



RESEARCH ARTICLE

MAJOR EDUCATIONAL PROBLEMS OF THE HEARING IMPAIRED STUDENTS AND STRATEGIES
FOR TACKLING THEM: THE CASE OF TWO SCHOOLS IN ETHIOPIA

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ABSTRACT

The study investigated the major educational problems of the hearing impaired and strategies used for tackling them. The study was conducted in Mekanisa School for the Deaf (Addis Ababa) and Hermata Primary School (Jimma). The selection of subjects was based on availability sampling method. The methods used to gather information from respondents were interviews, questionnaire, focus group discussion and classroom observation checklist. The major educational problems identified in the study were that the teachers were either insufficiently trained or not trained at all, the curricula were incompatible with the capacity of hearing impaired, teachers have low command in total communication, hearing impaired students lack parental support and instructional materials, educational authorities were indifferent to the education of hearing impaired students, and the students lack interest in academic subjects. A statistically significant difference was observed between moderately and profoundly hearing impaired students in mathematics achievement ($t=8.456$) and in average academic achievement ($t=10.158$) identified in this study. The researcher of this study invites the concerned authorities of the Ministry of Education and teachers to take the necessary measure as much as possible in order to solve the major problems of the hearing impaired students of the study sites. In addition, parents should be given training to make a follow up support for their hearing impaired children. If the major problems of the hearing impaired students are solved, they could contribute their share in building the tomorrow's industrialized Ethiopia.

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INTRODUCTION

Until recent years, the case of hearing impaired persons was not considered in Ethiopia. Even the number of disabled persons was not known. Tirusew et al. (1995) reported that hearing impaired persons are estimated to be 14.9 out of the total disabled population in Ethiopia. According to CSA (1998) report, there were 988,853 disabled persons in Ethiopia, out of which 189,774 (19.19) were persons with hearing impairment speech problems. Nearly eighty nine thousands of them (45.22) were in the age bracket of 15-49 years. Less than one percent of the hearing impaired get educational service at the primary school level in comparison to 47% of the school aged 'Normal' children enrolled in the primary school. The education of hearing impaired children in Ethiopia is relatively a new phenomenon and the number of schools for the hearing impaired is very few. The number of pupils enrolled in the special and regular schools settings is 2230, which is less than one percent. Education plays a major role enhancing the status of an individual, and hence it is important for the development

students with the hearing impairments. It is very difficult for hearing impaired to make the best use of environmental resources without having proper education in their respective settings. In other words, it is a problem solving type of education that is required for the hearing impaired if life in a society is full of problems (Moore, 1996). The public at large is not sufficiently aware of the courses of hearing impairment, and whether or not hearing impaired children could be taught in school. The only view that society has is that society has is that handicapped people are perceived as sub human beings, objects of pity, ridicule and burden. Indeed, these attitudes, apart from being hostile, develop a lot of problems in the education of hearing impaired children in primary schools. As stated by Kirck (1993: 333), hearing impaired children have unique communication needs. They are unable to hear the continuous, repeated flow of communicative speech language used by the hearing children around the school. Such a situation creates a lot of problems in the education of the hearing impaired children. Experiences show that there are many problems that hinder the education of hearing impaired children. Regarding this point Tibebu (1991: 37) summarizes that the shortage of qualified teachers and the absence of multi disciplinary approach to rehabilitate the hearing impaired

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children are found the major problems of the hearing impaired children. Another study by Tibebe (1995: 112) indicated that the so called special teachers do not have the skills in using special teaching materials like sign language. The education of the hearing impaired children is a major problem in primary schools. This needs investigation by considering cultural, educational, psychological and other factors interwoven with primary school education. As a matter of fact, hearing impaired children in primary school require some form of intervention on the part of parents, teachers, etc. in order to gain the best out of education (Samuel and Jack, 1990). The present study tried to identify the educational problems of the hearing impaired children using information from two schools namely, Hermata Primary School and Mekanisa Primary School for the Deaf. Hermata Primary School is found in Jimma town in Oromiya Regional State which is located 360 km away from Addis Ababa. It was established in 1986 (1978/1979 EC.). Mekanisa Primary School for the Deaf is located in Addis Ababa. It was established by the collaboration of the American Missionaries Church of Christ and the Ministry of Education in 1963 (1956/1957 EC.). These two sites were selected for the study because there was little or no research done on these schools up to now. In addition, the researcher was directly involved in giving training to the would be teachers of these primary schools and interested in focusing primary schools at different regional states where one is at the home town of the researcher and the other is in the capital city of Ethiopia.

Statement of the Problem

There is a general consensus that the hearing impaired children in primary schools encounter educational problems partly because of the unique communication needs. These problems need investigation or in depth study. Strategies for alleviating these problems are also necessary. The main purpose of this study was assessing the major problems related to the education of the hearing impaired children. It also tried to suggest some possible solutions that could help to improve the situations for effective teaching learning processes in the hearing impaired schools.

The research questions of the study:

1. What were the major problems related to the education of students with hearing impairment in Hermata Primary School and Mekanisa Deaf School?
2. Were there qualified and well trained teachers in sign language in the selected two schools?
3. Were the methods of instruction suitable for teaching the hearing impaired children in the schools under investigation?
4. Was the curriculum used in the selected schools adapted to the special needs of students?
5. Was there a difference in academic achievement between the moderate and profoundly hearing impaired children in the selected schools?
6. Were the parents of the hearing impaired children actively involved in the betterment of the education of their children?
7. What were the strategies used in tackling the major educational problems?

Objectives of the Study

General Objective: The study investigated the general problems related to the education of the hearing impaired children and the possible intervention strategies needed to

overcome the problems investigated in the two selected schools. It also tried to investigate the methods that could be employed in order to improve the services that the schools provide for their students.

Specific Objectives

The study aimed to:

- Find out whether the teachers assigned in the selected schools are trained to teach the students with special needs
- Assess whether the methods of instruction are suitable for students with hearing impairment in the selected sites
- Explore whether the schools meet the specific needs of students regarding equipment and trained personnel besides teachers.
- Explore whether the curriculum is adapted to the special needs of hearing impaired students
- Identify if the problems of the students are related to the educational background or income level of their parents /guardians.
- Identify how the problems of children with different hearing loss vary

Justification and Significance of the Study

The findings of the study will contribute to a better understanding of the situation concerning the education of the hearing impaired to educational planners, teachers, parents, and others. That in turn helps to determine appropriate intervention strategies to enhance the education of the hearing impaired in particular and their social well being in general in line with the objectives of special needs education.

Delimitation of the Study

The scope of the study is limited to Hermata Primary School and Mekanisa Deaf School due to financial and time constraints. Given the fact that there could be differences in the problems under investigation from place to place, the study will primarily be useful to understand situations like the ones included in the study.

Definition of Key Terms

Education - is any process shaping the potentialities of the maturing individual a conscious effort by society to impart the skills and the modes of thought considered essential.

Hearing impairment - is a hearing loss that is significant enough to require special education, training and/ or adaptations. It ranges from mild to profound and includes both deaf and hard of hearing conditions (Heyward and Orlansky, 1988).

A primary school - a school that has grades 1_8.

Intervention strategies - strategies that include all the efforts made to resolve the educational problems of students with hearing impairment.

Research methodology

Research site : This study was conducted at Hermata Primary School and Mekanisa School for the Deaf. Hermata Primary

School is found in Jimma town in Jimma Zone, Oromia Regional Administration whereas Mekanisa School for the Deaf is found in Addis Ababa. The two schools were selected for the purpose of comparing the educational problems of hearing impaired in urban and rural areas.

Sample

The target populations were the hearing impaired students in grades 4 – 8 in Hermata Primary School in Jimma and Mekanisa Primary School for the Deaf, teachers teaching the hearing impaired students in both schools, parents of the hearing impaired children and the principals of the respective schools. It was expected that the students from grades 4 – 8 could express themselves more than the lower grade students. The number of the hearing impaired students in Hermata Primary School from grades 4 – 8 was 45. The number of teachers of the hearing impaired was 9. The population of the hearing impaired students in Mekanisa Primary School for the Deaf in grades 4 – 8 was 67. The number of teachers teaching the hearing impaired students in this school was 16. In general, the sample population of this study was 112 students, 25 teachers, the 2 principals and 24 parents of the impaired students of the selected schools. The above data shows that all the students learning in grades 4 – 8 in the selected schools participated in the present study.

Instruments

Both close ended and open ended questionnaires were used to collect information. The questions in the questionnaires designed for the students consisted of attitudes towards learning, the degree of problems that the students faced in the subjects they study in grades 4 – 8, conflicts that occur between students and their teachers, severity of impairments, and the problems that the students face when they learn the subjects taught in grades 4 – 8. Furthermore, audiometric tests were also used to identify the severity of the hearing loss. Interview questions were administered to parents of the hearing impaired students, principals and teachers. The interview questions consisted of questions on demographic and socioeconomic characteristics, instructional materials used in teaching the hearing impaired students, the nature of training the teachers acquired, curriculum adaptability, the attitude of teachers, principals and parents towards the methods of teaching that teachers used to teach the hearing impaired students, the involvement of parents in the educational affairs of their children, the role and attitudes of the school principals towards the teaching methods, and the strategies used to tackle the problems that the impaired students face. Classroom observation checklists were employed systematically and purposefully in order to observe whether the teaching learning processes were implemented effectively or not in the selected schools. In addition to the interview questions given to parents independently, discussion was also held with three focus groups of parents. The three focus groups of parents that made discussion with researcher were Group I (8 Parents from Hermata), Group II (8 Parents from Mekanisa), and Group III (8 Parents from Mekanisa).

The questions of the focus group discussion included such items as parental treatment of their hearing impaired children, their attitude towards their children's education, as well as the strategies they used in solving their children's educational problems. Each focus group discussion took about 1 hour.

The pretest of all the instruments was conducted before the main study. The purpose of the pretest was to avoid any ambiguities or points that lead to misunderstanding.

Procedures for Data Collection

Pilot test of research instrument

A pilot study or the Pretest was conducted at Alpha School for the Deaf and Menelik the 2nd Primary School (Special unit for the hearing impaired) in Addis Ababa. The pretests were undertaken on 15 students, 4 teachers, 4 parents and 2 principals. During the administration of the instruments, the respondents were instructed to identify ambiguities, double barreled questions that may pose problems in responding to the items and other problematic matters. While administering the questionnaire for the hearing impaired students, interpreters were employed. Based on the results of the pretest, the instruments were modified. Items found difficult, vague and ambiguous were discarded. Then the final questionnaire format was prepared in English and translated into Amharic.

Data collection

Four assistants and one professional were assigned to collect data using audiometer test. All the interviewees were selected from among the teachers who taught in the selected schools. Preferences were given to those teachers who used the sign language very well and practiced it well for total communication. Before conducting the field study, training and orientation were given to the interviewers, who were selected as research assistants. The purpose of the orientation was to familiarize the interviewers with their duties. Data regarding the degree of problems that the selected subjects faced, severity of hearing loss, academic achievement, educational background of parents and attitude towards learning were collected. In addition, information concerning the demography and income of parents, the attitude of parents and principals towards the special needs of students, the perception of students concerning instructional materials and the methods of instruction, and the attitude of parents and principals towards the special needs of students were obtained through interviews, questionnaires, focus group discussion and classroom observation checklists.

Method of Data Analysis

Percentages, averages and qualitative information were analyzed to determine patterns, themes, expectations and strategies needed to implement in order to overcome the problems of hearing impaired students.

Findings of the study

As indicated earlier, the aim of this study was to explore the major educational problems of hearing impaired students and ways of tackling these problems. The finding of the study also presents the personal data of the subjects of the study.

The Personal Data of the Subjects

The information was collected from 112 students, 25 teachers (including principals) and 24 parents from the total respondents. Among the subjects of this study, 69.6% were

students, 15.5% were teachers as well as principals and 14.9 % were parents. The Table 1 presents some facts about the personal information of the subjects involved in this study.

As the data in Table 3 show, lack of training of teachers was found very serious when compared to the other two: the incompatibility of curriculum with the capacity of the hearing impaired and low command of total communication.

Table 1. Respondents involved in the study

Study site	Grade	Hearing impaired students			Teachers and principals			parents			Total		
		M	F	T	M	F	T	M	F	T	M	F	T
Mk	4	7	4	11	13	3	16	2	1	3	22	8	30
	5	10	6	16				3	2	5	13	8	21
	6	8	4	12				4	-	4	12	4	16
	7	8	5	13				3	1	4	11	6	17
	8	7	8	15				-	-	-	7	8	15
total		40	27	67	13	3	16	12	4	16	65	34	99
Ht	4	6	3	9	7	2	9	2	-	2	15	5	20
	5	4	5	9				1	-	1	5	5	10
	6	3	7	10				1	2	3	4	9	13
	7	6	3	9				-	-	-	6	3	9
	8	6	2	8				1	1	2	7	3	10
total		25	20	45	7	2	9	5	3	8	37	25	42
Mk+ Ht		65	47	112	20	5	25	17	7	24	102	59	161

NB: Mk=Mekanisa ; Ht=Hermata ; M=Male; F=Female; T=Total

Table 1 indicates that the majority of the subjects of the study were the students whereas a little more than 30% of the subjects were teachers as well as principals and the parents of the hearing impaired students. The next table, Table 2, presents the different causes of impairments of students and the schools they study.

Table 2. Number and percentage of causes of problems of hearing impairment students

Causes of impairments	Mk			Ht			Total		
	M	F	T	M	F	T	M	F	T
Accident	11	5	16	7	3	10	18	8	26
Disease	14	13	27	8	10	18	22	23	45
Genetic	6	8	14	5	4	9	11	12	23
Not known	2	4	6	3	2	5	5	6	11
No response	22	22	44	2	11	13	24	33	57
Total	55	52	107	25	30	55	80	82	162

According to Table 2, accidents and different diseases as well as genetic factors were found the causes for 26(16 %), 45(27.8%) and 23(14.2%) of the hearing impairment respectively. Never the less, 11(6.8%) of students did not clearly know the causes of their problems whereas the remaining 57(35.2%) of students did not respond to the questionnaire.

Table 3. Major educational problems as indicated by respondents

Problems	% of respondents in the respective schools											
	Students					teachers and principals					Total	
	Mk	%	Ht	%	%	Mk	%	Ht	%	Hk+Ht	%	
lack of training of teachers	25	18.3	20	14.6	14	10.2	9	6.6	68	35.1		
low command of total communication	30	21.9	15	10.9	13	9.5	4	2.9	62	31.9		
curriculum incompatible with capacity of students	22	16.1	17	12.4	16	11.7	9	6.6	64	33		

Major Education Problems of the Hearing Impaired Students

Among the various problems of education, the responses of teachers as well as the school principals and the parents of the hearing impaired students indicated three major problems. These problems include lack of training of teachers, low command of total communication of teachers, and lack of the compatibility of curriculum with the capacity of the hearing impaired students.

Qualification of teachers in sign language

The subjects of this study gave special attention to the qualification of teachers in sign language. As it is indicated in Table 4, the fact that teachers have no or short term training in sign language and special needs education indicates that the teachers were under qualified to help or teach the hearing impaired students. No teacher was trained for more than ten months. Because of this, the teachers felt as they lack confidence to meet the objectives of the education of the hearing impaired students.

On the hand, the educational back ground of teachers of the two schools is shown in Table 5

The data obtained on teachers' qualification in Table 5 reveals that 7(28%) teachers teaching hearing impaired students were diploma holders while 18(72%) teachers (the majority) were 12+1 who were awarded certificate from teachers training institute as a result of one year training. One can also notice from this that the number of teachers who hold diploma in the urban site (Mekanisa) is greater than those of teachers in the rural site (Hermata).

Suitability of Methods of Instruction

As it is indicated in the Table 6, 14(56%) of the teachers used total communication in the case of Mekanisa whereas 2 (8%) of the teachers use total communication only in two subject areas: Amharic in grade 5 and 6 and Biology in grade 7 and 8 in the case of Hermata. The rest of the subjects were taught by using only speech therapy since the teachers were not well trained in sign language and special needs education. On the other hand, 2 (8%) of the teachers used sign language as a

method of instruction. These two teachers were deaf at Mekanisa. Table 7 presents instruction preferred by the hearing impaired students.

presents some of the professionals assigned to support the schools.

Table 4. No. of teachers as per the period of training in sign language

School	No. and % of teachers trained in sign language											
	Not trained		2 weeks		up to 4 months		up to 6 months		up to 10 months		over 10 months	
	N	%	N	%	N	%	N	%	N	%	N	%
Mk	-	-	2	8	4	16	7	28	3	12	-	-
Ht	5	20	1	4	1	4	1	4	1	4	-	-
Total	5	20	3	12	5	20	8	32	4	16	-	-

Table 5. Qualification of teachers

Qualification	No. and % by school and sex													
	Mk				Ht				Total					
	M	F	T		M	F	T		N	%	N	%	N	%
12+1	8	32	3	12	11	-	5	20	2	8	7	28	18	72
12+2	5	20	-	-	5	20	2	-	-	2	8	7	28	
Total	13	52	3	12	16	20	7	20	2	8	9	36	25	100

Table 6. No and % of respondents reporting different instructional methods

School	No and % of respondents citing a method									
	Total communication		Sign language		Speech therapy		Total			
	N	%	N	%	N	%	N	%		
Mk	14	56	2	8	-	-	16	64		
Ht	2	8	-	-	5	20	9	36		
Total	18	72	2	8	5	20	25	100%		

Table 7. Methods of instruction preferred by students

School	No. and % of students preferring a specific method					
	Total communication		Sign language		Speech therapy	
	N	%	N	%	N	%
Mk	12	10.8	49	44.1	6	5.4
Ht	5	4.5	38	34.2	2	1.8
Total	17	15.3	87	78.3	8	7.2

As indicated in Table 7, it was the sign language that most of the students prefer. Never the less, the teachers lack confidence to sign, finger spell and use speech at the same time. As a result, students face difficulty in grasping what was taught. On the other hand, Table 8, presents the Frequency of using teaching aids in the selected schools.

As it is indicated in Table 9, the selected schools have limited facilities and equipment that help in teaching the hearing impaired students. It can be deduced from the data that what these two schools lack in terms of facilities and equipment outweigh what they have. Table 10 indicates the frequency of teaching aids used to teach the hearing impaired students in the selected schools. As it can be seen in Table 10, both of the schools lack professionals who could contribute for the effectiveness of the instructional processes. Class room observations also revealed that teachers did not encourage the hearing impaired students to participate in asking questions and answering questions. In all of the classes observed, no hearing impaired students raised their hands to ask questions and none gave answers. This shows that the class room participation of the hearing impaired students was found low.

Table 8. Frequency of using teaching aids

Frequency	No. and % of respondents									
	Mk				Ht				Total	
	Teachers	Students	Teachers	Students	Teachers	Students	F	%		
Very often	-	-	-	-	-	-	-	-	-	
Often	4	2.9	3	2.2	2	1.5	2	1.5	11	8.1
Rarely	12	8.8	59	43.1	7	5.1	40	29.2	118	86.1
No response	-	-	5	3.6	-	-	3	2	10	7.3

As it is indicated in Table 8, overall teaching aids were used in the schools only occasionally as one of the instructional method. As to the responses of the principal of Mekanisa, teachers were expected to prepare teaching aids in the mini pedagogical centers in the respective schools. But the teachers failed to come to class with teaching aids. No tutorial classes were conducted in the selected study schools. One of the teachers stated as follows: "Tsidku kertobegn bekitu bekonengn" meaning that the regular classes were getting difficult from time to time, let alone giving tutorials. Table 9

Instructional strategies such as manual and total communication methods were not utilized uniformly for all the grades under investigation in Hermata while oral, manual and total communication (instructional) methods were used in Mekanisa though not insufficient.

The Curriculum vis-a-vis the Special Needs of Students

With regard to the adequacy of curriculum in meeting the special needs of students with hearing impairment, all of the

Table 9. Availability of facilities and equipment

Type of equipment or facility	No. and % of respondents indicating different degrees of available					
	Mk			Ht		
	Fully available	Partially available	Not available	Fully available	Partially available	Not available
First aid		✓				X
Library	✓				✓	
Vocational training		✓				X
Audiological room	✓					X
Laboratory		✓			✓	
Play ground			X	✓		
Hearing aids			X			X
Potable water	✓				✓	X
Audiovisual center			X			X
Cochlea implant			X			X
Reproductive health		✓				X
Toilet	✓				✓	
Pedagogical center		✓			✓	
Work shop			X			X
Clinic		✓				X
Text books		✓			✓	
Sign language books		✓			✓	
Diagram	✓					X
Video text system			X			x

Table 10. Availability of professionals for the hearing impaired students

School	Mk			Ht		
	Fully available	Partially available	Not available	Fully available	Partially available	Not available
Professionals						
Interpreter			X			X
Speech therapist			X			X
Sign language teacher	✓				Only for grade 1-4	
Psychologist			X			X
Audiologist		With minor training				X

respondents replied that the curriculum was incompatible with the capacity of the hearing impaired students. Apart from that, there were no modifications made on the text books to match with the condition of hearing impaired students. The hearing impaired students felt that the text books were simply copied from the curriculum of the hearing students. Neither the text designers nor the experts in the Ministry of Education did consider the special needs of the hearing impaired students.

Academic Achievement of the Moderately and the Profoundly Impaired Students

The section tried to compare the achievements of the moderately and the profoundly impaired students in grades 4-8 and this presented in Table 11.

Table 11. English achievement test of moderately and profoundly impaired students

Group	n	Mean x	SD	Tobs.	Tcr.	p
Moderately impaired	57	47.456	3.01499	0.296	1.980	>.0.5
Profoundly impaired	55	47.28	3.266			

Table 11 shows the presence of statistically insignificant difference between the moderately and profoundly hearing impaired students in the English achievement test (t= 0.296) since the t-test achievement is statistically significant at 0.5 levels. On the other hand, Table 12 presents the mathematics achievement test. As Table 12 shows, there was statistically significant difference between moderately and severely hearing impaired students in mathematics achievement test (t= 10.158). The average academic achievement result is indicated in Table 13.

Table 12. Mathematics achievement test of moderately and profoundly impaired students

Group	n	Mean x	SD	Tobs.	Tcr.	p
Moderately impaired	57	49.404	2.7393	10.158	1.980	<.0.5
Profoundly impaired	55	41.764	4.947			

Table 13. T-test achievement of moderately and profoundly hearing academic

Group	n	Mean x	SD	Tobs.	Tcr.	p
Moderately impaired	55	56.618	5.636	8.456	1.980	<.0.5
Severely impaired	57	49.579	2.733			

As shown in Table 13, the average academic achievement of moderately and severely hearing impaired students was found statistically significant (t= 8.456) since the t-test achievement is statistically significant at 0.5 levels.

Effects of Duties at Home on the Education of Hearing Impaired Students

The influence tasks to be accomplished may influence the achievement the hearing impaired students and the result is presented in Table 14. As it is indicated in Table 14, 102 (75.5%) of the respondents replied that duties at home hinder their achievement very much. 17(12.6 %) replied that it hinders them to some extent but 12 (8.9 %) of them replied that it hinders their achievement to a small extent whereas 5 (3.7%) of them did not respond to the question. Except the students of 5 parents, the rest of the hearing impaired students did not discuss educational affairs with their parents. Parents do not have the habit of discussing educational matters with their hearing students leave alone hearing impaired children.

Parents need training as to how to support their hearing impaired children. Some of the problems identified in the focus group discussion include:

- The absence of advice on the part of the school in guiding parents
- Lack of confidence on the part of hearing impaired students themselves
- Lack of follow up of parents in giving guidance and support to the hearing impaired students' education as much as possible.

indifferent attitude of educational authorities towards the education of hearing impaired students, absence of team work in mobilizing human resource, lack of follow up and limited use of effective teaching methods, reading problems resulting from lack of speech training, and lack of interest in academic subjects. If the hearing impaired students to be successful in their learning (education), well trained teachers in sign language should be assigned. There should be suitable curriculum. Teachers as well as professionals in special needs should be committed to implement effective instructional strategies. Parents of the hearing impaired students should

Table 14. The effect of duties at home on the achievement of the hearing impaired

No. and % of respondents indicating the level of hindrances										
Schools	Mk				Ht				Total	
Respondents	students		parents		students		parents			
Level of hindrance	N	%	N	%	N	%	N	%	N	%
Very much	48	35.5	11	8.14	37	27.4	6	4.4	102	75.5
To some extent	10	7.4	2	1.5	4	2.9	1	0.74	17	12.6
To a small extent	7	5.2	1	0.74	3	2.2	1	0.74	12	8.9
No response	2	1.5	2	1.5	1	0.74	-	-	5	3.7
Total	67	49.6	16	11.8	45	33.3	8	5.9	136	100.6

Table 15. Strategies used in tackling major educational problems

Problems	Strategies used by type of school	
	Mk	Ht
	Teachers and principals of the school	Teachers and principals of the school
Teachers with insufficient training	Asking for the help of deaf teachers with a relative better ability of sign language.	Asking educational authorities in the zonal education bureau at Jimma to bring back the already trained teachers in sign language who are assigned out of Jimma after earning their diploma
Low command in total communication	Thinking about signs in between and continue teaching using speech only when facing problem to sign and finger spell.	Using speech only When facing problem to sign and finger spell
Incompatible curriculum	Reporting to supervisors when coming for supervision purposes to the school. Sending recommendations to the Ministry of Education to consider hearing impaired students problems when curriculum is revised	Reporting to the special education experts in the zonal education bureau regarding the in compatibility of the curriculum Reporting during work shop time when ever there are chances given but no response

Strategies Used in Tackling Major Educational Problems

A few strategies were used to tackle the educational problems of the hearing impaired students by both of the study sites. This is presented in Table 15. As it is indicated in Table 15, the officials of the schools of the study sites as well the parents of the hearing impaired students request the Ministry of Education to assign trained teachers and upgrade the teachers already assigned in the respective schools, advise teachers to use speech only when hearing impaired students face problem to sign and finger spell, and request the concerned authorities to revise the curriculum as much as possible.

DISCUSSION

This section presents discussion of the results (findings) pertaining to major educational problems of hearing impaired students in grades 4 - 8 and strategies used to tackle them.

Major Educational Problems of Hearing Impaired

As indicated earlier in this study, the factors contributed for the major educational problems of hearing impaired students were insufficient training of teachers, low command in total communication, inadequate curriculum interwoven with inadequate teaching materials and facilities or items of equipment, lack of professionals in special needs education,

support the education of their children. The school community in general and the educational authorities in particular need to develop positive attitude towards the education of the hearing impaired students. As literature suggests, the presence of team work may play a decisive factor in mobilizing human resources (Moore 1996). Audiometer was not available in Hermata Primary School. Audiometer is very useful in measuring the hearing level of students with hearing impairments. The absence of this equipment in these two schools could be considered as a serious problem. The number of trained teachers in Hermata was fewer than that of Mekanisa. On the other hand, speech training program which is an essential component of educational program for the hearing impaired is lacking in the two schools. The problem could have limited the students from expressing their problems to people at their reach. In this regard, the present study invites the interested researchers to conduct further in-depth study on the issue.

The finding of the present study goes in line with the works of Kirck (1962). As the finding of Kirck supports, most hearing impaired students have remaining or residual hearing and special efforts must be made to facilitate speech training. Because of the absence of a speech training program which should be conducted by speech therapist, the residual hearing of hearing impaired students in the school will be decreased from time to time.

Teacher Training

Teachers' efficiency and performance on the job depends up on their training and qualifications. Teachers teaching in the hearing impaired school should be adequately qualified in sign language and special needs education to meet the objectives of educating the hearing impaired children. As the findings of the present study show, both of the selected schools did not meet the objectives of educating the hearing impaired children. For example, in the case of Hermata Primary School, there were no trained teachers teaching in grades 5-8 except two teachers teaching Amharic and Biology in these grades. There were five teachers who used to teach at Hermata Primary School from grade 5 to 8. After they received their diploma from Jimma Teachers College, they were assigned to other woredas of Jimma. It would have been good for the hearing impaired students, had these teachers been allowed to continue teaching in Hermata.

Suitability of Methods of Instruction

Literature supports that in nearly all instances, instruction that combines both visual (manual) and auditory (oral) cues are more effective with the hearing impaired. But in the present study, for example, in Hermata, it was only for grade 4 students that instruction was conducted by combining both manual and oral cues. For grades 5 and 7 students, it was only for Amharic language that manual and oral cues were used; for grade 7 and 8 students, it was only for biology that manual and oral cues were used while for the rest of the subjects only speech was used. In the case of Mekanisa, of course, both visual (manual) and auditory (oral) cues were used but with little knowledge of it. The present study deduced that hearing impaired students at Mekanisa seem to be relatively in better condition when compared to hearing impaired students at Hermata. The present study discovered that the two schools seriously lack different pieces of equipment which are decisive for effective instruction. For example, though the hearing aids cannot replace the natural ability of the ear, they help to compensate the hearing loss by amplifying the speech of their teachers. However, both of the schools do not have them. Hence, without the presence of these pieces of equipment, the suitability of instructional processes will remain under great question mark.

The Academic Achievement of Moderately and Profoundly Hearing Impaired

As the analysis of the English and mathematical achievement tests result indicate, there was statistically insignificant difference ($t=0.296$) between moderately and profoundly hearing impaired students in the English achievement test. On the other hand, the finding of the present study shows, there was statistically significant difference ($t=10.158$) and ($t=8.456$) between moderately and profoundly hearing impaired students in mathematical and in average academic achievement tests respectively. Based on the finding of this study, one can generalize that language difficulty is not the typical problem of the hearing impaired students whether they are moderately or profoundly impaired (Heyward, and Orlandy 1988).

Parental Involvement

As stated by Mittler (1986), hearing impaired students may be in a better position to raise their level of educational attainment

if they live in a family that encourages and supports their study. In addition to that, the hearing impaired students could perform well in their schooling if their families provide the necessary educational facilities at home. According to the present study, very few parents communicate with their hearing impaired children about their schooling. This shows that there was a communication gap between parents and their hearing impaired children.

Summary, Conclusions and Recommendations

Summary

The primary aim of this study was to explore the major educational problems of the hearing impaired and suggest strategies for tackling them. This study attempted to investigate:

- The major educational problems
- Teachers training in sign language
- Curriculum vis-à-vis special needs of students
- Suitability of the instructional methods
- The relationship between severity of hearing loss and academic achievement
- The level of parental involvement
- Strategies used in tackling the problems

The methods used to gather information from the respondents were interviews, questionnaires, class room observation checklists, and focus group discussions. Severity of hearing loss was also measured to find out the relationships they have with academic achievement. Availability of sampling techniques was used. The main method used to analyze the responses was percentage, qualitative and t-test. The results of this study indicate that teachers are either insufficiently trained or not trained at all. The curriculum was found incompatible with the needs of the hearing impaired students. Both the selected schools lack the proper instructional materials as well as they make use of unsuitable instructional methods. The hearing impaired students lack parental support for there was no clear guidelines given to the parents of the hearing impaired students as far as the results of the responses of questionnaire, interviews and focus group discussion indicate. In both schools, the school community have indifferent attitude towards the education of the hearing impaired students. The researcher observed the absence of team work and lack of follow up of the parents and teachers upon the hearing impaired students. Furthermore, the schools provide only academic subjects for the curriculum gives more emphasis to academic subjects. A statistically significant difference was observed between moderately hearing impaired students in their average academic achievement ($t=8.456$), and mathematics achievement ($t=10.158$). No statistically significant difference was observed between moderately and profoundly hearing impaired in their English achievement which was found ($t=0.296$). Most of the strategies used in tackling the problems centered in requiring teachers to attend to all the needs of the hearing impaired, and asking educational authorities to provide the necessary solutions.

Conclusions

The finding of the study revealed that educational problems of hearing impaired students in both study sites are so complex (many although there is a difference in the degree of the

problems (such as those related to teachers training and equipment). Teachers were not in a position to carry out their roles successfully due to insufficient or no training. In addition to that, teachers were given either little or no support from the concerned officials of the respective regional education bureau. As a result, the quality of the teaching learning process and the attainment of the goals of the hearing impaired students' education remained under question. The major problems were related to the absence of giving special training for teachers, the absence of special curriculum, and the use of instructional methods designed for the normal elementary school students, and giving insufficient attention for the needs of the hearing impaired students. As a result, teachers and students have been dissatisfied. The insufficient or the absence of proper training of teachers adversely affected their teaching to be so inconvenient for the hearing impaired students. The incompatibility of the curriculum had made the hearing impaired students to develop negative attitude towards learning academic subjects. Parents were not working closely with schools to promote the education of their hearing impaired children. Finally, the education of students with hearing impairment has not yet attained sufficient practical support from educational authorities who were expected to implement the policies of the Ministry of Education for children with disabilities in general and the hearing impaired in particular.

Recommendations

1. Teachers of hearing impaired should be given sufficient training; they need to have a high degree of proficiency in sign language and total communication. Sufficient training should be designed and provided to upgrade professional qualities of teachers teaching the hearing impaired students.
2. Practical majors need to be taken by curriculum designers to make the curriculum compatible with the special needs of hearing impaired students. As much as possible, the teachers of the hearing impaired should participate in order to share their views about the

complex problems the hearing impaired students' exhibit.

3. As far as possible, equipment facilities and teaching materials should be provided for the effectiveness of teaching the hearing impaired students.
4. More practical support should be given by the educational authorities in implementing the policy of the Ministry of Education in the education of hearing impaired students.
5. Parents should be given special training on how to communicate and deal with their hearing impaired children, and they should be able to work with the schools.

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