thing as teasing and rejection in the two schools. Another interpreter from school B for example, reported, *“Some students (four in number) had learned to use sign language to communicate with D/HH students and with interpreters, which was a great achievement”*.

With respect to making friendship, three respondents from school A indicated that the students do not feel lonely. When they join this school they had developed friendship based on their class level, after that they studied together, they also made friends easily. One of the respondents, on the contrary, said that; *they become weak in schooling and most of the time becomes related only with D/HH peers, however, Making friends is not similar for all, but when the students join this school we make a pair (one deaf student with one hearing student). Therefore, they will become friends. Since there are other friends on both sides, the friendship circle widens.*

One of the interpreters in school B further added that this could be seen in two ways. She said:

*There are those who join the school from urban integrated schools and from different boarding schools. The first group does not have any problem while the second group does have difficulties in adjusting to the setting. They do not want to play or be with hearing students; they want to segregate themselves or liked to be only with their D/HH classmates. However, after a few months they would show changes. They would be mixed with the hearing students. This goes to the extent of for making real friends.*

According to the views of all interpreters, when the inclusive classroom began, the D/HH students tended to self-segregate. The students communicated little with one another or with their hearing peers. This lack of social interaction was the result of unfamiliarity between the students.

On the topic of interaction to each other among the D/HH students, all (five) of the respondents from the two school indicated that the D/HH students like and love each other and they see each other as brothers and sisters. One of the interpreters in school B elaborated this by saying that *“the D/HH students are very friendly to each other; they help each other; they care, sympathize and defend for each other except the clashes they sometimes have. The bond among the member of the D/HH community in the school is so strong”*.

Interviewees described certain level of discrimination in a range of certain school activities. For example, D/HH students experienced social isolation and exclusion from extracurricular activities (such as meetings or participation in clubs) in the same way that they do outside school.

All interpreters except one strongly felt that D/HH students did not have any significant problems while adjusting, and thereby they were able to adjust themselves to this new situation within a few months. One interpreter indicated that, she had to work hard to help the D/HH students to adjust in the regular school system, as the D/HH students could not adjust easily in the first months. All interpreters agreed that it was not always easy to their D/HH students to understand the subject matter taught in the class even with the help of the interpreter, and that they had to help their students by reinforcing learning at tutorial programs through organizing volunteered teachers. Despite this, this inclusion process helped D/HH students to learn more and handle the situation (academic and social demands of the setting) with confidence.

When asked how they observed the type of problems D/HH students face in inclusive classes, the majority of the interviewed interpreters said that the difficulties working with D/HH students in inclusive classes, and the most recurrent ones include the following:

- It is not easy to communicate abstract concepts, for e.g., some of the concepts in the natural sciences may not have sign languages.
- Attending plasma lessons for D/HH students (the plasma curriculum)
- Limited sign language skill of the hearing population in the school

Finally, all of the interpreters have explained that the inclusive education system is a current approach in educating people with disabilities. Therefore, the necessary requirements are to be fulfilled based on the needs and abilities of D/HH students. They also believed that educational programming for D/HH students must be designed, implemented and taught in a meaningful way and resource room should be adjusted with sign language and special needs education teachers. D/HH students do not benefit from instruction delivered through satellite television. Therefore, the need for curriculum modification is necessary. The interpreters have also suggested refreshment training should be provided by the school to the development and the use of sign languages in the school.

#### **4.3.3 Results obtained from observation**

To supplement data obtained through questionnaire observation during lesson and free time took place in the two schools. Major activities and interactions involved D/HH students that help the researcher to supplement the quantitative data are presented below.

In the classrooms,( particularly in school B) D/HH students often sit in the front of the classrooms with few hearing students mixed together in order to see the interpreter and the instructor. The teaching methods employed appeared largely teacher-centered. Group activities or discussions were hardly observed as classroom instruction. Therefore, classroom participation for e.g., oral question raised by the general teacher for the whole class was limited in general to few students, and it was seen to be limited only to those who volunteer to participate.

The regular teachers knew only a few signs while I was sitting in classroom; their primary source of instruction was oral communication and the interpreter signed for

D\HH students. In the classroom itself, direct communication between the teacher and the D/HH students was limited to pointing, gesturing and written communication.

The regular classroom teachers usually used oral and written communication approaches during one-to-one conversations with D/HH students outside the classroom. The interpreters and hearing peers provided assistance when the regular teacher was unable to understand students or they were unable to understand the regular teachers.

Peer assistance particularly in the form of studying together out of class hours commonly observed. Hearing peers provided specific assistance for D/HH students through note taking, studying together in free periods; working test papers, etc were frequently observed. Lunchtime contact between D\HH and hearing students also showed that some hearing students in the schools used sign language rarely and their interaction with the D/HH students was encouraging. Hearing peers had a positive attitude towards the D/HH students and helped them to be able to participate in the school environment.

Based on the observation, most of D/HH students appeared to interact socially in the lunchtime breaks and did show keen interest to be together with hearing students. They provided answers for the oral talk presented by the hearing students. They tried to use simultaneously the spoken language (as some of their utterances were audible for the researcher) and sign language supplemented by finger spelling. Further, out of the classroom, some D/HH students particularly boys seemed popular that they revealed good physical contact (e.g., they hug each other) with their hearing classmates and teachers. Indeed, they did also show more contact that is visible with other D/HH students with in the schools.

The school had a wide range of extra-curricular activities (e.g. environmental club, scout,) designed to develop social skills and help to build relationships in different contexts. However, D/HH students' involvement was not significantly observed in these extra-curricular activities. They were much focused in their education and getting the additional tasks they needed to keep up with their schoolwork.

Although still in the process of development, data from the two schools, suggest that this move towards inclusive education offers a promising alternative educational program for

students with hearing losses. Improvements were observed in the knowledge and attitudes of teachers and students. D/HH students are attending according to their grade-level curriculum, hearing students are learning to use sign language thereby expanding their friendship circle and providing D/HH students with hearing partners.

Generally, it was observed that a lot remains to be done to obtain significant and sustainable improvements in actual practices of teachers and interpreters. More training and support is particularly needed for the teachers and interpreters. On the other hand, more effort is expected to establish strong collaboration between the school and the community in improving the teaching- learning environment for D/HH students. Teachers of the target schools and interpreters need further training on inclusive teaching of D/HH students.

# CHAPTER FIVE

## DISCUSSION, SUMMERY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Discussion

The primary goal of an inclusive program is to promote full inclusion of D/HH students within a regular education classroom that includes both D/HH and hearing classmates. The D/HH students in this study were enrolled in programs that provided support to D/HH students in regular education through interpreters. The fears of many educators that the inclusion movement would result in placing students in regular education classrooms without support appear not to be true for this sample. Access to the regular education curriculum is not achieved by simply placing a student in a classroom. D/HH students need communication access, classroom modifications, and other necessary accommodations to be successful (Antia and Stinson, 1999).

Data from almost all participants in this study, (D/HH students, teachers, interpreters and parents) highlighted that the majority of D/HH students could cope with the demands of the general school's curriculum and performing within the average range.. Previous studies have also linked inclusion with higher academic achievement for D/HH students (Power and Hyde, 2002; Kulwin; 2002; Hadjidakou, Petridou and Stylianou, 2008), taking into account the fact that the general school's environment is one of higher expectations and goals, as well as it follows a richer curriculum than that offered in special schools (Polat, 2003:326).

The likely factors affecting the academic success of D/HH students in this study could be the interpreter support by lowering of communication barriers and the D/HH students commitment to be successful indicated by the reports of parents , interpreters, as well as observation data documented about on D/HH students. For example, they devoted more time to schoolwork than their hearing peers devote and spent after school hours with hearing and deaf peers for additional out of class study. Successful academic out comes

in inclusive educational settings for the D/HH students were found to be related to the support services (Hadjikakou, Petridou and Stylianou, 2005). Winston (1992) also found that inclusion through interpreting is one of the solutions to improving the education of deaf students. Although interpreters did not interpret the entire plasma classes, they carry out when the classroom teacher could take part the instruction. The findings also support the position that students who are D/HH and who are educated in regular schools have higher academic achievement scores than those educated in special schools. Although the variance in achievement is as likely to be due to student characteristics such as abilities, motivation, willingness to concentrate intensively on tasks to determine as it is to educational placement (Allen, 1986 cited in Antia and Stinson, 1999).

In the area of communication, the students in this study had obtained quite good communication skills as reported by the students themselves and the teachers. It was encouraging to note (observe) that the majority of D/HH students were comfortable when communicating verbally through gestures and writing notes and using few signs with the hearing peers and their teachers particularly outside the classroom in social situations. As can be seen also from the findings (table 4), the majority D/HH students could understand and communicate with spoken language, and the majority could communicate quite well both with their hearing classmates and their teachers. The possession of communicative skills by D/HH students in the present study was found to act as fundamental factor in their academic and social inclusion. The findings of other studies suggest that students who are relatively skilled in communication (particularly with spoken language) may achieve greater academic inclusion (Stinson and Antia, 1999; Powers, 2003 cited in Polat, 2003; Hadjidakou, Petridou and Stylianou, 2008).

These results are, however, not consistent with prior local research done on D/HH students educated in regular primary schools by Mesfin (2006) and Tilahun (2007) who revealed discouraging results with regard to communication skills of D/HH students with their hearing classmates and teachers. There are several reasons why the data from this sample may be different from other reported data on D/HH students' communicative skills. The sample in this study includes:

- (1) -a large number of hard-of-hearing adolescents who are often overlooked in other research,
- (2) -they had more exposure to the general education curriculum in primary and junior school years,
- (3) - the students in this study were enrolled in programs that provided support to D/HH students in regular education through interpreters than students educated by the regular education teachers with no or limited signing skills, and
- (4) -the sample in this study includes older adolescents (16-24 years old) who might have slowly acquired better communication skills and experience through time with hearing people.

The researcher also suggest that the instruments used to measure communication variables in the present study and studies by Mesfin (2006) and Tilahun (2007) although related are not identical and should be considered as different approaches to measuring a complex variable. This could be thought of as the degree of success in communicating within a specific social context and include skills such as using an interpreter to communicate with teachers and students, communicative assertiveness, using oral communication particularly for functional purposes, not strictly defined in terms of oral language proficiency of D/HH students as compared to hearing students.

On the other hand, international research findings such as Kluwin and Stinson, 1993; Holt, 1994 cited in Stinson and Anita, 1999 have indicated that access to the general academic curriculum is associated with higher achievement and adaptation at using variety of communication modalities in different situations.

Data from the classroom observation revealed that all general education teachers in the two schools were hearing, and rely primarily on an interpreter for delivery of information and instruction. The teachers appeared to have very little or no knowledge of the sign language skills to communicate with D/HH students particularly in classroom instruction. The teachers communicated exclusively orally which was usually supplemented by gestures and writing notes in face-to-face contact with D\HH students. Many of the significant communication between teachers and D/HH students occur outside of class. The data obtained from the interpreters interviews also showed that teachers do not

encourage D/HH students to ask questions and to respond at questions raised in the classroom unless the interpreter involved. The reason for these difficulties is lack of sign language abilities.

It was observed that even classroom teachers seemed appreciating their students' needs; the tendency was to view them as dependents with interpreters support only. Classroom teachers make little or no efforts to support the students. The danger is that teachers may not make efforts to the level they can. They need to be trained further and supported so that they have positive and supportive role for the students and the interpreters.

As it is noted in Mastropieri and Scruggs (2000) to ensure that, general teachers are well prepared for successfully implementing an inclusive instruction; sufficient opportunities for professional development must be provided. Training with sign language therefore is key factor if teachers are expected to fulfill their roles in effective manner. Barnen (1982) cited in Tilahun (2002), also stressed that, it is unrealistic and unfair to expect that general class teacher would be able to include children with disabilities including the one with hearing loss in the general classroom without first receiving adequate training.

As one can observe from table 5 & 12 regarding classroom participation of D/HH students in the classroom activities , more than half (51.2%) of the teachers and 42.2% of student participants reported that D/HH students could participate little or not at all in classroom activities or discussions. Results documented from classroom observation sessions also clearly revealed that the classroom lessons were purely lecture based and non-interactive in their structure as well as organization. Participants in the study carried out by Tilahun (2002) stressed that teacher centered, less interactive, whole class questioning and discussions were the teaching approaches dominantly observed in regular classrooms integrating children with hearing impairment in three regular schools around Debretabour and Bahirdar towns. Therefore, referring to the findings of this study it is possible to say that some difficulties, which D/HH students may experience in certain activity areas, are not due to deafness itself but due to inappropriate instructional strategies and procedures that are employed in the course of action (Moore, 2001: 98).

This study support that it is vital for teachers to get all the necessary information on deafness through in-service training courses and from experts supporting the attendance of D/HH students in regular schools. Among the experts such as special needs coordinators and counselors, in order to develop alternative teaching methods and curricular modifications/ adaptations to meet the needs of the students in an inclusive environment. Additionally, and similarly to the findings of this study, the significant role of interpreters of the D/HH in educating and supporting general teachers has been documented by a number of researchers (Winston 1992; Stinson and Liu, 1999). Still, promoting classroom participation seems an important first step in socially integrating students in regular classes, and if participation is frequent and mutually enjoyable, it might provide a basis for true acceptance (Polat, 2003:329).

Studies confirm that inclusion has positive consequences not only for students with disabilities but also for non-disabled students. Growing up and attending school with children with disabilities will affect the attitudes of non-disabled children which may have implication for the future (Tirussew, 2005:123). The findings obtained from students, teachers and interpreters of this research also confirm that a higher level of assistance and cooperation between D/HH and hearing students in class and outside classrooms which is consistent with the literature. For example, when the D/HH students were asked whether their hearing classmates were able to help them to participate in classroom activities and assignments, the majority (n=36, 80%) reported higher level of peer assistance and cooperation in group activities and projects. Observation results also documented that hearing peers frequently and consistently assisted D/HH students with note taking, assignments and working test papers inside and outside the classrooms. As indicated from the interpreters interview data some hearing students learned to use sign language to communicate with D/HH students and interpreters. Hearing peers helped the D/HH students to be able to participate in educational activities

Extra-curricular activities may provide opportunities for D/HH students to develop the social skills, both with hearing and D/HH students. Tirussew (2005) stress that extracurricular activities for all students are often suggested. This is an important parameter not only promoting inclusion outside the classroom among students but also

for unfolding the diverse potentials and talents of students with and without special needs. The findings of the present study and the researcher's observation, confirmed that involvement of D/HH students in extracurricular activities such as sport, music, theatre, drama and mini media clubs were limited only for a few students in the two schools. The reasons for their limited or no participation seemed that D/HH students were less encouraged by their hearing peers for extracurricular activities, and they were too busy getting the additional tasks they needed to keep up with their schoolwork.

As reported by teachers, parents and interpreters participating in this study, the D/HH students were socially well adjusted. The majority of the D/HH students participating in this study also stressed that they developed friendships with hearing students. These findings are consistent with previous studies reporting positive attitudes towards, and acceptance of D/HH students by their hearing peers (Kluwin and Stinson, 1993; Power and Hyde, 2002). Successful social outcomes in this study are due to the fact that most of the D/HH students could have more exposure to the general education environment in special classes and regular classes. In addition, they were mature in their age (most of them were above 16 years old), availability of interpreter support and the presence of many other D/HH peers and classmates. Participants in the study carried out by Stinson and Liu (1999) stressed that teachers of the D/HH and interpreters in general classroom had an important role in providing information about deafness to hearing students, and removing communication and relationship difficulties between D/HH and hearing peers.

Another important finding with regard to social inclusion of D/HH students in general secondary schools that emerged from this study is the importance to the majority D/HH students of having both D/HH and hearing friends. Most of the students who wanted and found relationships with hearing peers also enjoyed relationships with deaf peers. Kluwin and Stinson (1993) reported this to be true for mainstreamed high school students that, a strong interest in the deaf community did not exclude strong interest in the hearing community, and vice versa.

The possession of communicative skills (using varied techniques of communication) by D/HH students in the present study was found to be positively related with their academic and social inclusion. The findings of other studies suggest that students who are relatively

skilled in communication may achieve greater academic inclusion (Stinson and Antia, 1999; Kreimeyer, et al., 2000; Hadjidakou, Petridou and Stylianou, 2008).

Social inclusion was also statistically related to the D/HH students' communicative skills that enabled acceptance by peers and teachers. Without communication, socialization cannot exist (Polat, 2003). It has been suggested in a number of studies that D/HH students' lack of communication skills is a major obstacle to their social inclusion and true acceptance by their hearing peers (Stinson, Whitmire and Kluwin, 1996; Hung and Paul, 2006). Some studies support that D/HH students who are relatively skilled in using spoken communication may experience greater social integration in classes with hearing students (Stinson, Whitmire, and Kluwin, 1996; Power and Hyde 2002).

Similarly, the results of this study show that the perceived academic inclusion of D/HH students was positively related to their social inclusion. The findings of other studies also indicate that successful social inclusion firmly underpins successful academic inclusion (Hung and Paul 2006; Stinson, Whitmire, and Kulwin, 1996; Hadjidakou, Petridou and Stylianou, 2008).

Data from this study show that both male and female D/HH students had positive evaluation of their communicative skills, academic and social inclusion in general secondary schools. The findings in table 9 indicated certain gender gap favoring male students was observed in these parameters. Although the difference between male and female deaf students was not statistically significant in this study, male students received slightly higher scores on the academic social, communicative, and overall inclusion experiences compared with female students. Therefore, it may be argued that although the results are not significant, they are in accordance with the general research evidence. The superiority of boys over girls has been attributed to various factors in the literature, such as parental child-rearing attitudes. For example, boys are traditionally more likely to be encouraged to be active and permitted to be sociable compared with girls (Polat, 2003). Other studies also confirmed that women with disabilities experience major psychosocial problems such as neglect, depression, stress, lower self-esteem, and social isolation, but these problems remain largely inconclusive (Nosek and Hughes, 2003 cited in Tirussew, 2005). Moreover, the Ethiopian culture discriminates against women.

Classroom interaction between the teacher and students denies equal attention to boys and girls. The teacher gives preferential treatment to boys while girls are rarely visible in participating in teaching- learning process (AED, 2003).

Finally, it was emphasized by almost all of the participants in this study that attending televised instruction delivered through satellite television program was the most serious problem that D/HH students had encountered in relation to their inclusion in the regular secondary school. Observation from the two schools showed that communication in plasma instruction was one way with the consequence of no interaction between D/HH students and the teacher, i.e., the plasma teachers used speech which students failed to understand probably due to severe auditory dysfunction, and the pace of the instruction was too fast even the hearing students complained about it. Moreover, the absence of an interpreter in televised lessons both in the classroom as well as in the TV program made the communication more boring and inappropriate for D/HH students. The D/HH students and interpreters also suggested that the curriculum be modified to meet the students' special educational needs. This suggestion is also stressed by Tirussew (2005) that inclusive education requires a flexible educational system including flexible curriculum, facilities, or other aspects of the settings, for a successful inclusive education for D/HH students. Furthermore, the inclusive system should ensure that the special needs of students who are D/HH are well understood by the school administrators, teachers and policy makers.

## 5.2 Summery and conclusion

This study has attempted to explore the views of D/HH students (who attend secondary schools, and use an interpreter), as well as the perceptions of their teachers, interpreters and parents on their communicative skills, academic and social inclusion. Two questionnaires were administered and completed by a number of D/HH students and their teachers. Interview schedules were used to collect information from the interpreters and parents of D/HH students. Moreover, observation sessions were conducted within and outside of classroom to confirm data obtained from the questionnaire and interview schedules. The findings of this study are crucial for the actual discussion on inclusive education for D/HH students in Ethiopia, and have also shown a great deal of similarity with the studies conducted in other parts of the world at different times. The conclusions arrived at are presented below.

1. D/HH students attending general secondary schools in this study could cope with the demands of the general school's curriculum and performing within the average range.
2. The study revealed that D/HH student achieved good communication skills to interact effectively and develop relationships with hearing peers in different school environments. It was encouraging to note that the majority of D/HH students were comfortable when communicating with the hearing peers and their teachers using variety of communication modes.
3. All regular education teachers in the two schools were hearing, and relying primarily on an interpreter for delivering information and instructions. The teachers appeared to have very little knowledge of sign language skills to communicate with D/HH students particularly in classroom instruction. General teachers were not sufficiently trained to adapt the curriculum and instruction for students with hearing impairment.
4. The design and implementation of teaching in the classrooms are largely less individualized, but teacher- centered and one-way. Limited opportunities in the classrooms did not allow participation of D/HH students, which seems an important first step in socially integrating students in regular classes.

5. Hearing peers are generally willing to help the D/HH students to be able to participate in educational activities. They give support and cooperate with each other both within and outside of class activities and situations. Even some hearing students learned to use sign language to communicate with D/HH students and interpreters.
6. The findings of the study revealed that there seemed limited opportunities as well as challenges for extracurricular activities. The reasons for their limited or no participation seemed that D/HH students were hardly encouraged by their hearing peers to participate at extra-curricular activities, and they were too busy getting the additional tasks they needed to keep up with their schoolwork.
7. The majority of the D/HH students succeeded in achieving the goal of learning socially included. They had both hearing and D/HH friends, satisfactory social life (e.g., have intimate hearing friends), went to parties, exposure to hearing world, and were accepted by hearing peers and well adjusted with the social demand of the school environment.
8. This study revealed that, students who were successful in their academic performance were found to be those who adjust socially quite well with hearing students and teachers. The findings of other studies also indicate that successful social inclusion firmly underpins successful academic inclusion (Hung and Paul 2006; Stinson, Whitmire, and Kulwin, 1996).
9. Although the difference between male and female deaf students was not statistically significant in this study, male students received slightly higher scores on the academic, social, communicative, and overall inclusion experiences compared to female students.
10. It was emphasized almost by all the participants in this study that attending televised instruction delivered through satellite television program was questionable and not suitable for D/HH students.

11. Finally, the two schools have the potential to sustain an inclusive environment, and are even capable of creating it because of the presence of more desirable social interactions between students with and without hearing impairment.

In winding up, although still in the process of development, data from D/HH students, teachers and interpreters of the two schools, suggest that this model offers a promising alternative educational program for students with hearing losses. Deaf and hard-of-hearing students are addressing grade-level curriculum, achieving good communication skills, interacting effectively and develop friendships with both hearing and D/HH classmates, and hearing students are steadily improving their sign language competency. However, the regular education teachers are solely depending on the interpreters for classroom instructions and communications. Therefore, periodic in-service training for regular teachers is very necessary for successful inclusion

It must be noted that the present study has some limitations. Despite of the fact that the views of nearly all people involved in the inclusion of D/HH students in secondary schools have been explored explicitly, it was not possible to enroll hearing peers mainly due to the large size of these group involved in the setting. Studies exploring similar issues in the future should also involve hearing students. The major data sources for this study mainly derived from the use of questionnaires administered and completed by a number of D/HH students and their teacher participants involved in inclusion in two regular secondary schools. However, in the future studies the use of qualitative methods and the inclusion of students' achievement data may highlight further aspects of inclusion, which were impossible to be explored through the sole use of quantitative methods.

Finally, these results derived from a small sample of students in two regular secondary schools. Additional longitudinal studies of the progress of D/HH students will contribute to the knowledge of the capabilities of these students, the areas in which they need the most support from teachers and interpreters, and the expectations that we should hold for their social and academic success.

### 5.3 Recommendations

Based on the findings of this study and ideas extracted from the related literature, the following measures are recommended to be taken by those who are responsible for the education of D/HH students in the target schools.

1. First and foremost there is an urgent need for curriculum modification particularly in relation to plasma instruction, which need to consider communicative possibilities of D/HH students. I personally believe that the curriculum should intervene in the way that encompasses the learning abilities of the D/HH students.
2. Social integration should be made practical for D/HH students through such means as games, social clubs, and plays for both the D/HH and hearing within the schools' compound by removing barrier to communication in these situations, and using interpreters if possible.
3. The support of interpreters should also be extended in school meetings, conferences as well as school celebrations and holidays to create a sense of being included for D/HH students in the inclusive system.
4. There is a need for promoting peer assistance and peer tutoring program which seems an important means in socially integrating students in regular classes, and it might provide a basis for true acceptance
5. To encourage inclusion and participation, teaching methods and classroom environment need to reflect this strategy. Therefore, the D/HH students should be benefited in acquiring the necessary social and communication skills within the classroom activities.
6. There should be an in-service training session for general teachers on using educational interpreters with D/HH students' educational environments.
7. The special needs education coordinators in the schools should facilitate a continuous deaf awareness program to create consciousness among the teachers, hearing students and school community about the nature of deafness and the educational and social characteristics of D/HH students. This would help teachers, hearing peers and the school community as a whole to develop positive attitude towards D/HH students in general schools.

8. Teachers in regular schools need to sensitize other class students towards the D/HH students. Class teacher could briefly explain to all the children in the class about the problems and difficulties faced by the students. That everyone should extend a helping hand whenever there is a need.
9. Strong commitment to and a high degree of collaboration between administrators, teachers, support personnel, parents, and students is very necessary for successful move towards inclusive education.
10. Further research focusing on rearranging the classroom and on other interventions to improve social participation of students with D/HH students is highly recommended.

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## APPENDICES

### Appendix- A

**Addis Ababa University**

**School of Graduate studies**

**Department of special Needs Education**

#### **Dear students**

I am doing a study for my master's thesis at Addis Ababa University concerning inclusion of students with hearing impairment into the regular classroom.

Permission has been secured from the principal to request your cooperation. Your consent to participate in this study is shown by your will to answer questions in this questionnaire.

Your response will be confidential and anonymous.

Thank you in advance for your participation.

**Direction:** Please circle or fill in the blanks with appropriate information

#### **A. Back ground information about a student respondent(Demographics)**

1. Sex\_\_\_\_\_ Age\_\_\_\_\_ Grade level \_\_\_\_\_
2. Your hearing status is        A. Deaf                B. Hard-of-hearing
3. The hearing status of your parents    A. Deaf/hard-of-hearing    B. hearing
4. When did your hearing problem occur?  
A. before birth   B. birth to 3 years   C. after 3 years
5. In what type of school you were placed before? Grade 1-8  
A. Special school (Residential)    B. Special School (Day school)  
C. Special class in regular school    D. Regular school
6. When did you begin to use sign language?\_\_\_\_\_
7. How you communicate with your family members?  
A. Sign language (home sign)    B. Speech (verbal)  
C. Non verbal language            D. Total communication

**B. Information about D/HH Students Views of their Social Inclusion**

**Direction:** Please circle or fill in the blanks with appropriate information

S.N.	Descriptions	Responses		
		NOT at all	Quite well	Very well
<b>I</b>	<b>Communication skills</b>			
1	I can communicate with my teachers?			
2	I can communicate with the hearing children?			
3	I can understand the lessons in the classroom.			
4	How well most hearing people in school understand your speech?			
5	Does this school experience affect your general communication skills with hearing people?			
6	I can understand speech communication of hearing students and teachers in class?.			
	Your preferred language for a face- to- face communication with people in classroom and school environment is Sign language B. Spoken Language C. Finger Spelling D. Total Communication			
<b>II</b>	<b>participation in classroom and social activities</b>			
1	I can participate in the classroom.			
2	I am good at working with other students in class despite my hearing loss.			
3	Do you prefer to carry out classroom activities with hearing students than with D/HH students?			
4	Are Hearing students in your class supportive (cooperative) to D/HH students both in and outside of the classroom?			
5	Do hearing classmates invited you to participate in different school activities?			
6	I can figure out different solutions to problems related to communication in classroom activities.			
7	Are you not afraid to request for academic assistance?			
8	Do you involve yourself in extra-curricular activities, which took place in the school?			
9	Is the interpreter facilitating your participation in class and interaction with hearing students?			

<b>10</b>	Are teachers facilitating the maximum interaction between D/HH and hearing students?			
<b>11</b>	I have benefited academically from my inclusion.			
<b>12</b>	How is your academic performance? A. below average B. Average C. above average D.Excellent			
<b>III</b>	<b>Social interactions and relationship</b>	<b>NOT at all</b>	<b>Quite well</b>	<b>Very well</b>
<b>1</b>	I have developed good friendships with my hearing classmates.			
<b>2</b>	Do you have satisfying relationship with hearing peers compared with D/HH students?			
<b>3</b>	Outside the classrooms, I have the most of contacts/ interactions with hearing classmates.			
<b>4</b>	Are you not feeling inferior to your friends?			
<b>5</b>	I face difficulties in socializing with hearing students			
<b>5</b>	I believe that hearing students take positive attitude toward D/HH students.			
<b>6</b>	My relationship with hearing students increased compared with D/HH students as I have passed more time in this school.			
<b>7</b>	Do you have benefited socially from your inclusion?			
<b>8</b>	The interpreter service is helpful (essential) for your			
<b>9</b>	Are you comfortable with things out when the interpreter is unable to attend the class?			
<b>10</b>	I believe that I have the most acceptances by hearing classmates.			
<b>11</b>	I prefer to socialize with. A. D/HH students only B. Hearing students only C. Both D/HH and hearing students			
<b>12</b>	Where did you feel more positive about school experiences? A. Special school (Residential) B. Special School (Day school) C. Special class in regular school D. Regular school			

**III. Information about D/HH Students Views of their Social and Educational Challenges and their Suggestions.**

**Direction:** Please circle to indicate the extent of your agreement with each activities and/or situations by selecting among the following response choices.

III	Social interactions and relationship	Not a problem	Quite a problem	Serious problem
1	Participation in classroom activities or discussions.			
2	Making friends with and be related with hearing peers			
3	Lack of meaningful communication with teachers and hearing students			
4	Negative attitude of teachers and students			
5	Insufficient support from teachers and interpreter.			
6	Lack of acceptance and respect from hearing students			
7	Attending instruction delivered through plasma TV.			
8	Limited knowledge of deafness from the members of the school community.			
9	Lack of opportunities for social development.			
10	Feeling of isolation and lonely in classrooms.			
11	Copping with the demands of the general curriculum.			

1. What are the challenges you often encountered in attending instruction through satellite television?

\_\_\_\_\_

2. Support services available to D/HH students in your school

\_\_\_\_\_

3. What do you like about your relationships with hearing people? What do you not like about them?

\_\_\_\_\_

\_\_\_\_\_

4. What do you like about your relationships with deaf people? What do you not like about them?

\_\_\_\_\_

አዲስ አበባ ዩኒቨርሲቲ

ድህረ ምረቃ ትምህርት ቤት

የልዩ ፍላጎት ትምህርት ክፍል

ውድ ተማሪ

እኔ በአሁኑ ሰዓት በአድስ አበባ ዩኒቨርሲቲ በልዩ ፍላጎት ትምህርት ክፍል መስማት የተሳናቸውን ተማሪዎች አካቶ በማስተማርን በሚመለከት የሁለተኛ ድግሪ መመሪያ ጽሁፌን በማዘጋጀት ላይ እገኛለሁ። ይህንን መጠይቅ እንድሞሉልኝ ወደ እርስዎ አስፈላጊውን ፍቃድ ከትምህርት ቤቱ ርዕሰ መምህር ያገኘሁ መሆኔን እየገለጽኩ ለዚህ ስራ ትብብርዎን የሚያሳዩኝ በዚህ መጠይቅ ውስጥ ላሉ ጥያቄዎች አስፈላጊውን መልስ በመስጠት ይሆናል። እርስዎ የሚሰጡን መልሶች በሙሉ ለዚህ ስራ ብቻ የሚውልና በሚስጥር የሚጠበቅ መሆኑን አረጋግጣለሁ።

መመሪያ- ለሚከተሉት ጥያቄዎች ከተሰጡት አማራጮች መካከል በማክበብ ወይም ባዶ ቦታዎችን በመሙላት መልሱ

ሀ) ስለ ተማሪው አጠቃላይ መረጃ

1. የታ: \_\_\_\_\_ እድሜ: \_\_\_\_\_ የክፍል ደረጃ: \_\_\_\_\_
2. በየትኛው ምድብ ውስጥ ትካተታለህ(ሽ)?  
 ሀ) ሙሉ ለሙሉ መስማት የተሳነው/የተሳናት  
 ለ) የተወሰነ መስማት የሚችል/የምትችል
3. ወላጆችህ/ሽ በየትኛው ምድብ ውስጥ ይካተታሉ?  
 ሀ) መስማት የሚችሉ  
 ለ) ሙሉ ለሙሉ መስማት የተሳናቸው  
 ሐ) የተወሰነ መስማት የሚችሉ
4. የመስማት ችሎታህን ያጣህው/ሽው ወይም የቀነሰው መቼ ነበር?  
 ሀ) ስወለድ ጀምሮ  
 ለ) እስከ ሶስት ዓመቱ ባለው ጊዜ  
 ሐ) ከሶስት ዓመቱ ጀምሮ
5. ከዚህ በፊት ትምህርትህን/ትምህርትሽን የተከታተልከው ከሚከተሉት ውስጥ በየትኛው ዓይነት ት/ቤት ነው? 1-8 ኛ ክፍል  
 ሀ) በአዳሪ ት/ቤት ለ) በቀን ልዩ ት/ቤት ሐ) በመደበኛ ት/ቤት ልዩ ክፍል መ) በመደበኛ ት/ቤት
6. በአንተ/ቺ ክፍል ውስጥ መስማት የተሳናቸው ተማሪዎች ብዛት ስንት ናቸው? \_\_\_\_\_
7. በክፍል ውስጥ ያሉ አጠቃላይ ተማሪዎች ብዛት \_\_\_\_\_
8. የምልክት ቋንቋ መጠቀም(የተማርከው) ከስንት ዓመትህ/ዓመትሽ ጀምሮ ነው? \_\_\_\_\_

ለ) መስማት የተሳናቸውን ተማሪዎች አካቶ በማስተማር የተገኘ ውጤትን በተመለከተ የተማሪዎች እይታ

No.	Description of behaviors
<b>I</b>	<b>የመግባባት ችሎታን በተመለከተ ዝርዝር መግለጫዎች</b>
1	ከመምህሮቹ ጋር በአግባቡ መግባባትና ሀሳብ መለዋወጥ እችላለሁ? ሀ) ፈጽሞ አልችልም ለ) በጥቂቱ እግባባለሁ ሐ) በጥሩ ሁኔታ እግባባለሁ
2	መስማት ከሚችሉ የክፍል ውስጥ ጋራዎች ጋር በአግባቡ መግባባትና ሀሳብ መለዋወጥ እችላለሁ? ሀ) ፈጽሞ አልችልም ለ) በጥቂቱ እግባባለሁ ሐ) በጥሩ ሁኔታ እግባባለሁ
3	መምህሩ በክፍል ውስጥ የሚሰጡትን ትምህርቶች በአግባቡ እረዳቸዋለሁ? ሀ) ፈጽሞ አልረዳቸውም ለ) በጥቂቱ እረዳለሁ ሐ) በጥሩ ሁኔታ እረዳለሁ
4	በክፍል ውስጥ የሚማሩ ተማሪዎች የአንተን/የአንኝን የንግግር ቋንቋ ምን ያህል ይረዱታል? ሀ) ሁሉንም አይረዱኝም ለ) ጥቂቱን ይረዱኛል ሐ) የምናገራቸውን ሁሉንም ይረዳሉ
5	በዚህ ት/ቤት ውስጥ በመማርህ/ሽ መስማት ከሚችሉ ተማሪዎች ጋር ያለህ/ሽ የቋንቋ አጠቃቀምና መግባባት ክህሎት መሻሻል አሳይቶል? ሀ) መሻሻል አሳሳየሁም ለ) በተወሰነ ደረጃ ሐ) በደንብ ተሻሽያለሁ
6	በአብዛሀኛው በት/ቤት ውስጥ ካሉ ሰዎች ጋር ፊት ለፊት ለመግባባት የምትጠቀምበት የመግባቢያ ዘዴ የትኛውን ነው? ሀ) የምልክት ቋንቋ ለ) የንግግር ቋንቋ ሐ) የጣት ምልክት (finger spelling) መ ሁሉንም የመግባቢያ ዘዴዎች በአንድ ላይ (total communication)
7	በክፍል ውስጥ የሚማሩ ተማሪዎችና መምህራንን የንግግር ቋንቋ በአግባቡ እረዳቸዋለሁ? ሀ) ፈጽሞ አልረዳቸውም ለ) በጥቂቱ እረዳለሁ ሐ) በጥሩ ሁኔታ እረዳለሁ
<b>II</b>	<b>ክፍል ውስጥ ስለሚደረጉ የትምህርት ተሳትፎዎች በተመለከት ዝርዝር መግለጫዎች</b>
1	በክፍል ውስጥ በሚካሄዱ ውይይቶችና ሥራዎች ላይ ብዙውን ጊዜ ተሳትፎ ታደርጋለህ/ሽ? ሀ) አላደርግም ለ) አልፎ አልፎ እሳተፋለሁ ሐ) በበቂ ሁኔታ እሳተፋለሁ
2	በክፍል ውስጥ ካሉ ተማሪዎች ጋር ተባብሮ በመስራት ችሎታህ ምን ያህል ተሸሽላል? ሀ) ልሰራ እችላለሁ ለ) በተወሰነ ደረጃ ሐ) በጥሩ ሁኔታ መስራት እችላለሁ
3	በጋራ የሚሰሩ የቤት እና የክፍል ስራዎችን ለመስራት በብዛት የምትመርጠው? ሀ) መስማት ከተሳናቸው የክፍል ጋራዎችን ለ) ከሚሰሙ ተማሪዎች ጋር ሐ) ከሁሉም ጋር
4	በክፍል ውስጥ ያሉ የሚሰሙ ተማሪዎች መስማት የተሳናቸውን ተማሪዎች የማገዝና ተባብሮ መስራት ባህሪ አዳብረዋል? ሀ) አላዳብሩም ለ) በተወሰነ ደረጃ ሐ) በጥሩ ሁኔታ ይሰራሉ
5	በት/ቤቱ ውስጥ በሚዘጋጁ ተማሪዎችን የሚያሳትፉ የተለያዩ ትምህርታዊና ማህበራዊ ተግባራት ውስጥ እንድትሳተፉ/ እንድትሳተፉ በጋራዎች ትጋብዛለህ/ሽ? ሀ) አይጋብዙኝም ለ) አልፎ አልፎ ሐ) ሁል ጊዜም እጋብዛለሁ
6	በት/ቤት ውስጥ ለሚያጋጥሙህ/ሽ የቋንቋ (መግባቢያ) ችግሮች የተለያዩ መፍትሄዎችን ማፈላለግ ክህሎቶችን አዳብረህ/ሽ/ አዳብረሻል? ሀ) አላዳብርኩም ለ) በጥቂቱ ሐ) በአግባቡ ተምራለሁ
7	መስማት ባለመቻሌ የተነሳ ለማድረግ የማልችለውን ነገር በሚያጋጥመኝ ጊዜ የክፍል ጋራዎችንና የመምህራንን እርዳታ እጠይቃለሁ? ሀ) አልጠይቅም ለ) አልፎ አልፎ ሐ) ሁል ጊዜም እጠይቃለሁ
8	በትምህርት ቤቱ ውስጥ ባሉ ትምህርታዊ ክባባት ውስጥ በብዛት ተሳትፎ ታደርጋለህ/ሽ?

9 ሀ) አልሳተፍም ለ) በተወሰነ ደረጃ ተሳትፎ አደርጋለሁ ሐ) በጥሩ ሁኔታ እሳተፋለሁ  
የምልክት ቋንቋ አስተርጓሚው መምህር በክፍል ውስጥ በሚካሄዱ ውይይቶችና ስራዎች እንድትሳተፍ/ፊ እገዛ ይሰጣሉ?

10 ሀ) አያግዝም ለ) አልፎ አልፎ ሐ) በደንብ ያግዛል  
መደበኛ መመህርና የምልክት ቋንቋ አስተርጓሚው መምህር ከሚሰሙ ተማሪዎች ጋር ጥሩ ግንኙነት እንድናኖርህ/ሽ ያላቸው እገዛ እንደት ነበራቸው?

11 ሀ) እገዛ አልነበራቸውም ለ) በመጠኑ ሐ) በቂ እገዛ ነበራቸው  
በትምህትህ ያለህ/ሽ ደረጃ ከሌሎች ተማሪዎች አንጻር ሲታይ እንደት ነው?

12 ሀ) ዝቅተኛ ነው ለ) መካከለኛ ሐ) በጣም ጥሩ ነው  
በዚህ ት/ቤት በመማርህ/ሽ በትምህርት አቀባበልና እድገትህ/ሽ ተጠቃሚ ነህ/ሽ?  
ሀ) ተጠቃሚ አይደለሁም ለ) በተወሰነ ደረጃ ሐ) በደንብ ተጠቀሜለሁ

III የማህበራዊ ግንኙነት ዕድገትን በተመለከት ዝርዝር መግለጫዎች

1 መስማት ከሚችሉ የክፍል ውስጥ ተማሪዎች ጋር ጋደኝነት መመስረት እችላለሁ?

ሀ) ፈጽሞ አልችልም ለ) በጥቂቱ ችያለሁ ሐ) በጥሩ ሁኔታ መስርቻለሁ

2 መስማት ከሚችሉ የክፍል ውስጥ ተማሪዎች ጋር ጥሩና አመርቂ የሆነ ማህበራዊ መግባባትና ግንኙነት አለህ/ሽ?

3 ሀ) የለኝም ለ) መተወሰነ ደረጃ ሐ) በጥሩ ሁኔታ አለኝ  
ከክፍል ውጭ ማህበራዊ ግንኙነትና ጋደኝነት እንድናኖርህ/ሽ በብዛት የምትመርጠው?

4 ሀ) መስማት ከተሳናቸው ተማሪዎች ጋር ለ) ከሚሰሙ ተማሪዎች ጋር ሐ) ከሁሉም ጋር  
የመስማት ችግር ስላለብህ/ሽ ከጓደኞቻህ/ሽ የዝቅተኝነት ስሜት ይሰማህል/ሽ?

5 ሀ) ብዙ ጊዜ ይሰማኛል ለ) አልፎ አልፎ ሐ) አይሰማኝም?  
በት/ቤት(በክፍል) ውስጥ ብቸኝነት ስሜት አለህ/ሽ?

6 ሀ) ብዙ ጊዜ ይሰማኛል ለ) አልፎ አልፎ ሐ) አይሰማኝም  
በዚህ ት/ቤት ውስጥ የቆይታ ጊዜያዊ እየጨመረ ሲመጣ መስማት ከሚችሉ የክፍል ውስጥ ተማሪዎች ጋር ማህበራዊ ግንኙነቱ መስማት ከተሳናቸው ተማሪዎች ይበልጥ መሻሻል አሳይቶል?

7 ሀ) አላሳየም ለ) በተወሰነ ደረጃ ሐ) በደንብ ተሻሽያለሁ  
በዚህ ት/ቤት በመማርህ/ሽ በማህበራዊ ግንኙነት ክህሎትህ/ሽ እድገት ተጠቃሚ ነህ/ሽ?

8 ሀ) ተጠቃሚ አይደለሁም ለ) በተወሰነ ደረጃ ሐ) በደንብ ተጠቅሜለሁ  
የምልክት ቋንቋ አስተርጓሚው መምህር እንድትሻሻል ይበልጥ ያገዘህ በየትኛው ዘርፍ ላይ ነው?

9 ሀ) በማህበራዊ ግንኙነት ለ) ትምህርታዊ በሆኑ (academically) ሐ) በሁለቱም መ) አላገዝኝም  
የምልክት ቋንቋ አስተርጓሚው መምህር በክፍል ውስጥ በማይኖርበት ጊዜ እንደሌላው ጊዜ ትምህርትህን በምቶት ትከታተላለህ?

10 ሀ) አይመቸኝም ለ) ብዙም አይከብደኝ ሐ) ሳልቸገር በጥሩ ሁኔታ እሰራለሁ  
በክፍል ውስጥ እና በትምህርት ቤቱ ውስጥ ባሉ ተማሪዎች ዘንድ ማህበራዊ ተቀባይነት አለህ/ሽ

11 ሀ) አላገኘሁም ለ) በተወሰነ ደረጃ ሐ) በደንብ አግኝቻለሁ  
ማህበራዊ ግንኙነት በብዛት መመስረት የምትፈልገው/ገው

12 ሀ) መስማት ከተሳናቸው ተማሪዎች ጋር ለ) ከሚሰሙ ተማሪዎች ጋር ሐ) ከሁሉም ጋር  
በየትኛው ትምህርት ቤት እስከዛሬ ለትማር/ስትማሪ ይበልጥ ጥሩ ስሜት ወይም ምቶት ይሰማህ/ይሰማሽ ነበር?

ሀ) በአዳሪ ት/ቤት ለ) በቀን ልዩ ት/ቤት ሐ) በመደበኛ ት/ቤት ልዩ ክፍል መ) በመደበኛ ት/ቤት

III. መስማት የተሳናቸውን ተማሪዎች አካቶ በማስተማር ያሉ ትምህርታዊ ና ማህበራዊ ችግሮችንና መፍትሄዎቻቸውን በተመለከተ የመስማት የተሳናቸው ተማሪዎች እይታ

መመሪያ- በአካቶ መማር ማስተማር ሂደት ውስጥ የሚከተሉት ትምህርታዊ ና ማህበራዊ ተግባራት ለአንተ/ች ምን ያህል ያስቸግረህ/ሽ አንደሆነ ከአማራጮቹ ውስጥ መስማማትህን/ሽን የሚገልፀውን አማራጭ ላይ አክብብ/ቢ.

1	በክፍል ውስጥ በሚካሄዱ ውይይቶችና ሥራዎች ላይ ተሳትፎ ማድረግ ሀ) አያስቸግረኝም ለ) በተወሰነ ደረጃ ሐ) በደንብ ያስቸግረኛል
2	መስማት ከሚችሉ የክፍል ውስጥ ተማሪዎች ጋር ጋራነት መመስረት ና ማህበራዊ ግንኙነት መመስረት ሀ) አያስቸግረኝም ለ) በተወሰነ ደረጃ ሐ) በደንብ ያስቸግረኛል
3	ከመምህራንና ተማሪዎች ጋር በአግባቡ መግባባትና ሀሳብ መለዋወጥ ሀ) አያስቸግረኝም ለ) በተወሰነ ደረጃ ሐ) በደንብ ያስቸግረኛል
4	መምህራንና ሌሎች ተማሪዎች በጎ ያልሆነ አመለካከት መያዝ ሁኔታዎችን ሀ) ፈጽሞ እንደ ችግር አላየውም ለ) በተወሰነ ደረጃ ሐ) እንደ ከፍተኛ ችግር አየዋለሁ
5	በመምህራንና የምልክት ቋንቋ አስተርጓሚው መምህር በሚሰጡት ትምህርታዊ እገዛች አመርቂ አለመሆን ሀ) ፈጽሞ እንደ ችግር አላየውም ለ) በተወሰነ ደረጃ ሐ) እንደ ከፍተኛ ችግር አየዋለሁ
6	በዚህ በት/ቤት ውስጥ ባሉ መስማት የሚችሉ የክፍል ውስጥ ተማሪዎች ዘንድ ተቀባይነት ማግኘትን ሀ) ፈጽሞ እንደ ችግር አላየውም ለ) በተወሰነ ደረጃ ሐ) እንደ ከፍተኛ ችግር አየዋለሁ
7	በፕላንም ቴሌቭዥን የሚሰጡ ትምህርቶችን መከታተል ሀ) አያስቸግረኝም ለ) በተወሰነ ደረጃ ሐ) በደንብ ያስቸግረኛል
8	በት/ቤት ውስጥ ያለው ማህበረሰብ ስለ መስማት የተሳናቸው ተማሪዎች ያለው ግንዛቤ አናሳ መሆን ሀ) ፈጽሞ እንደ ችግር አላየውም ለ) በተወሰነ ደረጃ ሐ) እንደ ከፍተኛ ችግር አየዋለሁ
9	ማህበራዊ ክህሎትን ለማዳበር የሚያስችል በቂ ሁኔታዎች አለመኖር ሀ) ፈጽሞ እንደ ችግር አላየውም ለ) በተወሰነ ደረጃ ሐ) እንደ ከፍተኛ ችግር አየዋለሁ
10	በት/ቤት ውስጥ ባለው ማህበራዊ ግንኙነት የብቸኝነት እና የመገለል ስሜት ሀ) አያስቸግረኝም ለ) በተወሰነ ደረጃ ሐ) በደንብ ያስቸግረኛል
11	የመደበኛ ት/ቤት የሚሰጠውን ትምህርት ከሌሎች ተማሪዎች ጋር እኩል መከታተልና መወጣት ሀ) አያስቸግረኝም ለ) በተወሰነ ደረጃ ሐ) በደንብ ያስቸግረኛል

1. በፕላንም ቴሌቭዥን የሚሰጡ ትምህርቶችን በምትከታተልበት(በምትከታተይበት)ጊዜ በተደጋጋሚ ያጋመሙህ(ሽ) ችግሮች ካሉ ምን ምን ናቸው?

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2. መስማት የተሳናቸው ተማሪዎችን በትምህርታቸውና በማህበራዊ ክህሎታቸው መሻሻል እንድያመጡ በት/ቤቱ የሚሰጡ የተለያዩ ዕገዛዎች ካሉ ቢገለፁ

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3. ከሚሰሙ የክፍል ውስጥ ጋራነት(ሽ) ጋር ባለህ ማህበራዊ ግንኙነት የምትወደው/የምትወድው እና የማይመችህ(ሽ) ነገሮች ምን ምን ናቸው?

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4. መስማት ከተሳናቸው የክፍል ውስጥ ጋራነት(ሽ) ጋር ባለህ ማህበራዊ ግንኙነት የምትወደው/የምትወድው እና የማይመችህ(ሽ) ነገሮች ምን ምን ናቸው?

## Appendix-B

Addis Ababa University

School of Graduate studies

Department of special Needs Education

**Dear teacher**

I am doing a study for my master's thesis at Addis Ababa University concerning inclusion of students with hearing impairment into the regular classroom.

Permission has been secured from the principal to request your cooperation. Your consent to participate in this study is shown by your will to answer questions in this questionnaire.

Your response will be confidential and anonymous.

Thank you in advance for your participation.

**Direction:** Please circle or fill in the blanks with appropriate information

*A. Back ground information about a teacher respondent(Demographics)*

1. Sex \_\_\_\_\_ Age \_\_\_\_\_ Qualification \_\_\_\_\_
2. Grade level you teach \_\_\_\_\_
3. For how many years have you been in this school (regular classes)? \_\_\_\_\_
4. How many deaf/ hard-of-hearing students (D/HH) are in your class? What is the class size? \_\_\_\_\_
5. For how many years you have been teaching D/HH students? \_\_\_\_\_
6. Do you have any form of training in teaching deaf students in inclusive setting? If any specify \_\_\_\_\_

**B. Information about Teachers View of the inclusion of D/HH students**

Note: When answering questions referring to D/HH students, please consider the behaviors listed as compared to those of the hearing students in your class.

S.N.	Descriptions	Responses			
		Not sure	NOT at all	Quite well	Very well
<b>I</b>	<b>Communication skill of D/HH students</b>				
1	D/HH students in my class communicate with his/her hearing peers				
2	Despite the hearing problem D/HH are not afraid to communicate with other students.				
3	I can communicate with my D/HH classmates				
4	Can most D/HH students in my class do understand speech communication?				
5	D/HH students in my class understand the lesson in the classroom				
6	On average, do D/HH Students attending my school improve communication skills from their inclusion?				
<b>II</b>	<b>Classroom participation of D/HH students</b>				
1	Can D/HH students in my class participate in the classroom?				
2	Are D/HH students are good at working with other students in class despite their hearing loss?				
3	Do D/HH students prefer to carry out classroom activities with hearing students than with D/HH students?				
4	Are Hearing students supportive and cooperative to D/HH students both in and outside of the classroom?				
5	Are D/HH students invited by hearing peers to participate in different school activities?				
6	Can D/HH students figure out different solutions to problems related to communication in classroom activities?				
7	Are D/HH students not afraid to request for academic assistance?				
8	Are D/HH students participated in extra-curricular activities at the school which facilitate their inclusion?				
9	D/HH students in my class face difficulties in socializing with hearing students.				
10	Can D/HH students in my class keep up academically with the rest of the class?				
11	On average, do D/HH students attending my school benefit academically from their inclusion?				
<b>III</b>	<b>Social relationship of D/HH students</b>				

1	Can D/HH student in my class develop friendships with his/her hearing classmates?				
2	Do D/HH students have satisfying relationship with hearing peers than with D/HH students?				
3	D/HH students in my class do not feel lonely at school.				
4	D/HH students in my class don't feel inferior to their friends.				
5	I believe that hearing students take positive attitude toward D/HH students.				
6	D/HH students' relationship with hearing students increased as they have passed more time in this school than with deaf students.				
7	On average, do D/HH students attending my school benefit socially from their inclusion?				
<b>I</b>	<b>Communication skill of D/HH students</b>				
1	D/HH students in my class communicate with his/her hearing peers				
2	Despite the hearing problem D/HH are not afraid to communicate with other students.				
3	I can communicate with my D/HH classmates				
4	Can most D/HH students in my class do understand speech communication?				
5	D/HH students in my class understand the lesson in the classroom				

### C. Information about support services and suggestions

1. Support services available to D/HH students in your school

\_\_\_\_\_

\_\_\_\_\_

2. What are the potential challenges of attending instruction through satellite television for D/HH students?

\_\_\_\_\_

\_\_\_\_\_

3. What do you suggest to improve the social and academic inclusion of D/HH students?

\_\_\_\_\_

አዲስ አበባ ዩኒቨርሲቲ  
ድህረ ምረቃ ትምህርት ቤት  
የልዩ ፍላጎት ትምህርት ክፍል

ውድ መምህር

እኔ በአሁኑ ሰዓት በአዲስ አበባ ዩኒቨርሲቲ በልዩ ፍላጎት ትምህርት ክፍል መስማት የተሳናቸውን ተማሪዎች አካቶ ማስተማርን በሚመለከት የሁለተኛ ድግሪ መመሪያ ጽሁፌን በማዘጋጀት ላይ እገኛለሁ። ይህንን መጠይቅ እንደሞሉልኝ ወደ እርስዎ አስፈላጊውን ፍቃድ ከትምህርት ቤቱ ርዕሰ መምህር ያገኘሁ መሆኔን እየገለጽኩ ለዚህ ስራ ትብብርዎን የሚያሳዩኝ በዚህ መጠይቅ ውስጥ ላሉ ጥያቄዎች አስፈላጊውን መልስ በመስጠት ይሆናል። እርስዎ የሚሰጡን መልሶች በሙሉ ለዚህ ስራ ብቻ የሚውልና በሚስጥር የሚጠበቅ መሆኑን አረጋግጣለሁ።

መመሪያ- ለሚከተሉት ጥያቄዎች ከተሰጡት አማራጮች መካከል በማክበብ ወይም ባዶ ቦታዎችን በመሙላት መልሱ

ሀ) ስለ መምህሩ አጠቃላይ መረጃ

1. የታ: \_\_\_\_\_ እድሜ: \_\_\_\_\_ የትምህርት ደረጃ: \_\_\_\_\_
2. የሚያስተምሩበት የክፍል ደረጃ \_\_\_\_\_
3. አሁን በሚያስተምሩበት ት/ቤት ውስጥ ለምን ያህል ጊዜ ቆይታ አድርገዋል? \_\_\_\_\_
4. በክፍልዎ ውስጥ ያሉ አጠቃላይ ተማሪዎች ብዛት \_\_\_\_\_
5. መስማት የተሳናቸውን ተማሪዎችን አካቶ ማስተማርን በተመለከተ ስልጠና ወስደዋል? ካለ ቢገለጽ \_\_\_\_\_

ለ) መስማት የተሳናቸውን ተማሪዎች አካቶ በማስተማር የተገኘ ውጤትን በተመለከተ የመምህራን እይታ

ማሳሰቢያ፡ መስማት የተሳናቸውን ተማሪዎች ባህሪያትን ስትገመገሙ እባክዎትን መስማት ከሚችሉ ተማሪዎች ችሎታ ጋር አወዳድረው እንድሆን፡፡

No. መግለጫዎች

I	<p>የመግባባት ችሎታን በተመለከተ ዝርዝር መግለጫዎች</p>
1	<p>መስማት የተሳናቸው ተማሪዎች በክፍል ውስጥ ካሉ ሌሎች ጓደኞች ጋር በአግባቡ መግባባትና ሀሳብ መለዋወጥ ይችላሉ ?</p> <p>ሀ) ፈጽሞ አይግባቡም      ለ) አልፎአልፎ      ሐ) በጥሩ ሁኔታ ይግባባሉ መ) እርግጠኛ አይደለሁም</p>
2	<p>መስማት የተሳናቸው ተማሪዎች ከክፍል ጓደኞች ጋር ያለፍርሀት መግባባትና ሀሳብ ለመለዋወጥ ይችላሉ ?</p> <p>ሀ) ፈጽሞ አይችሉም      ለ) አልፎአልፎ      ሐ) በጥሩ ሁኔታ ይግባባሉ መ) እርግጠኛ አይደለሁም</p>
3	<p>እርስዎ መስማት የተሳናቸው ተማሪዎች ጋር መግባባትና ሀሳብ መለዋወጥ እችላለሁ?</p> <p>ሀ) ፈጽሞ አልችልም      ለ) በጥቂቱ እግባባለሁ      ሐ) በጥሩ ሁኔታ እግባባለሁ መ) እርግጠኛ አይደለሁም</p>
4	<p>መስማት የተሳናቸው ተማሪዎች የሚጠቀሙትን የንግግር ቋንቋ በክፍል ውስጥ የሚማሩ ሌሎች ተማሪዎች ምን ያህል ይረዱታል?</p> <p>ሀ) ምንም አይረዱም      ለ) ጥቂቱን ይረዳሉ      ሐ) የሚናገሩትን በደንብ ይረዳሉ መ) እርግጠኛ አይደለሁም</p>
5	<p>መስማት የተሳናቸው ተማሪዎች በእርስዎ ክፍል ውስጥ የሚሰጣቸውን ትምህርቶች በአግባቡ ይረዳሉ?</p> <p>ሀ) አይረዱትም      ለ) በጥቂቱ ይረዱታል      ሐ) በአግባቡ ይረዱታል መ) እርግጠኛ አይደለሁም</p>
6	<p>መስማት የተሳናቸው ተማሪዎች ከሚሰሙ ተማሪዎች ጋር አንድ ላይ በመማራቸው በንግግር ቋንቋ ችሎታቸው መሻሻል አምጥተዋል?</p> <p>ሀ) መሻሻል አላሳዩም      ለ) በጥቂቱ ተሻሽለዋል      ሐ) በጣም ተሻሽለዋል መ) እርግጠኛ አይደለሁም</p>
II	<p>ክፍል ውስጥ ሰላላቸው የትምህረት ተሳትፎ በተመለከት ዝርዝር መግለጫዎች</p>
1	<p>መስማት የተሳናቸው ተማሪዎች በክፍል ውስጥ በሚካሄዱ ውይይቶችና ሥራዎች ላይ ብዙውን ጊዜ በቂ ተሳትፎ ያደርጋሉ?</p> <p>ሀ) አያደርጉም      ለ) አልፎ አልፎ ይሳተፋሉ      ሐ) በበቂ ሁኔታ ይሳተፋሉ መ) እርግጠኛ አይደለሁም</p>
2	<p>መስማት የተሳናቸው ተማሪዎች በክፍል ውስጥ ካሉ ሌሎች ተማሪዎች ጋር ተባብሮና ተግባብቶ በመስራት በኩል ጎብዝ ናቸው?</p> <p>ሀ) ፈጽሞ አይሰሩም      ለ) በተወሰነ ደረጃ      ሐ) በጥሩ ሁኔታ ይሰራሉ መ)እርግጠኛ</p>

አይደለሁም

3 በጋራ የሚሰሩ የቤት እና የክፍል ስራዎችን ለመሰራት መስማት ከተሳናቸው የክፍል ጋደኞቻቸው ይልቅ የሚሰሙ ተማሪዎች ጋር መስራትን ይመርጣሉ?  
ሀ) ፈጽሞ አይመርጡም ለ) አልፎ አልፎ ሐ) በአብዛሀኛው ጊዜ ይመርጣሉ መ) እርግጠኛ አይደለሁም

4 በክፍል ውስጥ ያሉ የሚሰሙ ተማሪዎች መስማት የተሳናቸውን ተማሪዎች የማገዝና ተባብሮ መስራት ባህሪ አዳብረዋል?  
ሀ) አላዳብሩም ለ) በተወሰነ ደረጃ ሐ) በጥሩ ሁኔታ ይሰራሉ መ) እርግጠኛ አይደለሁም

5 በት/ቤቱ ውስጥ በሚዘጋጁ ተማሪዎችን የሚያሳትፉ የተለያዩ ትምህርታዊና ማህበራዊ ተግባራት ውስጥ መስማት የተሳናቸው ተማሪዎች እንድሳተፉ ይጋበዛሉ?  
ሀ) አይጋበዙም ለ) አልፎአልፍ ሐ) ሁል ጊዜም ይጋበዛሉ መ) እርግጠኛ አይደለሁም

6 መስማት የተሳናቸው ተማሪዎች በት/ቤት ውስጥ ለሚያጋጥሟቸው የቋንቋ (መግባቢያ) ችግሮች የተለያዩ መፍትሄዎችን ማፈለግ ክህሎቶችን አዳብረዋል?  
ሀ) አላዳብሩም ለ) በጥቂቱ ሐ) በአግባቡ ተምረዋል መ) እርግጠኛ አይደለሁም

7 መስማት ባለመቻላቸው የተነሳ ለማድረግ የማይችሉት ነገር በሚያጋጥማቸው ጊዜ የክፍል ጓደኞቻቸውንና የመምህራንን እርዳታ ይጠይቃሉ?  
ሀ) አይጠይቁም ለ) አልፎ አልፎ ሐ) ሁል ጊዜም ይጠይቃሉ መ) እርግጠኛ አይደለሁም

8 መስማት የተሳናቸው ተማሪዎች በትምህርታዊ ክበባት ውስጥ በብዛት ተሳትፎ ያደርጋሉ ?  
ሀ) ሲሳተፉ አይታዩም ለ) በተወሰነ ደረጃ ተሳትፎ ያደርጋሉ ሐ) በጥሩ ሁኔታ ይሳተፋሉ መ)እርግጠኛ አይደለሁም

9 መስማት የተሳናቸው ተማሪዎች ከሚሰሙ ተማሪዎች ማህበራዊ ግንኙነት የመመስረት እና አብሮ የመኖር ችግር የለባቸውም?  
ሀ) የላቸውም ለ) በተወሰነ ደረጃ ሐ) በደንብ አላቸው መ) እርግጠኛ አይደለሁም

10 በዚህ ት/ቤት ውስጥ በመማራቸው መስማት የተሳናቸው ተማሪዎች በየጊዜው በትምህርታቸው መሻሻልን እያሳዩ ነው?  
ሀ) መሻሻል አልታየባቸውም ለ)በተወሰነ ደረጃ ተሻሽለዋል ሐ) በደንብ ተሻሽለዋል መ) እርግጠኛ አይደለሁም

11 በአማካኝ ደረጃ ሲታይ መስማት የተሳናቸው ተማሪዎች በዚህ ት/ቤት በመማራቸው በትምህርት አቀባበላቸውና እድገታቸው ተጠቃሚ ሁነዋል?  
ሀ) ተጠቃሚ አይደሉም ለ) በተወሰነ ደረጃ ሐ) በደንብ ተጠቅመዋል መ) እርግጠኛ አይደለሁም

III

የማህበራዊ ግንኙነት ዕድገትን በተመለከት ዝርዝር መግለጫዎች

1 መስማት የተሳናቸው ተማሪዎች በት/ቤት(በክፍል) ውስጥ ካሉ ሌሎች ተማሪዎች ጓደኝነት መመስረት ይችላሉ?  
ሀ) አይችሉም ለ) በተወሰነ ደረጃ ሐ) በጋደኝነትን መስርተዋል መ) እርግጠኛ አይደለሁም

2 መስማት ከሚችሉ የክፍል ውስጥ ተማሪዎች ጋር አስደሳችና ጥሩ የሆነ ማህበራዊ ግንኙነትን መስማት ከተሳናቸው ተማሪዎች ይልቅ መስርተዋል?

## Appendix- C

### Semi- structured Interview schedule

#### A. Interview Guide Questions for Interpreters

1. How do you feel about the confidence of deaf students in
  - Social interactions(playing, dating, etc)
  - Expressing their feelings/ thoughts to teachers, friends...
  - To express their ideas through spoken language e.g. do they ask help when needed? / Do they have the communication capability to express and receive ideas?
2. Can you tell us about the social adjustment of deaf students in this school due to their hearing loss?
  - Do they feel lonely?
  - Do they show feeling of Inferiority?
  - Are they reluctance in asking help?
  - Do they make friends easily?
  - Do they go easily with hearing students?
  - Do they see themselves as different?
  - Are deaf students confident in performing tasks in school with other students
3. Questions regarding the relations deaf students have within themselves, with hearing students and the staff?
  - 3.1. What can you say about the relation they have with hearing students?
    - Are they rejected, teased, lonely...more than the other students?
    - Are they liked, respected, popular .....like hearing students?
    - Do they have helping relationships with each other/cooperation?
    - Are they happy with the relationship they have with hearing students?
  - 3.2. What can you say regarding the relations deaf students have with other deaf students?
    - Do they form intimate friendship?
    - Do they help each other?
    - Are they happy when they see to each other?
  - 3.3. What kind of relationship deaf students have with their teachers and interpreters?
  - 3.4. Do they have positive relationships? E.g. do they ask help when needed?/ Do they have the communication capability to express and receive ideas? /Do they have positive attitude towards interpreters?/ etc
4. Questions regarding attitudes of hearing students and staffs

## Appendix- E

### Observation Checklist

This checklist were utilized by the researcher to observe participation/interaction of deaf students in activities which takes place during the actual classroom teaching-learning process and outside classroom activities.

- Date of Observation \_\_\_\_\_
- Grade and Section Observed \_\_\_\_\_
- Subject \_\_\_\_\_
- Period \_\_\_\_\_
- No of Students with hearing impairment in the Classroom \_\_\_\_\_
- Total no of Students in the Classroom \_\_\_\_\_

N	Specific Indicators	Not at all initiated		Quite well Initiated		Not sure	
		Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
<b>A</b>	<b>Activities in Side Classroom Situations</b>						
<b>1</b>	Learning through group work and activities in classroom						
<b>2</b>	D/HH students make effort to communicate with variety of ways.						
<b>3</b>	Hearing students make effort to communicate using variety of ways						
<b>5</b>	Interpreter support the deaf student to participate in discussion						
<b>6</b>	Interpreter frequently monitor the deaf students' functioning in discussion						
<b>7</b>	Students offer assistance to each other when it is needed.						
<b>8</b>	Teachers are concerned to support the learning and participation of all students						
<b>9</b>	Evidence of negative reaction from hearing students						
<b>10</b>	<b>Deaf students frequently ask questions, give comments and respond for questions asked</b>						

B	Observation of interaction/activities outside classroom situations	With hearing peers			With deaf peers		
		<i>Not at all initiated</i>	<i>Quite well Initiated</i>	<i>Not sure</i>	<i>Not at all initiated</i>	<i>Quite well Initiated</i>	<i>Not sure</i>
1	Frequent interaction and communication						
2	frequently pass lunch time break with....						
3	preferred to be a member in group games						
4	prefer to have group projects and assignments						
5.	preference to receive assistance or support from						

# Declarative

I, the undersigned, declare that this thesis is my original work and that all resources used for the thesis have been duly acknowledged.

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Signature: \_\_\_\_\_

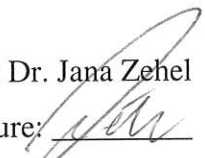
Date: May 24, 2010

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Date of Submission: May 24, 2010

The thesis has been submitted for examination with my approval.

Name: Dr. Jana Zehel

Signature:  \_\_\_\_\_

Date: May 24, 2010

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