

Practices of Special Needs Education Teachers in Teaching Sign Language to Deaf Students in Primary Schools of North Showa Zone

Sewalem Tsega¹ and Aynie Belete²

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Abstract: The purpose of this study was to investigate the practices of teaching Sign Language to primary school deaf students. To conduct the study, descriptive survey method was employed. Among the 66 special needs unit of primary schools found in the Zone, 35 of them were selected through cluster sampling technique. 79 SNE teachers, 3 college SNE instructors and one Zone Education Officer were study participants using questionnaire, FGD and observation guide. The finding of the study revealed that the basic contents of Sign Language were missing from the major linguistic part of the curriculum despite the presence of Ethiopian finger spelling, American finger spelling and number sign and signed vocabulary. Signed Amharic signing system was found to be the dominant instructional strategy. Moreover, absence of Sign Language student text book and teachers' guide, SNE teachers' inability to teach Sign Language as a subject and medium of instruction, inadequate training support by CTE's were investigated as major problems which were also confirmed by the quantitative analysis. Moreover, there was no significant difference between male and female participants in communicative skills ($t=1.37$, $df=78$, $p>.05$). A strict analysis of the result reveals that SNE teachers to improve and strength their knowledge and skills of teaching Sign Language to deaf students. Details of the findings can be seen in the Manuscript.

Key words: Sign Language, Deaf Students, Practice, SNE Teachers

¹ Assistant Professor, Addis Ababa University; e-mail: sewalemtsega@yahoo.com

² Lecturer, Debrebirhan College of Teacher Education; e-mail: aynieb@gmail.com

INTRODUCTION

Back ground of the study

According to Cummins (2000), communication is the core of everyday human functioning. In line with this, the California Department of Education (1996) stated that the effective development, understanding, and expression of language are essential to any educational practice and are particularly vital for deaf children.

Moreover, language instruction to deaf children requires the highest level of capability at the earliest age levels in order to improve neural plasticity providing the child the best opportunity to develop age suitable language development (Fitzgerald & Associates of the Ministry of Education, (2010). In the light of this, Easter brooks & Stephenson (2006) stated that learning a first language such as Sign language with regular exposure to skilled primary language simulations has been identified as one of the best practices in supporting literacy development among deaf children.

According to Gregory (1996), evidence supports the use of a bilingual educational approach that supports the use of a learner's primary language to develop skills in the learner's secondary language even though the curriculum has various objectives beyond just language development .Since using a learner's primary language in instruction demands conceptual understanding through joining the gap between the learner's experiences and the process of learning (Vicar, 2003). It is important to explore how the bilingualism approach could be generalized to other school learning objectives/subjects. Smith (2010) indicated that a lack of consistent instructional approaches and an inadequate exposure to a learner's primary language has led to hindered language development and an inadequate capacity in interpreting abstract content. Bilingualism emphasize that information and education should be offered primarily through sign rather than oral language (Ibid).

The implication here is that contents presented to deaf students should be delivered using a method that helps to meet the objectives. Selecting contents that matches to deaf students demand is mandatory in order to help deaf students learn.

In addition to this, Tangs, Lam, Lee and Chan (2004) stated that natural Sign language could be a stronger, supporting language for deaf children development of cognitive, conversational and social skills; and more significantly, for the development of reading and writing skills in a spoken language. Today many linguists have accepted the importance of mother tongue in assisting the learning of a second language. Several studies such as (Cummins, 2000; Drasgow, 1998, Easter brooks & Stephenson, 2006) have shown that learning of a mother tongue assists learning of literacy skills in the second language.

On the contrary, Wakumelo & Miti (2010), deaf children learn Sign language by learning ideas in Sign language and not using spoken languages used by the community they live in. This is especially the case for deaf students born of hearing parents since they are disadvantaged of any form of language during the most critical phase of language development. In fact, they need a longer time to learn their natural language to compensate for the period when they had no access to any significant language which they were supposed to use in making concepts. Other countries such as Sweden have accepted this need and have included Sign language as a subject (Chupina, 2006).

Moreover, UNESCO (2009) indicated that the right of deaf children to take education in a national Sign language was already addressed in 1994 when the Salamanca Statement and Framework for Action on Special Needs Education was adopted (paragraph 21 on page 18). Similarly, it was agreed in two articles of the United Nation Convention on the Persons living with Disabilities (CRPD, 2000); Article 24.3(b) of the CRPD ensures the right to learn Sign language and encourages linguistic identity of the deaf community; Article 24.4 of the CRPD

requires teachers of deaf children to be skilled in Sign language (World Federation of the Deaf, 2008).

However, according to United States of American Agency for International Development (USAID) Evaluation Report (2004), many deaf children arrive at schools with little or no ability in a language around the world. One of the main challenges in teaching Sign Language to deaf students is that the teachers are not skilled in Sign language (Fitzgerald & et al., 2010). People and Language Report (2005), underlines teachers with no knowledge of Sign language or how to teach deaf students are assigned to deaf schools or to classes with deaf students. Hearing teachers of the deaf may delete main signed information when speaking and signing to deaf children of school age (Sherry, 2012). These scholars clearly indicated that deaf children who learn signs at school may experience inaccurate information during Sign language instruction.

USAID evaluation report (2004) indicated that the problem of teaching Sign language has got many ways and scopes. The one is teachers who are involved in teaching deaf children are not experts. The other is the way deaf children are educated Sign language determines their chance of developing usual receptive and expressive language skills. Even in developed countries, the problem associated with non-exposure to language at the critical period for language learning and inappropriate methods like signed spoken languages are used in teaching Sign language to deaf children (Miller, 2002 cited in Whitbread, 2006). The findings of the researches conducted on the practice of SNE teachers in teaching Sign language have shown that it is inhibited by the lack of skilled teachers, the deaf community was disregarded from education thus more or less uneducated (Chimdi, 2014; Endale, 2005; Ruth, 2012). The same scenario was common in Ethiopia when schools challenge to enroll deaf students. The result is that deaf people are not aware of their right, and also do not have access to information both in their immediate environment and the

world at large. This is due to the fact that deaf people have not been educated in Sign language.

Unfortunately, schools have difficulty addressing their students' special educational needs. The studies have shown that these special schools and special classes are understaffed, under resourced and also have a scarcity of instructional materials. As the evidences indicate, the existing SNE training program, either Teacher Education College or Universities seems to have some problems in having modern concepts of instructional contents and methods, media and facilities that support teachers to serve pre- and in- service teachers trained (MOE, 2012).

Therefore, in order to improve the education of children with disabilities in general and deaf children in particular a coordinated effort concerning the government, stakeholders, professionals as well as other concerned organization is important. As indicated in the National Special Needs Education program strategy (MOE, 2012), the preparation of skilled SNE teachers is of vital importance in supporting students with special needs, more specific for deaf students.

Moreover, the Federal Democratic Republic of Ethiopian (FDRE) proclamation no 351/2003 indicates the right to educational support and the right to learn using Sign language which is expected to be implemented by both public and private institution. It also emphasizes education for the deaf to be provided using Sign language. Hence, educational programs for deaf children in special needs unit of primary schools have expanded in Ethiopia (MOE, 2006).

According to Ruth (2012), the process of teaching deaf students using Sign language in Ethiopia is challenging and this is because of two main reasons. The first is lack of appropriate Sign language for technical and scientific terms. The second one is related to the immaturity of level of the language and the shortage of Sign language vocabulary, which forces teachers to create their own sign to conduct the teaching process for deaf students that may differ from school to

school. Because of this, deaf students coming from various regions find learning process challenging and at times involve in arguments and disagreement with SNE teachers.

Moreover, in special needs units of primary schools for the deaf where the policy has been practiced, what teachers have been teaching are the local languages of the community such as Amharic. Deaf children want to learn Sign language. What actually happens in class is that SNE teachers use signs to teach a specific local language of the area. This is simply a manual demonstration of the local language of that area. Due to unskilled sign language teachers, many deaf children have not acquired and developed sign language skills. Moreover, in Ethiopia, instructional contents of sign language for deaf students in special units of primary schools vary across regions, schools, students and teachers in applying sign language (Ruth, 2012).

Despite the fact that the field of special needs education is developing in Amhara Region, there are problems of teaching Sign language to deaf students. To be more specific, the basic reasons that initiated the researchers to conduct research on this area are directly linked to their working experience as Sign language instructor and the real work experience in Special Needs Support Office with deaf students where some of the deaf students were seen with little or even without skills and knowledge of Sign language which led them conduct the research at the very primary school level. Both researchers had a chance to have firsthand information and observations on the actual practice of Sign language training and teaching both at University, College and Special Needs Unit levels.

Statement of the Problem

Many deaf students in Ethiopia have difficulties in Sign language which affects their academic performance and ability (Ruth, 2012). More important fact in the suitable and proper way of Sign language instruction for the deaf students may be the way of teaching which

emphasizes the role of SNE teachers in the educational process of the deaf and therefore this factor has been involved in the study. A casual observation also indicates that given a choice, SNE teachers' graduates from Debre Birhan College of Teachers' Education are usually reluctant in teaching Sign language for deaf students because they are not well prepared with Sign language skills.

Therefore, this study tries to assess practices of SNE teachers in teaching Sign language to deaf students in special needs units of primary schools. Thus, the study proposes to the following basic questions:

1. What instructional contents do the SNE teachers use in teaching Sign language to deaf students in special needs units of primary schools?
2. What types of teaching strategies do the SNE teachers use in teaching Sign language to deaf students in special needs units of primary schools?
3. How available are adapted educational materials in teaching Sign language to deaf students in special needs units of primary schools?
4. How supportive is CTE's training for SNE teachers in teaching Sign language to deaf students in special needs units of primary schools?
5. Is there significant difference between performance of male and female SNE teachers in teaching Sign language to deaf students in special needs units of primary schools?

Objectives of the Study

The purpose of the study was to assess SNE teachers' common practices of teaching Sign language to deaf students in special needs units of primary schools in North Showa Zone of Amhara Region. Special attention was paid to the challenges which may influence practices of SNE teachers in teaching Sign language and the

opportunities which help them to recognize the matter of improved teaching. The specific objectives are therefore the statement forms of each research question stated above.

Significance of the Study

- This study is expected to provide information for SNE teachers and government experts at different levels, SNE instructors in CTE to know the current practices of SNE teachers in teaching Sign language and to revise the current curriculum of Sign language in special needs units of primary schools.
- It can also help as a stepping stone for other researchers who want to conduct further research on the area of teaching Sign language.

Delimitation of the Study

Geographically, the study was delimited to some selected special needs units of primary schools in North Showa Zone of Amhara Region, in the year 2008 E.C.

Limitation of the Study

One tangible limitation was that some of SNE teachers changed their job and left the schools and as the result, the number of participants was reduced. Another limitation was lack of up to date and literature on the topic, especially in Ethiopian condition. In spite of the short comings, however, attempt was made to make the study as complete as possible.

Definition of Terms:

Practices: refer to which contents, what methods, what resource are used in teaching Sign language to deaf students in special needs unit of primary schools.

Sign language: is a language with its own grammar and content used by Deaf students and their SNE teachers for communication.

Special needs education teachers: are teachers who are teaching Sign language to deaf students in special needs units of primary schools.

Deaf students: includes all levels of hearing loss both deaf and hard of hearing students.

Holistic introductory issues in sign language: refers to deaf culture, visual preparation training, socio linguistic issues in the deaf community.

Finger spelling: implies Ethiopian finger spelling i.e the new edition 2008 in Ethiopian sign language dictionary, American Sign Language finger spelling, number and mathematics sign.

Curriculum: means contents of sign language as a school subject like students' text book, and teachers guide and the varied sign language contents in different schools.

Research methodology

The Research Design

Descriptive survey research design was employed since the major objective of this study was to collect actual data to describe the practices of SNE teachers in teaching sign language to deaf students as it exists at present. Moreover, descriptive survey research design makes possible prediction of the future on the basis of findings on main conditions. In line with this, Jose & Gonzales (1993) state that descriptive survey research gives a better and deeper understanding of a phenomena on which helps as a fact finding method with adequate and accurate interpretation of the findings. Similarly, Cohen (1994) describes that descriptive survey research design helps to gathered at particular point in time with the intention of describing the nature of the existing condition. Regarding survey research, Kothari (2004) also stated that it is a method of securing information concerning an existing phenomenon from all or selected number of respondents of the concerned universe.

Research Site

The study was conducted in North Showa Zone of Amhara Region.

Study Population

All SNE teachers working in special needs units of primary schools in North Showa Zone of Amhara Region were taken as a population. According to North Showa Zone of Amhara Region Educational Statistics Annual report (2015), there were 66 government first cycle special unit needs of primary schools with 207 SNE teachers in 2015/2016 Academic Year which provides the approximate size of the population of the study that served as a sampling frame for this study.

Sample and Sampling Techniques

North Showa Zone has 24 Woredas which are geographically dispersed. For the purpose of this study, they were grouped into four clusters based on geographical land scape. Two of the four clusters were selected using simple random sampling techniques which was the first stage of the sampling. In the second stage of sampling, in each selected clusters, the number of SNE teachers were considered before deciding the number of sample schools to be selected to have a representative sample of SNE teachers.

Thus, in cluster 2, and 3, there were 18 and 17 first cycle special needs units of primary schools with respectively. As a final stage and following the rule of cluster sampling, all SNE teachers were targeted.

The 79 SNE teachers of the selected special needs units of primary schools were considered to be important in this study because they are the ones currently engaged in the teaching and learning process and know the challenges they encounter in the education system. They have the experience regarding the state of teaching sign language to deaf students, they could be aware of the strengths and weaknesses of instruction, they may also have some views on instructional contents and methods which they were implementing.

In addition this ,in order to increase the validity of the study, Sign language instructor in Debre Birhan CTE and a Zonal SNE expert were included in the study using availability sampling technique. Because they are also fully aware of the scope and depth of the Sign language syllabus at college level they are the ones who provide Sign language training to SNE teachers to help them teach sign language to deaf students The sample size at the end, however was only 79. This was because the data collection took place in February and March 2008E.C. Many SNE teachers were not in the school. One of the reasons for their absence at that time was that they were assigned as regular classroom teachers in other primary schools due to shortage of

teachers. Besides, some have already changed their job. In short, the sample comprised 79 SNE teachers who were selected using cluster sampling technique.

Instruments for Data Collection

To obtain adequate and relevant data for the study and triangulate it, the researchers selected and employed questionnaire, focus group discussion and observation checklist.

Questionnaire

The purpose of the questionnaire in each scale was to collect data from SNE teachers about teaching sign language to deaf students in special needs units of primary schools. The questionnaire was administered to SNE teachers' composed 42 items (41 close-ended and one open-ended).

The close-ended type of questionnaire was organized around three sub scales. The questionnaire was designed around the themes:

- Instructional contents that SNE teachers use in teaching sign language to deaf students in special needs units of primary schools.
- The availability of adapted educational material that SNE teachers use in teaching sign language to deaf students in special needs units of primary schools (Both the instructional contents of sign language and the availability of adapted educational materials).
- Instructional strategies and,
- CTE's training support for SNE teachers'

First, items were developed based on review of the literature. This was followed by teaching at college. This helped the researchers to include

additional items in the questionnaire. 61 items were developed in the second stage, each of the 61 items were examined thoroughly for clarity. Redundant items were discarded whereas some items which lacked clarity were revised.

.Observation

Observation checklist was prepared and used to collect actual data. Data collected by a questionnaire, FGD and observation were also triangulated.

An observation check list was therefore employed inside the classrooms and resource centers in two special needs units of primary schools and Debre Birhan CTE. Data that may not be captured through the questionnaires or FGD could also be obtained.

The observation focused on the components of the instructional contents in teaching sign language subject by observing the actual teaching and learning process. Moreover, it also focused on types of instructional strategies to use in teaching sign language in the class room and availability of adapted instructional materials in the resources center and in the class room. In addition to, the CTE's training curriculum of sign language course observed through the prepared observation checklist to record the presence and absence of activities and the materials listed in the checklist since the real instructional activities are manifested while teachers teach and students learn. In the 2 primary schools with special needs units an intensive on-site observation was conducted one time in each school to get valuable information. The amount of time to be spent in each school varied based on the programs and services offered in a specific school, and the engagement that occurred with school principals.

Focus Group Discussion

FGD guide focused mainly on the basic research questions of the study which were not answered by the questionnaire. It was held with SNE teachers from special needs units of primary schools, college Sign language instructors and SNE expert from Zone and Woreda education office who were concerned and participated. The main issues include instructional contents and strategies of Sign language and availability of adapted educational materials for teaching Sign language. The guide consisted of 4 items and 6 persons participated in the focus -group-discussion which took 2 hours.

Reliability and Validity

After review of relevant literature, development of an item pool, commented by professional and review of experts, the final draft of the questionnaire was prepared in English. Each item pool was developed from American Sign Language program and adapted to Ethiopian context. To ensure validity of instruments, initially the instrument was prepared by the researchers and developed with the consultation of Sign language instructors in the department of special needs education, (Debre Birhan CTE), who were involved in providing the inputs and suggestions that help in refining the items. The experts agreed that the subscales had very good face validity. The English version questionnaires were checked and corrected by English subject specialist teachers from Debre Birhan CTE. The English version was then translated to Amharic by the researchers and checked by Amharic subject specialist. The Amharic version and the English version were then distributed among professional in the field of Ethiopian sign language (instructors in the department of special needs education at Debre Birhan CTE).

Moreover, to identify vague and ambiguous items and modify the short coming of the instrument, piloting the instrument was carried out with 38 third year SNE students in the department of special needs

education because they have experienced teaching sign language in special needs units when they were in practicum for a period of the pilot study and they were not included in the main study. Based on respondents' response addition, omission and modification of questions were undertaken. Following this, the researchers examined the comments and incorporated comments which were found to be of paramount importance.

A reliability test was conducted to check the consistency and accuracy of the measurement scales. The reliability was generally good. The reliability for each group of items were checked and it was 0.75, 0.68, 0.72 and 0.78 regarding instructional contents, instructional strategies, availability of adapted educational materials in teaching Sign language and performance level of knowledge and skill of SNE teachers to acquiring CTE Sign language training respectively.

Procedures of Data Collection

Woreda education offices and the principals of respective schools were communicated for consent after receiving letters of authorization from Addis Ababa University. Then, getting the consent of participants, the researchers directly went to sample schools to pilot test the data gathering instruments by introducing the objectives of the study. Then, the final questionnaires were administered to sample SNE teachers in the selected special needs units of primary schools with the same procedure as in the pilot study. The participants were allowed to give their own response to each item independently with close supervision from the researchers. Finally, the questionnaires were collected and made ready for data analysis. The reliability of the main study based on each group of items was 0.78, 0.74, 0.77 and 0.79 regarding instructional contents, instructional strategies, availability of adapted educational materials in teaching Sign language and performance level of knowledge and skill of SNE teachers to acquiring CTE Sign language training respectively.

Methods of Data Analysis

The data were analyzed and interpreted using simple basic quantitative statistical techniques such as percentages. Mean, percentage and t-test were also employed on the questions related to the performance of SNE teachers in teaching sign language to deaf students. In brief, independent sample test and one sample t test were employed in analyzing the data. For observation and focus group discussion qualitative analysis was used and triangulated with the quantitative findings.

Ethical Considerations

Before administering the questionnaire, the researchers clearly explained the purpose of the study to the participants to meet all the ethical considerations of research and informed consent was made using the procedure mentioned above.

RESULTS, ANALYSIS AND DISCUSSION

This part of the study discusses the presentation, analysis and discussion of the data obtained from the participants.

Demographic Characteristics of SNE Teachers

The total number of respondents participated to respond to the questionnaires were 79 SNE teachers. Among these 43(54.4%) were males and 36(45.6%) were females. Their level of education and qualification also showed that 43(54.4%) males and 36(45.6%) females of the participants had special needs qualification.

Presentation and Analysis

Instructional Contents of Sign Language in Special Needs Unit of Primary Schools

Given the fact that the study is descriptive survey design, it is necessary to examine what curriculum SNE teachers used in teaching Sign language to deaf students in special units of primary schools.

The Linguistic components of Sign language

phonological combinations of sign language i.e. hand shapes, movements, orientation of the palm and location; vocabulary/lexical development knowledge i.e, sign awareness, sign selection, sign formation; grammatical knowledge and conversational behaviors i.e, eye contact, turn talking, responding, opening speech subscale which consisted of 4 “yes” or “no” items. The subscale was designed to assess linguistic components of Sign language contents which comprises of instructional contents of Sign language subject (sign language subject means it given as one school subject beginning from pre-school class in primary school of special needs unit like other subject(English, Amharic and so on) in special units of primary schools.

Considering the SNE teachers individually, however, the scores varied from a minimum of 3 to a maximum of 7, with a median score of 5 and the mean score of 4.8. 76.59% of the respondents stated that, linguistic components were not included from Sign language subject whereas 23.41% responded that they were included in the Sign language subject.

A one sample t test was further run to see if the mean score of the sample is significantly different from half of the maximum possible score (that is 6). This examination showed that the sample mean score

(that is, 4.8) is less than a score of the expected mean ($t=51.31$, $df=78$, $0<.001$).

This was also confirmed by the data gained from the FGD as most of the SNE teachers believed that the sign vocabulary contents that were being offered in special needs units of primary schools were sufficient enough to teach Sign language to deaf students.

The researchers also employed classroom observation on the instructional contents of Sign language in special needs units of primary schools. There appears to be some serious teaching of Sign vocabulary from ‘የምልክት ቋንቋ ለጀማሪዎች’ በሆላኦ መስማት የተሰናደው ትምህርት ቤት የተዘጋጀ and “the Ethiopian Sign Language Dictionary and “ሀ” book (የአማርኛ የምልክት ቋንቋ መስማትና መናገር ለተሳናቸው 1ኛመጽሀፍ) but beyond that, there is no Sign language to talk about. In zero class which is pre-school for the deaf, they were taught mainly iconic signs which imitate the real actions of the activity. These kinds of signs were taught in a dramatic way to an extent that it looked almost like a play. At this stage, there were no attempts to teach them how these words or actions are written.

The finger spelling components of Sign language (Ethiopian finger spelling i.e the new edition 2008 in Ethiopian sign language dictionary, American sign language finger spelling, number and mathematics sign) subscale consisted of 3 “yes” or “no” items. The subscale was designed to assess finger spelling components of Sign language contents that comprises an instructional contents of Sign language subject in special units of primary schools.

A one sample t test was further run to see if the mean score of the sample is significantly different from half of the maximum possible score (that is 4.5). The result showed that the sample mean score (that is, 5.6) is greater than a score of the expected mean ($t=95.19$, $df=78$, $0<.001$).

In line with this, the data from FGD also indicated that the deaf students were taught the Ethiopian Sign language alphabet, American Sign Language finger spelling and number sign by using pictures. The data gathered through class room observation also indicated that deaf students in special needs units of primary schools were made to learn vocabularies in sign and finger spelling.

A one sample t test was further run to see if the mean score of the sample is significantly different from half of the maximum possible score 4.5. This examination showed that the sample mean score 5.6 is greater than a score of the expected mean ($t=95.19$, $df=78$, $0<.001$).

With respect to communication skill, the results of FGD revealed that the communication skills of SNE teachers and deaf students were not sufficient for the teaching and learning process of Sign language. Personal observations by the researchers also revealed that there a communication gap between SNE teachers and deaf students understand one another. This shows that there is a gap in understanding both the general communication and subject related matters.

The holistic introductory components of Sign language (deaf culture, visual preparation training, socio linguistic issues in the deaf community) subscale consisted of 3 items in forced –choice format to which the respondents say “yes” or “no”. The subscale was designed to assess holistic introductory components of Sign language contents comprises as an instructional contents of Sign language subject in special needs units of primary schools.

Considering the SNE teachers individually, however, the scores varied from a minimum of 3 to a maximum of 5, with a median score of 3 and the mean score of 3.4. 85.24% of the respondents stated that they were not included from Sign language subject whereas 14.76% of the respondents responded that they were included in the Sign language subject.

Regarding to holistic introductory contents of sign language, from their responses from FGD one can conclude that contents related to the deaf culture, visual preparation and socio linguistic awareness were not incorporated as the contents of Sign language in special needs units of primary schools.

In discussing the findings and results of the instructional contents, the result in general suggests that except finger spelling, number sign and sign vocabulary, Sign language subject did not comprise the major linguistic part, holistic introductory components, and communicative skills of Sign language., This finding seem to be contradictory to what Sign language subject should include: holistic introductory course and linguistics course and communicative skill about Sign language (Ekwama, 2003).

Accordingly to the researchers' observation, it is understood that the Sign language subject in special needs units of primary schools did not comprise a holistic introductory components, linguistics contents and communicative skills. Moreover, from the research findings, it was obvious that the deaf students and SNE teachers have difficulties in understanding each other. In support of the finding, in Kenya, Global Deaf Connections (2010) reports indicated that most of the teachers in Kenyan schools do not know Sign language or understand Deaf culture. This implies that deaf students need to learn the basic linguistic parts of Sign language, grammar of Sign language and conversational behavior of Sign language in special needs units of primary schools. Some SNE teachers taking part in the FGD had limited knowledge, skill and awareness about deaf culture, visual preparation training and sociolinguistic issues of the deaf community.

In general, the basic assumption is that although SNE teachers are teaching Sign language with limited skill training on Sign language instructional contents, they could be benefited significantly from experience sharing with their colleagues. Having a responsibility, Amhara Regional Education Bureau and Debre Birhan CTE have made

curriculum revision of sign language for deaf students in special needs unit of primary schools.

Instructional Strategies in Teaching Sign Language

Sign language taught as a subject in different grade level of education

SNE teachers' responses to the question regarding the extent to which deaf students learn the Sign language ranges from up to grade 4 to grade 10, i.e. 29(36.7%) of the respondents confirmed that they teach Sign language up to grade 4; 44(55.7%) of them replied that they teach at up to grade 8 and 6(7.6%) of them (deaf teachers) ascertained that they teach it up to grade 10.

During the focus group discussions, some respondents further revealed that Ethiopian sign language is taught as a subject up to Grade 8 for all students with deafness in all special needs unit of primary schools of Amhara Region. One respondent claimed: "In Amhara Region, Ethiopian sign language was not considered as a mother tongue of children with deafness like other local language which is found in the region such as Awgni, xamtanga, oromipha and Argobgna .Due to this, sign language used as a medium of communication of only in the first cycle of primary schools but other local languages are used. The researchers also employed classroom observation on the use and teaching of Sign language in both special units, it was learnt that Sign language was up to Grade 4.

Singing System SNE Teachers use in Teaching Sign Language to Deaf Students

When asked about which signing system they use when teaching Sign language to students with deafness, 6(8%), 53(67%) and 20(25%) of the respondents said that they use sign naturally, Signed Amharic and, both respectively. This implies that the majority of SNE teachers use signed Amharic rather than sign naturally. From the data one can

understand that the majority of the special need education teachers' use Amharic signed to for medium in the classroom to students with deafness. Contrary to this, only 8% of them stated that they use natural signing.

On the focus group discussion, SNE teachers came up with various reasons were given for the use of Signed Amharic. Some SNE teachers said that it was difficult to explain some concept by using sign naturally due to their limited sign naturally skills. However, others SNE teachers said that there was a need to use both at times. One SNE Deaf teacher commented that, “ልጆቼ እውቀት እንዲጨብጡ ተፈሯዊ ምልክት እጠቀማለሁ ግን ፈተና እንዳይወድቁብኝ የአማርኛ ምልክት እጠቀማለሁ” which is to mean (For understanding purposes, I use Sign language and for the sake of child promotion I use Signed Amharic).

The researchers also carried out classroom observation on the instructional strategies of Sign language in special needs unit of primary schools. Sign language is primarily taught as a mode of communication to facilitate the teaching of the Amharic language and other academic subjects like environmental science, mathematics and aesthetics. There is no attempt whatever to teach the deaf students about the rules of Sign language.

Active Learning Methods in Teaching Sign Language

Regarding the active learning methods used in teaching Sign language, 16(20.3%) ,30(38.0%), 19(24.1%), 6(7.6%) and 8(10.1) reported use of role play, group work, individual work, video sign and other active learning methods respectively. From the data, one can infer that group work was frequently used whereas video lesson was a least used method. The observation made in the classroom also went in line with the responses to the questionnaire. SNE teachers use participatory active learning methods in a group work.

In discussing the findings and results of instructional strategies, the study has revealed that SNE teachers were using Signed Amharic signing system. In line with this, the main ways teachers communicated in classroom instruction were speech and written communication, seldom signing. "Oral speech", reading and writing were the main modes of classroom instruction used by the teachers. Therefore there is no /little sign language communication.

However, contrary to the result, experts in bilingual Deaf education emphasized the need to gain mastery in one language before learning the second language. This is also in line with the principles of the linguistic interdependency theory. With respect to this theory, Cummins (1989) states that one has to attain complete competence in one language before attaining competence in another. The evidence supports the use of a bilingual educational approach that promotes the use of a learner's primary language to develop skills in the learner's secondary language even though the curriculum has multiple objectives beyond just language development (Gregory, 1996).

In support of this finding, on the focus group discussion respondents emphasized that sign language was the main medium of communication between SNE teachers and deaf students except beginners. The schools have recognized that early language learning is key to the language development of the deaf. This is supported by many scholars who have proved through various research works that early language exposure improves literacy skills for the deaf (Drasgow 1998).

Moreover, regarding Sign language, MOE (2006), outlined roles and responsibilities of teachers with special emphasis on how to teach and assess students with special needs. With respect to methods of instruction in the class room 38% of the respondents confirmed that they use group work. The observation data revealed that SNE teachers use participatory active learning methods at group work. In line to this finding, MOE (2012) assert that teachers must use

innovative instructional strategies, e.g. cooperative, collaborative learning, peer tutoring etc., to meet the needs of all children in the classroom.

In general terms therefore, group work was the dominant instructional method that the majority of SNE teachers frequently used in their respective class rooms. But some also confirmed that they use individual work, role play. In line with this, most language acquisition and teaching theorists now support a holistic view of second language learning in which teachers are sensitive to the individual needs of students rather than to any dominant language methodology (Ekwama, 2003).

Personal observation of the researchers in the class room revealed that SNE teachers in both schools teach Sign language by using both speech and sign simultaneously. This implies that the majority of SNE teachers use total communication.

On the other hand, the study found out that there was confusion as to whether the schools were teaching Sign language as a subject at different grade levels or not. While some SNE teachers claim that they teach Sign language at lower grades. Despite these weaknesses, the study also showed that the majority of the respondents want Sign language to be introduced as a subject at least up to Grade eight.

Availability of Adapted Educational Material in Teaching Sign Language

Asked whether there have enough sign language student text books and teachers guide in teaching Sign language to the deaf students or not, all of them responded that there were no any students' text book and teachers' guide of Sign language in the special needs units of primary schools.

On the other hand, the responses of the respondents given to other sign language books and word sign cards revealed that there are enough other Sign language books and word sign cards in their schools. For instances, the responses given to item one indicates that 89.9% of the respondents confirmed the presence of enough sign language books. Moreover, the majority (91.1%) of respondents confirmed the presence of word sign cards in their schools. The respondents were asked whether there are Ethiopian Sign language dictionary and picture cards in teaching Sign language to the deaf students, or not. The majority of the respondents responded that there were no adequate Ethiopian Sign language dictionary and picture cards in their schools. For instances, the responses given to dictionary indicates that 72.2% of the respondents confirmed the absence of Ethiopian Sign language dictionary. In addition to this, 62% of the respondents confirmed the absence of picture cards in their schools. From this one can infer that the target schools have no adequate Ethiopian Sign language dictionary and picture cards.

The respondents were asked whether there are visual teaching aids. The majority of the respondents responded that there are not adequate visual teaching aids in their schools. For instance, the responses given to visual teaching aids indicate that 96.2% of the respondents confirmed the absence visual teaching aids. Besides, human resources who are competent in Sign language in teaching deaf students, or not, the responses of the respondents' forwarded to human resources also show that 59.5% of them confirmed the absence of human resources who are competent in Sign language in their schools. From this one can infer that the target schools have not available visual teaching aids and human resources.

Observations by the researchers also revealed that the two schools did not have enough Sign language materials. At Atse zeraykob special needs units of primary schools, investigations revealed that only the 'ህ sign book for students with deafness for Grades One to four and 'የምልክት ቋንቋ ለጀማሪዎች" በሆላና መስማት የተሰናዥው ትምህርት ቤት የተዘጋጀ and "the

Ethiopian Sign Language Dictionary, (የአማርኛ ምልክት ቋንቋ መስማትና መናገር ለተሳናቸው 1ኛመጽሀፍ) were available. At Hidasie special needs units of primary schools, only ‘የምልክት ቋንቋ ለጀማሪዎች’ በሆሳኒና መስማት የተሰናቸው ትምህርት ቤት የተዘጋጀ ‘were found.

During the focus group discussion, Some SNE teachers complained that the Ethiopian Sign Language dictionary had some signs that were different from what the students were actually using. Besides, the dictionary does not provide a clear guide on how to use signs.

Others also said that the Ethiopian Sign Language Dictionary has limited entries of signs to help the advancement and teaching of Sign language in schools. An examination of the Ethiopian Sign Language Dictionary revealed that there are only about 1322 signs in the Ethiopian Sign Language Dictionary. One of the SNE experts put it this way:

“The main challenge faced by SNE teachers is limitation of subject related Sign language dictionaries for reference purposes to the subjects they teach. Also, there is no consistent use of Sign language use in the schools each tends to use its own sign language.”

One of the college instructors said that, lack of Sign language materials, absence of skillful teachers’ and students’ text books and failure to use the Sign language were some of the curriculum challenges faced by SNE teachers when teaching deaf students. Therefore, it needs improvement.

The SNE expert from Woreda education office summarized the challenges which the teachers faced as follows: “First, they have no teaching materials that have been prepared in Sign language so that the deaf cannot learn better. Second, most of SNE teachers of deaf students do not know Sign language, and lastly SNE teachers lack motivation in terms of special education allowance. There is more work

involved when one is teaching deaf students as compared to teaching hearing students.”

The class room and resource center observation revealed the fact that there was a problem in teaching sign language both as a subject and as a medium of instruction. This was because resource centers were not well equipped with sign language materials for both SNE teachers and deaf students.

This can be discussed that there were not any students' text book and teachers' guide for Sign language in special needs units of primary schools. SNE teachers had a problem in teaching sign language as a subject and as a medium of instruction. This was because the resource centers were ill-equipped with sign language materials for both SNE teachers and deaf students. In line with this, in Kenya, Global Deaf Connections (2010) reports that only a small percentage of deaf children attended schools receiving limited resources because of the stereotypes that deaf education is a waste of time and money.

Generally, from the qualitative data the study revealed that main challenge faced by SNE teachers were lack of subject related Signs dictionaries for reference purposes to the subjects they teach. Also, there was no consistent Sign language use in the schools. Schools have their own Sign .

SNE teachers' perceived performance level of knowledge and skills acquired from CTE training.

The examination of the mean score for the knowledge of linguistic characteristics of Sign language subscale indicated a poor performance level which is discouraging. The mean score for the knowledge of linguistic characteristics of Sign language subscale is 9.36 with a standard deviation of 1.84. Comparing the obtained mean (9.36) for SNE teachers knowledge of linguistic characteristics of Sign language with that of the expected mean (12, which assumes an

average “good”), one can see that the obtained mean score is significantly less than the average.

Going one step further the analysis, the one- sample t-test procedure was repeated for an expected mean that is half way between the average position (12) and that of agreement (20). In other words, the obtained mean score (9.36) was compared with 12. Here also, the obtained value is significantly less than the test value ($t=45.22$, $df=78$, $p<.001$). Further examination of SNE teachers’ ratings of each item also indicates that the great majority of SNE teachers rated most items poor level.

Thus, accordingly to the obtained ratings, SNE teachers appeared to low performance level of knowledge of linguistic characteristics of Sign language. Similarly, the FGD made with SNE teachers, showed that they had serious problem with regard to areas of grammatical knowledge of Sign language. On the contrary, from the data obtained through observation, it was that both at primary and College levels Sign language books or Sign language module comprise only sign vocabulary.

The second subscale pertains to the holistic introductory course of sign language. This examination showed that the sample mean score (that is, 10.3) is significantly below than a score of 12 ($t=37.35$, $df=78$, $p<.001$). A one sample t-test computed for holistic introductory course of sign language indicated that the obtained mean ($t=37.35$, $df=78$, $p<.001$) was significantly below the average mean.

Further examination of SNE teachers’ ratings of each item also indicates that the great majority of SNE teachers rated most items poor level. Thus, accordingly to the obtained ratings, SNE teachers appeared to low performance level of knowledge of holistic introductory courses of Sign language. This was also confirmed by the data gained from the FGD i.e., it showed that most of SNE teachers believed that

awareness of deaf culture was not adequately treated in CTE curriculum.

The Class room observation of the researchers revealed that classrooms were not equipped with a variety of media necessary for instructional activities of Sign language subject. Moreover, there were no stimulating classrooms for the deaf students.

The third subscale pertains to the finger spelling of sign language. The examination of the mean score for Finger spelling of Sign language subscale similarly indicated a satisfactory performance level. The mean score for Finger spelling of Sign language subscale is 8.65 with a standard deviation of 1.74. comparing the obtained mean for SNE teachers skill of signing finger spelling with the expected mean (9, which assumes an average position, "good").one can see that the obtained mean score is slightly below than the average position($t=44.07$, $df=78$, $p<.001$).

A one –sample t-test was further run to see if the mean score of the sample is slightly different from half of the maximum possible score (that is, 9).this examination showed that the sample mean score (that is, 8.65) is slightly below than a score of 9($t= 44.07$, $df=78$, $p<.001$). Further examination of SNE teachers' ratings of each item also indicates that the great majority of SNE teachers rated most items poor performance level.

Thus, accordingly to the obtained ratings, SNE teachers appeared to low performance skills of signing finger spelling of Sign language. The above data was also confirmed by the data of observation. Similarly, during FGD session, the participants revealed that they had adequate performance in using Ethiopian finger spelling which can be used for teaching Sign language.

The fourth sub scale pertains to the communicative skills SNE teachers often employ to teach sign language .Comparing the obtained mean (6.74) with the expected mean (9), which assumes an average “good”), one can see that the obtained mean score is significantly less than the average ($t=36.64$, $df=78$, $p<.001$).A one sample t-test computed for communicative skills indicated that the obtained mean ($t=36.64$, $df=78$, $p<.001$) was significantly below the average mean. Further examination of SNE teachers’ ratings of each item also indicates that the great majority of SNE teachers rated most items poor performance level.

Thus, accordingly to the obtained ratings, SNE teachers appeared to low performance skills of communicative skills of Sign language. In line with the above data analysis, from the FGD made with SNE teachers, it is reported that some SNE teachers have serious problem with regard to the interactive, receptive and self-expressive skill of Sign language due to a limited exposure to SNE teachers teaching in actual class room situation during the practicum programme .This ideas was also supported by the qualitative data gathered through observation. It was learnt that the course in the college curriculum were more of sign vocabulary and lacked interactive, receptive and expressive skill components of sign language. It also revealed the existence of gap between SNE teachers and deaf students in understanding both the general communication and subject related concepts.

Generally, from the result of the finding, it can be concluded that there is no gap in level of education and qualification in teaching Sign language in special needs units of primary schools. However, during the focus group discussions, the respondents further revealed that the standard of Sign language training at CTE were generally inadequate. Some teachers felt that the training at CTE was offering a much more finger spelling and sign vocabulary in Sign language. Here are the exact words of one respondent: “At the Debre Birhan College of Teacher Education, Sign language training is not provided in detail.

The training being more of theoretical was not given adequate time and credit hours for practice.”

The results and findings can be discussed that the Support of CTE Training for SNE Teachers in Teaching Sign language, the study revealed that the training offered by CTE was at ‘poor’ level. However, based on the data gained from FGD, most of the SNE teachers believed that Sign language training by CTE was sufficient enough to help SNE teachers do their job in their respective schools. Although it can be said that even if the 2011 Education Act emphasizes the use of Sign language in the education of deaf students, SNE teachers graduated from the College start teaching with very limited skills in Sign language and general interaction with deaf children. They lacked both the linguistic and communicative competence in Sign language in order to effectively teach the deaf. There is, therefore, a need to match policy documents and pronouncements with action on the ground.

The study revealed that the courses offered by the College are more of theoretical and lacks practical skills. SNE teachers did not get comprehensive training in Sign language. This was in line with the researchers observations. These findings are similar to the situation in Kenya where Global Deaf Connection (2010) reports that most of the teachers in the 41 schools for the Deaf do not know Sign language as they use pointing as their primary means of teaching methods. This study shows that the Debre- Birhan College of Teacher Education was partially responsible for the problems created as a result of the inadequacy of Sign language training being offered. Based on the demographic characteristics the majority of SNE teacher respondents have less than 5 years of teaching experience and they need support from either their senior teachers or need additional in service training to improve their skill in teaching Sign language .In addition to this, based on their background information their qualification and level of

education goes agreement with the expected educational level and qualification.

Gender Difference in Knowledge and Skill of Sign Language

The use of two independent sample test computed for male and female special needs education teachers, there was no significant difference in communicative skills($t=1.37$, $df=78$, $p>.05$), holistic introductory courses($t=-.153$, $df=78$, $p>.05$), and linguistic issues($t=1.33$, $df=78$, $p>.05$). That is, male and female SNE teachers have reported about the same level of Knowledge and Skill of Sign Language they used to teach deaf students. However, there was significant difference between male and female SNE teachers in finger spelling. The mean value for the males was higher than that of females for finger spelling.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Although sign language instruction has made progress over the past years in different parts of the world, it continues to experience little growth in Ethiopia in relation to instructional contents and strategies informing curriculum development and instructional methodology.

From the major finding, one may conclude that there is no gap in level of education and qualification of SNE teachers in teaching on the primary level of deaf education based on their back ground information. SNE teachers simply teach only sign vocabulary and finger spelling rather than major components of sign language using Signed Amharic in their schools. Absence of resource centers with ill prepared human resources was seen. However, the existence of gap between SNE teachers and deaf students in understanding both the general communication and subject related concepts. Besides, SNE teachers lacked both the linguistic and communicative competence in

Sign language in order to effectively teach the deaf. It needs to revise the Sign language training program.

This would improve the values of sign language as currently most SNE teachers are not competent in Sign language. There is, therefore, a need to match policy documents and pronouncements with action on the ground.

Recommendations

A thorough review of special needs units of primary schools curricula at various grade levels should be done to check the relevance and adequacy of Sign language contents. Therefore, all SNE teachers should take on-job-training in various contents of Sign language. The study also showed SNE teachers used signed Amharic. However, many studies have shown that the bilingual/bicultural approach is the most effective approach of teaching the deaf children. Hence, the College should introduce the bilingual/bicultural approach to the education of the deaf. Special needs units of Primary schools should develop supplementary teaching resources that could be done in the form of Sign language story books, picture, Sign language video tapes, charts, students and teachers' books and many more in order to improve the teaching of Sign language in schools. What is more, College of Teacher Education should introduce comprehensive training in Sign language as a language for SNE teachers of the deaf. It needs to revise the Sign language training curriculum.

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