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**PROBLEMS WITH COMMUNICATION MODES IN THE EDUCATION OF CHILDREN WITH HEARING IMPAIRMENT IN GHANA: A STUDY OF FOUR SCHOOLS FOR THE DEAF**

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**ABSTRACT**

*This study used descriptive survey to identify the problems with communication modes used in the education of children with hearing impairment in Ghana. Four schools for the deaf were purposively selected for the study. The participants consisted of four (4) head teachers, 48 teachers of the deaf, 120 hearing impaired students. Four research questions were formulated to guide the study. Questionnaire was used for the data collection. The findings indicated that teachers and head teachers find sign language difficult to use. There is lack of hearing equipments that can facilitate the use of oral communication. The use of total communication confuses students. It was recommended among other things that the Ministry of Education and other stakeholders in the education of the deaf should come together to review the existing modes of communication and adopt mode (s) that will meet the unique needs of the individuals.*

**Key:** Hearing impairment, total communication, sign language, and oral language.

**Introduction**

The choice of communication mode (s) for the education of the student who is hearing impaired has been a source of on-going debate. The fundamental disagreement concerns the extent to which children who are deaf should express themselves through speech and perceive communication of others through speech reading and residual hearing. These controversies have come about as a result of problems inherent in each of the modes. While some have argued vehemently about the usefulness of only lip reading as the most effective approach to teaching and learning, others have advocated sign language and finger spelling (Aboke, 1997).



In the 1999/2000 academic year, the Special Education Division of the Ghana Education Service issued a directive to all heads of special schools to officially adopt sign language as the only mode of instruction and communication for the students who are hearing impaired. Interestingly, different modes of communication including Ghanaian sign language were in use in these schools according to the dictates of the Heads (Gadagbui, 1998). Even within the sign language, there are different types being used in different schools. Offei (2005) asserted that in Ghana, sign language differs from school to school therefore making it not standardized.

Universally, different modes of communication are used for instructing students with hearing impairments. These include those that rely primarily on hearing and talking and those that incorporate, or are mainly composed of, manual elements. Some of these modes commonly used to date are categorized under the following three headings: The manual systems, the oral systems and total communication.

The oral methods of communication include the oral – aural and auditory methods. According to McDougall (1991), the oral methods aim at encouraging children to receive and use language in the most conventional manner without using sign language. Oralists want children who are deaf to use their residual hearing as best as they can and combine it with other methods of oral communication. According to Kirk, Gallagher and Anastasio (1993), the oral method uses the residual hearing via amplified sounds, speech reading and speech to develop communication skills.

The primary benefit is being able to communicate directly with a wide variety of individual. This ability brings with it options in terms of education, vocation, and social life. According to Igbokwe (1980), the oral methods of communication enabled the hearing impaired to communicate with the hearing. Oral methods are also effective instruments for teaching language, the development of thinking and personality as well as the acquisition of knowledge.

As with every approach to educating children who are deaf or hard of hearing, not all children will be successful with the oral approach. Smith (1998) indicated that the level of acquisition of language by majority of hearing impaired students has remained low due to non-availability of audiological equipment. Igbokwe (1980) cautioned that the oral method required the following conditions for efficiency; good talking environment in and outside the school/classroom, capable teachers and good supply of audiological equipment. Gadagbui (2005) observed that in the special schools for the Deaf in Ghana, communication boosters such as hearing aids, auditory training units for speech learning and correction must be used with a teacher trained in language and speech teaching to assist the post-linguals to

acquire vocabularies and talk intelligibly using hearing aids all the time and develop listening and lip reading skills alongside. Oppong (2000) suggested that children, who can benefit from the use of assistive devices such as hearing aids, must be provided with such aids and trade to benefit from the use of speech.

Another factor that undermines the effective use of auditory-oral approach is the non-availability of communication support personnel. Studies on the availability of support services have shown that the presence of support personnel such as speech therapists and educational audiologists can provide communication training and assistance to hearing impaired children and this can facilitate speech acquisition and development (Elksnin, and Capilouto, 1991). However, programs for the training of support personnel such as educational audiologists, speech and language pathologists, psychologists and communication support workers such as interpreters are not available in the schools (Eleweke, and Rodda, 2000). In Ghana, with a population of over 20 million, such professionals are extremely scarce and it is estimated that the number is less than ten.

Total Communication (TC) which is gaining grounds in the schools for the deaf involves one or several modes of communication (manual, oral, auditory, and written) depending on the particular needs of the child. The aim of TC is not only to make use of the deaf child's residual hearing through hearing aids but also to reinforce speech through the visual medium of signs. The original expectation of total communication was for teachers to use the communication method (s) most appropriate for a particular child at a particular stage of development. Total communication seemed to be the bridge that allowed a crossover from an oral only philosophy to a philosophy that embraced sign language. The main benefit of total communication is that it can open all avenues and modes of communication for hearing impaired children. By using a total approach of speaking and signing, all members of the family, those who are deaf as well as those who are hearing, have continuous access to the communication occurring in their environment (Baker, 1992). In a study, Paul and Quigley (1990) revealed that 78.6 % of teachers of the deaf agreed that total communication is the most effective and beneficial mode of communication to a child at home and in the classroom.

Despite the numerous benefits that total communication has over other modes of communications, it has its own problems. In fact, the research findings offer little support for pursuing the TC approach with the generally of deaf children. More and more researches have emerged which reveal problems with both the principles and the practice of TC (Potts, 1998; Bench, 1992; Gee and Goodhart, 1998). The observations and conclusions drawn from these researches include: teachers using TC frequently show a lack of concern for the management and maintenance of hearing aids (Potts, 1998). When pupils communicate among themselves, they



tend to use a form of sign which conforms to the rules of natural sign language rather than the structures of English (Gee, and Goodhart, 1998). Bench (1992) observed that many students who are deaf are immersed in a form of simultaneous communication that does not match their level of linguistic readiness or ability.

The use of sign language by and with people who are deaf has a long history. It is the dominant method of communication among people who are deaf and is considered one of the more important elements belonging to the deaf community (Moore, 1988). With sign language, children can develop a distinct deaf identity of which they can be proud. UNESCO report (1994) stated the importance of sign language as a medium of communication among the deaf and stressed that provision be made to ensure that deaf persons have access to education in their natural sign language.

There is evidence to support the contention that deaf children, exposed to natural sign language in the early years of life, acquire sign in a similar way to hearing children acquiring speech (Caselli, 1983; Petitto, 1988). A possible serious difficulty, from an educational point of view, is the development of literacy from sign language. Gadagbui (1998) stated that the use of sign language leads to the loss of the spoken language and reduces social interaction with the hearing public. Jones (1979) examined the notion of interference between ASL and English – based signing. He argued that the signing competence and written English of deaf student resemble a pidgin form of English because the students neglect to include non-manual aspects of their ASL utterances.

Several studies (Allen, 1986; Paul and Quigley, 1990) have also indicated that a majority of deaf students read and write at about a third or fourth grade level upon graduation from high school and also, that the vocabulary levels of deaf children and their knowledge of English syntactic structures are far below those of their hearing peers (Water, 1978 cited by McAnally, Rosse and Quigley, 1994).

A review of research on the communication modes of the deaf indicates that although there is a considerable body of information on various modes of communication, there is comparatively little information on problems faced by teachers in the use of the communication modes for the education of young deaf children. The purpose of the research is two fold. First, to find out the problems associated with the use of sign language oral communication the total communication as mode of instructing the deaf in the Ghanaian schools and second, to contribute to existing literature.

## Research Questions

The following research questions were formulated to guide the study:

1. What problems exist in the use of sign – language as a medium of instruction?
2. What are the problems involved in the use of oral communication as a mode of instruction for the hearing impaired students?
3. What are the limitations of the total communication approach?

## Methods

### Participants

The predictive sample survey design was adopted to find out the problems associated with the types of communication used in the schools for the deaf in Ghana. The sample for the study consisted of 120 hearing – impaired students, 60 teachers of the deaf, and four head teachers drawn from four special schools for the deaf in the country. The schools are Sekondi School for the Deaf; Demonstration School for the Deaf Mampong Akwapim; Gbeogu School for the Deaf Gbeogu; Bolgatanga and Ashanti School for the Deaf Jamasi. These schools were purposively selected because of their orientation to the communication modes under investigation.

### Instruments

The main instruments for the collection of data for the study were questionnaire and interview schedules. Two sets of questionnaires and interview schedules were developed to collect data from the respondents. The entire questionnaire and the interview schedule consisted of two (2) parts, that is section A and B. Section A solicited demographic information of respondents while section B sampled the views of respondents on problems associated with the use of the various modes of communication. Pre-testing of the instruments was carried out at Cape Coast School for the Deaf (Cape Deaf).

### Training of Research Assistants

In view of the fact that the researchers were not very fluent in the sign – language, teachers who were conversant or fluent with the sign language were recruited and trained as research assistants to assist the hearing impaired to respond fully to the items in the questionnaire. This was to ensure that the items were explained to the respondent in the language he or she understood.



### Data Collection Procedure

Before administering the questionnaire in any of the schools involved in the study, the researchers sought permission from the head teachers. After an agreed meeting between the researcher and the head, it was requested that a meeting be organized separately for both the teachers and the pupils of the school. The rationale for this meeting was to enable the researcher to explain the significance of the study to the respondents, take them through each of the items in the instrument and solicit their co-operation. They were therefore assured of confidentiality on information they provided.

The interviews with the head teachers were personally conducted by the researchers. Since the study was an opinion survey and the main instruments that were used for data collection were the questionnaire and the interview schedules, descriptive analysis was employed in data analysis.

### Results

#### Problems in the use of sign – language as a Medium of Instruction

Table 1 and 2 present the analysis of the responses given by head teachers, teachers and deaf students on the problems associated with sign language.

**Table 1: Head Teachers and Teacher's responses on Problems associated with the use of sign language**

Statements	Responses			
	Head teachers'		Teachers	
	Yes (%)	No (%)	Yes (%)	No (%)
Teachers find it difficult to communicate with students in sign language	2 (50.0)	2 (50.0)	7 (14.6)	41 (85.4)
Sign language affects the written expression of deaf students	4 (100.0)	-	46 (95.8)	2 (4.2)
Hearing impaired students who are allowed to communicate with signs do not make effort to learn speech	4 (100.)	-	37 (77.1)	11 (22.9)
Teachers cannot sign and pass information correctly to their students through sign				

language	3 (75.0)	1 (25.0)	12 (25.0)	36 (75.0)
The use of sign language denies the post-linguals of speech development	4 (100.0)	-	36 (75.0)	12 (25.0)
Teachers complain that they are unable to understand their students whenever they (students) ask questions in sign language	4 (100.0)	-	43 (89.6)	5 (10.4)

**Table 2: Students' responses on Problems associated with the use of sign language**

Statements	Responses	
	Yes (%)	No (%)
Teachers find it difficult to communicate with students in sign language	107 (89.2)	13 (10.8)
Sing language affects the written expression of deaf students	77 (64.2)	43 (35.8)
Hearing impaired students who are allowed to communicate with signs do not make effort to learn speech	83 (69.2)	37 (30.8)
Teachers cannot sign and pass information correctly to their students through sign language	95 (79.2)	25 (20.8)

The data in table 1 and 2 clearly shows that all the head teachers and students agreed that teachers find it difficult to communicate with students in sign language. One hundred and seven (89.2 %) and 2 (50.0 %) of students and head teachers respectively affirmed the statement that 'Teachers find it difficult to communicate with their students in sign language' while only 13 (10.8 %) of the students disagreed or said 'No' to the statement. On the other hand, table 2 shows that about 41 (85.4 %) of the teachers disagreed to the statement that they find it difficult to communicate with their students in sign language.

On the issue of whether teachers complain that sometimes they are unable to understand their students whenever the students try to ask questions or contribute in class in sign language, all the head teachers and as many as 43 (89.6 %) of the teachers themselves responded 'Yes' while only 5 (10.4 %) teachers said 'No'. This analysis clearly shows that there is a communication barrier between teachers and their students. Teachers' negative response to the statement could be interpreted as an attempt to save the situation.



With regards to the question of whether the use of sign language affects the written expressions of deaf students, all the head teachers agreed and as many as 46 (95.8 %) and 77 (64.2 %) teachers and students respectively responded in the affirmative. Only 2 (4.2 %) of the teachers and 43 (35.8 %) of the students responded in the negative indicating that sign language does not affect the written expressions of the deaf students.

When asked whether hearing impaired students who are allowed to communicate with signs do not make effort to learn speech, all the head teachers and 37 (77.1 %) of the teachers and 83 (69.2 %) of students responded 'Yes' while only 11 (22.9 %) teachers as well as 37 (30.8 %) students said 'No'.

From the analysis of the responses regarding research question 3, it can be concluded that the use of sign language has poses some restrictions in the way teachers and head teachers interact with the students.

### **Problems in the use of Oral Communication**

Analysis of the responses from the head teachers, and the students revealed a number of problems associated with the oral communication approach. One major problems that was revealed by the respondents was lack of hearing aids for the hearing impaired students.

In response to a question as to whether students with hearing impairment used hearing aids, one (25.0 %) head teacher said 'Yes' while three (75.0 %) said 'No'. 11 (27.5 %) of the parents also indicated that their hearing impaired children used hearing aids while as many as 29 (72.5 %) indicated that their children did not use hearing aids. On the part of the students, 28 (23.3 %) of them confirmed that they used hearing aids while 92 (76.7 %) said they did not use hearing aids. As to why they were not using the hearing aids, 53 (57.6 %) of the students said their parents could not afford the price, 27 (29.3 %) said parents had refused to buy the hearing aids for them even though they could afford, while only 12 (13.0 %) said they felt uncomfortable when they wore them. Two (50.0 %) head teachers who indicated that their students did not use hearing aids also mentioned the high cost of the hearing aids as the main reason why students were not using it, while one head teacher said parents were reluctant to spend on their hearing impaired children. Another problem that was revealed by the head teachers was lack of communication support personnel such as speech and language therapists and audiologists to help with speech training for the hearing impaired students.

Table 3 presents the responses of head teachers on the availability of support personnel.



**Table 3: Support Personnel available in Special Schools for the Deaf**

Personnel	Audiologists	Speech therapist
Demonstration	1	0
Sekondi School	0	0
Ashanti School	0	0
Gbeogu School	0	0
<b>Total</b>	<b>1</b>	<b>0</b>

Table 3 shows that support personnel such as audiologists and speech therapist, were not available in the schools. All the head teachers indicated that they did not have speech therapist in their schools. Only the Head teacher of the Demonstration School for the Deaf indicated that there was an audiologist attached to the school, on part time basis. From the table, it can be inferred that professional support personnel are not available in the schools.

Table 4 presents the responses of the head teachers regarding the status of the hearing assessment equipment at the schools for the Deaf.

**Table 4: Status of hearing and assessment equipment in the schools**

Equipment	Available	Dysfunction
Screening audiometer	3	3
Diagnostic audiometer	2	0
Speech training unit	4	4
Auditory training unit	2	2
Otosopes	2	2

Analysis of data from table 4 reveals that most of the hearing and assessment equipment in the schools were not functioning. All the head teachers indicated that screening audiometers, speech training unit (STU) and auditory training unit (ATU) were not functioning. Two of the head teachers indicated that they had functional diagnostic audiometer and otosopes. The head teacher at Sekondi School for the Deaf admitted that though the school had a new diagnostic audiometer, there was no professional audiologist manning the centre.

### Limitations of the Total Communication Approach

**Table 4: Head teachers and teachers' responses on Total Communication Approach**

Responses statements	Head teachers				Teachers			
	Agree		Disagree		Agree		Disagree	
	No	%	No	%	No	%	No	%
Total communication is effective with all hearing impaired students	3	75	1	25	39	81.3	9	18.8
Total communication confuses students during lessons	4	100	0	0	44	91.7	4	8.3
Teachers supervise students' hearing aid to ensure they are functioning	0	0	7	0	10	20.8	38	79.2

From table 4 there is an indication that most of the head teachers were in agreement with the statements, "Total Communication is effective with all groups of hearing impaired students with only one head teacher indicating disagreement with the statement. Analysis of head teachers' responses regarding the above statement shows that as many as 3 (75.0 %) of the head teachers indicated their agreement with the statement while only 1 (25.0 %) indicated that the approach was not effective for all students.

When the statement "Total communication confuses hearing impaired students during interaction with their teachers" was posed, all the head teachers indicated their agreement. In responses to the last statement in table 4 that is "Teachers supervise students' hearing aids to ensure that they are functioning", there was a total disagreement by the head teachers. Thus, responses given by all the head teachers indicated that teachers did not supervise the hearing aids used by their students.

From table 4, there is an indication that majority of the teachers were in agreement with the statement, with only a few indicating disagreement.

With regard to the statement 'total communication is effective with all groups hearing impaired students', 39 (81.3 %) of the teachers indicated their agreement while only 9 teachers, constituting 18.8 %, showed their disagreement to the statement. With regards to the statement 'Total communication approach confuses students during interaction with their teachers', the majority (91.7 %) of the teachers indicated their agreement while only few (8.3 %) indicated their



disagreements. In responses to the last statement in table 4, that is 'Teachers supervise the hearing aid of students to ensure that they are functioning', only 10 (20.8 %) of the teachers indicated their agreement while 38 (79.2 %) indicated their disagreement. It can therefore be inferred that generally, teachers of the deaf do not show much concern regarding the hearing aids used by their students. The responses given by some of the teachers could only be an attempt to save the situation.

The conclusion drawn from the above analysis is that total communication can serve as an appropriate mode of communication for students with varied conditions of hearing impairments, secondly, the total communication approach has a tendency of confusing students with hearing impairment when used with a heterogeneous group of impaired students. Also, the total communication approach has a potential of developing speech for the hard of hearing or the post-lingual. It is therefore not supervising that head teacher and teachers have adopted total communication approach in schools for the deaf in Ghana.

### **Discussion**

Findings from the study revealed that sign language affects the written expression of deaf students. The study found out that (64.6 %), teachers and 115 (95.8 %) students and all the head teachers, affirm that sign language affects the written expressions of the deaf. This result from the present study is analogically similar to that of Jones (1979) examined the notion of interference between ASL and English – based signing. He argued that the signing competence and written English of deaf students resemble a pidgin form of English because the students neglect to include non-manual aspects of their ASL utterances. Commenting on the written expressions of deaf students, Allen, (1986), Paul and Quigley (1990) indicated that an overwhelming majority of deaf students read and write at about a third or fourth – grade level upon graduation from high school. According to the authors, most deaf students have not acquired a high level of either communicative or academic competency in English despite the proliferation and use of various English – based sign systems.

The result also revealed that 77.1 % teachers, 69.2 % of students and all the head teachers agreed that hearing impaired students who are allowed to communicate with signs do not make effort to learn speech. This implies those who are post lingual and have better speech are likely to lose their communicative abilities since the majority of the schools operate on residential system and the major mode of communication in the schools is the sign language. This means that a particular mode of instruction will not be useful for the students. When teachers are faced with such heterogeneity, it is normal for teachers to organize students for small

group instruction according to their communicative abilities. Oral methods of communication aim at encouraging children with hearing impairment to receive and use language in the most conventional manner, without using sign language (MacDougall, 1991).

The study revealed a number of problems associated with oral communication as a method of instruction for the education of children with hearing impairment. The study found that most of the children with hearing impairment in the schools were not using hearing aids. The study further revealed that the hearing aids were expensive and parents could not afford them. The absence of this simple gadget makes the use of the oral method difficult if not impossible.

The study also found that equipment such as screening and diagnostic audiometers, speech and auditory training units, otoscopes, among others, which are needed for successful audiological examination, were non-existent. The only diagnostic audiometer which was found to function had no qualified personnel for its operation. Gadagbui (2005) emphasized the importance of communication boosters such as hearing aids, auditory training units and speech training units. These pieces of equipment are needed for speech learning and correction to assist the post lingual to acquire vocabularies and talk intelligibly. Oppong (2000) also added that hearing impaired children who can benefit from the use of assistive devices such as hearing aids must be provided with them and made to benefit from its use. The teaching of listening skills, sometimes called auditory training, requires that the child be fitted with effective, appropriate hearing aids, preferably one in each ear (Ross, 1986).

Another finding of the study is that the schools also lacked support personnel such as speech therapists and audiologists to help with assessment of hearing and of speech training for the hearing impaired. All the head teachers indicated that they did not have speech therapists in the schools. Only 1 head teacher claimed there was an audiologist attached to the school on part time basis. The result agrees with the observation of many researchers that programmes for the training of personnel such as audiologist and speech pathologist are not available in Africa (Eleweke, and Rodda, 2000), However, studies have shown that having support personnel such as speech therapist can provide communication training and assistance to hearing impaired children could facilitate speech acquisition and development among the children (Elksnin, and Capitouto, 1994).

The study also revealed that all the teachers agreed to the statement that 'Total Communication confuses students during lessons'. The total agreement to this statement indicates that although head teachers and teachers view total communication as an effective and beneficial method, it has its own limitations.



Bench (1992) said that many students who are deaf are immersed in a form of simultaneous communication. The study also revealed that teachers did not supervise the use of hearing aids of their hearing impaired students during teaching to ensure that they are functioning. Analysis of the responses indicated that all the head teachers and 78.8 % of the teachers disagreed to the statement 'teachers supervise the use of hearing aids of their students'. This implies that only few teachers take the responsibility of ensuring that the hearing aid worn by their hearing impaired students are properly working. This finding is in line with the view of Potts (1998) who stated that teachers using total communication frequently show a lack of concern for management and maintenance of hearing aids.

### **Conclusion**

The results of the study present some evidence of problems with the communication modes used in the education of the deaf in Ghana. One serious problem that may need further investigation is the fact that sign language affects written expression of the deaf. This admission is further supported by research elsewhere other than Ghana. Again, there are no support systems for the orally oriented students to succeed in their education. The oral method for educating the deaf thrives on the use of communication equipment such as hearing aids. The absence of such equipment would make the method unsuccessful. The study also revealed that the general agreement is that total communication is viewed as the most preferred mode of communication for educating the deaf in Ghana.

In reviewing the findings from this study, readers should be aware of some limitations. Specifically, respondents were drawn from only four schools with a greater proportion selected from schools identified as using total communication. However, recognizing this limitation the results reported from this investigation offer several important practical implications for policy makers and administrators. We would argue strongly that the Ghanaian Sign Language become recognized as the language of the Deaf and be made part of the Basic Education Curricular so that greater number of children can learn this language as second or third language.

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