

Bimodal Bilingualism: Acquisition of English as a Second Language among deaf Primary School Children

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ABSTRACT

Humans with their intelligence can make meaningful usage of language, along with the application of its grammar and other related components. Unlike normal-hearing children, education, as well as language acquisition for deaf children, poses a great challenge. Hence for the ease of their learning process, the traditional teaching methods have undergone certain modifications with the advent of technology. Being deaf is not an illness, it is a human condition. But oftentimes, deaf people become products of discrimination and isolation when they are denied opportunities to assert their individuality. Every humans' primary need consists of self-expression, for which they require 'language'. Language has a determinant role to play in the self-development development of a person. This paper deals with the study about various methods of language acquisition among deaf children to identify how a second language like English is acquired by deaf students of primary age level belonging to different schools in Kerala. It focuses on the problems of deaf culture, variations in first and second language acquisition of deaf and analyses the factors affecting second language acquisition to understand how language deprivation occurs. Further, the research aims to find out the most effective method for English language acquisition among the students.

Keywords

Second Language Acquisition; Bimodal bilingualism; English Language; Deafness; Sign

Introduction

The world is inhabited by a greater number of multilinguals than monolinguals. Many linguists have talked about an innate language capacity of human beings to acquire or comprehend as many languages other than their mother tongue. Out of the approximate number of 6900 native languages existing in today's world, a child may become a native speaker of any of these languages determined by his/her circumstances of being raised. This in turn determines the propensity for acquiring a second language. The language capacity does not specify a particular language to be acquired rather it only sets a standard alliance between the nature or innate ability and nurture or linguistic environment of a person. This relationship is clearly visible in the linguistic events of a deaf child. For instance, a deaf child who might not have access to any spoken language in the early stage of his/her life will readily start to comprehend sign language. In another case, if the child is denied both the sign and spoken languages, he/she will promptly acquire knowledge through any other means of visual communication.

Education for the deaf began with the invention of an original manual alphabet in 1520 by Pedro Ponce de Leon, a Spanish monk, who has been labeled as “the first teacher for the deaf”. Later, in 1550, an Italian physician confirmed that hearing is not essential for learning. These incidents can be called the pioneers for the development of a proper sign language which gave a unique identity for the deaf community. The enactment of the Education for All Handicapped Children Act in 1975 opened up a new world of opportunities for children with disabilities. The invention of the first electric hearing aid by Miller Reese Hutchinson in 1898 was another stepping stone that aided in the learning process of deaf children.

Becoming a bilingual opens up too many gateways for the betterment of the deaf community. To thrive in the world, they have to master sign language to recognize with their own community and also acquire a spoken language to associate with the hearing world which constitutes their parents, friends, and other kinsfolk. This language competency in at least one sign language along with an oral language makes them a product of bimodal bilingualism. As American journalist, Flora Lewis says,

“Learning another language is not only learning different words for the same things but learning another way to think about things”

Considering the vast number of spoken languages in the world, English occupies a prominent position due to its global standard. It has the potentiality of unifying people from across the world because it is the only shared language or “lingua franca”. People could use English to associate with a native speaker from any corner of the world. Assimilation of English as a second language is crucial for deaf individuals as the written form of sign language is not available. It helps in developing their reading and writing skills thereby ensuring the possibility of academic success. Every child is a social being who has to interact with society after his school-college education, owing to which learning language inside the classroom at an early stage of life is most needed. The deaf child, especially a non-native speaker of English such as a Malayalee student, may face a series of setbacks while learning English as it requires a more focused structural education. He/she may not be able to achieve a high standard of fluency, but the modern technological advancements in the traditional teaching methods guarantee the knowledge of exact English pronunciation and grammar. Once with a spoken language like English in hand, it instills confidence and ensures a wide opportunistic environment. As Nelson Mandela quotes,

“ Without language, one cannot talk to people and understand them; one cannot share their hopes and aspiration, grasp their history, appreciate their poetry, or savor their songs”

The Deaf Community

Deafness refers to permanent hearing loss due to issues of old age, hereditary, and medical issues, not being able to comprehend speech sounds and hence communication takes place only through the medium of sign language. The deaf population has a culture of their own known as the deaf culture which comprises well-defined characteristics that molds their community. Deaf culture provides an opportunity for the deaf community to express themselves without the necessity of adherence to an unknown culture.

Parents who do not have this disability, when given birth to children with deafness at first turn their attention towards the general medical conditions like getting a hearing aid or cochlear implant and remain unaware of the possibility of the deaf culture.

Oral communication, the ability to transcend information effectively from one person to another, largely requires one to have the capacity to hear which makes them capable of understanding and responding. A person with great listening or hearing skills will be able to communicate easily, understand clearly and hence perform effectively. Deafness, therefore affects a person's gradual advancements in the field of communication by disturbing their skills of oratory and listening. When hearing loss of a child is identified at an early stage, it is possible to a great extent for the parents to help the child in developing his/her communication skills through providing a favorable environment. Thus, the children will be able to make speech sounds, learn new words, try to put together words into sentence form,

hear and understand what others speak though their primary improvement in language communication will be delayed.

There are mainly four degrees of deafness, Mild hearing loss is suffered by people who are unable to hear sounds of low frequency and this can be aided by the usage of a hearing aid. Moderate hearing loss can be seen in people who are not able to understand normal speech sounds in conversations. The severe hearing loss is the degree at which the person is unable to follow any common speech sounds without the help of a hearing aid or through other treatments. Profound hearing loss is the most serious level of hearing impairment where people are totally unable to comprehend any natural or ordinary speech sounds of any frequency. The usage of a hearing aid or any other sorts of treatment during this stage are of no avail to them. This disability in profound hearing level is compensated through an early openness to a fully accessible sign language . The deaf relies upon the sign language for communicating as well as sharing their information, ideas, and emotions.

The stigma of isolating a deaf person and considering him as a person of no language or as uneducated has highly been rooted in the society. Each day of their life consists of the struggle to protect sign language as they face the similar type of oppression and discrimination experienced by any other inferior cultural groups on their culture as well as language. There is the existence of Phonocentric belief which considers the spoken language to be superior and the most fundamental mode of communication. This linguistic belief in relation to deafness is known as "Audism". Tom L Humphries, American academic, author, and lecturer on deaf culture and deaf communication, in his doctoral dissertation, in 1975 coined the term "Audism," which incites the notion of attaching superiority based on a person's ability to hear.

Language Acquisition by deaf children

Language Acquisition refers to the subconscious process of human language development that results from interactions and language samples that are comprehensible. It is generally an unintentional process whereby humans procure the capacity to perceive and comprehend the received input from a language and reproduce it in communication. A child has an inborn capacity, known as linguistic innatism, by which they will be able to control the pace which results in an intermediate fluency in the target language. The active study methods of language acquisition are considered to be more beneficial whereby incidental learning is facilitated by the passive methods of language acquisition.

The language acquisition process highly differs among deaf children. It mainly depends on the environment in which the child is nurtured. Deaf children born to deaf parents get exposed to sign language since the time of their birth. Even so, almost 90% of the deaf children have hearing parents who converse through the medium of spoken language. Lack of hearing cease a child from detecting a spoken language to the scale required for language acquisition. Hence this process gets delayed in children until they learn to comprehend sign language or begin using hearing equipment. This lack of communicating medium due to delay in language acquisition, commonly known as language deprivation, during the critical period leads to lower levels of cognitive development. It is mainly because of the fact that the subsequent stages of psychic development such as articulateness, retention, coordination and number utilization, largely depends upon the natural first language. In some deaf children, this issue of acquisition of a first language can be solved to an extent through the usage of cochlear implants or other kinds of medical treatments. However, the success rate regarding the same is still a matter of debate as the severity of deafness varies in individuals and hence may not produce a positive outcome in all the cases. The language deprivation in these children can cause personal as well as societal harm, considering the lack of their potential productive participation. Hence they need to be exposed to at least one language, either spoken or sign language, that has parallels in different locales of the brain to arrive at their full potential which can be achieved by exposing the child to a natural sign language at an early stage of life.

Second language acquisition of deaf children becomes uncomplicated and obvious once they have acquired their first language proficiency through the means of sign language. While learning a second language, the children will be able to stimulate signs in their minds when exposed to words in the new language.

Differences in language comprehension between deaf and hearing children

Body language that comprises non-verbal communication such as eye movements, postures, facial expressions, gestures, and body motions are pivotal elements for the deaf community that differentiates them from the hearing community. For a deaf person, a minimal change in the body movement of the speaker can create an entirely different meaning whereas a hearing person adopts a direct usage of language instead of equivocating what he/she wants to convey. The communication process in deaf operates visually through connecting an object with its sign, owing to which one is able to grab attention through ways such as tapping on the table or waving the hand etc. A hearing child on the other hand, will be able to understand an object directly through their visual appeal.

Factors affecting Second Language (L2) acquisition in deaf children

Age

Critical or Sensitive Period Hypothesis

The theory claims to establish the importance of the existence of a critical period for language acquisition within the limits of linguistic study. The critical period is a highly sensitive period at an early stage of childhood from birth to about five years of age, during which mastery over a particular skill can most readily be acquired. Hence, a normal child can easily acquire a language during this period even without proper instructions, as the chances of exposure to the language are higher. In contrast, this period may deprive a deaf child from acquiring a language, as an early openness to language is limited. An early exposure to a spoken language will allow the child to have an easier and straightforward second language acquisition.

Efficiency in Sign Language (L1)

Cross Language Activation

Notable number of resemblances occur between sign and spoken languages, such as brain mapping to memorize words, syntax, semantic meanings etc., These similarities influence the second language acquisition of a spoken language. Hence the level of proficiency in L1 sign language corresponds to the learning of a second language. Hence, such a condition proves to be advantageous to deaf children born to deaf parents, as the early exposure to sign language is comparatively higher. A multilingual deaf person will use the primary mean of sign language as a platform for explicit and forthright communication and the written form of spoken language for the purpose of writing and reading.

Hearing status of Parents

The linguistic framework of parents is an important element influencing language acquisition of a child. In case of normal hearing parents, they do not possess preexisting notion concerning sign language. The need to communicate with the child is realized only at a later stage of life when the child grows out of the critical period. Hence, this leads to trouble in the child's second language acquisition. A majority of the deaf children are born to normal hearing parents. On the other hand, only less than 10% of deaf children have deaf parents. These parents who have fluency in sign language can detect the hearing loss in children at an early stage of life, most probably within the critical period. Hence, they can provide a suitable environment to which the child can easily adapt and shape their language learning. There exist some false beliefs that children of deaf parents cannot have proper language acquisition. But, in reality, deaf children born to deaf parents will prove to excel in reading, writing, or speaking than the children of normal parents. Hence, the deaf parents can make better

communication with the deaf children and hence are able to maintain an optimistic climate. This proves advantageous in the acquisition of the second language.

Methods of Language Acquisition used by deaf children

Total Communication

Total communication approach or philosophy points out the connection established between people to communicate in the right way, by extending meaning for every individual with hearing loss. The method instills the deaf children with strength to communicate with the hearing people through developing their communication skills by making use of what they see. A child who is exposed to the approach will acquire different skills by comprehending sign language, cued speech and speech therapy with the aid of the instructor. Total communication works by combining both speech and signs, in which along with manual communication methods, spoken information is also provided. This philosophy includes forms of communication such as the sign, oral, written, auditory and visual aids based on the child's necessities. This method incorporates music, art, written words, signed words, and vocalizations to help the child with hearing loss to engage in simultaneous communication with a teacher inside the classroom with the help of sign language.

a) Sign language

Signed languages make use of the medium of manual articulation to convey a language to a child with deafness. Sign language forms the basis for the deaf culture. Every country has its own sets of sign language and hence, there does not exist a common system of sign language for use. Different sign systems have been evolved based on regions which include American sign language, British sign language, Indian sign language etc., The various components of sign language include hand shapes, facial expressions, palm orientations, locations, and finger spellings.

American sign language is a fully developed medium of communication among deaf people and is demonstrated through the movements of hands, and other gestures. This method is widely used among Americans and is accepted to be a standard system which has its own grammar and other linguistic properties. British sign language (BSL) is used commonly in England and has its own sets of vocabulary that makes use of various visual, gestural, and other bodily movements.

Indian Sign Language (ISL)

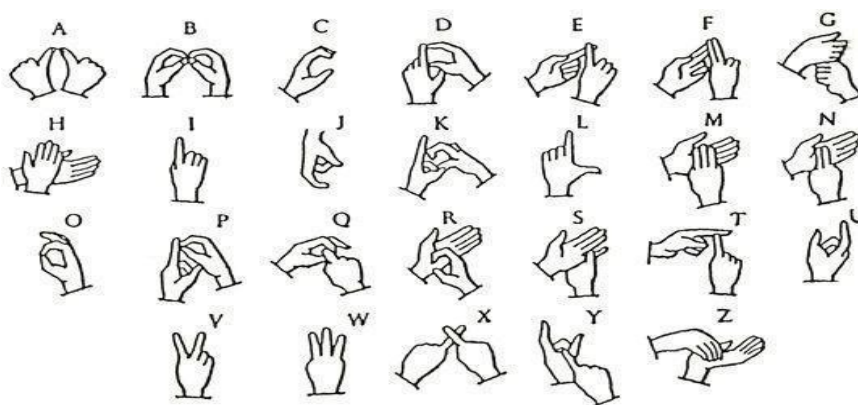


Figure 1. Indian Sign Language

Indian sign language is the most extensively used system of communication among deaf people in India. ISL alphabets have their origin from British sign language and French sign language alphabets. ISL which has a resemblance to BSL, makes use of both hands to illustrate alphabets, unlike the American signing system. The ISL is systematized into a vocabulary of gestures which stands for a particular object or an idea. It has developed its own set of grammar and is independent of any other spoken or sign language influences. Different states in India use different signs for the same system which they have acquired naturally through conversation with people around them and by the influence of the local languages. For instance, deaf people in Kerala use signs that are different when compared to signs used by people in Tamil Nadu. It also includes non-manual gestures such as postures of body, head positions, facial expressions and movements of mouth. Although considering these features, ISL is still not an advanced system of language like ASL or BSL. As such, there is no mention of the duration and frequency of a particular event in ISL. Instead, it only depicts whether the event is a past, present or a future one.

b) Cued Speech

A visual communication system that makes use of eight different hand shapes, called cues, which represent consonants, in four diverse locations near the face combined with the movements in mouth due to speech which represent vowels, in order to produce distinct sounds of spoken languages in a visual configuration. This system enables the deaf or hard-of hearing children to better comprehend phonemes in English that are not even detectable through lip movements and thereby, improve their reading potentiality and gives access to the fundamental properties of language. For instance, the sounds such as, /p/ and /b/ may look similar on the lips, but, only through the involvement of hand signs these phonemes can be actually identified. This way of communication in deaf people conveys the phonetic knowledge of voiced language without deriving any particular aspects of the sign language. It largely benefits the deaf children for their phonological awareness, acoustic rehabilitation, speech articulation and literacy development. Hence, associating the visual knowledge from cued speech with the auditory knowledge from the cochlear implants in deaf children, “can awaken the deafened brain.” This enables the child to produce sounds or words through the practice of speech reading as well as auditory training.

Lip Reading

Lip reading, also known as speech reading, is a method of communication often used by the deaf where they try to comprehend speech by carefully monitoring the movements in lip, tongue and face of the speaker. While it occurs naturally in case of deaf children, this process of lip-reading is also practiced by the normal children, especially in noisy backgrounds. Establishing eye contact with the person while using visual gestures is an essential to lip-read. This process can be often challenging for a deaf child learning an unfamiliar accent. However giving access to the context of conversation coupled with the usage of the child's residual hearing as well as assistive technologies can be of some help. Only around 30 % to 40 % of the speech sounds are possible to comprehend through lip-reading, provided the most favorable conditions. Some sounds such as “bop” and “pop” cannot be lip-read as they are similar looking words when spoken. A good lip reader may find it easier to comprehend around four to five words out of twelve in a sentence. Exaggeration of mouth movements often occurs when a normal person converse with a deaf person. This would also put the deaf in trouble due to the false analysis of the speech sounds. Hence it is important to ensure that we converse normally with a deaf child. Though this method renders some help to the deaf children, this alone would not enable the child to possess good communication skills.

Auditory/Oral Training

There exists some degree of hearing in most children who are deaf or hard-of-hearing, known as “residual hearing”. Hence through the association of this remaining hearing capability with hearing technologies such as hearing aid, cochlear implant, or other assistive devices, the children are trained for listening that may aid them in acquiring literacy, communication, and identification thereby ensuring language acquisition. Listening skill is of utmost importance for children and the school career may provide accurate knowledge to develop the same. It also teaches

the child how to use hearing technology. The chief purpose of the approach is to help the student in distinguishing between various speech sounds and to hence identify its meaning and to produce speech.

Instructional Materials

Visual aids

Vision in deaf individuals is the primary means of gathering information. These types of materials include pictures, charts, chalkboard, Overhead projector (OHPs), photographs, videos with transcripts and other real objects. Visual representations are always pleasing to the human eye. Hence these aids pique the interests of students, giving enough time for the teacher to explain the concept easily and for the student to understand it better as the child may not get enough time to lip-read the teacher.

Audio

Children with some residual hearing are also made to listen to audio recordings.

Audio-visual

These materials include captioned videos, film strips, slides and other multimedia items.

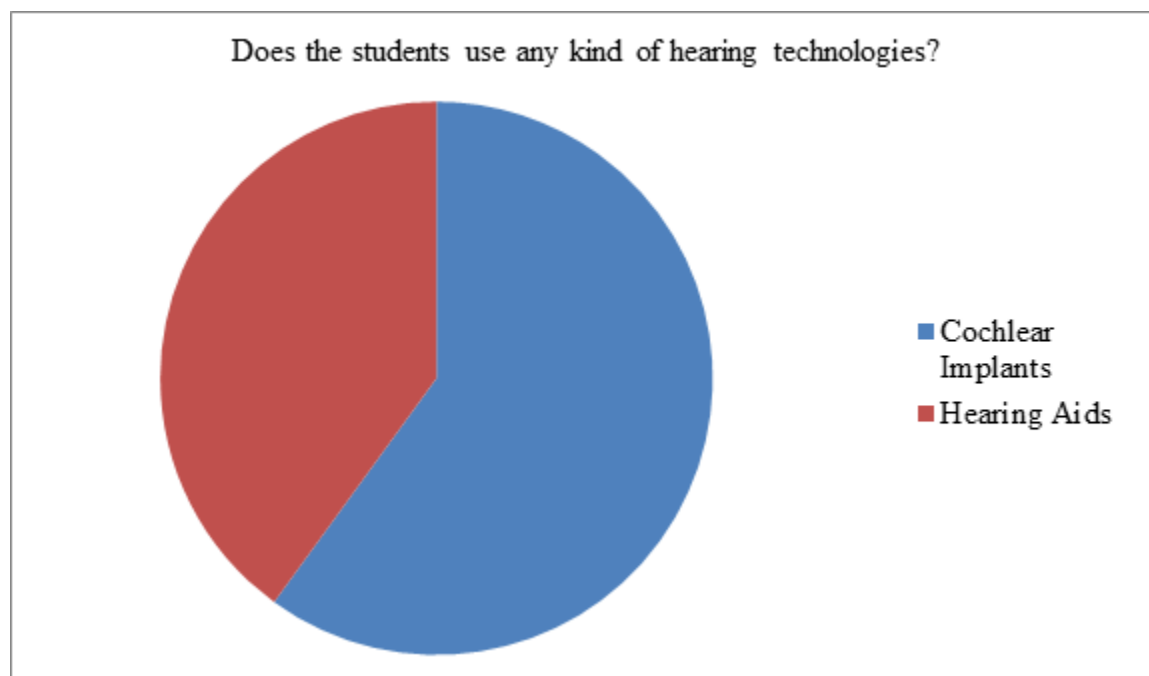
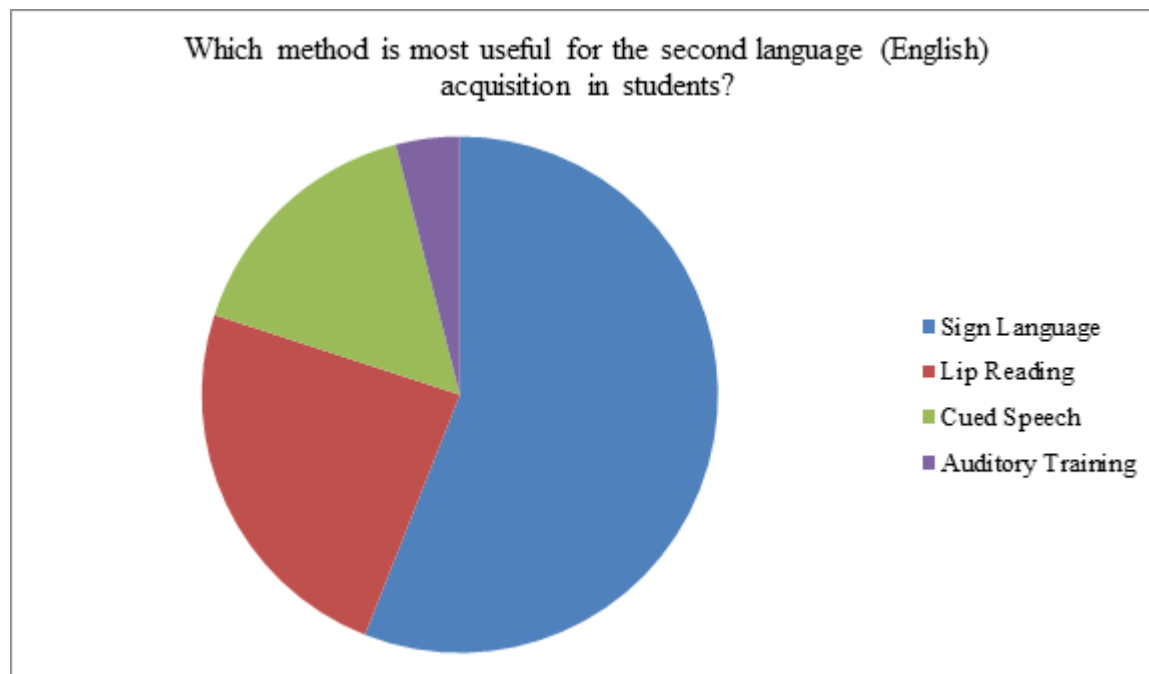
Print

Hand-outs prepared by the teachers are occasionally distributed prior to the lecture. It also includes textbooks, pamphlets, study guides and manuals designed for deaf.

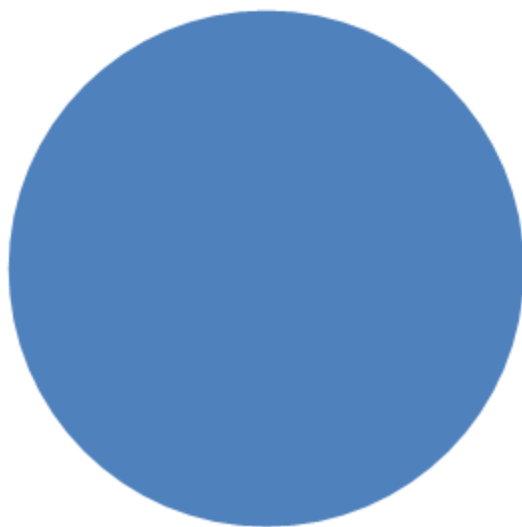
Electronic

Computers are also provided for use in schools for the learning process of deaf children.

Graphical representation of the results obtained through the survey

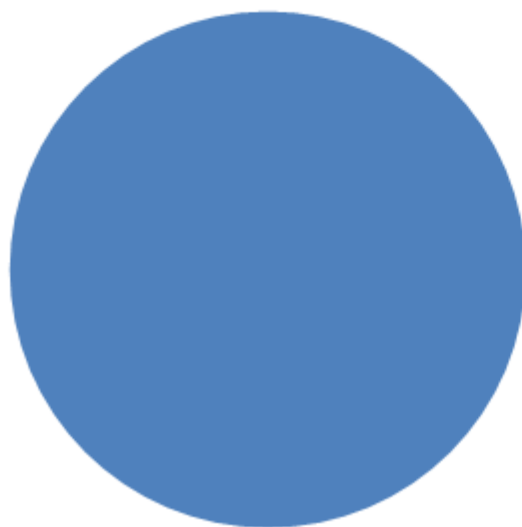


Do the students having efficiency in first language (sign) find it easier to acquire a second language(English)?

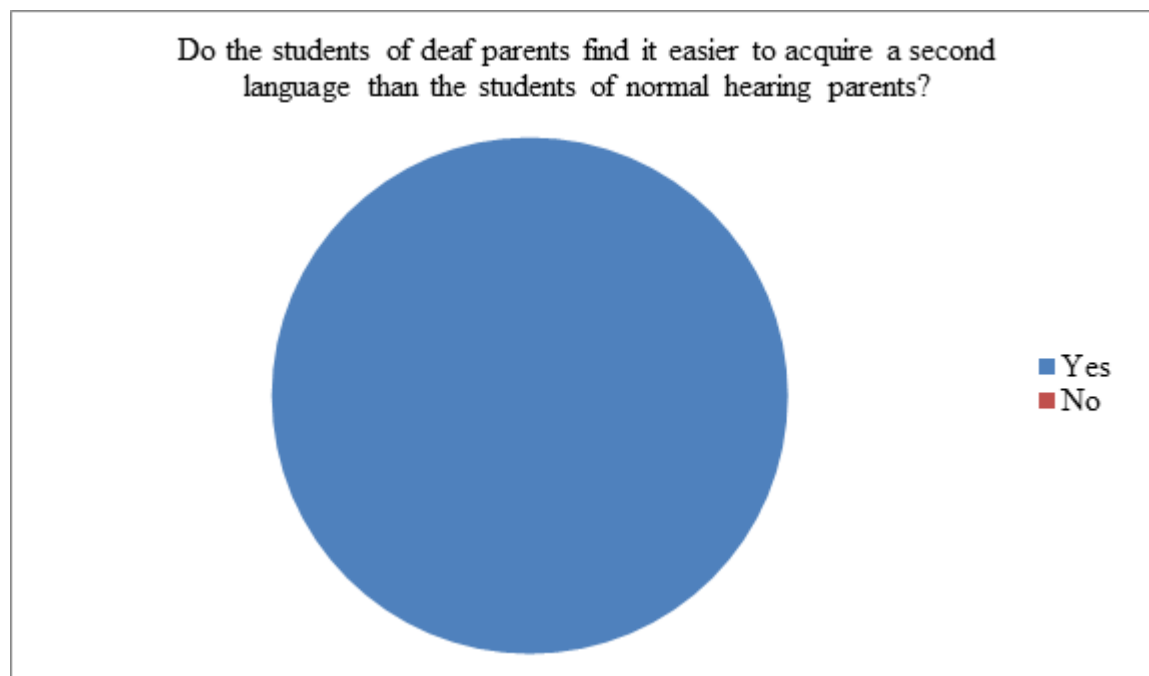


■ Yes
■ No

Does language learning beginning from the Critical Period influence the second language acquisition in children?



■ Yes
■ No



Conclusion

The survey was conducted among 30 deaf children of primary age group (5-12 years) belonging to various deaf schools in Kerala. It included 15 deaf children having hearing parents and 15 deaf children having deaf parents. An activity was conducted for the students, in which the teachers explained the concept of 'nature' in English as four sessions, using the above mentioned teaching strategies such as sign, cued speech, oral training and also gave students ample time for lip reading. Later, questions were formulated based on the same topic and the students were made to answer after each session. A great number of responses were received when sign language was used for teaching the concept. Thus it has been inferred from the study that sign system proves to be the most effective method for English language acquisition in deaf children as they are able to clearly memorize the concept, understand the ideas and reproduce it, through the visual appeal of signs. Likewise, the least number of responses were received when the auditory training method was used and hence it proves to be the least effective method for English language acquisition in deaf students. Most of the students make use of cochlear implants for a better hearing. Critical period hypothesis were also examined through the research. It is made clear that the language learning beginning from the critical period influences the second language acquisition in children. The critical period is a very sensitive time in the life cycle of an individual. Hence having a first hand knowledge about something at this stage would naturally enhance a child for his ensuing developments. The method of second language acquisition would be much easier if the child has efficiency in their first language, that is, sign language. The survey further confirms that the students of deaf parents find a quicker and easier second language, that is, English acquisition than the students of normal hearing parents.

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