

**ADDIS ABABA UNIVERSITY SCHOOL OF GRADUATE
STUDIES**

**COMPARATIVE STUDY OF PROGRAM
EFFECTIVENESS FOR THE EDUCATION OF CHILDREN
WITH HEARING IMPAIRMENT**

**(The case of Special class, integrated and special schools in
Addis Ababa, Harar and Hosaena)**

BY TEZERA SHITAYE



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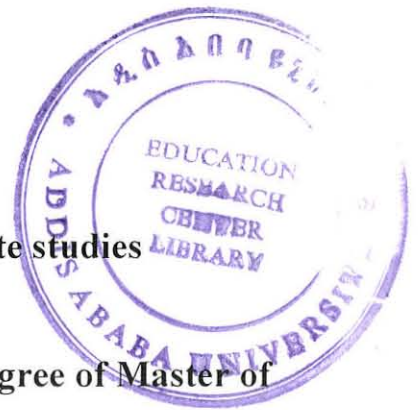
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**(The case of Special class, integrated and special schools in Addis Ababa, Harar
and Hosaena)**

**A thesis submitted to the school of graduate studies
Addis Ababa University**

**In partial fulfillment of the requirements for the degree of Master of
Arts in Special Needs Education.**



by

BY TEZERA SHITAYE

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Approved by Board of Examiners


Chairman, Department of Graduate committee



Advisor



Examiner, Internal



Examiner, External



Signature



Signature



Signature



Signature

Dedication: This thesis is dedicated to my father Ato Shitaye Gebre.

Acknowledgement

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Last but not least, I thank my wife Mekdes Melesse and my children Nathanel and Martha for their encouragement and support during my studies and my stays in Harrar and Hosaena.

Thank You, all !!!

Abstract

The main purpose of this study was to assess program effectiveness for the education of children with hearing impairment among the different placement arrangements like special schools, special classes and integrated setting. Accordingly, attempts have been made to assess educational conditions and academic problems of children with hearing impairment in Addis Ababa, Harar and Hosaena.

The data was collected through questionnaire, observation, interviews and English comprehension test developed by the researcher from 43 grade 8 students with hearing impairment, 14 parents, and 15 grade 8 teachers from five schools. Purposeful sampling and stratified random samplings were used in selecting the respondents.

Analysis of the data was made using qualitative technique complemented with quantitative (comparison of means) methods. T-Test was used to deal with the significance of the comparison. Results of the study showed that children in the special schools are performing significantly better in academics and socialization, than those children placed in integrated and special class unit. The classrooms of special class unit and Integrated School were found ill-equipped and lacked the major determinants of effective teaching like valuable management, well trained teaching staff, adequate budget, supportive professionals and facilities needed for aiding teaching. On the other hand, the education being delivered in the special schools particularly the boarding school was well organized and supported by professionals. The children in special school performed on English comprehension test better than those in special class unit and integrated schools. The finding of the study also showed that these children are also better on social development compared to those children in integrated setting and special class unit.

Finally, in accordance with the findings recommendations are forwarded in order to improve the situation in integrated and special class unit, and to strengthen the educational delivery in the special schools as a whole.

Dedication
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Abstract

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CHAPTER ONE

1.1 INTRODUCTION

The beginning of education for children with disability can be traced back several centuries. Throughout this time the educational services of these children have been changing from one form to another the main difference being the question of where have the education process of children with disability been? The earliest form of schools for children with disability was in complete segregation in residential homes and special schools. This form of school gradually gave ways to other forms of schools like special day school, special classes in the regular schools and full integration of children with disability in the same class with other peers.

Special schools were more prevalent form of education for children with disability between 1900-1970. During this time the prevailing mode of educational organization for those categorized as disabled was fully segregated setting. Latter, children with disabilities that were formerly placed in residential institutions and special schools were to move in to special classes in public schools. Many prominent educators and politicians have been calling for more reform during the last three decades. Some of these people advocate modifications to the existing system but others think that a total restructuring is required to replace a system that is out of date. No one knows where these reform efforts will end up, but we can be sure that special education will be a primary consideration in any plan for reorganization or restructuring (Osborne et.al.,1993). Generally speaking, the trend of the education of children with disability has been moving from complete segregation to complete integration.

This move has contributed with enrolment of children with disabilities in schools than ever. However, the provision of more education may result simply in increased enrolments, without an increase in equity or sustainable learning out comes. The education of girls and women, for instance, in many parts of the world including Ethiopia may have contributed to make equity in the provision of education among female and male. However, there is still a need for special efforts in favor of children with disability,

if true equity is to be achieved. These children are unlikely to achieve satisfactory learning outcomes unless their learning situation improves (Fordham, 1992). For example, the total number of children with hearing difficulties in special classes in Ethiopia at the present is higher than that of those going to special boarding and day schools. This was achieved due to the developments of special class units in the regular schools (Tirusew, 1993).

Meaningful and effective educational opportunities for children with disabilities need special efforts. First, the educational program offered to a student with disabilities must be appropriate to his or her identified needs. Those needs must also be identified through a careful assessment, best possible. The assessment and placement of the children should, on the other hand, consider the right of the children and the parents, as well. In line with this idea, Osborne, et. al., (1993) pointed out that the assessment should not be discriminatory; that means, assessments must consider the student's native language or primary mode of communication. Furthermore, those procedures taken during placement should consider the right of an impartial court hearing if the parents disagree with the placement decided.

The spectrum of special education programs in developed countries is developed through a sequence of activities resulting in a program model. These activities (Identification, Assessment, Placement, Instruction, and Reevaluation) provide a system for program development and organization of special education personnel as a department within a school district. In the United States of America, for instance, students may be identified as possibly requiring special education services by any members of the educational community. After the student has been formally referred, a multidisciplinary evaluation team conducts a thorough assessment of the student's educational, psychological, medical, and social status to determine eligibility to a certain type of placement. The student's progress toward the goals of the program are reviewed periodically and the student undergoes a complete reevaluation at least every three years, Osborne, et. al., (1993).

In developing countries, however, special education has a serious problem both at program development and its implementation. According to the MOE (2002), not only the country's educational service for school children underdeveloped and unequal, the system did not also have the capacity to educate even in areas where education was available. A high rate in the number of dropouts and repeaters indicates the inefficiency of the educational system as a whole. According to study conducted on drop-out rate among groups of children with disability in selected Ethiopian schools (1-8, 1995/1999), children with hearing impairment suffered greater drop-out than any other disability group. The drop out rate of children with hearing impairment, children with mental retardation and children with visual impairment were 7.9%, 3.8%, 3.5%, respectively.

Tirusew stated that The cause of high drop out among children with hearing impairment might be deficiency in teaching methodology, particularly absence of sign language (2005). Osborne. et. al., (1993) stated that reexamination of our basic philosophical beliefs about modes of schools echoes similar sentiments expressed in multiple ways by educators throughout the centuries. He mentioned that thousands of students are admitted in to elementary schools each year but that their school attendance was such a common occurrence that we hardly paused to consider what happened to them once they were inside the school and classroom.

The central concern of this study is evaluating effectiveness of the education of children with hearing impairment. This concern leads to an exploration of the past efforts in the schooling profession so that educators can recognize and continue what has been right and good, delineate and omit what has been wrong, and introduce new concepts and strategies that can make the good even better for the profit of children with hearing impairment. Bloom, Hasting, and Madaus (1972) cited in Osborne, et. al., (1993) stated that educators must be increasingly concerned about the fullest development of all children. They also mentioned that it is the responsibility of the school to create learning situations that will enable each individual to attain the highest level of learning possible for that individual.

1.2. Statement of the Problem

The charity tradition which gave birth to many of disability services has been exempted from critical evaluation. Society was only too pleased that any one was taking an interest that people were not inclined to find fault with the service providers. Like wise those clients who had legitimate complaints of the services they received, were made to feel that they should be thankful for whatever they got. Of course, the dedicated people who began the services were often dissatisfied with their efforts and sought to do better. But there were others who thought they were doing a wonderful job, when the reality was the opposite McConkey (1994) cited in Thorborn (1994).

In many instances, evaluation of educational programs and other social services should not base people's subjective opinions or rely too much on the experience of other countries. For example, mode of educational service for children with disability has been changing in order to fit modern philosophy of education. But change is liability. The right to betterment has also the right to worsen. Some times there are difficulties to document the achievements in an objective manner. However, donor organizations' officials need proper assessment that would help them judge one rehabilitation program is doing a better job than another to assign the finances accordingly.

The big mistake of relying solely on peoples opinions is that they can be wrong. Worse still, they may not realize they are wrong-either because of personal biases or through a lack of information. Like wise relying on the experiences of other countries to implement a kind of programs without modification may end up with too little or no return at all.

This may indicate that careful evaluations would have been fairer and more accurate. Educational programs should always be open for evaluation and correction. Hence, both internal and external evaluators can provide valuable insights in to the functioning of a service and this approach should be incorporated wherever possible. This would help the overall attempts to improve the education of children with disability.

Taking the above issues in to consideration, the study attempts to address the following basic questions.

1. How does the attitude of teachers, principals and parents affect the education and social skills of children with hearing impairment?
2. How is the effectiveness of the education of children with hearing impairment in the Special classes and inclusive setting compared to special and boarding schools? And what factors are affecting effectiveness in these schools?
3. What are the underlying social and academic problems in the different school arrangements for children with hearing impairment?
4. How does the academic achievement score of children with hearing impairment differ in different types of schools (in special schools, special classes and integration classes) and how does the score of children relate to the school?

1.3 Objective of the Study

Assessment of program effectiveness for children with hearing impairment helps to indicate weakness and strengths of the programs. The specific objectives of this study will be to:

1. Study the impact of the negative attitude of the parents, teachers and the community on the education and social development of children with hearing impairment.
2. Compare and Contrast the different education programs (special schools, Special classes for children with hearing impairment in the regular schools and inclusive systems) on the bases of academic achievement and social skill acquired.
3. Measure and evaluate the impact of the services on the target children in Addis Ababa, Harrar and Hosaena.
4. Find out factors that affect effectiveness in special schools, special classes and integrated settings for children with hearing impairment in these schools
5. Recommend an ideal program to parents of children with hearing impairment.

1.4. Significance of the Study

The researcher believes that little attention has been given to identify factors that affect social and academic problems of children with hearing impairment in different programs. The researcher also believes that the development in the type of educational delivery in Ethiopia has not been formulated on the base of empirical evidences. Thus the present

study attempts to investigate the kind of program that is yielding the intended fruit for educating children with hearing impairment in Ethiopia.

Any research work toward identifying social and academic problems of children with hearing impairment is important to meet the special needs of these children in their education. This study, thus, investigates factors that are related to the different school types and school systems. The result from this study will,

1. Enable parents of children with hearing impairment choose proper school type for their children with hearing impairment.
2. Give ideas for donors and school administrators who want to improve academic and social skills of children with hearing impairment in their respective schools.
3. Help children with hearing impairment attain certain levels of education through identifying the underling academic and social problems and giving recommendations.
4. Support school principals, teachers and other staffs in special schools, special classes and integrated schools to reevaluate their education system.

1.5. Definition of Key Terms

Audiogram: A graph of the faintest level of sound a person can hear at least 50% of the time at each of several frequencies, including the entire frequency range of normal speech.

Audiology: the science of hearing.

Audiometer: A device that generates sounds at specific frequencies and intensities; used to examine hearing.

Communication: the process by which individuals interact with, transmit, and receive messages by any means including sounds, signs, and gestures

Hearing Impairment : Hearing impairment is a generic term indicating a continuum of hearing loss from mild to profound resulted from genetic and environment factors, which includes the sub-classification of the hard of hearing and the deaf.

The Hard of Hearing: Is a term used to describe person with enough residual hearing to use hearing (usually with a hearing aid) as a prime modality for acquisitions of language and in communication with others.

The Deaf: Is a term used to describe persons whose sense of hearing is none functional for ordinary use in communication, with or with out a hearing aid.

Integrated school: Is a term used to refer to schools where children with disability are placed in same school and classroom along with children with out known disabilities.

Special Class: Is a term used to refer to school type where children with disability are offered education in a special class unit within the general regular school.

Special School: Is a term used to refer to school type where only children with disability are offered education in separate school entity

1.6. Organization of the Paper

The present study on program effectiveness for the education of children with hearing impairment is organized in to six chapters. The first chapter introduces the paper as a whole. Chapter two reviews literature to support the historical development of special schools for children with disabilities as a whole and children with hearing impairment in particular. This chapter also put the theoretical assumptions for raising children. Chapter three deals with the methodology used in the study. Included in this are data collection and analyzing procedures, type of research employed and so on. Chapter four and five deals with the finding and discussion, respectively. And finally conclusion and recommendations are given on chapter six.

CHAPTER TWO

REVIEW OF THE LITERATURE

2. Historical Developments of Services for People with Impairment

There have always been exceptional children in all countries regardless of level of civilization. However, there have not always been special services for exceptional children to address their needs (Hallaham and Kauffman, 1988). It is not possible to get complete account of how people with disabilities lived in the remote past. History only allows us some Scattered evidences of condition for people with impairment from ancient civilizations such as that of Ancient Egypt, Ancient Greece, the Bible and Koran, and an increasing number of texts towards the 18th century (Johnson and Skjorten,2001).

The oldest concern of people about people with disability was medical intervention. In Ancient Egypt, for example, the first attempt to cure or treat deafness, blindness and schizophrenia was as old as 1550 B.C (winzer, 1990). Europeans, particular physicians and philosophers in Greece, adopted much of the Egyptian early knowledge concerning handicapping conditions and their treatment. McGann, 1988; cited in Winzer (1990) stated that Hipocrates(430Bc) was concerned with etiology and medical intervention in variety of handicapping conditions. Aristotle directed considerable philosophical inquiry towards sensorial deprived. Aristotle further made an attempt to describe some impairment like blindness and deafness. He even compared blindness and deafness on the basis of their impact on intellectuality. He viewed blindness as more serious, but less debilitating intellectually, than deafness.

Society's attitude towards people with disabilities has always been guided, fashioned by its prevailing culture, type of government and economic status. According to Winzer (1990) for many years children with disability were and still are scorned as degraded and inferior beings.

In Ancient Greece, according to French (1932) cited in Winzer (1990) new born children were brought before the elders to be checked if they qualify for citizenship under

Lycurgus, children with disability were exposed in gorges in the Hygetus mountains or left in the wildness. Weak children were placed in clay vessels and left to die by the way side.

The Romans, as they did to many others, adopted the Greece attitude toward infant with defect. Any child fewer than three who might become a burden on society was thrown in to the Tiber. Only those who survived infancy or suffered from acquired handicap were generally treated. Deaf persons who could not speak were given guardians but deprived citizenship. Blind boys were often trained to become beggar or sold as rowers; blind girls become prostitutes (French 1932, cited in Winzer, 1990).

The trend toward people with disabilities in many other countries was not different from what is given in ancient Greece and Rome. In Ethiopia, literature on such attitude toward the disabled is not adequately available. One such known practice is done in Southern part of the country among the Hammers and the neighboring tribes. Hirut (2001) stated that a child would be thrown to death in some tribes in the Southern Nation and Nationalities state if the child was labeled as 'Mingi'. Mingi is a label given to a child, by the Hammers and neighboring tribes, whose first tooth appeared in the upper gum. As soon as the tooth appeared in the upper gum, the parents bring the child to the community leaders. Thus the child is thrown to death as soon as the child is proved to be Mingi regardless of his/her sex. The Hammers still practice such harmful traditions.

Eventually, in many parts of the world, as time goes people's attitude started to change positively toward these children with different kinds of defect. According to Johnson and Skjorten(2001), new understanding and knowledge, better condition for survival, respect for the words " than shall not Kill" Social and moral responsibility as well as pity resulted in trying to save the lives of these children.

2.1 Historical Development of Educational Services for people with Disability

Society's attitude towards providing education and training for people with disabilities appeared much later compared to medical intervention. Moreover, the process of providing and bettering the education for children with disability has taken very long

time and not completed yet. The over all historical pictures of education for persons with impairments show a development over a serious of historical time (Christian era, dark age, renaissance and the 18th century), scattered educational efforts, through philosophical curiosity to foundations of special schools and other institution(Johnson and Skjortn, 2001).

During the Christian era superstition regarding people with disabilities prevailed through the middle Ages. Blindness, for example, was long regarded as “one of those instruments by which a mysterious providence has chosen to afflict man” (Address 1936 p). It was only in the 14th century that Churches could assume some responsibility for exceptional children (Johnson and Skjortn, 2001).

During renaissance 14th, 15th, 16th century, the periods which marked the transition of middle ages to the modern, there was revival in art, literature and learning in Europe. This revival was concerned with observed and scientific inquiry accompanied by a new interest in education and humanitarianism fostered a newer and marginally brighter era for handicapped persons (Winzer, 1990). It is strongly believed that the first education of children with special needs has been undertaken in the parts of Europe.

The first evidence of successful education of individuals with disabilities dates from the late 1500s in Spain. Monk, Ponce de Leon, (1520-1582), successfully taught the deaf sons of some of Spain's wealthiest families to speak, read, and participate tin the rituals of the catholic church. Gradually, the news of Leon's success found its way to other European countries like Franc, England, Germany, and many others. In stating the situation in England, Winzer stated the following “....the English philosophers taught speech to deaf persons so successfully that John Bulwer, the first English writer on the subject, went so far as to plead for an academy of the mute” (1990:p 78).

Such attempts to teach children with disabilities amounted to start the first systematic education in Europe, particularly in France, during the industrial period in the mid of 1700. In France, a new social philosophy ushered in by the enlightenment, brought about

major educational advances. The French pioneers adopted the concepts of sensationalism, the psychology of language and joined them to the new concepts of social equality and individual rights. They took the special needs of children with disabilities seriously and become the founders of special education as we know it today (Winzer,1990).

Initially, the rate at which the educational services have been changing was so slow that it could not benefit much of the target children and the community they lived in. However, beginning in the half of 19th century, we have had experienced rapid changes in the education of children with disabilities. This change includes changes in awareness and attitude, availability, methodology, mode of schools for handicapped and the uses of related concepts and the like. These changes benefited not only those children with disabilities, but also their families, their teachers and school administrators and possibly the community as a whole (Johnson and Skorten, 2001; Winzer 1990).

In the following years changes that have been taking place were so many and significant enough to amount to the provision of equal rights in education and other aspects for persons with disabilities. This is particularly true to the developed nations of western countries. The changes have a number of consequences, too. According to Johnson and Skjorten (2001), the most important consequences of these changes are the recognition and appreciation of diversity as a result of which changed the mode of educational delivery for children with disabilities several times. Johnson and Skjorten called the recent prevailing philosophy as "bring back" in to community all those who had been excluded or segregated by the vast majority because being different.

It seems that the ultimate goal of providing quality education for children with disability is securing equal right and access to quality education. Much has been done toward this direction. As a result, lots of improvements have been achieved. However, though the magnitude of the problem is significantly reduced, individuals or groups who were different were and still are rejected by societies in many countries.

2.2 Historical Development of Modes of Educational Services for People with Disabilities

The educational services of children with disabilities have got various shapes at various times since they came in existence. The historical roots of systematic special education are found primarily in the mid of 18th century. According to Hallahan and Kauffman, contemporary education method for exceptional children can be traced directly to techniques pioneered during that era (1988). Before 1900, the predominant mode of schools for the disabled were residential school, which used to offer some instructions and trainings for the disabled; existed in some parts of Europe and Northern America.

In between 1900-1970 special schools and classes became more prevalent educational centers. At the same time, residential schools continued to grow and expanded. Children with disabilities that were formerly placed in residential institutions and special schools were to move in to special classes in public schools.

During 1970-1977 movements toward mainstreaming learners with disability in regular classrooms became the preferred type of educational services. This was the direct result of awareness of the importance of interaction and communication as a basis for all learning and the utilization of a holistic and resource-oriented approach more prevalent (Johnson and Skorten, 2001; Carpenter and Turnbull, 1991).

The movement that happened in the 70s, indicated the general trend of program development which is from complete segregation of children with disability to their complete integration with their peers in the same public regular classes. Though some countries claim to achieve complete inclusion of children with disabilities in the regular classrooms, there are many countries, which did not yet seem to be successful. These programs, however, have been evolving in distinct pattern and order, residential and special schools being the oldest form of programs.

The deriving vehicle for the evolvement of these programs may be different from country to country. In western Europe and United States of America social context of the 1970s

added inputs to the advocacy of integration, while legislative actions accelerated the movement towards the integration and inclusion of these children with their peers in the regular schools and classes.

In line with this point Thorbaurn (1994), stated that over the centuries, approaches to peoples with disabilities have undergone an evolutionary process. Increased scientific understanding and the adoption of principles of human rights have helped to change practices of people who were regarding peoples with disabilities as inhuman and outcasts of society to people with positive attributes, contributions to make, and rights like any one else.

In developing countries like Ethiopia, however, where provision of education (any kind) even for the non-disabled is in question; providing school for children with disability in such a way that equal right and access to quality education is in vein. Moreover, the development of special schools for children with disabilities in its modern way is not the result of awareness in the value of interaction and rights of these children. Many such schools were opened in these countries by charity organizations most of them are supported by oversea missionaries.

2.2.1 Special Schools

It is not possible to state where and who started special schools, but it is not difficult to give an account for charitable societies and religious group to start and build special homes for children and adults with impairments, which later became special schools. Some of these homes just provided the utter minimum of accommodation; others were well equipped and beautifully situated. MelAinscow (1994) stated that these places and homes were and still are isolated and hidden from the sight of the majority of the population. The schools admit children from vast areas because the number of children with disabilities in any community are not enough to fill a school.

Those who worked in such places were often people who saw their work as a fate or mission life (Winzer, 1990). They wanted to give and /or sacrifice their lives for a noble

task through taking care of those people. The experience of these people attracted many others to follow them. " Those people who first involved discovered that interaction with children and adults with impairment is enriching experience" Johnson and Skjorten, 2001p.25)

Students in special schools attend school that is different form that of ordinary regular schools. Special schools have unique advantages over other kinds of schools for children with disabilities. Placement in such schools allows centralized service. Hence, one can assume that students' need in special schools for such services as physical and occupational therapy can be delivered more cost effectively and more manageable (Winzer, 1990). Moreover, students in special schools are homogeneous in their needs, and meeting these needs is easy and manageable.

On the other hand, there are many problems associated with such isolated schools, which caused many to look in to better programs. One such problem is that children are segregated from their families and home communities. Consequently, little meaningful social interaction causes loneliness and poor feelings of self worth among these children. Moreover, many research works revealed that children and adults that live and learn in such isolated special schools are exposed to several abuses. For example, Skjorten (2001) stated that children in special school are exploited through hard work and other unfortunate situations. "Sexual abuse by employees as well as by those who lived in such institution was not uncommon" (p25)

Increased understandings in the problem of children in special schools resulted in re-evaluation of such programs. Though this slowly brought about improvements and official control of the condition in special institution and schools in many places, still children and adults did not get the closeness and attention they needed in such schools (Johnson and Skjorten, 2001).

2.2.2 Special Classes in the Regular Schools

Special classes in the regular schools for children with disabilities have been sought one step forward in the provision of quality education for children with disabilities. Originally special classes in the regular schools were not deliberated for children with special needs. Special classes in the regular classes were first created to offer extra teaching support for pupils who were behind the majority of the classes. In line with this idea, Johnson and Skjorten (2001) stated that in as early as 1850 in Europe the schoolmasters were discussing about having to use considerable time for repetition for the most elementary matters. The reason for repetition was sought to be truancy because children at that time in Europe were needed to support their parents. Further more, children were away from school because of epidemics and other illness partly caused by malnutrition and poor sanitary conditions. Moreover, some of the pupils were slow learners or had other learning difficulties.

Special classes usually take the form of enrolling homogenous groups of children with one type of exceptionality under the direction of an especially trained teacher in a classroom located in regular public schools. There may be one or two such classes in a given school or as many as five or six special classes may serve one type of exceptional children while others may serve other type (Michael and Heward,1988).

In the 1950s and 1960s, many educators began seriously to question the benefits of segregated classes. Some claimed that special classes were too often used as a dumping ground. Gallagher (1972) cited in Winzer (1990) pointed out that special classes were often exclusionary rather than remedial. He claimed that special education did not appear to be returning a significant number of children to regular classrooms. Others also argue that special classes cast a stigma on exceptional children, providing low quality education, and were often allocated inferior facilities and untrained teachers.

Numerous studies have also been carried out to weigh the value of special classes. Most of these studies revealed that children performed no better in special classes (Bridfuekd et.

al., 1973: Bruinks RYnders and Gross, 1974 Dunn,1968;Gallagher,1972 myers, 1976 roynolds and Brich, 1977 cited in Winzer (1990).

This, however, does not mean that placement of children with disabilities in special classes in the regular schools had or have not advantage. The placement of children with disabilities in special classes with the regular schools contributed a lot to the improvement of quality of education and socialization for those who were once segregated in special institutions and later brought back to some regular schools or those who were to be segregated (Johnson and Skjorten, 2001).

Special class placement and meeting the need of these children were very tough, anyhow. A number of problems encountered this program, particularly to the effectiveness of programs, implementation. Schmid and Negata (1983), from the experience of USA, stated some of the reasons that hampered the value of special classes in the regular schools. They mentioned unrealistic goals and poor identification attributed to the failure of such programs.

2.2.3 Integration and Inclusion

Hegarty, Pocklington and Lulas (1988) stated that special schools, for many years, have tended to be seen by definition as a preserve of special education. In the course of maturation, however, criticism against special schools & classes was being reflected from a number of sources, mainly in favor of integration.

There were many reasons for such movement of opinion. Hegarty et al., (1988) stated that the reasons behind the movement ranges from a simple opposition to placement in special schools to encompassing a variety of arrangements in ordinary schools. Discontent with the outcome of special schools to fit the out look of modern man, in terms of developmental benefits, and ethical justifications led to legislation and many of the changes that are apparent in special education today(Tirusew,2000; Hegarty et al.,1988). Moreover, special schools could not serve the ever-growing demands for special needs. Evidence from UNESCO survey (1988b) cited in Ainscow (1994)

indicated that the number of children with special needs served by special schools were very limited. This observation led the participants in UNESCO's consultation in special education (1988a) to make the following statements: "Given the size of the demand and the limited resources available, the education and training needs of the majority of disabled persons can not be met by special schools centers (p 47)."

Integration has been perceived and defined differently among different countries and professionals. Hegarty et al., (1988) described integration as a means which provides a 'natural' environment where these pupils are alongside their peers and are freed from the isolation that is characteristic of much of special placement. Warnock (1987) cited in Hegarty et al., (1988) distinguished three types of integration in terms of association between the special group and ordinary schools. These are location; social; and functional. Location integration exists where special units or classes are set up in ordinary schools or where a special school and ordinary schools share the same site. Social integration is where children attending a special class or unit eat, play and consort with other children; possibly share organized out-of-classroom activities with them.

Functional integration is the fullest form of integration and is achieved when locational and social integration leads to joint participation in educational activities, and where children with special needs join the regular classes of the school, and make a full participation to the activity of the school.

The process of integration, like other preceding mode of educational services for children with disabilities, has its own history and root. The integration of children with disabilities with other children without disability in the regular schools and classes started in the 70s. It was emerged in different parts of Europe and Northern America under different names. Whereas Integration and Mainstreaming used in England and United States of America, Normalization is the term used in Norway and other Nordic countries (Johnson and Skjorten, 2001).

2.3 Historical Roots of the Education of Persons with Hearing Impairment

History of ordinary as well as special needs education is not a stream lined path from bad to better conditions, from darkness to enlighten in knowledge and attitudes towards people with specific needs. On contrary, research on history shows a conglomerate of different traditions and ideas, some of them with positive consequence for beneficiaries, other negative consequences. As time goes by some ideas support each other, other ideas contradict or modify each other, even to the extent that they become almost unrecognizable. There have always been different ideas and traditions struggling for privileged position (Johnson and Skjorten, 2001). Special education for children with hearing impairment grew from an initial awareness that these children are educable and trainable. This awareness evolved over many years, we can trace its roots to Europe in the 16th, when certain innovators began to make isolated attempts to provide education for these children.

One innovator was Pedro Ponce de Leon (1520-1584), a Spanish Monk considered to be the first person that taught students who were deafened had remarkable success in teaching to read, write and speak. The idea and success of De Leon's diffused to other European countries like, England, France, Germany, and Edinburgh and to Northern America countries like USA and Canada. Smith & Luckasson (1995), stated that William Holder and John Wallis are credited with beginning educational program in England for individuals who were deaf. Henry Baker established school for the deaf in England, Thomas Braidwood in Edinburgh, Abbe Charles Michel de l' Eppe in France, and Samuel Heinicke in Germany.

In the part of Northern America, Schools for the deaf appeared almost a century after such school was in existence in Europe. Thomas Hopkins Galludet started the first school for the deaf in United States of America in 1817 in Hartford, Connecticut (winter, 1990).

In Many other countries, school for children who were hearing impaired preceded other types of special education arrangements. In Ethiopia, However, is different. The first formal school for the deaf was established by Mekaneyesus, church in Addis Ababa at a place called Mekanissa in 1962 long after the establishment of special school for the blind.

As mentioned in the forgoing paragraphs the development of special schools for children with hearing impairment has not a streamlined path from bad to better condition, as it is in other special education programs, too. It had and still has many problems in the course of development. This is partly because, the process of rehabilitation for children with hearing impairment present a complex challenge. Their identification, evaluation, habilitation and education require the application for knowledge and skills from diverse fields including child development, education, psychology, linguists, Otology and eulogy and genetics (Winzer, 1990; Thounber,1994).

One of the major problems encountered the educational provision of these children over time is the debate about whether the oral or the manual method of instruction and communication is better. Such debate originated almost from the beginning of education for children with hearing impairment. The Oralist believed it as more important for the developing child to learn how to develop his or her reaming hearing ability and to learn to communicate orally. They criticize the use of sign language as it segregates children with hearing impairment from communicating to those without hearing impairment. The Manualists on the other hand, arising from the doubt they have on how much residual hearing remains in a child with hearing impairment, they emphasize methods such as sign language(Felekech, 2000).

Historically, Oralism prevailed as the method of choice. Today, however, most educators of children with hearing impairment recognized that combination of Oralism and Manualism called for total communication as the most logical choice for most children with hearing impairment(Hallaham and kauffman, 1988).

The invention and development of hearing aid had a significant contribution for lives and education of the hard of hearing people, particularly, those with conductive hearing loss (Luckasson, 1995). This is at least true to the richer western countries. Felekech's (2000) study indicated that much of educational problems of children with hearing impairment prevailing in Ethiopian schools for children with hearing impairments are the result of lack of trained teaching staff and budget, problems of curriculum and text book, problem of large classroom size and lack of teaching materials, problem of language and lack of focus on academic subjects.

The type of language employed in schools for children with hearing impairment, in Ethiopia, is sign language. Yet, there is no existing literature to show the development and the problem of the existing sign language in Ethiopia. Yet there is no standardized sign language in the country to serve children that come from different cultural and language backgrounds to the few and isolated special schools.

2.4 History of Special Education in Ethiopia

Ethiopia has a long-standing history of traditional church and Mosque education. These were the basis for modern education in the country. In this traditional education system people with disabilities are highly involved as learners and teachers. For example, in the traditional teaching of the Ethiopian Orthodox Church, blinds were not excluded. They were expected to pass through all levels of church education, which require longer time for them any way. Adane (1991) cited in Lema (2001) stated that even those who succeeded in their education were able to get position and power.

The first modern special school for the blind was opened in 1935 at a place called Dembi Dolo by American Mennonite missionaries. Following the opening of the first special school, many governmental and Non-Governmental organizations put their efforts to support these children. Amongst, the Ethiopian Orthodox Church and Mekan-Yesus church have the lion shares.

Much is not known about the education of children with hearing impairment in the history of traditional education in Ethiopia. According to ENDA (Ethiopia National Association of the Deaf, 1999) the first schools for children with hearing impairment were opened between the 60s and 70s by Protestant Churches. Among the first opened school for the deaf, Mekanissa, Mazonia and Centeria (in the south) and Alfa (in Addis Ababa) are one still operating.

Missionaries called the church of Christ founded Mekanisa special School for the deaf in 1962 in Addis Ababa. Centeria and Mazonia schools for the deaf are branches of this school. American Emanuel Baptist mission in Addis Ababa opened the second school, which is Alfa School for the deaf, in 1967. The third school, Hosaena boarding school for the deaf was founded in 1981 by Mekaneyesus church in the southern region. African outreach missionaries Alemayehu (2000); Felekech, (2000); Lema (20001) opened the fourth school, Harar School for the deaf, in 1987 in Harar.

Felekech (2001), stated in her research review that, despite its recent appearance, special school for the deaf had, however, an advantage over other types of special schools in Ethiopia. She stated that special schools for the deaf were relatively less segregating children as the pupils remain in the school only for the day time. These children have contacts with their parents and relatives as well as other members of the society at home or in the community.

With regard to the mode of educational deliveries, educational services for the deaf have also been passing through similar steps which other schools did. At the present, greater number of these children are also placed in special classes and in integrated settings with hearing children. According to Tirusew (1993), the number of special classes in regular schools for children with hearing impairment is over 31, and the number of children attending special classes in the regular classes is higher than that of those going to special boarding and day schools.

Furthermore, more students with hearing impairment are being integrated in the regular schools in the same class with hearing children. Such classes and schools are found in Addis Ababa. Minilik II primary and Secondary school and Miyazia 23 are among those which started this program earlier . These two schools were used for main and pilot studies, respectively. However, some study made on academic achievement of these children who are in integrated setting showed that they are suffering more than other children with hearing impairment in special classes and schools (Tirusew ,2005).

2.5 The Developing Child and Theoretical Assumption in Child's

Learning

It is important to be aware that peoples' view about the nature of children's learning and development change markedly over periods of historical time, and this affect program formulation for people who are interested to work in child-focused programs. As time passes and new philosophy of child development emerge, some points fall out of favor whilst other ideas are absorbed, reshaped and re-expressed in temporary accounts (Thourn, 1994).

The process of formulating and explaining theories on how children develop and learn goes as back as ancient human civilization. However, history can not give us full evidence from the literate society (Felekech,2000). During the Christian era, much of thinking on how child develops is guided by what Bible teaches. Philosophers of that time might have influenced by the prevailing Biblical doctrine.

In modern way, the base of many of today's thinking about child's raising and development were lain by John Lock (1632-1704). Lock has left many imprints on many of eighteenth century ideas, attitude and practices concerning childbirth and child raring. He believed and suggested that children should be raised with thought and care. He also described the child as emotional responsive and he encouraged adults to strive for emphatic understanding of children (Winzer, 1990).

John Lock observed the child as a blank state, a "tabula rasa" on which all experiences and sensations systematically made impressions. His idea caused many philosophers of the time to investigate the nature of children. His idea on how children develop and learn could get both acceptance and rejection. Winzer, stated that Lock's philosophy, was embraced in many places, particularly in France by major thinkers like Rousssa, Condillac, voltair and many others.

Lock has also studied and reflected on how language develops in children. He argued that language was arbitral, that the words we use to signify a thing have no intrinsic connection with the thing itself. Winzer stated that the notion that Lock argued language as arbitral had profound influence on the education of sensorial deprived persons, especially when combined with the use of such alternate sensory stimuli as sign language for the deaf and raised print for the blind.

Lock's attempt to explain how language is developed influenced much of the thought of the broad intellectual movement known as Enlightenment (Seigel, 1969; cited in Winzer, 1990). Through Enlightenment to modern time the initial idea and philosophy of John Lock has been modified. During the time of Lock to much later, children were considered to be passive assimilator who just needed sufficient exposure to information and experience for learning and development.

Recently, the prevailing understanding toward the development of children has been drastically changed. Burner and Haste (1995) stated that a "quite" revolution has taken place in our understanding of child's development in recent time. The revolution in our thinking to child to which Burner and Haste refer concerns the role which adults take in shaping and scaffolding their interactions with children in order to foster development. The roots of these theoretical stance, according to Burner and Haste, are to be found in writers such as Vygorsky. Vygorsky emphasized the importance of every day social interactions between adults and children for language development.

There are a number of theoretical assumptions that underlie the rationale for program development, early intervention and child learning. These theoretical perspectives serve as a foundation for most child focused programs. In line with this Felekech, (2000) stated the following, "In addition to theoretical assumption that provide the basis for program relation ale and program development, theoretical explanations has provide a number of useful guide lines for infant and child learning with intervention programs." (P.14) Much of the difference among explanations about the process of development in children is in the area of emphasis given. These variations can be recognized in many intervention programs.

There are four general theoretical explanations about the process of development in children. These are Nativist, Behaviorist, Cognitive and interactive theories. Below are brief explanation given on each of the theoretical assumptions.

- **Nativist theory** (Bower, 1971, Chomsky, 1965, cited in Mitchel D&Brown, R.I 1991). This explanation argue that there is a biological basis for normal development of infants. They put too little or no account of environment or interaction between infants and their surrounding to contribute for the well being of child's development. They also argue that development in children is achieved as a result of maturation rather than from the influence of environmental factors such as school interaction.
- **Behaviorists** (Example Skinner, 1957;Mowere, 1954; cited din Mitchell, D & Brown, R.I 1991). This theory asserts that language lays basis for development. They also suggest that infants learn to talk by being rewarded for vocalizations that often appear to be produced spontaneously. Thus, the behaviorist place high consideration to the contribution of environment as important factor in the development of children.
- **Cognitive theory** (Example Vygotsky, 1978, 1987; Porter, 2003; klein 1996 cited Tirusew(2005). Piaget is the founder of this theory. The theory gives greater emphasis to the development of cognitive prior to the acquisition of language and related skills. They place emphasis to the development of formal thinking for normal social

development among children. For example Vygotsky gives particular account to the social cultural aspects of early development. According to him, an adult is very important to shape the direction of development in infants. He suggested that infants will have unformed culture if there is no one to shape it. Infants, according to him, gradually, came to control their own actions and initiates for the learning with the help of an adult, more advanced peer, which provides learning experiences. Accordingly, learning and development arise out of child's own action and problem solving and the role of adults is to shape these actions and experiences.

- **Interactive theory** (Example Bruner, 1977,1975;Voygotsky, Sameroff and Melian and Snyder-Mac Lean, 1978; cited in Felekech,2000) This theory gives greater emphasis on the place of caregivers for natural and proper development in infants. As explained by Felekech, the caregivers, particularly the mothers have the potential to maximize rate of development in the children by providing appropriate activities and guidance toward higher level of performance.

The supporter of the theory also suggest a fundamental sup-position of early intervention on the families and homes, except in the case where there is abuse or neglect, severe deprivation, for primary nurturing environment for infants and young children with disabilities (Odom&Wolery,2003) cited in Tirusew (2005).

Studies made on dropout rates by Tirusew (2005) has shown clearly the situation which children with hearing impairment are facing in schools in Ethiopia. According to this study, students with visual impairment, mental retardation and hearing impairment are compared and contrasted on the base of drop out rates. The study revealed that children with hearing impairment suffered most. The study, however, did not verify the underling causes and the relationship between dropout rates and the mode of educational deliveries; dropout and method of language used as interaction in the schools.

These four theories have been used as a guideline for those concerned about children with disabilities. Theoretical assumptions provide important developmental information

on children with disability. One of the questions needed to answer was whether progressive development can be documented in any or all domains, and if so, whether developmental progression hold across all children in different context(Robert M. et al.,1995).

2.6 Nature, Definitions and Classification of Hearing Impairment

2.6.1 Nature

In order to understand the nature of hearing impairment very well, it would be advisable to know what the normal working ear looks like. Below is a brief description of normally hearing ear.

Ear is one of very important sensory organs that human being is born with Human ear is divided in to three parts (outer ear, middle ear and inner ear).“The healthy hearing system depends on the three separate sections working normally” Webster and wood (1995 p 78). The outer ears consist of the pinna, and the external auditory cannel. The pinna works like an inert funnel. It has certain enhancement and perceptual effects which facilitate localisation, given that sound signals are collected at different points in time and space.

The middle ear is lined with mucus membrane and contains only air. The tube which ventilates the middle ear is called Estachian tube. This tube connects the middle ear cavity to the back of the nose and throat. Changes in air pressure may cause discomfort in the middle ear. If we go rapidly up or down in an air plane and in deep sea, for example, the atmospheric pressure alters, whilst the pressure of the air in the middle ear remains much the same (Tirusew, 200; Websker and wood,1995).

The most complicated part of the ear is the inner section. Not all the structur of the inner ear are concerned with hearing. The semicircular canal is involved in balance. The structure concerned with hearing in the cochlea is a spiral tube which resembles the shell of a snail. The function of cochlea the converting information transmitted through the oval window into electrical nerve impulses.

2.6.2 Definition of Hearing Impairments

There has been several definition and descriptions and given for hearing impairment few of these definitions could got wid acceptance. One of the definitions which could win acceptance among many is the one developed by the conference of executive of Americans school for the deaf (1974) cited in winter, 1990. According to this definition Hearing impairment, hard of hearing and deaf are defined as follows.

- H.I is generic term indicating a hearing deficit that ranges in severity from mild hearing deficit to profound hearing loss.
- A hard of hearing is one who, with the use of hearing aid, has residual hearing sufficient to enable successful processing of linguistic information through audition.
- A deaf person is on whose hearing disability precludes successful processing of linguistic information through audition, with or with out a hearing aid.

2.6.3 Classification of Hearing Impairment

There is great variability among the hard of hearing and deaf population other words, both groups are heterogeneous, and have sub categories. Hearing impairment can be further classified on the basis of degree of hearing loss, in terms of child's functioning level, cause and site of the deficit the age at which the impairment developed, impact on development, amen ability to treatment and site of hearing problem (inner, middle and outer) (Tirusew, 200; winter, 1990; orlansky, 1988; Webster and wood,1995)

1 classification by degree of hearing impairment

hearing loss can be classified according to the amount of hearing in a person's better ear. decibels and hers are used to measure the loudness and the frequency. Individuals are classed as deaf- of -hearing, depending on weather they sounds of certain intensities of loudness across a range of frequencies. This classification is further

structured by designation as mild, moderate, several or profound hearing loss (winter, 1990 472).

Table 1 Classification of hearing impairment by severity

Range	Severity	implication
0-25 dB	Insignificant	
25-40 dB	Mild hearing loss; hard of hearing	May have difficult with faint or distant sounds. May have problems in conversation, groups, or settings and class discussions
40-60 dB	Moderate hearing loss; hard of hearing	Frequent difficulty with normal speech, especially in conversations, groups, and class discussions
60-90 dB	Sever hearing loss; hard of hearing	Great difficulty with even loud or amplified speech, which seems faint and distorted. Requires amplification and intense speech and language training.
90 dBt	Profound hearing loss; deaf	May be aware of loud sounds and vibration, but generally can not understand each amplified speech.

Source Levels of hearing impairment, winzer, 1990 P. 472.

Classification by Site of Loss

Hearing impairment is also classified on the basis of parts of the ear which is affected. Any factor or condition which interferes which with the progress of sound in to the ear cannell or across the middle ear system is referred as to conductive hearing loss.(Tirusew,200; wood; winter,1990). Conductive hearing loss. (Tirusew the cause of such defects could be excessive wax in the auditory canal or malformation of the outer ear. such as with a small external opening or a sold mass of tissue in the ear

canal. Conductive losses decreases the intensity of sound reception but do no distort the sound.

The hearing loss connected to the fine inner structure or auditory path ways is referred to as sensory - neural hearing loss. Sensory neural hearing loss may be caused by abnormal sense organ or defective auditory nerves. "These sensory-neural hearing impairment interfere with the conversation of sound waves to Neural impulses for the brain (Winter,1990 p.472)." The sound intensity in this case not only decreased but also distorted. Moreover sensory impairments are nor amenable to treatment. (Wood and Webster, 1990).

Classification by age of on set

Educators are highly interested in the age of onset of haring loss because, language training highly depends on the age at which hearing loss stared. In terms of onset hearing loss, these are two broad categories. Congenital hearing loss is one that is present at birth. An adventitious hearing loss is acquired some time after birth, through or disease (Tirusew 200;Felekech,2000;wood and Webster,1990)

2.6.4 Identification

In order for its important to be limited, early detection of hearing impairment is of prime importance. Children need opportunities to learn language, and learn it in the same sequence as hearing children. Many hearing impaired children retain same degree of residual hearing up on which speech and language may be built and must taught to use their residual hearing so as or acquire the base they need for more complex skills. But " providing comprehensive identification procedures, followed by intensive early intervention for hearing handicapped children, challenges the ingenuity if professionals even in wealthy western countries, in developing countries, beset by economic problems, difficulties are compounded".(Grigg and winter, 1994;180).

If a child's hearing impairment is not detected early enough as before the child comes to school, a great many valuable experience for learning will surely have been lost. Parents are often the first to suspect the presence of hearing loss in a child. The time of detection by parents, however, depends on the level of severity. The child may stay undetected if the hearing loss is mild. In this case, the parents and siblings may misjudge the child as being mentally retarded or emotional disturbed. In schools, such misjudge may take direction of learning disability or child may be considered as emotionally disturbed.

L.K cleeland et al, cited in Orlansky (1990) listed the following patterns of normal hearing child in order to allow parents suspect hearing impairment if their children do not display them.

1. A child at about one month will jump or startle in response to loud noises. At this time will begin to make gurgling sound.
2. A child at about 3 Months will make babbling sounds, will be aware of voices, may quit down to families voices close to ear or stirs from sleep when there is a loud sound relatively close.
3. A child at about 6 months will be able to make vocal sounds when alone, turns head toward sounds out of sight or when name is called and speaker is not visible.
4. A child will be able to respond differently to a cheerful versus angry voice, turns head toward sounds out of sight or when name is called and speaker is not visible.
5. A child at about 12 months will be able to locate sounds sources by turning head, ceases activity when parents voice is heard, recognize own name, uses single words correctly, vocalizes emotions, laughs spontaneously, disturbed by nearby voices when sleeping, attempts imitation of sounds, understands some familiar phrases or words, responds to music or singing and increases babbling in types and amount.
6. A child at about 24 months will be able to have more than 50 words in vocabulary, uses two words together, responds to rhythm of music, uses voice for specific purpose, shows understanding of many phrases used daily in life, plays with sound making objects, uses well-inflected vocalizations and refers to himself/ herself.

Kough and Dehaan,1995; Geerhant, Weishan & A ear heart, 1988; Webster & wood, 1989) cited in Tirusew (200) indicated some of what they called “Warning signs” of hearing impairment. Parents and Teachers should pay attention to the warning signs to suspect hearing impairment in their children and students, respectively.

In attention and moré responsiveness when alone, complaints of earache, giving in appropriate answers to question, louder or softer voice than usually, searching visually to locate a sound source by training head to give one side an advantage, needing to sit nearer a sound source, irritability and little aggressive out bursts, reluctance to participate in oral activity and little internal in following story, failure to turn immediately when called by name, poor motivation, difficulty in skills like reading, “phonic” work, sound blending and discrimination, limited vocabulary or use of gesture and best work in small group.

2.6.5 Methods of Assessment of Behavior Problems

Classroom behavior refers to the student’s capacity to deal with the non-academic demands of the instructional environment (Felekech, 2000; 24). Behavior in this context is defined as a description of the student’s behavior while the class instruction is going on thus there is expected and unexpected behavior in a classroom. The former is usually the goal of the teaching learning process. The objective and aim of any education is to bring about behavioral change in children. For example, a student may interrupt the teacher from lecturing on for asking a question or to reflect on what the teacher is saying. This is good and expected behavior.

Unexpected behaviors restrict learning and social development. In this case normal and healthy (desirable) behaviors may be needed to be reinforced or replaced undesirable behaviors by consistently applying established principles of learning (Dupont, 1975) cited in Winter (1990). Classroom behavior is a very important aspect of school performance, and it is often the main problem of handicapped students (Felekech, 2000). Class room behavior of students, should, then; be routinely assessed by the home-room

teacher or external professionals as needed. The students social involvement at home and in the community should also be assessed..

Academic Achievements of Children with Hearing Impairment

The academic achievement levels of children with learning impairment vary greatly between the deaf and that of hard of hearing. Generally speaking those children with hard of hearing perform better in academic achievement compared to those who are deaf. Learning to speak, read and comprehend, for example, is more difficult for children who are deaf than those who are hard of hearing. Achieving these tasks require more time, effort, and systematic instruction for deaf children (Lukasson, 1995).

There is great variability in academic activities among the same category of children with hearing impairment. There are individuals with different learning styles and abilities as it is in hearing children. And this variability depends on numbers of factors that have direct or indirect impact on learning. Familial socio-economic status, education background of parents, hearing status of parents, the time at which hearing impairment appears (pre, peri and post natal) and the time at which educational, communication intervention are placed and the severity of the impairment are some of the major factors attributed to academic variability among children with hearing impairment (Tirusew, 2000; winter, 1990; Webster & wood, 1995).

Moreover, Luckassan (1995)stated the following to have greater impact on academic variability among children with hearing impairment. These are communication method the individual uses (speech only, sign only, speech and sign together), academic integration with non-disabled peers, cultural and linguistic background and the presence of another disability. Thus, children with hearing impairment should not be stereotyped (Tirusew,2000).

The knowledge of the prevailing source of academic problems in children with hearing impairment is important and vital for teachers and school principals in order to intervene in a suitable way. Generally, children with mild hearing loss perform better in academics

when compared with severely impaired. With regard to the time at which impairment appeared, students with congenital hearing impairment have more difficulty acquiring academic skills compared to those who acquired hearing loss some time in life. Moreover, students from high socio- economic status and with hearing parents tend to experience fewer academic problems than students from families of low socio-economic status or from those whose parents are hearing impaired (Winzer, 1990; Smith and Luskasson, 1995; Tirusew,2000).

When children with hearing impairment are compared with that of hearing children, children with hearing impairment lag behind significantly. Many research works done on reading ability and arithmetic competences have confined that hearing impairment has great impact on academic achievement. According to some of these studies the mean reading scores of deaf children are well below those of hearing children. Winzer (1990) stated that deaf children lag two to eight years behind hearing children in reading skills. Typical deaf students graduate from school reading at a grade four levels (Ling, 1981; Handle and Vernon 1971; Trybus and Karchmer, 1977) cited in winzer (1990).

Social Characteristics of Children with Hearing Impairment

Hearing impairment leads to social adjustment problem in children with hearing impairment. As a result, children with hearing impairment are poor in social skills. They are poor neither to initiate socialization with others nor to receive the initiation of others. Nevertheless, children with hearing impairment do not lack the potential for normal socialization. The lack of social skill in children with hearing impairment comes from limited communication, and interaction with others (Winzer, 1990; Luckasson, 1995; Tirusew, 2000).

The barriers of hearing impairment and limited language appear to increase a sense of frustration, loneliness, helplessness and despair. Greenberg and Calderon (1984) cited in winzer (1990), stated that among the many sources of social problems encountered with these children, the most disabling factors are absence of meaningful, satisfying

communication between young children with hearing impairment. Severe hearing losses are more likely to result in severe social isolation (Winter, 1990).

Generally, abnormal social development in children with hearing impairment is often manifested by impulsiveness, irresponsibility, and despondent behavior. Deaf children, for example, seem to disregard the feelings and misunderstand the action of others. They typically exhibit a high degree of egocentricity and a low frustration level. "These traits cause them to make inordinate demands and to act out their frustrations if demands are not met (Winter, 1990 P.490)"

CHAPTER THREE

3. RESEARCH METHOD AND PROCEDURE

3.1 Research Method

A descriptive method employing qualitative design complemented with quantitative approach has been applied to conduct the research. This mixed design includes triangulation of data collection by giving similar questions to hearing impaired students, parents of the hearing impaired and teachers of hearing impaired students. Students' academic achievement and social skills, effectiveness of the programs, internal organization of the schools to educate children with hearing impairment, teachers' and parents' comments on the types of programs their students and children were carefully examined.

3.1.1 Research Design

The study were conducted in Addis Ababa, Hosaena and Harrar. The schools are three special schools (Harrar, Alpha and Hosaena special and special boarding schools), Mekanissa integrated school for children with hearing impairment and hearing children and Minilik Junior Secondary school with special class unit for children with hearing impairment

The major concern of the study is to assess program effectiveness among the three different placement arrangements for children with hearing impairment. Academic achievements and social skills of the target groups were used to compare and analyze program effectiveness.

3.1.2 Sampling

To ensure fair interschool comparison and to have equal number of girls and boys in the sample, purposeful sampling and stratified random sampling technique was employed. So, the sampling process had the following procedures. First of all, on the bases of total number of students in the research sites, sample size was determined. Secondly, the number of students in grade 8 were stratified on the base of sex, and then 14 students 7 from each sex group were randomly taken from each type of school. On the other hand,

five school principals(one from each school) and all grade 8 teachers in the schools were considered in the study. 14 Parents of the students were taken on the bases of accessibility and their willingness to take part in the study.

Pilot Study

Pre-test of all instruments was conducted before the actual fieldwork undertakes. The aim of the pre-test was to find out ambiguities, omissions or misunderstandings in the instruments and to check the reliability of the instruments. The pilot study was conducted at Yekatit 23 junior high school in Addis Ababa. The school offers integration and special classes like Minilik II secondary school within the same school.

A total of 10 children with hearing impairment, 6 teachers, 1 principal and 4 parents have taken part in the pilot study. The purpose of the pilot study, as it was mentioned earlier, was to assess the relevance of the instruments designed to collect data for the study. Copies of instruments were given to the advisor. Using relevant comments and suggestion from the advisor together with those completed by participants of pilot study, some corrections were made.

Main Study

The main study was conducted in five schools drawn from three categories of schools. These are one special class in the regular school, one integrated school and, three special schools for children with hearing impairment. The reason for selecting these schools as a data source was the need to compare and evaluate effectiveness among special classes, integration and special schools for the deaf. The study also aim at evaluating the different placements weather the current trend of placing children with hearing-impairment in the regular schools is really yielding better results in social and academic achievement.

The schools covered in the main study were:

1. Minilik Junior secondary school with special class for children with hearing impairment (Government school grade 1-8) in Addis Ababa.
2. Alfa Special school for the deaf (Government 1-8) located in Addis Ababa.

3. Harrar special school for children with hearing impairment (Non-governmental school grade 1-8) located in the Harrari national state.
4. Hosaena special school for children with hearing impairment (Non-governmental school grade 1-10) located at Hosaena town.
5. Mekanissa integrated school for children with and with out hearing impairment.

The Participants

The population size of children with hearing impairment was small. Sampling thus, based the number of children in the schools. The sample size was 71 (42 grade 8 students, 14 parents and 10 grade 8 teachers and five principals of the schools). It was also expected that children in grade 8 can express themselves in various ways which would enables the researcher to get full information from them.

3.2 Variables

Both qualitative and quantitative methods were used in this research. The qualitative part of the study includes a consideration of teachers', parents', and principals' attitudes towards the education of children with hearing impairment and their educational level, observation of available facilities and supportive professionals in the schools, and level of students' participation in community (e.g. religious ceremonies). In the quantitative aspect of the study, the relationship to be investigated was performance of grade 8 hearing impaired students on comprehension test.

3.3 Procedures

Before developing the instruments, related literature was thoroughly examined and data collection instruments were prepared in English. And finally, the instruments were tested on a pilot study, which was carried out on a sample of 10 students, 6 teachers , 1 principal and 4 parent. The researcher then observed the classes, interviewed the students and parents. Then, the sample children were given a comprehension test developed by the researcher. Social skills of the children were observed in and out of classrooms. The availability of facilities and supportive professionals in the schools were filled on a form.

Prior to the administration of the main study one sign language interpreter was recruited and training was given to him. Following the training, the actual data collection was carried out and the process was controlled and supervised by the researcher.

3.3.1 Instrumentation

The instrument used to collect the necessary data were class observation check list, questionnaire for principals and teachers, semi-structured interview for students and parents, and comprehension test for students. The instruments had both close and open ended questions.

Details of Instruments

3.3.1.1. Questionnaire

A questionnaire containing close and open-ended items was prepared for grade 8 teachers and school principals. The questionnaire included personal information, socio-economic and demographic data, attitudes toward the education of children with hearing impairment and problems observed in the teaching-learning process. The questionnaire was prepared in English to be completed by teachers and principals themselves.

3.3.1.2. Unstructured interviews:

Interviews were prepared and administered to students and parents of the hearing-impaired. The interview questions consist of questions on demographic characteristics of participants like age, sex, family size etc., the attitude of people to children with hearing impairment, social and academic problems of students with hearing impairment, the influence of socio-economic aspect of the family on the education of their children, social problems of the students and their coping strategies.

3.3.1.3. Class Observation form: The observation was held in grade 8 classes in all the sample schools to learn about the adequacy of the teaching-learning process. The observation encompasses various areas such as the situation of classes, availability of facilities and supportive professionals in the schools.

3.3.1.4. Comprehension test: A grade seven level comprehension test was developed by the researcher where 15 questions were derived from a passage which was taken from grade seven English text book prepared by the Addis Ababa regional education office. The test was given to the sampled children to be completed in 60 minutes.

3.4 Data Collection Procedure

Data collection from children with hearing impairment, teachers and parents of children with hearing impairment require the knowledge of sign language. Moreover, much time, labor, skill in the area of characteristics of these children is required. This forced the researcher to recruit sign language interpreter and an assistance in data collections.

Both primary and secondary sources were consulted for data collection. This includes reviewing the available documents and collecting direct information from the relevant target groups.

3.5 Data Analysis Procedure

All the data were organized and processed in a way they are appropriate for analysis. The researcher used various techniques to deal with the variables. Quantitative data obtained through English comprehension test were analyzed using descriptive statistics (mean) and t-test. Qualitative data were analyzed by making comparisons and contrasts. Data obtained on attitudes were identified for the purpose of analysis of the qualitative data. Quantitative method was used in connection with the social skill of the children in the schools.

CHAPTER FOUR

4. FINDINGS

4.1 Demographic Background of the Participants

This study was conducted in three special schools, one integrated school for children with hearing impairment and one school with special classes for children with hearing impairments. These schools were Alpha special school for children with hearing impairment in Addis Ababa , Harrer special school for children with hearing impairment in Harrar, Hosaena special boarding school for children with hearing impairment in Hosaena; Mekanisa integrated school in Addis Ababa; and Minilik junior secondary school with special classes unit for children with hearing impairment in Addis Ababa.

Table 2:-Number of participants in the Study

Research Site	Grade Level	Hearing Impaired students			Parents			School personnel (teachers and principals)			Total		
		F	M	T	F	M	T	F	M	T	F	M	T
Harrar special school for children with HI	8	-	3	3	2	1	3	1	2	3	2	6	9
Hosaena special school for children with HI	8	5	2	7					3	3	5	5	10
Alpha special school for children with HI	8	2	2	4	1	1	2	1	1	2	4	4	8
Mekanissa integrated school for children who hears and hearing impaired	8	8	6	14	1	4	5	1	2	3	10	12	22
Minilik school(special classes)	8	7	7	14	2	2	4	1	3	4	10	12	22
Total				42			14			15			71

4.1.2 Information about Parent Participants

Background information about parents of the hearing impaired students was collected to relate the situation to the existing problems of the students with hearing impairment in the types of schools. This, on the other hand, helped the researcher to understand the relationship between the students' academic and social skills and the impact of the parents. Educational status of parents of the hearing impaired students, for example, has impact on level of support parents could give to their children. Table 4 indicates educational status of parents of hearing impaired students. Many research works proved that children those who come from educated family perform better than those who come from uneducated family on academics.

Table3: Educational Status of Parents of Children with Hearing impairment

Status	Special schools									Special Class			Integrated School		
	Alpha			Hosanna			Harrar			Minilik			Mekanissa		
	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
Cannot read and write	-	-	-	-	-	-	1	1	2	1	1	2	1	-	1
Grade 1-4	-	-	-	-	-	-	1		1	1	-	1	-	1	1
Grade 5-8				-	-	-							-	2	2
Grade 9-12	-	1	1	-	-	-									
Above 12	1	-	1	-	-	-				-	1	1		1	1
Total	1	1	2	-	-	-	2	1	3	2	2	4	1	4	5

Key:- F=Female M= Male T= Total

The educational status of parents of the hearing impaired students is indicated in table 3. Parents from Hosaena special boarding school could not be reached as the children joined the school from remote areas. The majority of parents of the hearing impaired students have low educational status. Their education level ranges from literacy to grade 12 completion. From all these parents eight of them have education level of 0-4. The others two of them of the parents of the hearing impaired students are from grade 5 to 8 in elementary school level. One parent reached grade 9 level. And only three parents had received above 12 grade.

On the other hand, the ability of parents of children with hearing impairments to communicate in a way convenient for their children is also important. Among the parent participants only 2 parents one from Alpha and the other from Mekanissa, were able to sign and communicate this way to their children.

All the parent participants were interviewed to collect information on the type of support they give, their attitude toward the education of their children with hearing impairment and the way they communicate to their children. Summery of their response during the interview is given below.

Table 4: Summery of Parents response to interview about their children

Content of a question	Parents response to interview		
	Special schools	Integrated schools	Special classes
Support they give to their children	Provide food, shelter, and clothing as much as possible	Provide food, shelter, and clothing as much as possible	Provide food, shelter, and clothing as much as possible
Means of communication	Home made sign language	Home made sign language	Home made sign language
Attitude about the education of their children with HI	Do not expect much from the education of their children with hearing impairment	Positive for their education	Do not expect much from the education of their children

As it is indicated in the table 4, there is not much difference among the parents at the schools with respect to the kind of support they give, the type of communication they use with their children with hearing impairment and their attitude toward the education of their children with HI. The slight difference can be seen is that parents of children with hearing impairment in the integrated school have better expectation from the education of their children with hearing impairment.

4.1.3 Information about Teachers and School Principals of the Sample Schools

Background information about teachers and principals of sample schools is important to see the level of education that can be given to the students in the schools. Educational and training level of teachers has direct impact on the academics of children with hearing impairment.

Table 5:- Grade 8 Teachers by Education Level(Alpha, Hosanna, Minilik, Mekanissa and Harar)

Site	Diploma(12+2) with out adequate training on sign language			Diploma(12+2) with less than one year training with sign language			Diploma(12+2) with 1 year or more training on sign language.			B.A. with short training on sign language			Total No. of teachers		
	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
Alpha	-	-		4	3	7	1	-	1	-	-	-	5	3	8
Hosanna							1	3	4	-	4	4			
Harrar	-	2	2	-	-	-	1	2	3	-	-	-	1	4	5
Mekanissa							2	6	8						
Minilik	1	-	1	1	5	6	-	1	1	-	-	-	2	6	8
Total	1	2	3	5	8	13	5	12	17		4	4	8	13	21

Most of the teachers in these schools are diploma holders. Their sign language training ranges from less than three months to slightly over a year. Diploma is a level required to teach up to grade 8. Nevertheless, most of them are not given courses required for teaching children with special needs other than training on how to sign. Eleven percent of the teachers in these schools got training on sign language with peer teaching from their fellow teachers. The rest got their training for period shorter than three months at Sebeta special school teachers training institute.

There are some teachers who have basic educational background at higher level, but lacked sign language and special needs education. Others have sign language training but lacked basic education. Three teachers out of eight who are teaching grade eight students at Hosaena boarding school have further education on special needs education at higher level. The other five teachers have both the basic education for teaching students with hearing impairment. In all respects the teachers at Hosaena School have very good educational background.

Four teachers from special class and one teacher from special schools do not have adequate training to teach children with hearing impairment. These teachers were observed teaching with the help of sign language interpreters. The school principals of these schools said that such problem are unavoidable as long as turn over of teachers is there. They further mentioned the reasons being that teachers very often either dissatisfied with the out come of their teaching or due to low payment they change their profession. The administration of these schools train the new teaching staff regularly by arranging peer teaching programs. The new teaching staff is, thus, oriented on sign language. Unless and other wise these new comers are trained on sign language, they can not teach the hearing impaired students. In most special schools teachers are offered allowance on the top of their salary in order to encourage them cope with the challenges and stay in the schools.

Table 6 Educational Background of Principals in the Sample Schools

Shools	Educational level	major area	Training in the area of Special needs education	Service year in the schools
Harrar	Diploma	Accounting	Not trained	3
Alpha	Degree	Management	Trained	12
Hosaena	Degree	Special educator	Trained (at higher level)	19
Mekanissa	Degree	Accounting	Trained	6
Minilik	Diploma and working toward degree	Education	Not trained	4

Table 6 shows the educational background and service years of school principals. As it is indicated on the table only one principal was educated as special educator on higher level. Two principals have higher education on other fields other than special need education, but have got short training on special needs education. One principal was neither trained on special needs education nor on relevant education. On the other hand, principals' service years ranges from only 2 to 19 years. Special schools have school principals who were serving longer compared to those at special class unit.

4.1.4 Information Obtained from Class Visits(observation)

Class Size and Seating Arrangement

The class size is another factor affecting the education of children with hearing impairment. Small class size is an ideal for teaching children with hearing impairment because it allows the seating arrangement more flexible than larger ones. The seating arrangement of children in the sample classes except at Hosaena, took a traditional

arrangement. A traditional classroom often is set up with the desks in rows, the teacher's desk or table somewhere in front of the room, and student desks moved far enough apart to prevent easy wandering of eyes during tests. This arrangement packs desks into the room efficiently and lets student have easy access to their seats, but it certainly does not have to be the default room arrangement. The learning environment should be designed according to learning objectives and desired outcomes not just habit or a janitor's best guess. However, this arrangement is probably the best for preventing cheating on traditional testing days.

The seating arrangement in the classroom at Hosaena was conducive for discussion and interactive classroom activities. Such interactive classroom activities, where the whole class is looking and signing and contributing, probably work better if the students' are small in number and are somehow facing each other. Usually teachers put their chairs in the back of the room to get it out of the way. It's still within easy access to grab a stack of handouts, etc.

Information on the class size of grade 8 students in the sample schools is given on table 8.

Table 7: Number of grade 8 students with hearing impairment per class.

Schools	Alpha	Hosaena	Harrar	Minilik	Mekanissa
No.of students	18	17	3	31	21
No. of sections	1	1	1	1	1

As it was indicated on table 8 the number of students in a class is different from one school type to another. Generally speaking, the class size of special schools is smallest compared to that of special class unit and integrated one. The class size in these schools

range from 3 in Harrar special class to 31 in Minilik special class. On average the special schools from Harrar, Alpha and Hosaena have got 14 , compared to class size of 21 and 25 in Mekanissa integrated schools and Minilik special classes, respectively. Generally speaking, special schools have the lowest teacher-students ratio. So the teachers in special schools may be expected to give adequate educational support compared to integrated and special class unit teachers.

Lesson presentation

A-Integrated classes

Regarding the observation made while the lessons were presented, there were distinct difference observed between children with normal hearing and children with hearing disability. The former were attentively following the lectures and teachers' explanation about points under discussion. Where as students with hearing disability have not been motivated or involved in the learning process. They were passive simulators because there was nothing to stimulate them. This indicates that the teachers have either forgotten the presence of different learning characteristics (audio-receptive, visual receptive, motor receptive) in the classes or lacked the necessary methodology to activate these students. In addition to this, the teachers' pace did not consider the different ways of learning between the normally hearing and hearing impaired. More over the seating arrangement was not conducive for the hearing impaired ones. The students were seated in the traditional conference seating arrangements.

B-Special Schools and Special Boarding School

Sample schools for special schools were of two types. The first type is two schools where children stay at school only during day time and go home after school. The second type is one special boarding school where children learn and live in the same compound. All the three schools were observed to have good class situations. This is partly due to the fact that these schools were originally designed and dedicated for teaching children with hearing impairment.

In the Hosaena boarding school children with hearing impairment were homogeneous in terms of their level of hearing loss. And it was found that teachers were teaching with out much problems because the classes were well equipped and conducive for both teachers and students. For example, the class had good windows consequently adequate light and air. There was also enough space for the teacher and his teaching materials. Moreover, the seats were single chairs with good condition which enabled the teachers to arrange the seating in a way it was conducive to see every child in to their faces. The children also had not problem to read from the lip of their teachers. Hence, the class in this school was active and lively.

C-Special Class Unit

A number of problems are observed in special class unit. This include lack of basic facilities such as proper seating, doors and windows for the class and the effect of lack of these. The class lacked sufficient light and air. Thus, the class was not attractive. On top of this, the number of students in the class was too big to be handled by a teacher compared to other schools. Things like chalk board are also not in a good conditions. As a result students were not active while the teaching-learning process was going on. Moreover, teachers had no teaching aids to stimulate the children or enrich their teaching.

4.1.5 Information about the Facilities and Supportive Technological Equipments in the Schools.

These information were obtained through observation made in and out of classes. The researcher had a form to fill out data on the situation of the facilities and supportive technological equipments. Teaching children with hearing impairment needs some facilities to aid the teaching - learning process. Information on general and additional facilities in the schools is given on table 8a and 8b, respectively.

Table 8 a: Facilities for the Teaching of Children with Hearing Impairment.

Classrooms	Special schools			special classes and integrated schools		
	Alpha	Harrar	Hosaena	Minilik	Mekane ssa	Remark
Clinic	X	-	X	X	X	
Vocational Training Room	X	X	X	-	-	
Audiologist classroom	X	-	X	-	-	
Speech Therapist Room	-	-	-	-	-	
Library	X	X	X	X	X	
Physical education Facilities ground)	X	X	X	X	X	
Class rooms	X	X	X	X	X	
Toilets	X	X	X	-	X	
Audio visual materials like TV and Video	X	X	X	-	X	

Key : X: Available

_ : Not found

Table 9 shows the availabilities of facility in the schools under discussion. Generally speaking Hosaena, Harrar , and Alpha special schools and Mekanissa integrated school had adequate facilities. Among these schools, Hosaena boarding school was exceptionally equipped. This fact coincided with what is given in the literature part of the paper regarding availability of facilities. In that part of the paper, it was reviewed that special schools are centers for material production beyond teaching students. Accordingly, it was found that the school produces many hearing and teaching aids. For example, the school produces some accessories of hearing aids in the school. This is done for two reasons. First, it is meant to support those children who do not have hearing aid. Secondly, the school checks if every year that hearing aid is still fitting to the growing child. Moreover the school is supporting regular schools in and around the town of Hosaena and other special schools as a resource and training center.

A remarkable difference is observed at the Minilik II School with special class unit for children with hearing impairment. This school does not have a single facility deliberated for teaching children with hearing impairment. The children in this school use the same facility other children use. For example, unlike what is observed in Hosaena, the clinic they have has no facility related to treating or follow up hearing situation of these children. The location and quality of the classes, sitting arrangement, light and air needed for the classes and many other things are not designed according to the need of children with hearing impairment.

The situation in the integrated school is similar to special schools. Mekanissa integrated school was established by oversea missionaries as special school for children with hearing impairment before it was transformed to admitting normally hearing children along with children with hearing impairment. In this school most of the facilities like the clinics and resource room did not consider hearing children. So most of the problems in this school is related to teachers' creativity to adapt and accommodate the need of the other children, normally hearing children.

Table 8b:- Technological Equipment and other Resources Available for Students with Hearing Impairment in the school types.

Classrooms	Special schools			Integrated and special classes		
	Alpha	Hosaena	Harrar	Minilik	Mekanissa	Remark
Resource rooms	X	X	X		X	
Group hearing aid	X	X	-	-	X	
Speech therapy	-	-		-	-	
Audiology system	X	X		-	-	
Video Text system	-			-		
Audio Gram	X	X		-		
Text Books	X	X	X	X	X	
Sign language books	X	X		-	X	
Special needs guide	X	X	X		X	
Special needs text books	-	X	-	-	-	
Class rooms	X	X	X	X	X	

Key:-

X : Available _ : Not found

The finding shows that the special boarding school has more technological equipments than the other schools. The school is not different only in number of the equipment but also with the quality of the materials. For example, the classrooms in Hosaena boarding school have single chairs which allow the teachers to be flexible in arranging in a way convenient to teaching. Moreover, all the children with hard of hearing are given hearing aid adjusted in the center. This is the only school with such facilities.

In all the other schools students are seated in a traditional seating conference type arrangement. Extreme situation can be observed in special class setting. In these classes they lacked even the minimum technological equipment needed. All they have are classes and textbooks. Facilities like hearing aid and special needs guide are not available at all. The special classes are cut far a way from the remaining classes where the facilities like toilets, clinic, water tap and likes really too far to the students. With regard to this point one of the teachers in this class indicated that it is not only the classes that is cut away, but also the block of buildings. The special classes put at this corner dose not seem a special class, but special school; as it is situated far away from the rest of classes and blocks. The students with hearing impairment have fewer opportunities to meet and play together with hearing children on recess. Most of the facilities like toilet or clinics are very far from the class and the unit. Teachers are also segregated from those teachers who are teaching hearing children. This may show that even the underlying philosophy for integration is not realized in this school.

In the teaching of children with hearing impairment another concern that should be considered are supportive professionals such as speech therapist, psychologist, audiologist, medical professionals and the nature of the supportive help they can offer. Because the availability of facilities with out professionals who work with them is meaning less. Table 10 shows the availability of supportive professionals in the schools.

Table:9- Availability of Supportive Professionals for Hearing Impaired Students at the Sample Schools

Classrooms	Special Schools			Special class and Integrated schools		Remark
	Alpha	Hosaena	Harrar	Mekanissa	Minilik	
Audiologist	X	X		X	-	
Speech therapist		-		-	-	
Medical Professional	X	X		X	-	
Audeology technician	X	X		X	-	
Social Worker	teaches	X	X	Teaches	-	
Inspector	X	X		X	X	
Iterant teachers	-	X		X	X	
Interpreters	teachers		teachers	teachers	teachers	
Sign Language teachers	X	X	X	X	X	
Music teacher	-	-		X	-	
Drawing and Art teacher	X	X	X	X	-	
Administrative Staff	X	X	X	X	X	

Key:-

X : Available

_ : Not available

As the hearing impaired students have special needs, the academic success of these students depends on the availability of the school facilities and supportive professionals. The effectiveness of education of children with special needs, thus, depends partly on the combined efforts of the teachers and supportive professionals.

The findings show that Hosaena, Mekanissa and Alpha special schools have better supportive professionals than Minilik special class unit and Harrar special schools. Hosaena special boarding school has all the supportive professionals needed except for speech therapist. On the other extreme, Minilik special class unit has only a first aid

health worker as a supportive professional. Even the effectiveness of this professional was limited by under equipment and that he is overloaded by the fact that he is expected to serve two schools.

4.1.6. English Comprehension of Students with Hearing Impairment:

Scores on comprehension test is one of the indicators of effectiveness of the education of children with hearing impairment in the different placement arrangements. An attempt was done to see variability on comprehension test among children in the different placements. The main purpose for administering the test was to see the effect of the schools' internal organization and the nature of the schools on their children's academic performance, and to compare and contrast the schools on more objective manner. Table 10 shows the scores of grade 8 students with hearing impairment at all the schools.

Table 10: T-Test

Group Statistics					
	CATEG	N	Mean	Std. Deviation	Std. Error Mean
COMP	Special school	14	50.71	12.69	3.39
	Special classes	14	32.14	13.69	3.66

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
COMP	Equal variances assumed	.371	.548	3.723	26	.001	18.57	4.99	8.32	28.82	
	Equal variances not assumed			3.723	25.852	.001	18.57	4.99	8.32	28.83	

Group Statistics					
	CATEG	N	Mean	Std. Deviation	Std. Error Mean
COMP	Special school	14	50.71	12.69	3.39
	Integrated school	15	32.67	14.86	3.84

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
COMP	Equal variances assumed	1.819	.189	3.504	27	.002	18.05	5.15	7.48	28.62	
	Equal variances not assumed			3.524	26.801	.002	18.05	5.12	7.54	28.56	

	CATEG	N	Mean	Std. Deviation	Std. Error Mean
COMP	Special; classes	14	32.14	13.69	3.66
	Integrated school	15	32.67	14.86	3.84

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
COMP	Equal variances assumed	2.560	.121	.099	27	.922	-.52	5.32	-11.44	10.39
	Equal variances not assumed			.099	26.997	.922	-.52	5.30	-11.40	10.36

As it was indicated on table 10a, 10b and 10c, the mean difference of comprehension test was given between the mean score of children from special school compared with the scores of children at special class and integrated school. Children with hearing impairment at the special class was also compared with those at integrated school. The mean and standard deviation of children at the special schools, special class unit and integrated school were (Mean of 50.71 with standard deviation of 12.69), (Mean of 32.14 with standard deviation of 13.86), and (Mean of 32.67 with standard deviation of 14.86), respectively. The t-test established for the group comparison between special schools and special class, between special school and integrated school and between special class and integrated school were 3.723, 3.504 and 0.99.

The findings showed that children with hearing impairment at special schools performed significantly better than both those who were placed at special class and integrated

school. On contrary, the comparison made between special class unit and integrated students did not show differences significantly.

4.2 Major Academic Problems of Children with Hearing Impairment as Perceived by Teachers and School Principals

Academic achievement is the reflection of several interrelated factors. The major academic problems mentioned during by teachers and principals revealed this fact. They mentioned several factors that affect education of children with hearing impairment. In all the schools the principals mentioned many problems that have direct or indirect impact on the academics of children with hearing impairment. Among these problems mentioned, the following are those listed in common in all the schools.

These are problems related to school management, lack of trained teaching staff, lack of budget for buying facilities, problem of the curriculum, and lack of teaching modified text books, problem of having large class size, problem of sign language as it is not well developed, transportation problem, and lack of follow-up from parents, lack of food, clothing and health problems. The priority given to the listed problems, however, varies from school to school.

An attempt was made to compare and contrast the major problems indicated in different schools. The problems mentioned by teachers and school principals have both similarity and differences. In Hosaena and Mekanissa special schools, the major problems of their schools were lack of modified text books and problem related to the curriculum, whereas transportation and lack of good governance were the two top problems mentioned at Harrar special schools and Minilik special classes. Of all the schools much of internal problems such as budget, training of teachers and supportive professionals, teaching materials and the likes are least problems in Hosaena special boarding school. In this school problems such as transportation, food and clothing are not a problem at all as the students are provided these by the school. Here the students also live and learn in the same compound. On contrary, these problems are among the top problems indicated at Minilik special class. Lack of budget, transportation problem, lack of trained teaching

staff and lack of supportive professionals are major problems in special class unit students among others.

Moreover, the school principals, except one, mentioned that most of the problems are directly or indirectly related to lack of concern from the bodies governing these schools. They stated that these problems have greater impact on the effectiveness of teaching and, consequently on the achievement of their students.

Problems Related to School Management and School Governing Bodies

A number of problems that are related to management and administration are indicated by the principals and teachers. The participants, mentioned administrative problems as the major problem of the schools. Lack of concern and impartiality to the hearing children are among the factors given greater consideration from the special classes and integrated school principals. They mentioned that the schools lack clear and strict follow up from the school governing bodies.

On the other hand teachers from special schools indicated the same problem as what principals did on school governance. Some of these teachers who have worked in these schools for a long time expressed their contest by stating that their schools are often forgotten by those who are governing the schools. They mentioned that the schools enjoyed good administration during the time when they were run by missionaries.

This is consistent with what was given in the literature part. In this part it was reviewed that most of special schools were established by missionaries, and after some years they were handed over to local churches and governments. Both churches and local governments, however, were not ready or did not have the capacity to manage these schools. So the schools were given to untrained administrators and governance. It was also observed that school principals are shouldering responsibilities beyond their ability and capacity. With respect to this, two principal stated the following,

Teachers are always stand by to leave the school. They stay in the school only until they secure another jobs or teaching in better schools. For this they do not only wait for some

thing to happen but work to have them. For example, they study other fields than to strengthen their special education on correspondence and extension programs. But replacing these teachers is not easy for us. They mentioned that such problem are unavoidable at their level. Some time it is serious when such things happen at the middle of the academic year. They also mentioned that the governing bodies do not act very quickly to replace these teachers. They mentioned that they themselves work under this condition and that yet they are taken responsible for poor achievement of their pupil at the end.

The major academic problems mentioned by the teachers are summarized as follows. In all the schools the teachers indicated about, low payment, too little arrangement for capacity building on special need education, problems related to sign language as it is not well developed to express concepts and new ideas to hearing impaired students, inadequacies of teaching materials like text books and other materials, lack of supportive professionals and unfriendly curriculum to teaching children with hearing impairment.

4.3 Major social problems of the hearing impaired as indicated by participants

Socialization and social adjustment is a time-taking process that entitles the interaction of the individual with his social environment. This achievement may differ from individuals to depending on many factors such as family type, age, sex, family background, society's life style in which these children live etc. In this regard children from low family status due to poverty and/or related factors may not achieve social adjustment or development at the same pace with others from better family conditions. This issue has been assessed in the current study so as to find out to what extent the support of the schools contributed to the success of the beneficiaries.

This is obtained through interviewing the student and parent participants to mention the social problems they encountered in the type of schools and community they live in. They were also asked to report on how they come to terms to problems such as the negative attitude of the community they live in and how this is related to their education.

In the course the students and parents mentioned several social problems. The major social problems of parents and children with hearing- impairment are indicated in Table 8 in their respective schools(below).

Problems mentioned	Social problems indicated by Students at their schools				
	Alpha	Hosanna	Harrar	Minilik	Mekanissa
Unequal chance of education to the hearing impaired	✓	X	✓	✓	X
Communication problem	✓	X	✓	✓	✓
Lack of knowledge and interest regarding sign language	✓	✓	✓	✓	✓
Lack of supportive laws and regulation to hearing impaired	✓	✓	✓	✓	✓
Child Abuse Rape	✓	✓	✓	✓	X
Theft (Robbery)	✓	✓	X	✓	X
Lack of support in education	✓	X	✓	✓	X
Problems of public transport	✓	X	✓	✓	✓
Negative attitude towards the hearing impaired	✓	X	✓	✓	X
Society's unawareness of education of the hearing impaired	✓	X	✓	✓	✓

Table 11:- Major Social Problems as indicated by teachers and principals in their respective schools

Key:

✓ Indicated

X Not indicated

Many points were stated by participants. The table, however indicated the most common social problems. One of these is lack of social protection. For example, the hearing – impaired are vulnerable to traffic accidents as the drivers do not know or ignorant about these children while crossing streets. Among the participants, for example, a father of one of student at Minilik special class stated the following: " The most dangerous thing we fear is traffic accident. I always come to school to collect my son even though he is 18 for fear of traffic accident. He said there are not enough signs to show either the car drivers

or these students." These children may be hurt by polices who do not understand their sensory deficit. Rape is another problem these students suffer. In all the cases parents also admitted that these problems are problems for the hearing, too. But they mentioned that the problems are more serious when accompanied by hearing loss.

The main factor attributed to social problem of these children being their limitation in communication and the negative attitude of the people toward the hearing impaired. Communication takes place between two or more people. In communicating with children with hearing impairment, however, people may have clear and real problem. Neither children with hearing impairment nor hearing people can communicate to one another in satisfactory level. As a result of this limitation in expressing what they feel, think, want, like or dislike children with hearing impairment isolate themselves due to negative attitude, communication gaps and discrimination. Regarding negative attitude, communication and discrimination problems the scope of the problem is given below.

1. Communication problems

The sample children with hearing impairment face such problems first at home. Family members may not understand what the child with hearing impairment want, feel, and tries to tell due to communication gap.

Children with hearing impairment also face a variety of problems at schools. At Harrar special school, for example, the main problem observed was that children come from different language background like Oromo, Amharic and Harrari. These students face tremendous problems in lip reading as the teacher articulates different language different from their own. Moreover, the limited sign words present barrier to communication between teachers and the students.

Problems in the community: Sign language is not common language in our community. As a result the community can not communicate with this language. That means the children are not communicating to the larger community as a whole or do not communicate adequately.

2. Discrimination:

Discrimination is treating people differently through prejudice. It can take many forms. Children with hearing impairment are subject to unfair treatment first at home and then at school and in the community. Children participants in all the schools reported that they are treated in unfair way at home, school and in the larger community.

3. Attitude: - Attitude is an opinion or general feeling about something. Attitude can also take many forms. It could be reflected in terms of body language or through conscious assertiveness. Peoples' attitude towards children with hearing-impairment is a serious problem to the well being of the social and education as well. All the participants pointed out the presence of negative attitude toward them in all the school and community they live in.

CHAPTER FIVE

5. DISCUSSIONS

As it was given in the earlier chapters, the purpose of this research is to compare program effectiveness for the education of children with hearing impairment at different placement arrangements. The study identified the underlying academic and social problems of the children in the schools. The study collected first hand information on internal organization of the schools through direct observation and questionnaire. Information was also collected on students' academic performance through comprehension test to complement the finding obtained through qualitative data collection. In this section, the findings will be analyzed in relation to the major research questions and the theoretical framework.

5.1. Major Academic Problems of Children with Hearing Impairment as Perceived by Participants

The schools in the research sites are different in many respects that ranges from differences in the philosophy they adopted to the difference in their entire organization. In deed one can generally approve that when a school develops something unique in its program.

Academic problems of children with hearing impairment is a function of setting specific such as home and school. In all the research sites, in Addis Ababa, Harrar and Hosaena, it was observed that students with hearing impairment differ in many ways. These difference includes difference in culture, language, and socio-cultural back grounds. These differences has also been observed among their teachers. The language and life experience of children at home and community are the most important factor for later language and academic achievement in schools. For example Weiss (1992) cited in Butler (1994), stated that children's academic success is affected by the fact that there is a mismatch between the language of the home and the language used at school, whether

that be due to hearing impairment, learning disability, or dialectical or cultural differences. Furthermore, Butler stated that the presence of other kinds of disabilities among children with hearing impairment couples their problem. According to first national study of children with hearing impairment from non-English speaking homes in early 1980's made in United States of America, 51% of these were thought to have additional handicapping conditions, including mental retardation, emotional or behavioral disorders, and specific learning disabilities.

In order to support children with hearing impairment better in their academics, their differences such as the one mentioned above should be identified. Contrary to this fact, except in Hosaena boarding school, students in the sample schools were not yet even distinguished according to the two broad categories: the hard of hearing and those profoundly deaf. At Hosaena boarding school, only those children who are profoundly hearing impaired are admitted in to the school. Those who are hard of hearing are supported by the school in the general regular schools with the help of hearing aid and other kinds of support given from this school. This could be possible because assessment of hearing loss and provision of hearing aid are organized within the school by the support of Mekane Yesus Church and donor organizations. Sadly, in all other schools, identifying children on the base of level of hearing deficit is not yet achieved or not wanted.

Generally speaking, placement in a special class, special school and inclusive setting should presupposes this fact. The assessment may also include children's experience at home and level of hearing loss, and the type of language used at home. Furthermore, Butler recommended that placement of children with hearing impairment in special class and in same class with hearing children should be decided in terms of degree of hearing loss as well as the child's ability to successfully engage in classroom conversation.

Doing this may need for two levels of teachers and other staff members effort. The teachers in inclusive setting should be able to make continues assessment in hearing loss and linguistic input of their children with hearing impairment. For example, the assessment may include the linguistic input of hearing children, since many normal -

hearing classmates may not adopt their language use to the level of children with hearing impairment in inclusive settings. Of course, teachers can do this when they have the facilities and the support of the professionals. However, in the present study it was observed that children with hearing impairment are admitted to the schools with out such assessment and identifications.

Secondly, the class room teachers' language type and level should be adjusted to the level of the students in the class room, as well. Because there are great variability among students with hearing impairment themselves. For example, children in the research sites are found different in terms of their level of hearing deficit and mother tang language. Some may come from deaf parents and others from normally hearing parents. According to Butler, (1994) those children with hearing impairment from hearing parents receive reduced exposure to linguistic rules because of the parent's tendency to modify their language to accommodate the child's language or because of problems inherent in normal hearing adults' attempt to sign and speak language simultaneously. Many other research work done else where also revealed that children with hearing impairment from deaf parents perform better on academics than those who come from hearing parents.

On the other hand children's performance on academics has also strong relationship with level of hearing loss. According to studies done elsewhere, children with hard of hearing perform better on academics than deaf children. So there is greater variability among children with hearing impairment. And a lot of problems arise from having different types of children in a single classroom.

Such a problem was observed in Mekanissa integrated school. In the school there are both children with hearing impairment and those with normal hearing, placed in the same class. Level of hearing loss and familial background of these children was not assessed an identified. So it is not difficult to understand the burden of teachers in this school. Broadly speaking teachers in this school may need to adjust their level of language to two broad different levels: to the level of hearing impaired on one hand and to the level of normally hearing children, on the other. Thus, it is not fair to expect teachers to accommodate their language further to the different types of children according to their

hearing loss and familial back ground. Such problem is further complicated by low or limited words that can be made using the existing sign language. This problem was mentioned by all teachers in the research sites. They mentioned that sign language is not yet well developed to express ideas and feelings adequately.

The main problem observed at Harrar special school might be similar to the above point in some ways. The teacher participants in this school reported that children at the school have tremendous problems with lip reading as the language used at home by parents and at school by teachers differ greatly. In this town and the surrounding areas four major languages are spoken. These are Oromo, Amharic, Harrari and Somali. So students come from these backgrounds. The teaches on the other hand uses Amharic and English along with sign language. So, those students who come from language background other than Amharic(a language that is used very often by teachers) are at risk of missing teachers' lip reading. In similar cases it was reported that many students with Somali language background has dropped out of the school because of the difficulty they had at that school.

Academic success of children with hearing impairment is also affected by other various but interrelated factors. As indicated by participants of this study the major academic problems such as poor school governance, lack of facilities and supportive professionals, poor teaching, unqualified principals, and the problem of curriculum are common ones. As these problems are very serious they need considerable attention.

Good governance is meant directive, shaping actions of bodies, with legal or semi-legal authority over schools. Good governance is one of the vital elements needed to lead schools of any kind. Absence of good management at both school and school boards may affect every aspect of a school. Particularly schools which strive to meet the special needs of children with disabilities require good governance or administration.

There are three distinct types of governing bodies observed among the five schools. These are Churches, Government educational office and the combination of government education office and Church. Mekanissa and Hosaena schools are governed by church

boards of which members are selected from the congregation. Alpha and Minilik schools are governed by district education office like any public and government schools. Harrar special school has a kind of joint administration between Harrari regional education office and the Emmanuel Baptist Church in Addis Ababa.

The participants in the sample school indicated that many academic problems of their schools have relationship with poor governance. They reported that the governing bodies lack basic know how which the position requires. According to the points put forward by the teachers and participants, board members are selected on the base of spiritual devotion than their educational level. So these people may lack the basic skills needed for dealing with the schools' day to day demands.

The problem of poor school governance may affect many areas such as budget allocation. This means the governing bodies either allocate inadequate budget for running the school due to shortage of budget or lack of knowledge. At Harrar special school, for example, one of the major problem indicated by participants was that the church which is governing the school could not allocate adequate budget for overall activities.

The consequences of this problem is tremendous. Included in these are inability to hire qualified teachers and arranging training for staff and so on. As a result, the teaching staff and the position of principal are filled with people who have little experience and educational level because the school could not compete on labor market for better teachers and other staff members. The same problems were indicated by school principals. Lack of budget indirectly affect the academic success of the students. It is no question that poor teaching, that results from less qualified teachers and lack of resource will affect educational achievement of students..

Other areas that might have been affected by poor governance are turnover rate of teachers and school principals, lack of basic materials and facilities needed in the school and supportive professionals. However, the magnitude of these problems vary from school to school.. Minilik special classes unit as it was given in the finding part is the most desperate one. In this school, the pupils plus teachers plus text books are all what is

required for teaching children in that unit. The school does not have a single material for aiding the teaching. The main factor being the combined effect of poor managerial capacity both at the governance and school levels. In this school principals are selected from among the teachers on the bases of either political stands or on the base of seniority than their knowledge and experience.

As a consequences of the above problems, parent participants in some of the research sites indicated that the teaching is also poor and not effective. Poor teaching may have direct relation with poor governance. UNESCO's monograph II on " Education for all" (1992) stated that poor teaching is a function of several things like low salaries, poor working conditions, insufficient career advancement opportunities, and/or weak support services. These problems have profound impact on the performance of teachers. In this cases even the most conscientious and capable teachers may lose their enthusiasm.

The nature and strength of the governing body at Hosaena special boarding school is extraordinary effective and different from the other schools. Here the school is governed by the central synod of Mekaneyesus church in Addis Ababa. However, the school principal has considerable autonomy to do several things including planning for the school budget, teachers and other staffs' capacity building programs like workshops and further training and purchasing materials needed in the school. This could be possible because the school itself generates considerable portion of their annual budget within the school itself.

Hosaena boarding school has not only effective governance at higher level, but also their level of executive is matched with highly educated school principals and teachers. Such school principal usually spends considerable of his/her time on matters related to academic performance than on less important matters. Because one of the main cause of poor academic achievements of students is poor managerial and administrative to lead schools(UNESCO, 1992).

The monograph further recommended that the responsibility of the school principals should be matched by their higher governing bodies. And that it is not fair to hold them

accountable for learning outcomes if they do not have administrative control over the determinants of learning. The success or failure of school manager, thus, needs to be assessed in terms of the particular school context, which may vary dramatically according to the school governing structure and the availability of adequate budget.

As it is indicated in the finding part, teachers educational level varies greatly. Their difference ranges from diploma with no further education on both special needs education and basic educational background to degree level with adequate special needs educations. Those teachers who can not sign use sign language interpreters to convey their idea to the students with hearing impairment. Nevertheless, this has two fold problems. On one part the communication channel between the students and the teachers will be longer, which has its own impact; and on the other hand the fact that these interpreters do not have adequate know how on the subject matter they interperate complicates the cognitive process in the head of the children.

Teachers training and education level should be given due consideration, if children with hearing impairment are to be educated adequately. According to Hallaham & Kauffman (1994), " ...to be an adequate teacher of children with hearing Impairment, one must have some knowledge of audiology (the science of hearing) and otology (the medical specialty of the Ear and its diseases), as well as of communication and teaching techniques. We are not suggesting that an educator of CWHI must also be developmental psychologist and otologist. But unless the educator of CWHI has the ability to communicate intelligently with professionals from those other disciplines, he/she will not be an effective teacher(p.20)

Another important element for effective teaching children with hearing impairment is the availability of teaching materials and facilities. The teachers need materials that meets the special needs of their pupil in classes. Visual materials like video, charts, maps are needed by teachers of children with hearing impairment. These materials aid the limited communication between the teacher and the students with hearing impairment. In some of the research sites, however, the minimum level of materials are not found.

In line with the above points about teaching materials, providing teaching materials in schools is considered as an important input for bettering schools in the new educational policy of Ethiopia. According to this manual published in the year 200/1, out of the three components given due attention, provision of sufficient educational materials and equipment is one. And yet lack of materials is one of the major problems in government schools like Minilik II primary school with special class for students with hearing impairment. However, in some schools the researcher could also understand some complaints from student participants that new equipments acquired like TV and Video, damped in stores and teachers' cafeteria for lack of any one's troubling to use them.

Lack of facilities affect teaching and consequently academic success. Lack of facilities that are reported by teacher participants is serious which need attention. Such complaints, as it was given in the last chapter, is common in all the schools except at Hosaena boarding school. In this school teachers are equipped almost with all the necessary materials needed for aiding their teaching. More over the presence of supportive professionals simplified the task of the teachers. The teachers here are only one member of the professional team working in the school.

This fact fits with what is given in the literature part about the special boarding schools. On the literature part it is reviewed that special boarding school has an advantage over other types of schools in that students' special needs for centralized services as physical and occupational therapy can be delivered in boarding special school more cost effectively and more manageably (Lewist & Dooriang,1987).

Another factor which has a key role in the academic success of children with hearing impairment is the curriculum. The first argument is the fact that the existing curriculum did not take the unique character and need of children with hearing impairment in to consideration during its formulation. This problem was also indicated by participants from all the five schools. Particularly, the teachers indicated that the existing curriculum can not serve these children. According to UNESCO (1987), the curriculum for children with disability should include ecological validity, normalization and instrumental validity.

Ecological validity refers to skills that are required in the environment in which the students live now and in which they will likely to live in the future. Normalization refers to a curriculum that include teaching of special needs that would help children with disability to live quality of life. Instrumental validity on the other hand, is meant to teaching functional skills.

Due to the reasons given above children with hearing impairment in all the schools are at great risk of failing in the national and regional examination. This fact is also confirmed by the very low scores on comprehension test. This finding is not the only one to come up with such conclusion. For example, Felekech's (2000) study on the academic and social problems of children with hearing impairment revealed that considerable number of children with hearing impairment could not join secondary level and higher institutions in the country. Butler (1994), on the base of study made in US, concluded that to be at risk for hearing loss is to be at risk for school failure due to unfair curriculum and teaching methodology. Many other studies disclosed that the curriculum followed in schools is unfriendly one for children with hearing impairment.

When we relate this to cognitive theory, a theory which places greater emphasis to the development of thinking prior to development in other areas, it is clear that the curriculum in use and methods used in many schools for children with hearing impairment are nonsense and not effective for the special needs of children with hearing impairment. The children are at risk of failing in academics. And they are failing. This is to say that the limitation of children with hearing impairment in variety or intensity of experience due to the nature of curriculum in many schools may be associated with greater need for guided experience in order for such persons to acquire more nearly "normal" abilities to apply their native intelligence in such tasks as learning and social adaptation than most methodologies used today (Butler, 1994). And this can only be done in special schools.

5.2. Major Social Problems of Children with Hearing Impairments

Regardless of differences in school placement arrangement, home and community they live in, children with hearing impairment present characteristics different from those of people who have normal hearing ability. Socialization and social adjustment is one of the major areas where these children are different from children with normal hearing.

Socialization in normally hearing children is a time taking process that entails the interaction of the children with hearing impairment with his/her social environment. For children with hearing impairment socialization takes the same way, but longer time. Socialization and social adjustment, however, vary from child to child among children with hearing impairment depending on a number of factors such as the age at which the child loss his/her hearing, the level of residual hearing, family background, and so on (Hallahan & Kauffman, 1991).

There are evidences from research works done elsewhere that social problems of CWHI arise not from the children and their hearing impairment, but from how those in the child's environment accept the disability. According to Hoemann & Birga, 1981 cited in Hallahan and Kaufman, it is not the impaired itself but how individuals in the Childs environment-particularly-parents-respond that largely determines weather the child shows behavioral problems. This issue has been assessed in the current study so as to find to what extent children with hearing impairment developed socially in their respective home, school, and community. Such study calls for careful observation to the home and school environments. So it was done through class observation and questioning the target children, their parents and teachers about social competence and their social problems.

In all the sample schools it was reported that there had not been adequate communication between the children and their parents in their early life. Furthermore, later communication and socialization in most of these children was also blocked by low education level from the parents', community they live in, lack of proper teaching and improper school systems to compensate what these children missed at home. As

consequences, children with hearing impairment lose considerable opportunities first at home and then in schools and the community they live in.

When we relate this situation with behaviorist theory that places greater emphasis on the influence of environment for the well being of children's development, particularly that of home one, the current situation of the target children need greater attention. Most of the target children come from home environment that can not be considered as responding in many ways. This means the influence of those at the home area can not be taken as important environment for the development of these children as long as it is not nurturing the children. This may also gives an answer for a question that asks why children in special class unit are performing less on socialization and academics compared to those in special boarding school.

Schools are generally considered as the next important environment where children as a whole are shaped and trained on social skills next to the home environment. However, the situations in schools where these children are attending are no different to that of their homes. This is because like in many homes, most of schools where children with hearing impairment are placed, except in Hiosaena, the role of teachers is highly limited by many factors such as the ones mentioned earlier in this chapter. That means children come to these schools after missing lots of important experiences which are bases for later emotional and intellectual developments.

According to the behaviorist theory, the environment particularly the home and school ones should be one which lays basis for later language development. And it is the language development that lays social and other developments in children. This point is also supported by other theories like cognitive theory. This theory suggests that cognitive development lays a base for language development which in turn paves a way for all other aspects of children's development. Yet cognitive development also needs proper stimulation as early as possible.

Another important area where child' social and emotional development is affected is the larger community. The influence of the larger community on social aspect of children

with hearing impairment is not an easy one. As it was indicated by the student participants in most of the schools discrimination, teasing at them and the problems of rape and theft are major problems of children with hearing impairment. As a result these children are cut off and live in relative isolation in any community (Loeb & Sarigiani, 1986; Cited in Hallaham & Kauffman, 1991). In this regard the major factor being lack of communication and interaction between the communities they live in and the children. These children like in most homes and schools, they have difficulties to express what they feel, think, and would like to do.

When these problems are seen in the light of the different school systems and underling philosophy, there we see lots of differences. The target children from special class unit reported that most of the members of the community they live in are not responsive for the type and unique character of their mode of communication. The children in Hosaena boarding school, however, reported that they are fine with the community they live in. This thing may need further study. They stated that they attend the same churches, most of them are protestant churches, with the community. They also stated that they lead the church ceremonies with the help of interpreters. They also mentioned that they show drama at different places, have foot ball and other kinds of games with other schools in the town and the likes. This kind of interaction was not found in other research areas.

Based on the present findings as well as others (e.g., Bernstein, 1971; Dunn, 1976; Hess, 1970; cited in Butler, 1994) attention be given to the education or socio economic level of the families in order to plan and design proper and early intervention programs at both home and school environments. Parents should be educated. Because families with low educational level are more at risk than families with higher education level. For example, a study made in United states indicated that 90% of the mothers of children with poorly adapted children to socialization were classified as having mothers who are classified as poorly educated, whereas only 10% of the children in the poorly adapted group had been assessed as having educated mothers.

In the present study children in Hosaena boarding school did not indicate any problem related to their placement arrangement. This fact may show that children with hearing

impairment benefit more from such environment than other kinds. This conclusion may be inconsistent with other findings such as Felekeche's. Felekech (2000) stated that special schools for children with hearing impairment have an advantage over boarding schools as it is less segregating children as the pupils remain in the school only for the day time. This could, however, be true only if the home and school environments were responding one.

Such generalization is not an isolated finding with such conclusion. There are also other studies which came up with similar finding. One of these findings is the work of Hallahan & Kauffman(1991). Their finding indicated that many deaf people opposed other kind of placement arrangement like integration or inclusion with normally hearing children due to the difficulty they had in inclusive and special class settings. They stated that children with hearing impairment who were placed in the general classrooms and special class units found few friends outside of the classes and resource rooms. They can not communicate with hearing children: children with hearing impairment can not hear them, they can not speak. The hearing children can not sign. Children with hearing impairment go to such schools from widely scattered areas, and the likelihood of any of any two living in the same neighborhood is almost none. After school, they rush home and lead solitary lives.

Any attempt to integrate children with disability in inclusive school system or in to the larger community as a whole prerequisites the readiness of the citizenry to accept these children in their institutions. Although adequate literature on the type of intervention undertaken in the country is not available, some research works from other countries revealed that community adjustment can be done in two ways: first by adjusting the community to accept the community survival like children with hearing impairment and, secondly, by adjusting the survival themselves to the community situation. "One of the keys to being able to live in the community is ensuring that the citizenry is prepared to accept persons with disability (Hallahan & Kauffman, 1991:p110). So far what has been done in inclusive and special class unit seems that the children with hearing impairment are forced to accept the community situation.

According to Hallaham & Kauffman, this is not only half way, but also dangerous for the children. Because this forces the children to accept that they are inferior being. Rather the children should be taught in situation conducive for their learning needs and integrated in to the community in many other ways. Because a school is not an isolated entity rather is one component of the many institutes exist in a given society. With respect to this idea parents and teachers at Hosaena boarding school indicated that the school has been maintaining relations to other communities social institutions like churches and other members of the community in many ways. The school's oudology center ,for example, has been serving the community members in diagnosing, measuring, and prescribing treatment in relation to diseases of ears. In many other respects the school has been the center of influence in favor of children with hearing impairment.

Hosaena boarding school is found effective in caring out its main objective as a school. This can be understood from the fact that all the beneficiaries expressed that educational and additional support given to the children are relevant to their needs. Particularly, the children in this school indicated that they are thankful for being accepted in all respects of social life. For instance, they mentioned that they are happy that they are brought up in the value of Christianity beyond the education they are given. Contrary to this fact, children in the other research sights reported that they are discriminated in many ways.

Discrimination takes many forms. The problems reported in these schools includes discrimination in the schools, in the community, and discrimination by government.

Discrimination in the school Discrimination in the school may still happen in many forms. And the type of discrimination that takes place also varies from one school to the other. Children in the special class unit, for example, reported that they are discriminated by teachers. They specifically stated that teachers and school administrators tend to give more time for the normally hearing children than the time they give for them. This is any how what the children in this school felt. Similar problem was reported by children with hearing impairment in the integrated setting.

Discrimination in community use. A number of such problems were reported by children with hearing impairment. Lack of sign language ability in many civil services like in bars, Banks, clinics, with bus ticket sellers, are major problems that limited the use of their participation in community use.

Discrimination by Government. Most teachers and parents indicated that students with hearing impairment are deprived of the right which other children with other kind of disability got. For example, Children with visual impairment are exempted from taking courses that are difficult according to their impairment. However, children with hearing impairment are expected to perform on tests such as Amharic and English as a compulsory courses for college eligibility. Yet these children have a language that has different structure from these languages. This is perfect discrimination.

In this respect children with hearing impairment are not only discriminated. But their right is also violated. The new educational policy of the country grants many packages to support the education of the disadvantaged groups such as children with HI. One of these is compensatory packages for the disadvantaged groups. Concerning these packages, Article 3.9.4. of the education and training policy states: Special assistance will be given to those who have been deprived of educational opportunities. And yet it is fact that this children are still discriminated in many respects.

5.3 Attitude of, Parents, Teachers and Principals, and the Community

5.3.1 Parents

The attitude of teachers, parents and the community members is one of the determining factors for achieving social skills. Tirusew (2005) stated that the attitude of the parents or caregivers in regard to later social development in children is great. He stated that the nature of early experience in the formative or critical years plays a vital role in the individual's subsequent social development. This point was also supported by the work of G.Butler (1994). His research work revealed the presence of strong relation between the mother's attitude and children's social and emotional development. He studied on how the

attitude of the parents particularly that of mothers' affect infants at age of 24 weeks before children develops words to see the impact of facial expression against wordings. He conclude that the facial expression of mothers to their infants have great impact on their emotional development. This means the attitude of the mother that is expressed through facial may have either negative or positive outcomes depending on the feeling that is shown on her faces. On the other hand there are a number of factors that affect the emotion of the mothers that shape and guide the type of facial expression she shows.

When we apply this condition for mothers and their children with hearing impairment, as facial expression is one of the major communication methods , mother's negative attitude that is expressed through this means have considerable impact on the emotional development of these children. This was also indicated in the present study. For example, parents reported that they often use distancing as a means of punishing their children with hearing impairment for wrong doings. Most mother participants in the research sites reported that their children suffer most when they are punished this way, when distanced by family members particularly the mother.

Negative attitude of parents can take many other forms, too. For example, many parents indicated that they do not expect their children to reach certain level in their education. As a consequences they may not attempt to help or encourage their children with hearing children in their academics. Yet, these children, on the other side, may see that parents support their other children in the same home. This may be taken as perfect discrimination. All these problems arise from the negative attitude of the parents.

5.3.2 Principals

As any other social organizations, schools need effective leadership to achieve the educational goals. Principals are leaders at school level who influences teachers and all those who are engaged in educational activities to be cooperative and active participants in order to enhance the teaching learning process. The principal as an instructional leader has to facilitate conditions for instruction. To do so, he needs to promote two things in particular, efficiency and harmony. By efficiency it means clear planning, smooth

running, adequate communication and obvious achievement of certain goals. By harmony it means good working relationships, sense of belonging of fulfillment.

Yet, most of these performance depends on the education level of principals. This means those who are well educated will have positive attitude for the education of their children and the opposite is true for those who are less educated.

5.3.3 Teachers

The attitude of teachers in all the research sites is found to be positively different and better compared to that of the parents and other community members. The teachers in the research sites indicated that children with hearing impairment are educable in all aspects of personality development. Nevertheless, the teachers in all the sites indicated that these children need intensive support in their education and other kinds of trainings. For this to happen all those in the child's environment should change significantly.

At Hosanna boarding school children live and learn in the same compound. This enabled them to have a mini community that is qualitatively different to the larger community outside the school. When we compare the home situation of children at this boarding school to that of other target children, one can easily generalize that these children live and learn in a community that are accepting, loving, and interacting.

5.3.4 Community

On the other hand in the present and other studies like Felekech's (2000) it appeared that common social attitude toward children with hearing impairment in Ethiopia is one of mixed pity and shame of over protection and rejection. Such kind of attitude is common at home and in the community. Hence, it has long lasting consequences on the emotional and social development of the children.

5.4 The effectiveness of the different placement arrangements

The main objective of any school is educating children academically. Therefore, any school which is meant to educating children must focus on the academic achievement of the children as the major outcome. This, however, does not mean that other skills are not needed. But it is simply to say that priority should be given to the student's academic performance than any thing else. Therefore educators who are involved in educating children with disability should concentrate on finding desirable school arrangements that would encourage academic competence of children with hearing impairment.

However the finding of this study revealed that children in the special schools are better supported academically. Teachers and school principals from all the schools indicated that children in boarding school are given quality education compared with those in special classes and in inclusive setting.

On the other hand, teaching in special classes and integrated setting are not effective as the schools are not well organized and equipped by the major determinants of effective teaching like the well educated teachers, necessary resources and supportive professionals. According to the existing documents about the results of grade 8 regional examinations, most of students in the special classes could not pass the exams. Looking for alternative strategy for those children in special classes is very essential as one cannot expect that they will perform in the future if their problems is not tackled.

The score on comprehension test shows this fact. The finding on the test revealed that the academic performance of children in the inclusive setting and special class units is not found to be better than those in special boarding and special schools. This finding is consistent with one of reports made on inclusive education in Ethiopia. According to MOE special education strategy report (2005), inclusive schools so far could not be effective due to problems at the education system and management levels. This means there were low achievement, repetition, and very high dropout in the schools. **As it was**

CHAPTER SIX

6. CONCLUSIONS AND RECOMMENDATION

CONCLUSIONS

Systematic education of children with hearing impairment has been existing in Ethiopia for decades. The education offered during this long years had positive impact on the lives of people with hearing impairment and national development as a whole.

The findings of this study is presented under three areas of attention with due emphasis on the statement of the problems. These are investigating the major factors that affect the education of children with hearing impairment in the different placement arrangements, investigating the impacts of the attitude of parents, teachers and principals on the education of children with hearing impairment, and evaluating the effectiveness of the schools under discussion. Based on the review of the literature and the out comes, the following conclusions were drawn

The majority of the sample students, teachers and parents justified the existence of varying academics and social problems of children with hearing impairment that also vary among the children in both home and school environments.

A. Homes of children with hearing impairment: There is abuse or neglect, severe deprivation for primary nurturing environment at homes of young children with hearing impairment. Children with hearing impairment in the sample schools come from such homes. The main reason being negative attitude of parents toward their children with hearing impairment, discrimination due to lack of proper communication and lack of knowledge about the cause and proper interventions. Children at the special schools, particularly at Hosaena boarding school, however, live in a better nurturing environment. These children live with staff that communicates and responds to the unique communication character of the children.

B. Schools of children with hearing impairment: The schools are the second very important environment for the development of children next to home. However, many of

these schools where these children are attending were not found to give what children with hearing impairment missed in their primary nurturing environment. The educational support given to children with hearing impairment is limited by various underlying problems such as lack of poor assessment, identification and implementation of educational programs. The sample schools lacked basic determinants of education like text books, trained teachers, principals, facilities and supportive professionals.

The problems, however, differ from school to school. Special schools are well organized to full fill their responsibility of educating children with hearing impairment compared to special class unit and integrated schools. Their teaching is more guided than the teaching delivered in special classes and integrated schools. The Hosaena special boarding school for instance, give intensive support to the children in the school. Their internal organization enabled them conduct proper and periodic assessment, identification and support to their children in the center. This condition minimized the impact of the home situation on the education and social skill of their students with hearing impairment.

The major problems of special class unit include poor school governance, poor teaching, and poor parental support. The children in this school come from families that are not able to foster the development of their children with hearing impairment. Yet the school lacked proper identification, assessment and program implementation. Due to all these problems the education and social development of children in this unit is highly limited. The special needs of these children are not met. Consequently, the unit did not seem to attain its basic objective.

The problem in the integrated setting is not different from the reality of the special class unit. Teachers are not in a position to accommodate the broad difference between children with normal hearing and those with hearing impairment being taught in the same classroom. Their problem is further complicated by the variability among the children with hearing impairment themselves. The level of the students' hearing deficit and other valuable information on the children were not obtained. The education of these children in this school is limited by the above fact.

The researcher understood the presence of negative attitude from parents and other community members to affect the education of children with hearing impairment. This attitude is manifested in many ways. For example, parents do not expect much from the education of their children. As a consequence they do not tend to support their children in their academics and other aspects of their life. Thus, the negative attitude of the parents and that of the community is limiting the children from reaching their maximum potential.

Teachers have positive attitude toward the education of their students with hearing impairment. They are putting their effort to educating their students with best possible ways. However, they are helpless until their school situation improves. Teachers and school principals are not being supported by school governing bodies. Their material and spiritual needs are not met. Their schools are not equipped even with the minimum necessary teaching aids which would simplify their great task of educating their students with hearing impairment. The nature of the curriculum is also another problem which limited the effectiveness of the schools.

The academic performance of children at the integrated and special class unit was very low. There are high dropout and lack of proper teaching in the schools. Children in the integration school system were not found actually integrated with their peers with out hearing impairment both in the schools and in the community. If there is any integration in these schools that is only physical integration.

More specifically, the education of the children at special class unit and the integrated schools were not found effective. Effectiveness in these schools is hampered by many factors like lack of teaching facilities, supportive professionals and effective school administrators. On the contrary, special schools, particularly the boarding school, was found effective. Children from this school performed significantly higher on academics and, better integrated in the community they live.

Recommendations

The major determinant of educational and social problem of children with hearing impairment is communication problem. The education and social development of children with hearing impairment require the collaboration of all concerned bodies involved in the education system as a whole. Included in this are parents, teachers and other community members. Moreover, donor organizations those which support people with disabilities and their associations need to put their effort together to better the future of children with hearing impairment. More specifically, government, non governmental organizations and Churches should work hand in hand to improve the education of these children. The following are further recommendations for parents, governmental, Non-governmental organizations, Churches and donor organizations.

For Parents

Parents of children with hearing impairment those who want to have their children educated need to have opportunity to choose an ideal school type. As it is given in the conclusion part the effectiveness of the schools differ greatly. So, on the base of the findings of this study special schools particularly the boarding one is the best alternative for the education and social skill of their children. Moreover, parents should form association to support and contribute to the education and right of their children than entrusting the fate of their children to be determined by others.

For government

Since the introduction of new educational policy in Ethiopia a massive increase has occurred in access to education. Yet, many children with disabilities are not well served by these schools. thus, the potential development effects of education are being threatened by the growing ineffectiveness of primary education in many schools. Poor primary schools often have poorly prepared products. The most visible consequences of poor quality education are low primary completion rates and low student achievements.

Given both the impoverished conditions and the severe resource constraints facing government schools like Minilik II special class unit , it is critical to concentrate resources on interventions that improve learning. The finding of this study, thus, suggests investing in the curriculum improvement, learning materials, instructional time, classroom teaching and improving school administration that would help a lot in overcoming much of today's problems. Until these things are achieved, the ministry of education may need to:

1. Conduct continuous evaluation of education programs being implemented for children with hearing impairment.
 2. Take into consideration that including children with disability is not appropriate for all students but that it must be provided to the maximum extent appropriate. And take the result of this study and the SALAMANCA proclamation made about placement of children with hearing impairment. According to this proclamation reviewed by Alemayehu (2003), educational policies should take account of individual differences and situations. The importance of sign language as a medium of communication among the deaf necessitates the education of children with hearing impairment in special schools.
 3. Ministry of education should try to fulfill the material and spiritual needs of the teachers to enable them fully fill their responsibilities of educating children with hearing impairment in the regular schools.
2. Inclusion of children with hearing impairment in the regular schools should be gradual and presupposes the technical and material readiness of schools.
 3. School district administrators must consider the degree to which students with disability particularly those with hearing impairment are integrated into the general educational environment so far.

5. Including children with profound hearing (deaf) loss in the same class with hearing children in government schools should be revised.

6. Government should equip its schools with the necessary materials and well trained teaching staff and supportive professionals along with assigning well trained school principals.

7. There should be an effort from government to raise awareness among the general population about disability particularly to combat discrimination and its consequences.

8. Any decision for placement and program development should involve teachers and parents instead of rushing in to implementing new educational philosophy.

9. The existing curriculum should be restructured in order to include the unique need of children with hearing impairment.

For churches

Churches which are governing special schools have been doing a wonderful job in the area of educating children with disabilities. Nevertheless, they need to restructure themselves in order to better their efforts. The following recommendations are drawn for churches which are administering these schools:

1. Churches need to allocate adequate budget for their schools.
2. They should be able to assign school principals on the base of qualification.
3. Board members should be those who are able to support the school principals and teachers.

For donor organizations

Donor organizations have been playing great role in educating children those who were deprived education. Their support has been extended in terms of material and technical

supports. For example, CBM (Christoffel Blinden Mission) is an international Christian organization which has been supporting Harar and Hosaena special boarding schools through allocating direct budget for the schools and arranging capacity building programs for teaching staffs.

The school beneficiaries expressed their gratitude for the organization. Nevertheless, the out come of this and other studies revealed that there is a need to work more on community empowerment through raising awareness about disability and early interventions than focusing only on schools. For example, their effort should be extended to control other factors through community empowerment. They may also need to allocate budget for teaching the general population on sign language through Radio, TV and News Papers to enhance an environment that foster full integration of children with hearing impairment.

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7. If you are trained in sign language

a. for how long was your training? _____

b. Where did you take the training? _____

c. How long since you had such training? _____

Part II. Educational follow up

Factors that are related to the students' educational problems as well as classroom behaviors are given below.

2.1. How is the class activity of children with hearing impairment? Do they attend class seriously?

a. Yes

b. No

2.2. Do hearing-impaired students ask questions that related to the topic of the daily lesson when it is not clear to them?

a. Yes

b. No

c. Any other (please specify)

2.3. Do you have any method to motivate the hearing-impaired students to attend their lesson actively?

a. Yes

b. No

c. Any other

2.4 If your answer to question 2.3 is yes, would you please point out some of your methods? _____

2.5. What are the main problems that are related to presenting your lesson to hearing-impaired

students? _____

2.6. Do your students with hearing impairment have text books in subject you teach?

- a. Yes
- b. No
- c. Any other

2.6. If your answer is No to question 2.6, how do you teach them with out books?

2.7. Do you have teaching aids in your subject area ?

- a. Yes
- b. No
- c. Any other (please specify)

2.8. If your answer to question 2.7 is Yes, how do you teach the subject with out these materials? _____

2.8. If your answer to question 1.1.11 is yes, why text books and teachers guide are not available _____ to _____ you?

2.9. Do you know any child with hearing impairment who drop out of school due to lack of parental or care givers support etc.?

- a. Yes
- b. No
- c. Any other(please specify)

2.10. If your answer to question 2.9 is yes, please point out the reasons and the number of children who faced such a drop out?

2.11. Do you give class work or home work to your students from time to time?

a. Yes

b. No

c. Any other(please specify)

2.12. Do children with hearing impairment get support at home when they do their homework?

a. Yes

b. No

c. Any other (please specify) _____

2.13. What is the major problem of the school as a whole?

2.14. How is the test result of your children with hearing impairment?

a. Very good

b. Good

c. Fair

d. Poor

2.15. How do you communicate with hearing-impaired students in the class room?

a, Sign language

b, Lip reading

c, Total communication

d, Any Other (please specify)

2.16 How do you explain that both hearing impaired and hearing children learn the same curriculum?

2.17. Both children with or with out hearing impairment are thought the same text book. What is your comment on using the same text books to both hearing and hearing-impaired students?

2.18. Do you have any training in special needs education other than sign language training?

- a. Yes
- b. No
- c. Any other (please specify)

2.19. If you are trained in special needs education please state the kind of training and its duration.

Appendix B.

Questionnaire for school principals

I would thank you for the willingness to respond to my questions. I am going to ask you some very personal questions. The information you give me will be very confidential. Your name will not be written on this form, and will never be used in connection with information you gave me. The main objective of this Questionnaire is to investigate the major academic and social problems peculiar to this school. So please take active participation in responding to the questions.

I. Respondents Background characteristics

(For Principals)

1. Age _____

2. Sex _____

3. Are you currently in school

1. Yes 2. No

4. What is your level of education?

1, _____ (grade)

2, Illiterate

3, Read and write

5, Religions

1, Orthodox

2, Protestant

3, Muslim

4, Others

6, Do you know sign language?

a. Yes

b. No

7. If you are trained in sign language

a. For a how long was your training? _____

- b. Where did you take the training? _____
c. Where did you get the training? _____

Part II. Educational follow up

Factors that are related to the students' educational problems as well as teachers performance.

2.1. How is the class activity of children with hearing impairment? Do they attend class seriously?

- c. Yes
d. No

2.2. Do hearing- impaired students ask for materials like books?

- d. Yes
e. No
f. Any other (please specify)

2.3. Do you have any method to motivate the teachers to teach effectively?

- d. Yes
e. No
f. Any other

2.4 If your answer to question 2.3 is yes, Would you please point out some of your methods? _____

2.5. What are the main problems that are related to the education of children with hearment? _____

2.6. Do your teachers have the educational level to teach children with hearing impairment in grade 8 level?

- d. Yes
- e. No
- f. Any other

2.6. If your answer is No to question 2.6 how do they teach with?

2.7. Does the school has teaching aids adequately?

- d. Yes
- e. No
- f. Any other (please specify)

2.8. If your answer to question 2.7 is No, how do the teachers teach their subject with out these materials? _____

2.8. If your answer to question 2.7 is yes, where did your school get these materials?

2.9. Do you know any child with hearing impairment who drop out of school due to lack of parental, care givers support etc.?

- a. Yes
- b. No
- c. Any other(please specify)

2.10. If your answer to question 2.9 is yes, please point out the reasons and the number of children who faced such a drop out?

2.11. Do you teach on a subject yourself?

- a. Yes
- b. No
- c. Any other (please specify)

2.12. If your answer to question 2.11 is yes, do children with hearing impairment get support at home when they do their homework?

- a. Yes
- b. No
- c. Any other (please specify) _____

2.13. What is the major problem of the school as a whole?

2.14. How is the performance of your former grade 8 students on the regional exams?

- a. Very good
- b. Good
- c. Fair
- d. Poor

2.15. How do you communicate with hearing-impaired students in and/or out of class room?

- a, Sign language
- b, Lip reading
- c, Total communication
- d, Any Other (please specify)

2.16 How do you explain that both hearing impaired and hearing children learn the same curriculum?

2.17. Both children with and with out hearing impairment are thought the same text book. What is your comment on using the same text books to both hearing and hearing-impaired students?

2.18. Do you have any training in special needs education other than sign language training?

- a. Yes
- b. No
- c. Any other (please specify)

2.19. If you are trained in special needs education please state the kind of training and its duration.

Appendix- C

Table 6a: Scores on comprehension test at special schools

Special schools	students by case	Total (%)
I. Harrar		Comprehension
	C1	60
	C2	40
	C3	30
II. Hosaena	C4	70
	C5	50
	C6	60
	C7	40
	C8	60
	C9	60
	C10	60
III. Alpha	C11	30
	C12	40
	C13	50
	C14	60
Total		

Special class	Students by Cases	Total(%)
Minilik		Comprehension
	C15	30
	C16	30
	C17	30
	C18	40
	C19	10
	C20	20
	C21	30
	C22	30
	C23	20
	C24	30
	C25	30
	C26	40
	C27	40
	C28	70
Total	14	

Table 6b: Scores of HI students at special classes

Students	X T1	Y T2	X ²	Y ²	Xy
1	4	6	16	36	24
2	6	8	36	64	48
3	8	6	64	36	48
4	2	4	4	16	8
5	5	5	25	25	25
6	10	10	100	100	100
7	2	2	4	4	4
8	5	6	25	36	30
9	8	8	64	64	64
10	<u>10</u>	<u>14</u>	<u>100</u>	<u>196</u>	<u>140</u>
	Ex = 60	Ey 69	Ex²438	Ey²=577	E_{xy} = 491

$$N E_{xy} - (EX) (Ey)$$

$$\frac{10(491) - (60)(69)}{\sqrt{[10(438) - 3600][10(577) - (4761)]}}$$

$$= \frac{4910 - 4140}{\sqrt{4380 - 3600}(5770 - 4761)}$$

$$= \frac{770}{\sqrt{780}(1009)}$$

$$= \frac{770}{887}$$

$$= 0.86$$

$$= \frac{11310}{\sqrt{(780)(1009)}}$$

$$= 770$$

$$\sqrt{787020}$$

$$\frac{770}{887}$$

$$887$$

$$\underline{\underline{r_{xy} = 0.86}}$$

- _____ 2. What was Abebe's time at the Olympic Marathon in Rome?
a, 2 hrs 70min b, 2 hrs 17min
c, 2 hrs 71min d, 2 hrs 7 min
- _____ 3. What was Basil Health's time at the Tokyo Olympics?
a. 2 hrs 17 min b. 2 hrs 13 min
c. 2 hrs 16 min d. 2 hrs 10 min
- _____ 4. Why was Abebe a special athlete?
a. Because he was the first talented athlete to do a series of rigorous exercises
b. For he was the first athlete to represent Ethiopia for the first time in Olympic.
c. Because he was the first athlete to win two Olympics marathon one after the other
d. Because he was the first African athlete to take part on Olympics.
- _____ 5. How did Abebe win all his competitors?
a. He won them because he was an Ethiopian.
b. He could win them by exercising for a period of 3 weeks
c. By discouraging up all the competitors of his time
d. By doing a series of rigorous exercise.
- _____ 6. Did Abebe win for the third time?
a. Yes, he did b. The story is not given
- _____ 7. Why did Abebe stop running?
a. He stopped running due to a leg injure.
b. To hand-over his position to Mamo Wolde.
c. Because he was much interested in other sports than athletics.
d. Simply because he wanted to change his career.
- _____ 8. What could the title of the passage be?
a. A famous Ethiopian athlete b. Basil Healthy
c. Mamo Wolde d. H. Gebra Silassie

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Interview guide for parents and their grade eight children with hearing impairment
(guide questions for Parents)

- 1, What do you think the future of your child?
- 2, What do you expect from the education of your child?
- 3, How do you communicate with your child with hearing impairment?
- 4, What kind of educational support do you give to your child?
- 5, Do you feel that much that your child is hearing impaired?
- 6, Do your child involve very often in family discussion?
- 7, Do your child involve in the community affairs?
- 8, How do you punish or reward your child when they do wrong or do good?
- 9, What is your income and how does that affect the well being of your child's education?
- 10, What is the major problem of your child

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Interview guide for parents and their grade eight children with hearing impairment
(guide questions for children with hearing impairment)

- 1, Do you have friends in your locality or at school?
- 2, Who is your friend? Hearing or hearing impaired? or you have from both?
- 3, To which religion (belief) do you belong?
- 4, How do you communicate with your parents and siblings?
- 5, How is the attitude of the community you live in?
- 6, How do you cop with the negative attitude of your parents, teachers and the community?
- 7, What is your major problem in persuading your education?
- 8,

Declaration

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

Name: Tezera Shitaye Gebre

Signature: -----

Date: March, 2007

Place: Addis Ababa University

This thesis has been submitted for examination with my approval as a University advisor

Signature: -----

Dr. Daniel Desta
March, 2007

Addis Ababa, Ethiopia