## Communication Experiences of Pre- lingual Deaf Students in the Special Classes

## Alemayehu Teklemariam

Abstract: This study attempted to explore, describe and explain the communication experiences of pre-lingual deaf students in Adama Primary School, Special Classes for Hearing Impaired. Qualitative study design was used to investigate and explore the communicative interactions, from four sampled deaf students' perspectives and their two teachers, in a natural context. The empirical data is based mainly on interviews with the participants. Participant observation, informal talks and focus group discussions were used as supplement and complement to the interview method. The findings of this study show that the deaf students had no early intervention due to lack of provisions and supports for their parents, teachers and the deaf students themselves. They had no appropriate natural early language exposure. Hence, these deaf students communicate poorly and are seriously deprived in their verbal language communication. As a result of their poor verbal communication, their linguistic, cognitive, emotional and social development may be deprived and they may not obtain the same quality of life in comparison with their hearing peers.

#### Introduction

This study focuses on communication experiences of pre-lingual deaf students at Adama Primary School, Special Classes, at Nazareth. The research was initiated because of communication problems and difficulties the researcher observed while working as a teacher and curriculum adapter for children with hearing impairments. From his observations, the communication experiences of deaf children in many deaf schools in Ethiopia seemed to be iconic and deictic (pointing movements denoting or specifying the spatial location of a concrete object or event) and would not help them much in effective intrapersonal and interpersonal communication.

Senior Expert, Special Needs Education, ICDR (MOE)

Besides the researcher's overview, there were concerned groups of people commenting on the communication difficulties of deaf children. Some local studies also indicate the difficulties deaf children are facing in their communication with hearing people (for example, Bogale, 1991; and Ababa Hagos, 1996). International researches (Davis and Silverman, 1978; Evans, 1982; Nolan and similar findings regarding 1983) also revealed communication difficulties of deaf children. First of all, many deaf people in Ethiopia blame teachers for their poor communication skills in sign language. They believe that their low academic achievements resulted from their teachers' poor competence in communication and lack of commitment in teaching. Teachers working in deaf schools on their side blame the education system and the deaf children. They complain about the education system for the rudimentary nature of the training it provides them with, the lack of motivation and lack of promises for professional developments. They blame deaf students for their poor speech and written language skills. Furthermore, parents criticise the teachers and the system for not providing them with support to help them to communicate with their deaf children (Alemayehu, 1995, 1996). All parties describe the difficulties they face in relation to the education of the deaf.

In addition to this, the communication difficulties of deaf students in the school system and in other settings were always on the agenda of the Ethiopian National Association of the Deaf (ENAD) when dealing with concerned Governmental and Non Governmental bodies, but no progress was made. Experts in the area also attempted to reduce the communication difficulties of the deaf students, teachers and parents by suggesting theoretical and practical solutions, adapted from the experiences of other countries, usually developed countries. For example, some experts advocated Total Communication as the best communication method in teaching deaf children, which may not be relevant to the local situation. The allegations, criticisms and complaints by students, teachers, and parents could have some grounds, but might not explain the

problems in depth. To come up with descriptive and explanatory ideas, research should be applied, because research, as pointed out by Robson (1993), is an objective, systematic, empirical, and cumulative process by which we seek to solve theoretical and applied problems. Therefore, the main aim of this study is to generate information that will increase our understanding and identify the communication experiences of deaf students in the school environment, specifically in Adama Primary School, Special Classes for Hearing Impaired, Nazareth.

#### Review of Literature

Communication and Language Development of Deaf Children

The acquisition of language requires fluent communicative interaction between children and a mature language user. To carry out such communicative interaction, there is a need for intact sensory mechanisms to transmit linguistic information to the brain. In most children, this linguistic intake is transmitted through the auditory channel, and is processed by a central mechanism, the auditory cortex (McAnaly et al., 1994). But for pre- lingual deaf children, those who lost their hearing at birth or before the acquisition of verbal language (spoken language, sign language and written language), the linguistic intake cannot be through the auditory channel, but through the visual channel instead. Despite the use of amplification, the linguistic intake of deaf children remains impoverished and incomplete (Grewel, 1963; Liberman, 1974; McAnally, et. al., 1994). This is because children learn the language they hear or see around them. The presence of a hearing loss means that the child's intake of spoken language may not reach the minimum level required for the child to acquire the spoken language comfortably. Particularly, as indicated by Nolan and Tucker (1983), for deaf children with a severe to profound hearing loss, experiencing enough language to activate their natural language acquisition can be a problem if parents are hearing.

Deaf children of deaf parents, who are born into signing families, find themselves in a less problematic situation with respect to the natural processes of language acquisition than those where there is a mismatch of hearing status. However, the greater majority of deaf infants are born into a hearing family (90% in the USA), and the input is insufficient to allow for the acquisition of either a sign or a spoken language (Johnson et. al. 1989; Strong, 1995). This means, for a deaf child born into a hearing family, effective communication may not be present in the child's home environment, except the exposure to inaccessible speech. If the hearing families continue to use only speech as their primary means of communication, deaf children may lack opportunities for spontaneous language development (Gunilla, 1983). By the time the hearing problems are identified and intervention occurs, it is often too late to optimise their early language acquisition. As indicated by Densham (1995), the sooner early intervention is available, the sooner the deaf child can begin to develop the concepts and skills of signing signals.

There is substantial evidence that the capacity to learn a first language including sign language is most readily available during the first few years of a child's life (Linneberg, 1967). Sign language, as defined by the World Federation of the Deaf (WFD), is a visual gestural language, involving the use of hands, eyes, mouth, head and body, which is a language in its own right, with its own grammar and vocabulary (WFD, 1993). It is linguistically accepted as a fully developed first language of the deaf and can be acquired naturally through exposure to the language and through instructions provided in the school settings (Alemayehu, 2000).

But, as indicated above, many deaf children fail to acquire sign or speech language. Due to this, the communication between deaf children and the hearing family is often limited (Densham, 1995). This deprivation of language can aggravate some secondary disabilities such as poor cognitive, social and emotional developments. Many researchers have revealed that the conceptual ability of deaf

individuals is deficient because of their deficient language. For example, Moors (1996) pointed out that language either determines thought or greatly influences the manner in which an individual perceives and organises his or her environment. Unless deaf children have access to early and extensive exposure to appropriate language models (e.g. sign language) linguistic deficiency and cognitive deficiencies can occur. According to Vygotsky (1962), the early speech of a child becomes internalised as inner speech, and inner speech is the equivalent of cognitive thought. A cognitive deficiency in deaf children is, therefore, due to the learning and linguistic environment. In contrast, some research findings indicate that those who acquired sign language during early childhood showed much more consistent grammar and a richer command of the complex structure of the language than did those who acquired it later. Thus, the sooner that contact between deaf children and competent adult signers begins, the more complete and competent those children's ultimate command of the language will be (Johnson, et. al. 1989).

Approaches to Communication in the Education of Deaf children

There are continuous debates among scholars and practitioners who follow the three different approaches: Oralism, Total Communication (TC) and Bilingualism. Oralists believe that speech is accessible to deaf children and that language is best acquired through the spoken word; advocates of TC judge that a significant number of deaf children need the support of signs if they are to develop verbal language; bilingualists assert the right of deaf children to have sign language as a first language and as a means of acquiring social identity. Each of the three approaches will be discussed below.

The Auditory-Oral Approach

The ideological basis of the oral approach is that verbal communication, particularly spoken communication, is the predominant means of social exchange and therefore constitutes the

target. For the Oralist, the goal of speech for deaf people is morally justified on the grounds of individual freedom, independence and equality of opportunity. Evidence from the past, however, suggests that out of the group generally described as profoundly deaf, few or none were able to achieve the goal of verbal language and fluent spoken communication. Deaf young people typically left school with poor educational qualifications, poor command of the structure of verbal language with a very restricted vocabulary and with speech that was unintelligible (Babbidge, 1965; Conard, 1979).

Oralists attribute what they believe to be evidence of the success of the auditory-oral approach, as currently practised, to developments in technology; in knowledge and in services for hearing-impaired children and their families. These developments, earlier diagnosis, fitting of hearing aids, improved availability of technologically advanced hearing aids, it can be argued, have enabled severely and profoundly deaf children to make better use of their residual hearing since the 1980s (Moors, 1996). Attempts in the special schools for the deaf, in the past, to teach deaf children vocabulary and structure of language have been observed to lead to stilted, artificial and restricted language input, thus effectively denying the children exposure to their language potential (Van Uden, 1977; Ivimey, 1981; Bishop and Mogford, 1988; Gallaway and Woll, 1994)).

It is generally believed that deaf children in the past, unable to use oral language for 'real' communication, typically would use sign amongst themselves and therefore were not reinforcing and developing verbal language (Clark, 1989). Nowadays, Oralists themselves argue that providing a conducive environment for the successful development of spoken language in a profoundly deaf child is difficult, but not more difficult than providing the conditions necessary for language development using any of the available alternative approaches. As suggested by Lynas, (1994), at present, Oralism, in its own terms, still has failures, albeit a few, and Oralists cannot, as yet, offer a satisfactory solution to this problem.

#### Total Communication

The claims made on behalf of Total Communication (TC) suggest that the TC approach does offer a solution to the problem of "oral failure." The aim of TC is to make use of the deaf child's residual hearing through hearing aids but also to reinforce speech through the visual medium of signs and any other communication methods that work (Tamirat, 2002). According to the author, this can include sign, writing, mime, speech, picture, and many borrowing techniques from a variety of communication methods. Signs are totally accessible to the deaf child but speech is always heard imperfectly, even with the help of a hearing aid. So, sign should play a part in the education of the deaf. Following on from Conard's belief that most profoundly deaf children are too deaf to perceive adequately many of the features of speech through their hearing (1979), those advocating TC argue that deaf children should have the supplement of signs and any nonverbal communication to accompany speech. With signs representing the symbols of verbal language, they maintain deaf children can have access to "total" linguistic information, in contrast to speech, which gives only "partial" linguistic information (Denton, 1976). TC is thus believed to avoid failure experienced by some deaf children in acquiring verbal language and also to accelerate verbal language acquisition in all deaf children.

Large scale surveys of educational attainments undertaken in the USA, involving thousands of deaf children and young people, indicate that educated young people are leaving school with poor reading skills, very poor speech and poor command of the structures and vocabulary of verbal language (Allen, 1986). Total Communication, at least as currently practised, can therefore be said to have failed in its own terms: it has been unsuccessful in delivering verbal language to deaf children. The observations and conclusions drawn from the research showed some problems with both the principles and the practice of TC, including the impossibility, in practice, of speaking oral language at the normal rate and signing at the same time, oral

speech in sign form taking about twice as long to articulate as it does in the spoken form (Baker, 1979); the distortions to both the signed and spoken components of simultaneous communication, speech is slowed down and signs are deleted (Johnson et al, 1989).

Furthermore, the task for a hearing person attempting to speak and sign simultaneously appears to be psychologically and physically overwhelming. Under such difficult conditions, one or both parts of the signal will deteriorate. A hearing person will typically begin to audit the speech portion of the signal and will allow the sign signal to deteriorate either by omitting signs randomly or by deleting those signs that do not fit the rhythmic pattern of oral speech. At the same time, the spoken signal is typically slowed down and altered phonologically and is often characterised by excessive halting, hesitation, repetition or other delaying tactics. In general, the less the speech signal is altered, the more the signed signal will be unintelligible (Jonson, et al, 1989), whilst TC is supposed to make use of all modalities, and offer "total" linguistic information, it would seem that up to now it falls very far short of that goal.

## Bilingualism

Bilingualism challenges the terms of reference of both Oralism and Total Communication. Bilingualism believes it is morally wrong to offer deaf children oral language as a first language. It is argued that natural sign languages have been analysed by linguists and judged to be "proper" languages with the same capacity as any verbal language for the expression of ideas (Sacks, 1989). Bilingualists say deaf children have the right to "their own language," i.e., sign language used by deaf people within their own community. Bilingualists believe that access to "the natural language of the deaf" is the birthright of all deaf children. According to bilingualists, sign language users are free from disability. With sign language children can develop a distinct Deaf identity of which they can be proud. Educators have sought to impose their hearing- speaking culture on

deaf children and have disabled them (Merill, 1981). The deaf individual, even if orally competent, can never be equal in situations where speech is the medium of exchange: he or she is always at a disadvantage when struggling to understand and produce speech.

With sign language, however, the deaf individual can communicate as effectively as anyone else. Sign language, it is argued, is uniquely suited to the abilities of the deaf individual and it is only by offering sign language as a first language that the young deaf child can acquire language without delay (Bouvet, 1990). To try to make deaf children speak, as the primary mode of communication, is a violation of their rights to their own language and culture. No longer, say bilingualists, should a socially oppressive hearing society impose its norms on the deaf as a minority group (Mottez, 1990). Bilingualists support the goal of oral language, at least in the written form, but they believe that oral language should be taught as a second language and only when sign language as a first language has been acquired. It is claimed that sign language is established when the child's "common underlying proficiency" can be used as a means of acquiring verbal language (Cummins, 1984; Pickersgill, 1990). Since sign language is to be the deaf child's "mother-tongue," bilingualists emphasise that information and education should be offered primarily through sign rather than oral language (Johnson et al, 1989)

## Methods and Procedures of the Study

Research Design

The intention of this study was to collect empirical data specific to the communication experiences of pre-lingual deaf students. In order to meet this purpose, a qualitative study design was employed to investigate a contemporary phenomenon within its real life context of the deaf students, in which multiple sources of evidence were used (Yin, 1994; Gall et al, 1996). The research was conducted through an

intense and/or prolonged contact (six months) with the deaf children and their teachers.

## Sampling

The sampling procedure for this study was purposive sampling. Both deaf students and teachers were purposefully sampled. This study was concerned only with four pre-lingual deaf students of Adama primary school in the special classes for hearing impaired. The deaf participants were purposefully selected after several school visits, observations, document consultation, and discussions with teachers and parents. Audiometric tests were also conducted in order to identify the deaf from the hard of hearing. This was very important to confirm the deafness and to predict their capacity to acquire speech language. Those sampled were deaf students attending upper primary (5-8), pre-lingually deaf (deafness before two years or before acquisition of speech language) and those who possessed better expression skills in sign or other communication methods. Two language (Amharic and English) teachers from the deaf unit were also purposefully selected to serve as a source of data. The two teachers were selected because they were directly engaged with language teaching activities and because they had 'rudimentary' training in deaf education and signed Amharic.

#### Instruments

To obtain adequate information for the study, a multiple-method (triangulation) approach was used. These multiple methods included interviews, observations, focus group discussions and informal talks. The semi-structured interviews were the main data collection instruments. Observations, informal talks and focus group discussions were supplementary data collection methods.

## Semi-structured Interviews

The interviews with the four deaf students were conducted at school, using semi structured interview guides. School sign and home based sign communication methods were used during the interviews with sampled deaf students. Mostly mothers and sometimes fathers or siblings living with deaf participants were used to interpret the interview questions using home signs. The teachers were also used as interpreters for the interviews conducted at school settings. Deaf students were interviewed using school signs and lip movements and sometimes, written languages. All the interviews conducted in sign were recorded by video camera. The interviews that were done in vocal language with teachers were collected by tape-recordings.

Focus group discussions wars also conducted with

#### Observation

Key themes for observation had been developed prior to fieldwork, during the pilot study and during the course of study. To probe deeply, and confirm information obtained from interviewing the deaf students, and the teachers, intensive observation was conducted of the deaf students' interaction with teachers and peer groups at school. Intensive observations were also conducted during language classes and outside the classroom during the breaks. The observations were mainly focussed on the four sampled pre-lingual deaf students' communication behaviour with different people in different settings. The observed information was collected using note taking and video recording. Furthermore, observation checklists of ten categories, on modes of communication were prepared and used. The checklist was helpful to control the frequency of the mode of communication and the degree of understandings, which were analysed and presented in words.

#### Informal Method

The informal talks with teachers were very important for complementing the main method and providing additional interviews and observation guides during data collection processes. The informal talks with deaf children were carried out in sign during the breaks and on the way home, after school. With the teachers, there were frequent and extensive informal talks before and after classes, on the way home and during lunchtime. Informal talks with deaf children were carried out in sign about different affairs to explore their communication modes. Relevant and important information was recorded in the logbook prepared for this purpose.

## Focus Group Discussion

Focus group discussions were also conducted with the deaf students and the teachers separately at the end of data gathering processes. For deaf children, the focus was on general communication difficulties, such as the support they got and sought. For teachers the focus of discussion was mainly on language teaching practice and on the resolutions to improve the situation currently faced by the participants. The aim was to strengthen the findings obtained from informants through the other methods conducted in this study. The themes of the discussions were also to probe the language difficulties of the deaf children.

# Procedures in Organising and Analysing Qualitative Data

Since qualitative study is a relatively new approach in special needs education, at least in Ethiopia, the procedures in organising and analysing the data needs to be further elaborated. The collection of data was organised, handled and processed in an interactive way between different activities and processes. Miles and Huberman's (1994) interactive model was adapted and used in the process of

collecting, organising and analysing the data. This included transcription and translation, categorising, data reduction, data display, conclusion drawing and verification.

The interviews conducted with teachers in the Amharic language were transcribed from the recorded tape as stated by respondents and then translated into English. The data gathered from deaf students by sign were also transcribed in Amharic written form as interpreted by family members and the teachers, and then translated into English. The researcher's experience in school sign was also used in interpreting and confirming the sign based interview with the deaf students under study. Later on, a deaf adult highly skilled in sign language was used in reinterpreting the data to reconfirm the sign interpretation of the teachers and family members. The transcription and translation were carried out all the time, immediately after data were collected and before the next data collection day. Then information collected through multiple methods from multiple participants was categorised, reduced. displayed, verified and analysed in words.

The data reduction, data display and verification as interwoven before, during and after data collection in parallel form, make up the general domain called analysis (Patton, 1990; Miles and Huberman, 1994; Mertons and McLaughlin, 1995). This was very important for the fieldwork cycle back and forth between thinking about the existing data and generating strategy for collecting new, often better data. This had energised the process of field work (Judd et al 1991; Yin, 1994; Tesch, 1990). Finally, the analysed data was systematically reorganised and presented. Due to space all the data are not displayed and described in this article. Only the summary of the main findings are condensed, clustered and abstracted, precisely and clearly presented and discussed in the following part.

#### Results and and Discussion

Early Communication Experiences of Deaf Students

The teachers were asked about the communication and educational experiences of deaf students before they joined the school. Both teachers indicated that the use of home sign was the only

communication experience the sampled deaf students brought to the school. They stated that the deaf children didn't attend any preschooling and there were no early interventions to enhance the communication of deaf students. Only one deaf sample attended regular school for three years, and then joined the special class without any significant change either academically or in communication skills.

Lack of early intervention programs at home together with the lack of pre-schools makes it more difficult for deaf children to establish functional communication and language. This is not only specific to this school. As some researches have indicated, the communication approach in education for deaf children in Ethiopia is not as advanced as it should be. One of these pieces of research shows that many deaf children in Ethiopia lag substantially behind their hearing age contemporaries in their verbal communication and in all measures of academic achievement. For example, Alemayehu (1996) found that deaf students' achievements in upper primary school were markedly depressed in all academic areas.

Early intervention in communication and helping deaf children access well to develop sign language in education programs for deaf children are not yet a real part of habilitation and rehabilitation programs in Ethiopia. Deaf students in this study were admitted to special classes for the deaf at the age of 9, 11(two of them), and 16, with only limited home sign and non-verbal communication skills. In addition, since they had not been in a pre-school program for the deaf, their 'sign language' acquisition was absent during the early childhood period the best period for optimum language acquisition (Strong, 1995). Thus, when these deaf children entered primary school, they were already well behind children with normal hearing, or deaf children who had an early opportunity of being exposed to sign language and linguistic proficiency which enhances their factual knowledge about the world and their social skills.

# Language and Communication Experiences of Deaf Students

Joining special classes with deprived language, deaf students in this study faced a way of communication that differed from home sign. Communication at school was based on the Amharic sign system, which was designed as a medium of instruction as part of Total Communication philosophy. In the Total Communication, the interaction of participant teachers with the deaf students in this study found to be ambiguous. Speech was dominant over the sign. Very fragmented signs supported the speech. One of the teachers criticised the simultaneous way of communication, because it was ambiguous to sign and produce speech at the same time:

Simultaneous use of sign and speech are neither equally produced nor perceived. It is easier to produce speech for teachers, but production of signs is with tension, lagging behind speech and it is time consuming. I believe that deaf children are more supported by sign rather than by speech reading. From my experiences deaf children can develop better understanding in sign in comparison to any other approaches. It is difficult to observe two or more movements located in different parts of the body. It is difficult, too, to associate both movements. Deaf children like to focus more on hand movements than speech reading, which is less visible.

It is difficult to perceive signals simultaneously from lips, hands, face and body movements, because they are located in different parts of the body. Besides, the understanding of simultaneous communication requires a very good command of the languages being spoken and the signs used on the parts of the communicators. Since the grammar of the speech language and sign language are quite different, simultaneous usage makes the communication unclear. As suggested by Ritva (1996), in teaching situations, the teacher should use spoken language and sign language separately in order to make the

children aware of the differences in the usage and function of the two languages.

Based on the Total Communication method, the deaf students in this study were exposed to three different spoken languages with two different systems of writing. Amharic, the official language of the country, has its own unique written forms called 'Geez' and 'Saba' or Ethiopic letters, while Oromifa, the language of the Oromia regional state, and English are written in Latin letters.

From the interviews with teachers and deaf students, it was discovered that sign language - considered to be the first language of the deaf - was not given either as a subject or medium of instruction. First of all, it was not included in the curriculum and there was no period assigned for it. Secondly, all family members and teachers were hearing; there were no trained teachers in sign language, and deaf adults were not given an opportunity to be employed as teachers for the deaf. Only rudimentary training for hearing teachers was given in signed Amharic. Thirdly, a lack of well organised local or national sign language dictionaries and teaching materials aggravated to the problems.

As a result, the communication and language development of deaf children remained impoverished and incomplete. As already argued, a simultaneous communication and multilingual teaching approach for deaf students (who do not possess their own language) cannot guarantee establishing common understanding with their teachers. Deaf students without their own language may not be successfully taught to enable them to have effective linguistic development of the second language. Poor intrapersonal capacities (motivation, initiation and creativity for communication, linguistic perception and reasoning), make deaf children communicate poorly in the learning and teaching process.

# Experiences of Classroom Instruction

According to the findings of this study, the main ways teachers communicated in classroom instruction were speech and written communication, seldom signing. 'Oral speech', reading and writing were the main mode of classroom instruction used by the teachers.

Having rudimentary training in a sign system (signed Amharic), teachers were forced to teach in an oral dominated approach, which is not totally perceptible by deaf students through their auditory or visual channels, except some bilabials which may be observed through sight. It is obvious that due to severe and profound auditory disorders, deaf children cannot hear teachers' speech and text readings. As a result of invisible features of many sounds and teachers' manner of speech, their lip reading perception was limited. Because of limited vocabulary, understanding the written message of the teachers was also limited. Written communication cannot help for immediate interaction. Thus, the intake of verbal language around the deaf students might not have reached the threshold levels for acquiring either spoken or sign language to an adequate level.

Whenever teachers used finger spelling, students understood well but only when the words used were familiar to them. Though teachers indicated that they used 'Total Communication,' their mode of communication did not contain many elements of 'Total Communication', like finger spelling, cued speech, mime and gestures, which might help the deaf in understanding. On the other hand, as supported by many research findings, a bilingual approach (sign language and speech in a written form) usually gives a better understanding of presented curriculum, and it also helps deaf children to develop their linguistic system because the currently used communication methods, signed Amharic or Total Communication are not the natural languages of the deaf (Jonson et al, 1989; Sacks, 1989; Bouvet, 1990). Very current research (Tamirat, 200) confirmed that the use of Total Communication in the teaching learning process in three deaf schools of Addis Ababa seem to be not fully addressing the communication need and can not help to solve linguistic difficulties of the deaf children.

From the researcher's observation in the course of data collection, it was repeatedly confirmed that while teachers used speech very frequently, deaf students used to sign in the classroom instructional

interaction to express their thoughts. However, unless objects were referred to, teachers had difficulty in understanding the signs of the deaf students. The participant deaf students used to mouth, fingerspell, mime and use written messages to communicate by modifying to the teachers' needs. Among these, teachers seem to understand better some of these modes of communication mentioned above except mouthing and finger spelling of deaf students.

In teaching and learning processes, the most successful mutual understanding in this study was established only when objects were referred to by some non-linguistic communication such as mime and gesture. Communication in reference to objects, mime and body language are only for the concrete and for here and now messages. But education deals also with the past, present and future in both abstract and concrete forms, without limitation in space and time. To establish effective communication, verbal language, such as sign language should be developed for deaf students because, as underlined by Emmeret and Donaghy, (1981); McLean and McLean (1999), language has a power of abstraction and reasoning which is not possible in non-verbal communication.

Observations in this study showed that communication in verbal language was largely one way, i.e., teachers used speech which students failed to understand probably due to severe auditory dysfunction; and students' use of 'sign' was not successfully understood by the teacher. Due to these barriers, the classroom context lacked spontaneous communication. Lack of understanding, and misunderstanding were very common due to the use of only non-verbal communication, because, as suggested by Bench (1992), effective human communication relies heavily on verbal language. Lacking verbal language, the instructional communication between teachers and deaf students were neither efficient nor effective as one of the teachers participant of this study said:

It is not easy to communicate in general and abstract concepts in particular. The current sign language dictionary consists of very limited numbers of signs, only about a thousand, of which many signs may not be relevant to the primary curriculum. As the grade level increases, the number and complexities of vocabulary increases.

Communication in education should aim to establish common understandings. Due to the absence of early intervention, lack of language models both at school and at home, and due to poorly trained teachers in sign, it was impossible to achieve this aim. Except the use of non-verbal signals, the verbal language (speech, sign language and written) communication was very deprived for education which facilitates the acquisition of knowledge for abstract thinking. The deaf students did not understand many words, phrases, sentences and messages in classroom interaction. One of the teacher informants in this study further gave the following reason why deaf children were poor in communication:

We are not competent enough in sign communication skills. Lacking such skills on the part of the teachers, expecting deaf children to become competent is difficult and unthinkable. Since we lacked competence, the children got minimum skills from us. So, the education we are providing for deaf children is not adequate and effective. They are very-very poor academically. They express their opinion in fragmented ways. They are weak in understanding concepts in discourse and contexts. Totally the situations are undesirable.

These teachers seemed to face challenges in defining and maintaining a linguistic environment that could foster language acquisition as well as to become an effective vehicle for curriculum delivery. With only non-verbal communication skills, it is difficult to develop common understanding in abstract forms and follow discourses and contexts of communication in learning. As stressed by

Emmeret and Donaghy (1981), the dependence only on non-verbal communication (which included the use of gestures, tone of voice, facial expressions, head or other bodily movements, posture, eye behaviour, spatial position, bodily contact, and body orientation), could not help bind to another time, past and future. We use non-verbal communication to help regulate our verbal interactions. We also use it to communicate attitudes, emotions, and personality. Unlike verbal communication, non-verbal communication often operates at a lower level of abstraction. It is only verbal language (speech, written or sign language) that allows us to bind ourselves to the past and to the future and to develop a high level of abstract ideas and concepts (Emmeret and Donaghy 1981; and Lyans, 1994).

Another weakness in the development of communication skill is that deaf children easily forget. This was stated by one of the teacher informants: What they acquired yesterday is easily forgotten today. Always we are revising-revising. They are forgetting most often. Missing information is the most observable behaviour in most deaf children. Due to these psychological and communication difficulties, it is extremely difficult to teach concepts for communication developments in story telling, as one of the teachers stated:

Since much story telling is in abstract forms, it is mostly impossible to narrate the past events without demonstration of real objects or some models. We cannot teach through story telling as we naturally and spontaneously do for hearing children in terms of methods, time and space.

Verbal language deprivation and a great dependence only on non-verbal communication, make ambiguous the narrating of the past and understanding of abstract concepts. Deaf children in this study could not maximise their communication skills, in spite of their being close to adulthood. Communication in verbal language is not so natural as it is for hearing children. This is reflected in the teaching and learning

process. Due to their deprived language, the deaf students cannot understand concepts as hearing children of their age do in the given period of time. One of the two teacher informants expressed his understanding of the situation as follows: A chapter that requires a period for hearing children may need more than a triple period for the deaf. Therefore, we cannot cover the syllabus as intended. Generally, the major barriers in enhancing mutual understanding in educational activities were found to be ambiguity in discussing abstract concepts, and using tenses in signed Amharic, English and Oromipha languages. The general situation seems to be not conducive to learning both the subject matter and the language itself. A research in Zimbabwe (Chiswanda, 1997) revealed that early sign language exposure, starting at birth, should be accessible to deaf infants through appropriate supports to parents and sibling, and gradually to teachers in the school system, for effective language acquisition of deaf children.

#### Conclusions

The following three strands of information, updated theory, observations, statements from the deaf children and their teachers form the basis of the drawing of some more general statements or conclusions. From this research the relatively intensive and extensive observations and personal experiences of the informants and the researcher, some of the factors contributing for deaf children's poor communicative and linguistic development are documented beyond coincidence. However, there are several factors contributing to such poor communication and language development and its implications. To explore these factors deeper, another more extensive research should be conducted.

A main factor is that neither the deaf children nor their parents have had early intervention. Neither national nor regional concerned bodies launched programs for disseminating information for parents and society, sign language training, and provisions of guidance and

counselling services for parents and their deaf children in Ethiopia. Ethiopian education policy is general for all children with special needs. Sign language, as a medium of instruction and learning for deaf children, has not yet been officially recognised, and given due attention. The special needs of deaf people should be taken into consideration to help them achieve a similar standard of life qualities as the general population. However there are government directives and policies (TGE, 1991; TGE, 1994) on minority language for working and educational purposes but they do not indicate whether sign language is included. Sign language has not gained recognition and the communication approach in teaching and learning of deaf children has not yet been defined along with the national and international trends. Despite tremendous efforts in Ethiopia, there are needs to develop or adapt and modernise the school curriculum in accordance with individual deaf learner's need. The current curriculum implementation seems inflexible for deaf children. Education for all can only be equally good for everybody if based on a curriculum adapted to different needs. Pupils with hearing losses seem to be discriminated against in this respect.

A hearing child normally acquires language in the very first years of life on condition that he/she is exposed to a language and can perceive it. Language in turn, is an important means of establishing and solidifying social and personal ties between the child and his/her parents. Deaf children should be able to communicate with their parents by means of a natural language as soon, and as fully, as possible. Acceptance of sign language leads to an early development of early sign language acquisition and sign language training for those involved. If this is missed, deaf children may be deprived of language and related skills. The deprivation of language and communication results in deaf children lagging radically behind the normal development in socio-emotional, cognitive and linguistic maturities or functions. The result is a reduced quality of life and reduced possibilities to manage a free adult life as ordinary citizens,

because, as quoted by Wilson in Denmark, all tragedies are failure of communication" (Wilson quoted in Denmark, 1994:1).

Today available knowledge clearly shows that deaf children are born with the capacity and desire to learn and use a language and be a part of their surrounding culture. The first language of deaf children is natural sign language. Deaf children who are daily exposed to the sign language from an early age learn natural sign languages through normal language acquisition processes. This acquisition of a natural sign language should begin as early as possible in order to take the advantage of critical period effects (Strong, 1995). The earlier a child learns a first language, the better opportunity he/she will have to learn about the world and the more prepared he/she will be (both linguistically and culturally) for learning the curriculum content of an educational program. Furthermore, early sign language exposure can enhance later academic and linguistic achievement of deaf children. Therefore, early sign language acquisition is necessary, if we want the deaf to realise their potential. Some of the following practical measures must be taken in Ethiopia to provide appropriate supports to deaf children that help to realise their potential:

• The deaf children at early stage should not spend their time with a language that is not easily accessible to them in the vocal-auditory modality. It is necessary for a certain attitude to be present and special measures to be taken in the parents, as well as in the society at large, in order to ensure the deaf child's earlier exposure to the more accessible, visually based language, i.e., sign language. This must start at birth and extend to pre-schools, primary schools and so on with appropriate support for family members, teachers and peers. Otherwise, being deprived of developments, deaf people may remain dependent for their living on others.

- Deaf people as minority community and sign language as a minority language must be recognized. The status of sign language must be insured in policies and laws, equal to other local languages.
- Research institutions like IER and ICDR must plan with relevant educational and social institutions and conduct research that help sign language dictionary preparation and the development of sign language in Ethiopia.
- Sign language curriculum must be developed for all level of school system to allow deaf children to effectively learn their language and learn other subjects through it. Sign language must be the language of instruction from primary to tertiary level for deaf people.
- Deaf educators must be privileged to teach deaf children with appropriate training in teaching profession. Hearing teachers assigned to teach deaf children must be also efficiently trained in sign language, unlike the present rudimentary and unsatisfactory training.

As a final comment, let me refer to the immortal Confucius, 551-479 BC quoted in Rubin 1985:9:

When Confucius was asked what he would do if he had the responsibility for administering a country, he said that he would improve language. If language is not correct, he stated, then what is said is not what is meant; if what is said is not what is meant, then what ought to be done remains undone; if this remains undone, morals and arts would deteriorate; if morals and arts deteriorate, justice will go astray; if justice goes astray, the people will stand about in helpless confusion.

#### References

- Ababa Hagos. (1996). Academic Barriers of the Hearing- Impaired Students: Masters Thesis. University of Joensuu, Finland.
- Alemayehu Teklemariam. (1995). Trends and Prospects of Educational Provision For Hearing Impaired Children in Addis Ababa Schools. Bachelor Thesis, Addis Ababa University.
- \_\_\_\_\_ (1996). The Situation of Education of Hearing Impaired Children in the Six School of Ethiopia. A Research Report, University of Joensuu, Finland.
- \_\_\_\_\_ (2000). Sign Language: Basic Concepts and its Structure. In Educational Journal, MOE, 4, 10, 44-70. Addis Ababa: Chamber Printing House
- Allen, Thomas E. (1986). Patterns of academic Achievement Among Hearing Impaired Students: 1974-1983. In Arthur N. Shildorth and Michael A. Karchmer (eds.), Deaf Children in America. San Diego: College-Hill Press.
- Babbidge,H. (1965). A Report on the Education of the Deaf. Washington. D.C.:
  Government Printing office
- Baker, H. (1979). How Does "sim-com" fit into a Bilingual Approach to Education? In Proceeding of the Second National Symposium on Sign Language Research and Teaching. Silver Spring MD: National Association of the Deaf.
- Bench, John R. (1992). Communication Skills in Hearing-Impaired Children. London: Whurr Publishers.

- Bishop, J. and Mogoford, K (1988). Language Development in Exceptional Circumstances. London: Churchill Livingston.
- Bouvet, Danielle (1990). The Path to Language: Bilingual Education for Deaf Children Cleveden: Multilingual Matters.
- Chiswanda, Maria (1997). Hearing Mothers and Their Deaf Children in Zimbabwe: Mediated Learning Experiences. University of Oslo. Unpublished Doctorial Dissertation.
- Clark, M., (1989). Language Through Living for Hearing -Impaired Children. London: Hodder and Stoughton.
- Conard, R. (1979). The Deaf School Child. London: Harper and Row.
- Cimmins, Jim. (1984). Bilingualism and special Education. Issues in Assessment and Pedagogy. Cleverdon: Multilingual Matters.
- Davis, H. and Silverman, S.R. (1978). Hearing and Deafness. New York: Holt, Rirehart and Winston.
- Denmark, John (1994). Deafness and Mental Health. London: Jessica Kingsley Publishers.
- Densham, Jenifer (1995). Deafness, Children and the Family. England: Arena
- Denton, D. M. (1976). The philosophy of Total Communication. Carlisle: British Deaf Association.
- Emmert, Philip and Donaghy, William C. (1981). Human Communication: Elements and Contexts. New York: Random House.
- Evans, Lionel (1982). Total Communication. Washington D.C.: Gallaudet College Press.
- Gallaway, C and WOLL, b (1994). Interaction and Childhood Deafness. Cambridge: Cambridge University Press.
- Grewel, F. (1963). Remarks on the Acquisition of Language in Deaf Children. Journal of Language and Speech. 6, 37-45.

- Gunilla, Preisler (1983). Deaf Children in Communication. Seweden: ISBM.
  - Ivimey, G. (1981). The Written Language of Deaf Children. in Journal of Language and Speech, 23, 352-377.
  - Johnson, R.E., Liddell, S. K., and Erting, C.J. (1989). Unlocking the curriculum:

    Principle for Achieving Access in Deaf Education. Gallaudet Institute

    Working Paper, Gallaudet University.
  - Judd, Charless M., Smith, Eliot R., and Kidder, Louis H. (1991). Research Methods in Social Relations. Forth Worth: Harcourt Brace Jovanovich College Publisher.
- Lenneberg, Eric (1967). Biological Foundation of Language. New York: Wiley.
  - Liberman, A. M. (1974). Language Processing. Baltimore: University Park Press.
  - Lynas, Wendy (1994). Communication Options in the Deaf Children. London: Whurr Publishers Ltd.
  - Merrill, E. (1981). Normalisation or Integration?: The Role of Deaf People in Education and Society. Scottish Workshop Manuals.
  - McLean, James and Snyder-McLean, Lee (1999). How Children Learn Language. San Diego: Singular Publishing Group, Inc.
  - McAnally, P.L., Rose, S., and Quigley, S.P., (1994). Language Learning Practices with Deaf Children. Austin: Pro.ed.
  - Mertens, Donna M. and McLaudglin, John A. (1995). Research Methods in Special Education. London: SAGE Publications.
  - Miles, Matthew B. and Huberman, A. Michael (1994). Qualitaive Analysis. London: SAGE Publications.
  - Moors, D.F. (1996). Education of the Deaf: Psychology, Principle, and Practices, (4th edition) Boston: Houghton Mifflin Company.
  - Motetz, B. (1990). Deaf Identity. Sign Language Studies, Volume 68, 195-216.
  - Nolan, M. and Tucker, I. (1983). The Hearing Impaired and the Family. London: Souvenir Press (E&A) Ltd.

- Patton, Michael Q. (1990). Qualitative Evaluation Methods (2<sup>nd</sup> edition). Newbury Park: SAGE.
- Pickersgill. M. (1990). Research in Bilingual Education: Current Perspective. Journal of Bilingual Education, Vol. 2, 56-70
- Ritva Bergman, (1996). Sign Language as the first language in the education of the deaf. In Ahlgren, Inger and Hyltenstan, Kenneth. Bilingualism in Deaf Education. Hamburg: Signum.
- Robson, C. (1993). Real World Research: A Resource for Social Scientist and Practitioners Researches. Oxford: Blackwell Publishers Ltd.
- Rubin, Dorthy (1985). Teaching Elementary Language Arts. New York: Holt Rinhart and Winston.
- Sacks, O. (1989). Seeing Voices. London: Pan Books.
- Strong, Michael (1995). Language Learning and Deafness. Cambridge. Cambridge University Press.
- Tamirat Woldegabriel (2002). Communication Approaches in Teaching Students with Hearing Impairment: A Study in three Primary Schools in Addis Ababa. Unpublished Masters Thesis.
- Tesch, R. (1990). Qualitative Research: Analysis Types and Software tools. Newyork: Falmer.
- Tibebu Bogale (1991). Communication Used at home and Schools for Hearing Impaired in Ethiopia. University of Jyvaskyla, Finland.
- Transitional Government of Ethiopia (1991). Directives on language Rights of Nations and Nationalities. Addis Ababa. Unpublished.
- Transitional Government of Ethiopia (1994). Education and Training Policy. Addis Ababa: EMPDA.
- Van Uden, A. (1977). A World of Language for the Deaf Children: Part 1, Basic Principles. Amsterdam: Swets and Zeitlinger.
- Vygotsky (1962). Thought and Language. Cambridge: MA: MIT Press.

WFD (1993). Consultation on Alternative Approach for the Education of the Deaf. Paris: UNESCO Press. Yin, Robert K. (1994). Case Study Research: Design and Methods (2<sup>nd</sup> edition). Thousand: SAGE.