

Communication Skills and Its Impact on the Academic Capabilities of Deaf Children in Inclusive Educational Setting: The Case of Selected Primary Schools in North Gondar Zone

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Abstract

The study was conducted in three primary schools of North Gondar Zone such as Serko, Chuhit and Limatber. The participants of the study were deaf children, their hearing peers, special needs education teachers and school principals. 12 deaf children, 5 special needs teachers, 6 school principals and 5 hearing children were the informants of the study. Interview, observation, focus group discussion (FGD), informal talks and document review were the data gathering instruments. The data collected through different instruments were analyzed qualitatively. The result of the study also showed that the mode of communication for deaf children with deaf, their hearing peers and teachers were different in different activities such as: In play, teaching-learning process and other social activities. In addition, the result of the study revealed that those deaf children who have better communication skills have better academic abilities and achievement. It is recommended that the professional capacity of special needs education teachers should be enhanced by the schools using series on the job trainings; the school should work more on sign language training.

Keywords: communication skills, deaf children, inclusive education, academic capabilities, primary school

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Introduction

People who have considerable hearing loss, the basic approaches to communication are oral, manual, sign language and total communication: oral communication methods are a method of expressing ideas by using speech, reading (lip reading) and expressing themselves through speech (Moors, 1996). Manual communication is a system usually use hand sign, gesture, to transmit a message between persons. Being expressed manually, they are received visually and sometimes tactually. Total communication is the use of all means of communication such as sign, finger spelling, speech, lip reading, facial expression, and gesture (Lynas, 1994) as cited by Nituh (2008). Sign language, a means of communication of deaf people express their ideas by using other parts of the body-eye, eye brows, cheeks, lips, tongue and shoulders in the language being used (Heward and Orlansky, 1988). Finger spelling is a special form of sign system in which each letters of the alphabet has a finger sign used to spell words and sentences used in conversation (Ibid).

According to Alemayehu (2003), significant number of deaf children need to support of signs if they are to develop verbal language, bilingualism (who postpone the introduction of speech and first teach general system) asserts the right of deaf children to have sign language as a first language and as a means of acquiring social identity. Sign language advocates also say that the deaf individual can communicate as effective as anyone else. Sign language, it is argued is uniquely suited to the ability of deaf individual and it is only by offering sign language as the first language that the young deaf children can acquire language without delay (BOUVET, 1990) as cited by Getachew (2011). To try to make the deaf children speak, as the primary mode of communication, it is a violation for their rights to their own language and culture.

Accordingly, research on the academic achievement and social interaction of students with special needs in inclusive classrooms revealed mixed findings. In the same way, the inclusion of students who are deaf in general educational classrooms with hearing peers continues to be a controversial issue. Those who advocate inclusion cite better academic performance and social development for students who are deaf. On the other hand, other studies have reported that the academic and social condition seems to be one of the major challenges for deaf children in inclusive educational settings. This different finding inspires the researcher to look in to the problem on those selected issues in inclusive educational setting. Language had played a great role in human relation and environmental awareness. Due to deprived language, their social and academic skills are weak and are people are very poor in sharing ideas, discussing phenomena, and expressing the feelings and attitudes. According to Alemayehu (2000) explanation, deprived of language and interpersonal relationship, deaf people experienced broken down in communication during academic and social interaction. Many deaf children fail to acquire sign or speech language. Due to this reason, the communication between deaf children and the hearing family often limited (Densham, 1995) as cited by Alemayehu (2003). This deprivation of language can aggravate some secondary disabilities such as poor cognitive, academic, social and emotional developments.

Tirussew (2000) also mentioned that deprivation language and communication results in deaf children lagging radically behind the normal development in education and socio-emotional functions. On the other hand, more logistically, competent hearing impaired children interact with their peers more frequently than those with weaker language skills, (Bracket and Hemiges, 1976) as cited by (Getachew, 2011). According to Almayehu (2002) as cited by Nisuh (2008) children who become deaf before they have begun to speak (usually before the age of two) have difficulty in learning a form of language as children who are born deaf. But those who have learned some language and lost hearing around 3 or 4 year old can be trained more quickly and more successfully in language when they start school than congenitally are exposed to sign language environments in infancy, they can fluently communicate. Harris and Butterworth (1994) also reported that children born hearing impaired or who become hearing impaired/deaf in the first years of life have considerably more difficulty in language development than children who become hearing impaired/deaf after the first year. This also leads these children having poor social and academic skills.

The intervention made on one development language foster the development of academic skills and psychosocial interaction. So improving the language of deaf (by sign language) could help to foster their social, emotional and academic skills and developing their psychosocial well beings. Regarding to this Bench (1997) described that the social interaction of hearing impaired children (Particularly the deaf) could be helped by the communication skills needed to begin and maintain positive interaction and better academic achievement with peers. The study will be conducted in North Gondar zone which is located in Amhara region and it is one of the eleven zones and one special wereda within the region. The area is characterized by Gorge and mountain land escape and the altitude range from 700 to 4400 above sea level. Administratively the zone is constituted with 21 weredas. The total number of human population of North Gondar zone is estimated to be 2,921,470 (Census Report, 2007). Out of which 1,481,726 are males and 1,439,744 are females. The selected schools and weredas for the implementation of inclusive education respectively are Serko General primary school in Chilga Woreda; Limatber primary school in Layarmachiho woreda and Chuhit primary school in Dembiya woreda.

Limatber primary school is found in the capital of Lay Armachiho woreda. Lay Armachiho is one of the 105 weredas in the Amhara Region of Ethiopia. This woreda is named after "Armachiho", a province in northwestern Ethiopia along the border with Sudan and south of the Tekezé River. Lay Armachiho is bordered on the south by Dembiya, and Gondar Zuria on the west by Chilga, on the north by Sanja, on the east by Wegera. The administrative center of this woreda is Tekle Dingay.

Chuhit primary school is found in Chuhit town of Dembiya woreda. Dembiya is one of the weredas in North Gondar Zone of Ethiopia. It is named for the former province of Dembiya, which was located roughly in the same location. Dembiya is bordered on the south by Lake Tana, on the southwest by Takusa, on the west by Chilga, on the north by Lay Armachiho, and on the east by Gondar Zuria. Towns in Dembiya include Aymiba, Chuahit, Gorgora and Koladiba.

Serko general primary school is found in the capital of Chilga woreda. Chilga woreda is one of the weredas in North Gondar Zone of Ethiopia. It is named after its chief town Chilga (also known as Ayikel), an important stopping point on the historic Gondar-Sudan trade route. Chilga is bordered on the South by Takusa, on the west by Metema, on the North by Tach (lower) Armachio, on the North East by Lay Armachiho, and on the East by Dembiya. According to the findings of the study by Marieke Boarsma who is the founder of the Gondar University community Rehabilitation (GU-CBR) project, the situation of children with disabilities including children with hearing impairment in the study area is by far so worse and they excluded from the society (GUP-CBR, 2009). This is because majority of the parents of children with disabilities are uneducated, having negative attitudes towards disability and they have low awareness about disabilities and rehabilitation. This further leads to the situation in which these children are excluded from the school, health services and from social life in their community. To alleviate these problems, non-government organization launched inclusive educational program in collaboration with governmental organization in some selected weredas of the North Gondar zone.

Now, these schools have 4332 (2319 male and 2013 female) students, out of these, 76 of them are students with different disabilities. The total number of teachers who have been teaching from grade 1-8 are 188, out of these, 10 of them are graduated in special needs and inclusive education (4 serako, 4 chuhit and 2 Limatber). Of these, 4 are graduated in diploma and 1 in first degree and the rest 3 are 10+2 level. Special class/unit for children with visual impairment, hearing impairment and intellectual disabilities in a new approach was started in the year 2006 E.C. The grade structure of special classes/unit for visually impaired and intellectually disabled students is from grade 1 to 3, previously there was an inclusive approach starting from grade one. Now, 35 deaf students have been attending their education both in special unit and inclusive classroom. After these grade levels, all students become mainstreamed in the regular class with other what we call it 'normal' students. Now 26 deaf children have been attending their education in inclusive class room of the aforementioned schools.

Assessing the impact of language and its means of communication who are deaf in the selected primary schools of inclusive classroom is worthwhile for the schools themselves and others to know the child's condition in order to solve the child's communication and academic problems and improve the academic and social skills

of children who are deaf. Based on this assumption, the researchers are initiated to conduct the impact of language on academic achievement of children who are deaf.

To this end, researchers formulated the following leading questions:

1. By which mode of communications do deaf children interact with deaf children; hearing peers and teachers?
2. Are the language abilities of children who are deaf influences their academic achievements?

Delimitation of the Study

North Gondar zone started inclusive education for deaf children in some selected woredas and schools of the zone in January 2005 with the purpose of improving the academic, social, cognitive, physical and other capabilities of children who are deaf (Getachew, 2011). Therefore, this study is delimited to the three selected primary schools of North Gondar. These are Serako, Chuhit and Limatber primary schools. The reason is that these schools were model schools and have long experiences in implementing inclusive education on deaf children. The scope of the study is also delimited to only deaf students. This means, students with hard of hearing (partial) are not included in the study. The studied variables are educational & social conditions, mode of communications of children who are deaf and challenges of inclusion on the academic performance and social relation of the child with others. In addition, social condition is delimited only deaf children's interaction/social relation, accepted by their peers, and making friend with others.

Method

Research Design

The general objective of this study is to assess the impact of language on their academic achievement of children who are deaf. As a result, qualitative case study design is used for this study. The qualitative method is chosen for this study, because of the characteristics of the research questions and objectives. Qualitative research design originated in the social and behavioral sciences: sociology, anthropology and psychology. It is a style of art that shows, people, things, and experiences as they really are, focus on common sense practices to answer the how question and help the researcher understand people, things, and experiences as they really are. This method is also widely applicable especially on research that is conducted on special needs (Hartley, 2003). This research is conducted through depth examinations of the social and academic conditions of children who are deaf in and outside the classroom of the schools.

Target Population, Sample and Sampling Techniques

This study was conducted in the three primary schools of North Gondar Zone. The participants of the study were deaf children, their hearing peers, special needs education teachers and school principals. The total numbers of deaf children who are attending their education in these schools at different grade levels are 35 (15 from Serako, 11 from Chuhit and 9 from Limatber primary schools). Out of these, 26 students (10 students from Serako, 9 students from Chuhit and 7 students from Limatber) have been attending their education in the inclusive classroom. The remaining 9 deaf students have been attending in special classes/unit. After they reach grade four, they become mainstreamed with the so called "normal" students in the regular classroom. Of these, 12 students (5, 4, 3 Serako, Limatber and Chuhit respectively) who have an ability to express their ideas through sign language or written were the informants of the study.

Among 10 special needs education teachers, 5(3, 1 1 Serako, Limatber and Chuhit respectively) who have been teaching deaf children for five and above years were the participant of the study. This is because; the researchers believed that these teachers have a better knowledge and experiences to provide reliable and sufficient information about the social and academic condition of deaf children in inclusive educational setting. They participated in interview, FGD and informal talks. There are six school principals including Vices, all these principals were the informant of the study for interview.

Therefore, deaf children and special needs education teachers are selected using purposive sampling techniques whereas school Principals are by using comprehensive sampling. Children's hearing peers are selected by using snow ball sampling techniques. For informal talk, the researcher used available sampling techniques.

This is also because in qualitative case study, it requires both these non-probability sampling techniques. As Gall, Gall and Borg (2007) stated, it is not possible to study everyone at the real life context in qualitative research methods. So, a qualitative study method requires a specific individual or group of individuals to gather detail information from them.

Table 1: Methods of data collections, number of participants and sampling techniques

Methods of data collection	Participants				Sampling technique
	Deaf children	Hearing peers	Special needs teachers	principals	
Interview	12	5	5	6	Purposive for deaf children, special needs teachers; comprehensive for principals and snow ball for hearing peers
FGD	12	10	10	-	Purposive for deaf children , comprehensive for special needs education teachers and snowball for hearing peers
Informal talks	7	8	6	3	Available

Data Gathering Instruments

To obtain valid and reliable data for the study, five methods of data collection instruments were used to get rich information from different sources and for the purpose of triangulation. These include interview, observation, focus group discussion (FGD), informal talks and document review.

Methods of Data Analysis

The data collected through different instruments like interview, observation, document review, FGD and informal talks were analyzed qualitatively. Before the data analysis, the information that obtained from the above sources were classified and organized by themes. In each themes, adequate and detail, narration was provided i.e. data interpretation involved triangulation and confirmative from different sources. The researchers were used cross case data analysis method. After these, conclusion was made and possible recommendations were provided.

Ethical Consideration

Before gathering data from deaf children, their peers, teachers and school principals, the researchers asked permissions from the schools and the above informants. In addition; the participants told to them the significance and the purpose of the study. The researchers also considered the child's privacy right not to give information. The researchers also promised to the participants that the information collected were used for only research purposes and confidentiality was kept. Pseudonyms were used instead of using real names during the data analysis. This is very important to made ethical considerations to gather better information from participants.

Results

Background Information

As it is mentioned earlier, an attempt has been made to examine the impact of language on academic achievement of deaf children in inclusive educational setting. The information collected from deaf and hearing children, teachers and principals through different data collections instruments were analyzed qualitatively. The background information of the different informants is presented as follows:

Background Information of Deaf Children who participated in the research

Table 2: The background information of deaf children who were attended in interview and FGD.

<i>No.</i>	<i>Name</i>	<i>Sex</i>	<i>School</i>	<i>Grade level</i>	<i>Educational modality (from grade 1-3)</i>
1	Tariku	M	Serako	5	Special unit
2	Almaz	F	Serako	5	Special unit
3	Adisu	M	Serako	4	Inclusive
4	Koset	F	Serako	5	Integration
5	Abdela	M	Serako	7	Integration
6	Sinke	F	Chuahit	8	Inclusive
7	Zerihun	M	Chuahit	4	Inclusive
8	Senit	F	Chuahit	4	Inclusive
9	Takila	F	Chahit	7	Inclusive
10	Aster	F	Limatber	6	Integration
11	Tamralech	F	Limatber	6	Integration
12	Amare	M	Limatber	6	Integration

Note: These names are pseudonyms

Deaf children who attend their education in inclusive classroom have been placing at different grade levels. They attended their education in lower grades through different educational approaches. Some come from special unit; others also from integrated and inclusive educational modality. All deaf children have the opportunity to attend their lower grade education in special class/unit from the three schools. That is, these schools provide special class/unit services to all students with special needs from grade 1 to 3. However, as we see from the above table, some students who come from other neighboring schools did not get the opportunity to attend their education in special class/unit or inclusive educational approach in lower grades rather they were attending in integrated educational approach.

Background Information of Interviewees

Table 3: The background information of interviewed special needs and inclusive teachers

<i>No.</i>	<i>Name</i>	<i>Sex</i>	<i>School</i>	<i>Educational level</i>	<i>No. of service in years</i>	<i>grade level they teach</i>
1	Maritu	F	Serako	10+3 in SNE	17	1-3 in special unit
2	Desta	F	Serako	10+3 "	17	"
3	Salam	F	Serako	10+3 "	17	" and inclusive
4	Tamiru	M	Chuahit	10+4 "	13	1-3 special unit
5	Almaz	F	Limatber	10+3 "	12	1'3 spectral unit

Note: These names are pseudonyms

The above table indicates that except one, most teachers who teach students with special needs are Diploma holders in Special Needs Education. In addition, all teachers have more than 12 years of teaching experiences in teaching children with and without hearing impairment. This helps the participants to provide genuine and valid data about the conditions of deaf children in inclusive educational setting. As depicted in the above table, teachers teach in special class/ unit from grades 1 to 3 and one teacher assist deaf students in inclusive classroom. Most teachers who teach children in different educational approach are females.

Background Information of Directors

Table 4: The following table shows the background information of the Directors

<i>No.</i>	<i>Name</i>	<i>Sex</i>	<i>Educational background</i>	<i>Position</i>	<i>Service(in years)</i>	<i>Field of Specialization</i>
1	Case 1	M	10+4 , 1 st degree	M/Director	16	Civics
2	Case 2	M	10+3, diploma	v/director	17	Social science
3	Case 3	M	10+4, 1 st degree	M/Director	29	EDPM
4	Case 4	M	10+3, diploma	v/director	27	Natural science
5	Case 5	M	10+4, 1 st degree	M/director	15	Physics
6	Case 6	M	10+3. dipoloma	V/director	20	

Note that names used to represent the directors are pseudonyms

As the above table indicated the main and vice directors have above 15 years of services in teaching and as a school principals. This long work experiences help the directors to give reliable and valid information about inclusive education on deaf children

The Background Information of Interviewees (Hearing Children)

Table 5: The following table shows the background information of hearing children

No.	Name	Sex	School	Grade level	Social approach with deaf children
1	Slenat	F	Chuahit	4	Intimate friend
2	Anmut	M	Serako	7	Classmate
3	Bisrat	M	Limatber	6	Classmate and intimate friend
4	Sinke	F	Limatber	6	Classmate
5	Kasech	F	Limatber	6	Classmate

Note: all these names are pseudonyms

All these interviewed children were the friends of the informant deaf children across different grade levels. Three hearing children who have better exposure to deaf children were selected from Limatber primary and the remaining two children were selected from Serako and Chuahit primary schools.

An overview of Educational Approaches

As information gathered from directors, special needs teachers, students and our consecutive observation inside and outside the classroom revealed that the educational approaches for students with special needs are special class/unit and inclusive. Special class/ units have been provided from grade 1-3 in all the three schools. However, after they completed grade three, they become mainstreamed to the regular class and they attend their education the 'normal' students. Now inclusive educational approaches have been practicing after grade four. The practices of inclusive education in these three schools before 2007 E.C were started from grade one onwards. As we observe, the classrooms in the aforementioned schools, the mode of educational delivery in the special class/unit was multi grade system. That is, children with different disabilities and different levels were placed in one classroom by a single teacher.

Modes of Communication

The research asked the participants to describe the language capabilities and means of communication of deaf children with deaf and hearing children as well as to teachers. For this question, Sinke replied:

I use finger spelling, sign language and home sign interchangeably to communicate with deaf children, hearing children and teachers. In addition, I understand the message of other children through reading the text and facial expression. I tried to understand the teacher's presentation by reading his/her lip. Mostly, I used home sign when I communicated with my colleagues. However, I did not communicate with my hearing peers and regular teachers through sign language, because they could not have the required skills.

Regarding the method of communication used in the teaching-learning process, she responded that lip reading and home sign was the most dominant means of communication.

In addition, Aster has communicated with deaf children, hearing peers and teachers through sign language, reading, manual communication and lip reading. Similarly, her teacher-W/o Almaz explained that some children have an inborn ability to understand the speech of the speakers through lip reading. They communicate through lip reading during the teaching-learning process more frequently than other modes of communication.

In the same vein, Ato Tamiru, Tamralech's teacher reminded that her means of communication with hearing peers during play:

She usually communicates with her hearing peers during the play using home sign. Her hearing friends do not have an ability to communicate with others through sign language, finger spelling, lip reading and other means of communication. For most of her friends are hearing, she only communicates with others by using an informal ways of communication-home sign.

The researchers asked special need education teachers about the method of communication deaf children used during the teaching learning process, Ato Zerihun replied:

He can easily communicate with me through sign language. He used home sign in addition to sign language. He sometimes transmits his message to others through finger spelling. Because his hearing peers do not have sign language skills, he only communicates with them through home sign, reading and writing. However, the most dominant mode of communication mostly he used is informal-home sign.

Furthermore, Ato Tamiru replied that Senit did not communicate with other people through either means of communication when she entered to school. As he further explained, she was dump. She sat alone. However, after sign language training through the schooling time, she could easily communicate with deaf children, hearing peers and teachers through all manners of communication-sign language, finger spelling, lip reading, facial expression, reading and writing. Her most frequent means of communication, however, was the informal one.

Data obtained during classroom observation also showed that most deaf children have been communicating with their teachers more through informal modes. In addition, they easily understand the concepts if it is presented with media or aids. It means, if teachers used teaching aids, especially if the aids are real, they easily grasped the ideas without any problem. During the group discussion, most deaf children were simply observed imitating what other children did. They were active observant. They didn't respond anything through sign or finger spelling except some children. This is because; most deaf children did not have sign language skills. Teachers also faced difficulties to translate the content knowledge through sign language. This is as a result of two problems as we observed. One is both teachers and children do not have detailed sign language skills. Secondly, it is impossible to translate some ideas in specific subjects through sign language due to lack of representative sign and symbols.

Moreover, the directors of the school responded that deaf children could easily communicate with other children through home sign and sign language. FGD with hearing and deaf children also revealed that children communicate through home sign during their play outside the classroom. Especially grade one students communicate through finger spelling and home sign with their hearing peers. They failed to communicate through sign language. During the early grades, children mostly communicate with others through informal and finger spelling. However, as grade level increase children use more than two mode of communication including basic sign language. That is, in higher grade levels, they communicate through all manses of communication. But during their play with hearing peers, the most dominant means of communication is informal one (home sign).

By the same token, the results of the informal talk with students, teachers and directors also showed that deaf children had been communicating through sign and lip reading with their deaf peers than hearing one.

During the interview and FGD held with deaf and hearing peers, the researchers come across some deaf students couldn't communicate using sign language with their peers and teachers during in and out of the classroom activities (group activities and play). This is because they couldn't get sign language training before and during the mainstreaming. In addition to this, though some deaf children had sign language skills, they couldn't use for communication purpose for their peers and school communities didn't have sign language skills. Instead, the school environment urges them to use home sign as a means of communication.

The Impact of Language on Academic Achievement

The researchers asked the informants about the academic abilities and achievements that deaf children have by comparing with each other and/or with their hearing classmates incoparision with language skills. We found mixed results. That most informants responded that deaf children especially those students who have better communication skills have a better academic abilities and achievement than their hearing mates. Whereas, some responded that deaf students have low academic abilities and achievements due to not cognitive limitation but having communication barriers. However, most informants repeatedly explained during the interview, FGD and informal talk, the academic achievement and ability of deaf children is similar to that of hearing mates. They were high, medium and low achievers like that of others. For example, Koset's teacher -w/o Salam explained about Koset's second semester academic results and abilities:

She is an outstanding student when compared to her classmates. She stood 1st in grade four. She has better communication skills than other deaf children. This leads her to have a better academic achievement and abilities across all subject areas.

Other special need teachers also surprisingly responded that deaf children have an interest to learn. They are strongly motivated to learn. They are eager to know everything. This entails some have better academic achievement and ability. Interview results with their hearing peers also indicated that some students have an excellent outstanding performance in some subjects as compared to others. The observation results of their second semester academic score showed that deaf children perform better in some subjects over the others. For example, most students have outstanding abilities in Amharic language subjects than in mathematics. This idea is also supported by Zerihun during the interview:

We learn all the subjects given at school like our equals. Especially, we have a better academic ability and achievement particularly in Amharic language, social studies and Aesthetics subjects. We, however, showed low academic achievement and ability in English and Mathematics subjects. This is due to the fact that natural science subjects are difficult for us and the sign language can't sufficiently express some contents of these subjects.

As she also explained, especially those students who have better communication skills have better academic skills and abilities than those deaf who had poor communication skills. During the document analysis (2nd semester continuous assessment), results of most deaf children also showed that most deaf children have faced difficulties to achieve better results in hard science than in social science courses

On the other hand, teacher Maritu explained that the academic achievement and abilities of deaf children is nearly the same as that of the hearing peers. That is, the ability and achievement difference among the deaf

children in terms of high, medium and low levels holds true with that of their hearing classmates.

Some informants during the FGD and Interview remarked that the academic abilities and achievement of some deaf children are found to be poor. Especially those students who come from neighboring integrated schools had low academic achievement than that of deaf children who have got the opportunity to attend their education in special class on inclusive educational settings.

Similarly, Case 3 during the interview confirmed that the academic achievement and ability of deaf children is relatively lower than their hearing peers due to communication barriers and unable to attend their education in inclusive or special class in lower grade.

Table 6: Second semester academic results of deaf children and their class highest and lowest score

The following table clearly shows second semester (2008 E.C) academic results of deaf children in different grade levels and score difference between higher and lower result of students in their own grade level

<i>NO.</i>	<i>Name of students</i>	<i>Grade level</i>	<i>Semester average</i>	<i>Rank</i>	<i>Highest score in their respective class</i>	<i>Lowest score in their respective class</i>
1	Tariku	5	57.7	25	89	44.8
2	Almaz	4	72.4	2	81	42.3
3	Adisu	4	63.2	4		
4	Koset	4	81.1	1		
5	Abdela	7	46.2	53	82	43
6	Sinke	7	70.1	18	84	39
7	Zerihun	4	71.2	22	89	44.8
8	Senit	4	83	3		
9	Takila	6	73	7	85	40
10	Abay	6	56.8	44	98.7	45
11	Tringo	6	51.5	55		
12	Bosena	6	52.3	53		
13	Alemu	7	60	28	88.6	36
14	Aster	6	43.5	45	95.7	47.6
15	Tamiralech	6	44.8	43		
16	Amare	6	41.6	44		
17	Asnakew	4	56.5	50	89	46.7

As depicted in the above table, the academic results of deaf children are similar to their ‘normal’ peers entertaining high, medium and low levels of achievement as compared to their classmate .Put it differently, most deaf children’s academic results were above the minimum passing mark while some children’s results were found to be below the minimum passing mark (50%).

For instance, Koset scored 81.1 and she stood 1st, Almaz scored 72.4, Senait scored 83 and stood 3rd. This implies that there are deaf children who achieve high on the academic performances in their respective classes. In the same classes, it was found out that some “normal” (hearing) children score poor (44.8%), which is below the minimum passing mark. In addition, those deaf children who score above had a good communication skills. It means, deaf children who have good communication skills like they communicate through sign language, lip reading, written or body movement had better academic ability and achievement than those deaf who could not communicate through either means.

In the table above, it is also shown that some deaf children scored low in their academic performance as compared to their classmates. For example, Aster, Tamiralech and Amare scored 43.5, 44.8 & 41.6 respectively. This result indicates there are some deaf students whose academic achievement is below the minimum standard. We can imagine how these students’ score is far from the highest achievers in their respective classes (98.7%). Especially those students who did not attend their education in special units/class or inclusive educational settings in lower grades have poor communication skills and this in turn leads to have poor academic achievement as it is mentioned above by different respondents.

The figures in the above table also portrays almost most deaf children had average academic results as compared to their classmates. Example, Adisu (63.2%) and Alemu(60%) scored medium in relation to the results of their classmates. We can see how their results were compared with the highest and the lowest results in their class (81&42.3 respectively). Similarly, Alemu’s class highest and lowest results were: 88.6 & 36 respectively.

Discussion

The purpose of this study was to assess the social and academic condition of deaf children in inclusive educational settings. In this part, the results of the major findings in relation to the research questions and review of related literature are discussed and interpreted. Therefore, the educational condition of deaf children in

inclusive education, their social relations, academic achievement and its challenge were discussed.

Educational Approaches for Deaf Children

As study indicated deaf children have a better academic achievement if they get an opportunity to learn in inclusive education. Those who advocate inclusion cite better academic performance and social development for students who are deaf and hard of hearing (Bunch, 1994). This study supports the positive aspect of inclusion for deaf children. There is a satisfactory out comes for academic progress and social development of deaf (Peter and Hung, 2006).

Other researchers on the other hand, emphasized that there is no significant academic difference exist between deaf and hearing impaired children, in inclusive classroom. It was reported that no difference has been found between deaf and hearing subjects in academic performance while the linguistic factors presented were with the linguistic experience of the sample deaf children (Moores, 1996). It was further noted that the sphere of abstract thought is not closed to the deaf for they were considered as intellectually normal. Similarly, after the survey of literature related to language and cognition, Furth (1964) as cited by Moores (1996) arrived essentially as the same conclusion. Furth found out that the poor performance of deaf and hearing impaired individuals on some tasks may be explained simply either by lack of general experience that is no longer manifested in adult hood or by specific task conditions that favor linguistic habits. Moores(1996) also pointed out hearing impaired people are not intellectually deficient, after grasping important points from studies of intellectual functioning of the hearing impaired children whereas, other research also found out children who are deaf have poor academic achievement/abilities.

Biggs (2004) pointed that the academic performance of deaf children falls well behind that of their hearing counter parts in the mainstreaming/inclusive school

Communication skills and its Impact

The finding of the study in relation to methods of communication for deaf, hearing and their teachers revealed that they used various communication modes like sign language, written, reading, lip-reading, and home sign.

People who have considerable hearing loss, the basic approaches to communication are oral, manual, sign language and total communication: oral communication methods are a method of expressing ideas by using speech, reading (lip reading) and expressing themselves through speech (Moores, 1996). Manual communication is a system usually use hand sign, gesture, to transmit a (Moores, 1996) found that People who have considerable hearing loss, the basic approaches to communication are oral, manual, sign language and total communication: oral communication methods are a method of expressing ideas by using speech, reading (lip reading) and expressing themselves through speech.

Total communication is the use of all means of communication such as sign, finger spelling, speech, lip reading, facial expression, and gesture (Lynas,1994) as cited by Nituh(2008). Sign language, a means of communication of deaf people express their ideas by using other parts of the body-eye, eye brows, cheeks, lips, tongue and shoulders in the language being used (Heward and Orlansky, 1988). Finger spelling is a special form of sign system in which each letters of the alphabet has a finger sign used to spell words and sentences used in conversation (Ibid).

Further more, most informants responded that deaf children especially those students who have better communication skills have a better academic abilities and achievement than those equals who did not have better communication skills and their hearing mates. In other wors, deaf children who have good communication skills like they communicate through sign language, lip reading, written or body movement had better academic ability and achievement than those deaf who could not communicate through either means.Privious researcers, (Samel and Wlig, 1975;Evans and Benss, 1972)supporting this findings by explaining a significant relation ship between child's language ability and their academic achievements.

Conclusions

Based on the findings of the research, the researchers have reached the following conclusions

1. Deaf students have been attending their education in special class/ unit up to grade 3 and after this grade level, they become mainstreamed in the regular classroom. It means, after grade three, they learn with their 'normal' hearing peers in the regular classroom.
2. Deaf children are able to communicate with deaf children, hearing peers and their teachers through different methods of communications i.e. they communicate through finger spelling, lip reading, sign language, reading, writing and informal means. Of these, informal means is the dominate mode of communication.
3. Their mode of communication is different in different people, activity and in different grade levels
4. Deaf children perform better in social science and language subjects than the hard sciences.
5. Communication skill is the major factor that determines the academic abilities & achievement of deaf

children in inclusive classroom. That is, those deaf children who have a better communication skills have better academic achievement.

Recommendations

Based on the findings of the study, the following major recommendations were forwarded;

1. The schools should give much emphasis on the implementation of inclusive education on deaf children starting from early grades. This leads deaf children develop good language skills and interun have better academic capabilities in their consecutive grades.
2. The schools should work more on sign language training. The first language for deaf community is sign language. Therefore, deaf and hearing children, teachers and school communities should get sign language training opportunity in order to communicate effectively with deaf children and other school community to scale up their academic abilities and achievement.
3. The school principals should work closely, cooperatively and collaboratively with special needs teachers and students with disabilities in order to promote their communication and academic skills. In addition, education officials, NGOs and parents should join their hands with the school community in order to facilitate the education of deaf students.
4. Further research needs to be conducted on the impact of communication skills on social interaction of deaf children.

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