

Educational Considerations for the Hearing Impaired Children

Hearing impaired children need education like their normal peers for their academic growth as well as for the development of their all-round personality. However, their needs and problems are just different and special in comparison to their normal peers. This difference and speciality by all means, as we can understand, is the outcome of their hearing loss or impairments. As a result they primarily lack in the ability to use language and communication skills for educational purposes like their normal peers. Therefore, the utmost educational consideration for the hearing impaired children lies in the necessity of helping in the development and use of the language and communication skills for their proper adjustment and educational progress. Let us see how can they be helped in this task.

Development of Communication Skills

For the development of desired communication skills among the hearing impaired children type of approaches generally employed may be classified as follows:

- (A) Oral/Aural communication approach
- (B) Manual communication approach
- (C) Total communication approach

(A) Oral/Aural communication approach: This approach advocates that the hearing impaired children should be helped in using oral language (hearing and speech abilities) for the desired communication. In its purest form, it expects from the hearing impaired children to express themselves and learn to understand others through speech alone. For this purpose, it emphasizes to have purely an oral environment (use of oral language) for the education and adjustment of the hearing impaired child at their home, school and other formal and informal learning situations. Going further it may even totally discourage the use of manual methods like using gestures, sign language and speech, finger spelling, etc. for the development of communication skills in the hearing impaired children, believing that manual communication impedes the child's adjustment to the hearing world.

In all its ways and means the goal of auditory/oral methods is to teach a child how to use his residual hearing so that he may have access to spoken language. It is interesting to note that most of the deaf children have some residual (remaining) hearing. However, early intervention is that what is most needed here simply because listening is a "use it or loss it" skill. It is therefore quite essential to make use of oral language/speech signals for teaching of the hearing impaired.

In making use of oral/aural communication approach attempts should be made to use several means to develop residual hearing and the ability to speak as properly as possible. These may include (a) amplification of sound (b) auditory training (c) speech reading (also known as lip reading) (d) the use of technological aids, and (e) more specifically talking.

Amplification of sound: This requires to amplify the sound received by the

hearing impaired children by utilizing proper amplification devices, e.g. microphones and hearing aids, etc. for enabling them to listen to the amplified sound and to provide them adequate hearing experiences for developing their listening and speech skills (ability to hear and speak).

Auditory training: This aims to develop among the hearing impaired children the ability to listen to sounds present in their environment (sound awareness) and to discriminate among them. This may be effectively carried out by providing adequate training to the hearing impaired children in the use of special hearing aids suiting to their individual needs. It is also pertinent to mention here that these hearing aids may make sounds louder but not necessarily clearer (increasing their awareness and discrimination of sound). In fact it is not the aid in itself but the wearer of the aid who has to do all the work needed for the interpretation of the heard sound. Therefore, auditory training should always be an essential part of any educational programme for the hearing impaired children.

In providing auditory training to the hearing impaired children we can proceed by the following steps.

- (i) **Development of the awareness of sound:** In the beginning, attempts can be made to develop the child's awareness for the variety of sounds, including speech in the environment. Parents, members of the family and teachers for this purpose, may try to have the child's attention to the specific gross sounds related to his environment like sounds of a drum, doorbell, telephone ring, alarm clock, buzzer or running water, etc.
- (ii) **Developing ability to localize the sound:** After providing training for the development of the general awareness of the gross sounds, attempts should be made to develop the child's ability in localizing the heard sound. He must be able to locate or find out the source of sound. It can be done through play activities like hiding a sound making toy, transistor radio, alarm clock somewhere in the room and then asking the child to look for it.
- (iii) **Developing ability to discriminate among the heard sounds:** The child should then be equipped with the ability to discriminate among the different sounds including speech heard by him. Through specific training he should be made to know the differences between the voices of different pet animals or birds, family members, companions, the composition of different movie songs, and the utterances of the different words (like black and white, water and lemon, etc.).
- (iv) **Developing ability to identify the heard sounds:** Gradually under this step the child should be made to acquire the ability to identify sounds. For this purpose, adequate auditory training should be provided to the child for developing his ability to recognize the sound, word or sentence for the purpose of its proper identification through its proper listening.
- (v) **Developing the ability to learn through listening:** The auditory training provided to the hearing impaired children can be made meaningful only when it can end into an auditory learning on their part. All the four steps explained before are meant for an adequate development of appro-

appropriate listening skills among the hearing impaired children. However the development of the hearing ability (listening skills) can not serve any useful purpose unless what is heard by the child is not comprehended and utilized by him, in the process of his education—formal or informal. Therefore, the process of auditory training must always end into a meaningful auditory learning that the child after getting adequate training for the development of detecting, discriminating and identifying sources including speeches should get proper training in comprehending the meaning and purpose of the heard/listened sounds, words and sentences, etc. for making their use in the process of their adjustment and educational progress.

Speech reading (also referred to as lip reading) represents a method of training in which hearing impaired children are provided with desired experiences for understanding a spoken message by observing the speaker's face and his bodily movement at the time of speaking like his facial expression, movements of his lips, gestures, and facial expression well in time with the context and situations under which the spoken message is conveyed.

What is spoken by hearing person thus can be meaningfully interpreted by the non-hearing persons through the visual interpretation of the spoken communication. Lip reading is helpful because a number of sounds in a spoken language can be readily distinguished by having a close watch on the movements of the speaker's lips. Similarly the facial expression, language of the eyes and gestures and visual clues provided by the movements of tongue, jaw and vocal muscles, etc. may convey many things to the hearing impaired children for understanding the spoken message. Moreover, various environmental stimuli like the situation and contexts under which spoken message is being conveyed may provide supporting clues to the hearing impaired children for a proper interpretation of the spoken message. Therefore, it becomes quite essential to help the hearing impaired children, including deaf to be equipped with the proper speech reading skills for developing desired communication abilities.

In addition to the measures listed before hearing impaired children can be helped in the acquisition of proper communication skills by learning the use of a number of technological aids and advancements. We will be discussing these aspects in detail later on in this very chapter. The one more thing which is going to help most the hearing impaired children in their attempts for acquiring ability to hear and speak a spoken message (including proper language development) is the necessity of the use of the spoken language on the part of the speakers in their conversation with the hearing impaired. They should never think that there will be no use to have oral conversation with the deaf or there will be problems in making the hard of hearing to understand the spoken message. Talking on the part of the hearing persons, always prove a motivating as well as modelling factor for developing oral communication abilities including both hard of hearing and deaf.

(B) Manual communication approach: This approach advocates the use of manual methods like sign language, finger spelling and cued speech for developing the desired communication skills among the hearing impaired children. Let us try to get acquainted with the use of these methods.

Sign language. By sign language used for teaching communication skills to the hearing impaired children (especially the most severe and profound ones) we mean a special language based on some visual signs. These signs are nothing but different gestures or manual codes designed through the use of hands, fingers and the arms for representing the words, ideas and concepts used in the process of communication. Several sign language systems have been invented to develop communication and language skills for the education of the hearing impaired students. As examples, we can name Signed English System, Signing Essential English System, Signing Exact English System, and American Sign Language System, etc. The American Sign Language (ASL) system is one of the most commonly employed sign language system for teaching communication and language skills to the hearing impaired students.

In the sign system, the shape, location and movement of USA pattern of the hands, the intensity of motions, and the signer's facial expressions all communicate meaning and content of the communicated ideas and thoughts to the viewers.

However, American Sign Language as a visual gesture language has its own vocabulary, syntax, semantics and grammatical rules and therefore does not correspond to spoken or written standard English more precisely for making word to word translation. But all the other three previously mentioned signed English Systems very much represent the type of manual codes strictly following the correct English usage and word order. Different countries of the world, however have invented different sign language codes based on the nature of the native language used in the communication and educational activities of their hearing impaired children. For example in India, we have specific sign languages for enabling the hearing impaired children to express and communicate in Hindi as well as in other regional languages. In this way, today now there is a growing trend of adopting bilingual-bicultural approach in the education of the hearing impaired (including deaf) children. The goal of this approach is to help the hearing impaired children become a bilingual adult who is competent in his first language (mother tongue/ regional/national language) and acquire necessary proficiency in the use of a second language (national/international language).

Finger spelling. Finger spelling is the method of writing or expressing the alphabets of a language manually in the air through the use of the fingers of one's hands. Here, each word of the communication language is spelt out letter by letter through the help of the fixed positions of one's fingers. As a consequence, in making communication in English language (having 26 alphabets), one has to make use of 26 distinct positions of his/her hand fingers. (See Figure 8.2).

In addition to its independent use as the manual method of communication, finger spelling may also prove helpful to the user of a sign language in the task of spelling out proper names for which no signs exist and it may also provide some additional clues for clarifying the meanings of the communicated information.

Cued speech. This system of manual representation of speech was invented in 1996 by Dr. Orin Cornett Gallaudet College, Washington D.C. Cued speech may be defined as a visual picture of the speech sounds and sound patterns that are used in the English language or any other languages and dialects for which cuing has been adopted. For this purpose it utilizes eight different hand shapes. (See Figure 8.3).

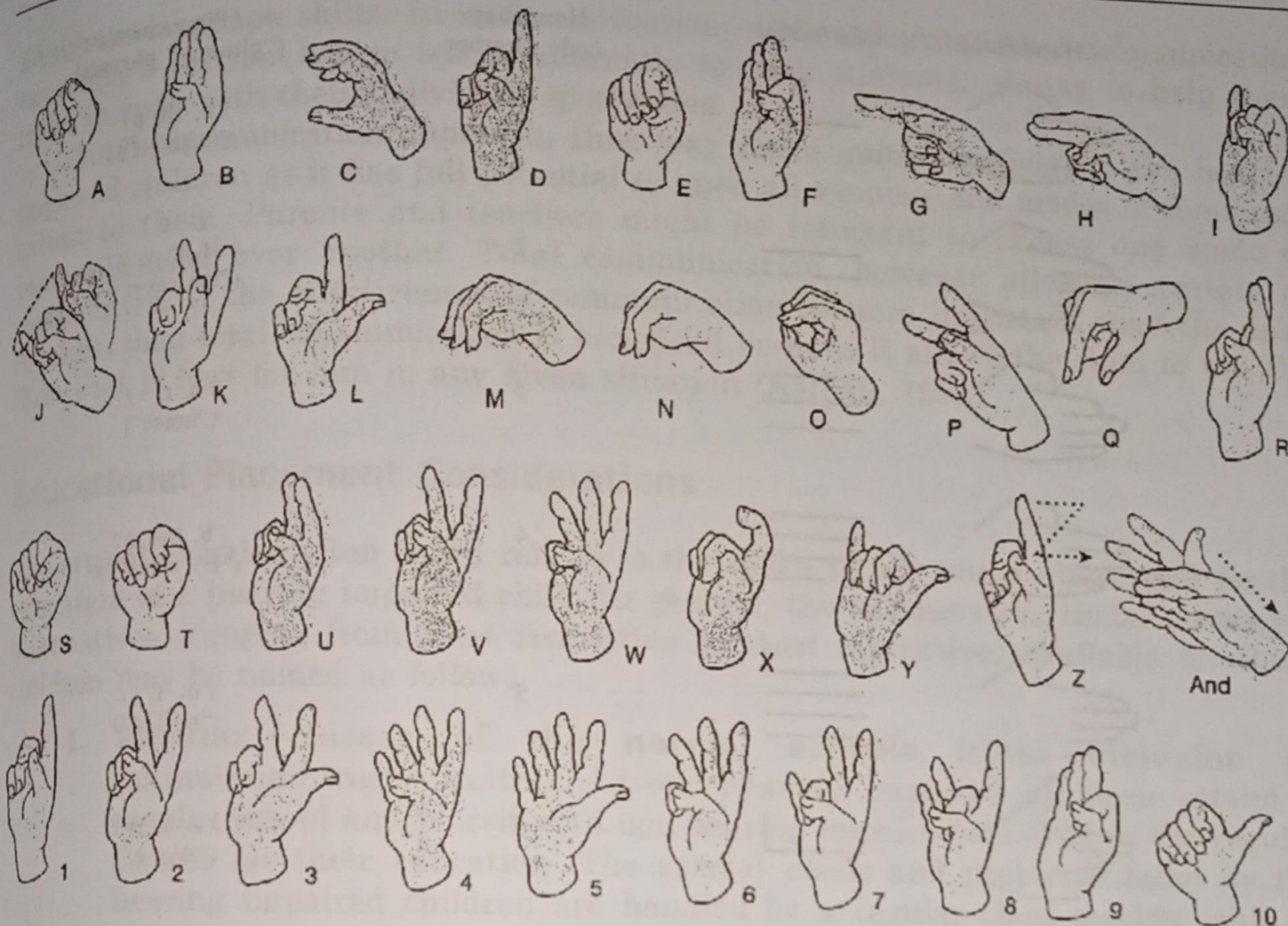


Figure 8.2 Finger Spelling (Manual Alphabet).

Each of these eight hand shapes coupled with a location provides significant visual clues to the hearing impaired children in identifying sounds that cannot be distinguished through speech-reading. The concept of these visual clues, however, quite different to the concept of sign language or manual alphabets (finger spelling) and it is therefore quite mandatory to make use of these hand signals in conjunction with speech (supplementary to speech-reading and oral communication).