Barriers in d/Deaf Pedagogy in the North Eastern States in India

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Contents

Abstract

Despite the linguistic research that has already been initiated in India, sign language and deaf education in the north eastern part of India has largely remain unknown. This chapter provides a glimpse into the situation of deaf education and sign language in this area. Despite the innumerable number of studies on sign language and the deaf community, sign language is still perceived as a universal language invented by the hearing, a tool to overcome the communication barriers of the deaf. Several studies have discussed the challenges faced by deaf communities around the world, and they are no different from the deaf communities in the north east region. This chapter examines the language barriers in education within the context of north east India and how they impact the lives of the d/Deaf individuals in the larger society. One of the major concerns of educational policy today is to include children of any disability into general schools. However, the required pedagogical modifications or adaptations are far from being

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implemented within them. The idea of "inclusive education for all" is actually a paradox because despite the noble motives of the policy makers, the gap between academic research and education persists; the majority of the deaf (especially the Deaf) are still being discriminated against and the negative attitude towards sign language continues. Within the context of one of the most diverse regions of India, a multilingual education model that can accommodate sign language as an equal with other spoken languages can truly minimize the barriers of education for the Deaf. Language is a phenomenon that needs to be understood beyond what we know in terms of sound, and such a view of language acquisition process can curtail the hegemony of speech over sign language. Hence, this chapter emphasizes that it is only within the arena of education itself that change can have a widespread impact, perhaps in the form of an improved version of "inclusive education."

Keywords

Sign language • Inclusive education • North east region • Deaf education • Barriers • Pedagogy

Introduction

Deafness is a term that has eluded any fixed definition by any entity because within the term "deaf" lies a diversity of meanings that suit only the views of people defining it. A hearing person might see it as a disability where one cannot hear and therefore cannot speak, whereas to a Deaf person, "deafness" is just a normal way of life devoid of sound. In the larger society, however, it is the "voice" carried by the spoken word that is heard above the silent words of the Deaf.

Thus, the various definitions of deafness have created more barriers than bridges and have colored the perspective of the hearing people towards the Deaf. When seen as a "disability," it inevitably follows that a deaf person must be in want of rehabilitation, social security, and support from the government and society at large.

The World Health Organization, (WHO factsheet, March, 2015) describes a person who cannot hear within a hearing threshold of 25 dB (decibel) in both ears as a case of hearing loss. A person who cannot hear from 26 to 40 dB have slight/mild case of hearing loss; moderate ranges from 41 to 60 dB, severe from 61 to 80 dB, and over 81 dB is considered as profound hearing loss. "*Hard of hearing"* as outlined by the WHO (Factsheet, 2005) refers to people with hearing loss ranging from mild to severe. They generally communicate through spoken language and can benefit from hearing aids, cochlear implants, and other assistive devices as well as captioning. The conceptual framework on "disability" (by the WHO 2016) is understood in the context of the interaction between a person's ability to function and his/her environment. The environment includes not only the physical barriers that hinder a person with disability (PWD) in his daily life but also the attitudes he

encounters in society. In this context, numerous policies related to disability address such barriers.

The majority of deaf people, however, are those of profound or total deafness; who are not exposed to spoken language at all. To them, the world is different from how hearing people or the people with mild hearing loss perceive. They learn about their world through all their senses apart from sound. This has led to the natural evolution of a way to understand that world and express meaning – sign language. The human brain rewires itself to enable the body to function in much the same way as any language process. In fact, research has shown that sign language has linguistic properties like any spoken language. Our brain is equipped with the tools to learn, understand, and express the same things as any human being can with or without spoken words. Beethoven, for instance, can make beautiful sense of the different sounds despite being postlingually deaf. (The term refers to the acquisition of hearing loss at later stage, where one had an exposure to spoken language.)

The terms such as "deaf and dumb" or "deaf-mute" are still commonly used in Indian society in various public platforms such as the media and online social networks. The Rehabilitation Council of India Act (1992) defines the term hearing impaired "hearing handicap" as deafness with "hearing impairment of 70 decibels and above in the better ear or total loss of hearing in both ears" (p. 2). (Ministry of Law, Justice and Company Affairs (1992): (No. 34 of 1992).) "*Hearing handicap*" is a common term that implies the need of certain rehabilitation measures.

The phrase "deaf and dumb" is a misleading term as the ability to hear depends on his/her degree of hearing loss. Deaf people can produce speech depending on the degree of hearing loss and some exposure to spoken languages (Crystal 1997). Lane (2005) points out that "the English terms 'deaf' and 'hearing impaired' are commonly used to designate a much larger and more heterogeneous group than the members of the Deaf-World" (p. 1). Despite the diverse nature of deafness several literatures on deafness and deaf education have made use of the term *hearing impairment* to cover a larger group of deafness.

The much used umbrella term "hearing impairment" hints of a similar perspective and has become the dominant outlook of the hearing community. This largely benefits the deaf who fall within the category of "mild hearing loss" (those who can hear up to 40 dB). They can still function as "normal" individuals who can hear with the help of hearing aids and avail of reservations in jobs, scholarships, transport, etc.

The term *Deaf* (with an uppercase "D") refers to a group of deaf people whose first language is sign language having their own specific and unique culture and a community of their own (Johnston 1989). It is used by those deaf individuals who identify and affirm themselves as a distinct linguistic-cultural community. Padden (Padden 1999) in her review of Baynton's *Forbidden Signs* points out that before 1960 definitions focused on deafness as an affliction of the senses, but today definitions also refer to deafness as it expresses itself in the cultures and societies of deaf people. The prominence of one or the other type of definition, or even a mix

of the two, is a matter of cultural construction. Baynton explains, deafness is not simply a condition of the senses, it is also a way of life including of course the use of sign language (120).

Hence, the term "Deaf" has a sociocultural element which differs from the medical definitions, where the use of sign language marks the users of the language as a linguistic entity. This term is closely associated with the deaf community and the deaf associations, deaf clubs, etc. They use this term to accentuate their own identity as a unique culture coexisting with other cultures in a modern society.

Demographics of Deafness in the North East Region

There is no uniform data available across India regarding the population of deaf persons. "In 1970 Taylor and Taylor estimated the Deaf population in India as two million (1970). In the 1981 census (Government of India, Ministry of Social Welfare 1981), the 'hearing disabled' of age 5 and above was estimated at 6,315,761. 'Hearing disabled' was defined to include those with complete hearing loss to moderate hearing loss. Gopinath (1998) estimated the 1991 Deaf population at 7,770,753 by extrapolating from the 1981 census. Neither the 1991 nor the 2001 census included 'disabilities' as a category, so a current estimate must be based on the ratio of Deaf to the total population of India which was estimated to be 1.08 billion" (quoted in Johnson and Johnson 2005, p. 8). Other data reveal that over 25,000 children are born deaf every year across the 3.28 million km^2 of India. (Information from the International Deaf Children's Society- India (IDCS)). Deshmukh (Deshmukh 2002) in his study wrote that "there are about 13 million deaf persons in South Asian countries and almost three-fourth live in rural areas where proper facilities for health care, education, training and employment are scarce"(173).

The North East (NE) region comprises of eight states, these are Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and Sikkim. It is commonly known as the land of the seven sisters with one brother (Sikkim). Sikkim is geographically located near West Bengal; neighbouring Darjeeling but falls under the administrative jurisdiction of the NE region.

As per the General 2011, the NE region is home to 122 languages, with Arunachal Pradesh having the highest number 90 languages. Amongst the 122 languages, 4 come in the category of scheduled languages (48th report from the National Commissions for Linguistic Minorities). English is the official language in Nagaland, Mizoram, Meghalaya, and Sikkim except in the states of Assam and Tripura. In Assam, Assamese and English are the official languages of the state. Although all the tribal languages have the same equal status as a language, only 27 tribal languages have found a place in the school curriculum in their respective states.

As per the Census of India (2001), the total number of individuals with hearing loss in the NE states was estimated to be 78,356. As per the Census data on Disabled Population (2011) the total number of persons identified as having "hearing loss" in the NE states is 1,64,280, with Assam having the highest number among the eight

states. In view of the size of the deaf population in India, the deaf education in NE states must be understood within the context of the larger hearing community and its struggle to coexist in a pluralistic society (Ministry of Home Affairs [Internet]). The Deaf native signers although maybe smaller in number should qualify for the status of a "minority" group.

The Deaf Community and Their Struggle

Literatures in deaf studies showed a strong assertion of the Deaf identity as a linguistic community. To them, "deafness" is not simply a "disability." The deaf community rejects the idea that they are disabled and asserts that they are members of a linguistic community (Stokoe 1970; Meadow 1972; Charrow and Wilbur 1975; Markowitz and Woodward 1978; Groce 1985; Padden and Humphries 1988; Lane 1995, Lane 2002, Lane 2005; Grosjean 2001; Senghas and Monaghan 2002 and several others).

The main barrier in Deaf pedagogy is the inability of hearing people to fathom a language of a different modality. Most educators fail to see that language can function beyond speech modalities. Just because a language is not written or documented, does it cease to be a language? Most of the minor/tribal languages in NE region are similar in that respect, but they are still accepted as minority languages in India. Lane (2005) brings out an ethical perspective which points towards the notion of a deaf community being seen as a linguistic minority, since it exhibits the inherent properties of an ethnic group. Therefore, to view deafness as a "disability" is an unethical and unsuitable social construction that affects the lives of many deaf individuals, particularly the "Deaf" group.

There are major events in the history of deaf community around the world like in Gallaudet University in March 1988 where deaf people came together to fight for recognition and acceptance. Another example is the Deaf Way conference held in Washington 1989 which for the first time focused on the language, history, and culture of the deaf people. These major events have been based largely on sociolinguistic issues (Lawson 1981).

There is a constant demand for "access" to and the right to use their language in every sphere of their lives. Many governments have had to ensure these rights, starting with education. Many international laws that exist, such as *the United Nation Standard Rules of 1993, the Salamanca Statement and Framework for Action on Special Needs Education* (UNESCO 1994), and the *United Nation Convention on the Rights of Persons with Disabilities* (UNCRPD, UN 2007), clearly spell out the significance of the right to language (Humphries et al. 2013). The CRPD (UN 2007) which is represented by a delegation from the World Deaf Federation paved the way for the struggle of sign language for recognition (Batterbury 2014).

Such legislation on disability also encompasses the struggle for sign language to be treated as a language minority and the struggle for a sign bilingual education. Batterbury (2014) pointed out that UNCRPD could be a way of eradicating sign language from the context of disability. Therefore, we need to examine the

constitutional safeguards and constitutional provisions for minority languages in India. Can sign language come under the umbrella of *minority languages*?

The Indian deaf community comprises of individuals who are "d/Deaf," hard of hearing, and hearing children of deaf parents. (They are known as CODA which means children of Deaf adults.) It includes deaf people from different sociocultural backgrounds and is not determined by geographical boundaries. Despite the multilingual and multicultural nature of India, the common feature that binds them as members of the deaf community is their use of sign language.

The manner in which one uses the term d/Deaf or "hearing impaired" is a matter of how much one understands deafness. National statistics used the term "disability in hearing" in such documents as the National Sample Survey, the population census, the District information system of education (DISE), etc. Documents which include the curriculum framework for education at both the national and state level also make use of the term "hearing impairment." Policy statements are the only means through which the deaf community can have equal access into mainstream community and empower themselves.

Article 29(1 & 2) of the Indian constitution clearly provides protection for Indian citizens to preserve their language, their script, their culture, and the right to access education in their own language, whether they belong to the minority or majority sections of the society. If sign language comes under the definition of "language" as defined in the UNCRPD, then sign language can be included as a minority language in the context of India.

Pandharipande (2002) pointed out that tribal minority languages carry minimal function in several domains (apart from the speech communities they belong to). Sign language, however, does not carry any functional role in mainstream education or in any societal domain apart from its own community (such as in a deaf family, deaf schools and institutes, associations, and exclusive religious gatherings). Hence, even if sign language is recognized as equal to any spoken language, it still needs to operate and function in several domains in society in order to act as a support system or machinery that will manufacture its own growth and sustenance.

Unfortunately, the dearth of linguistic research in the country, the gap between linguistic research and deaf education (special or inclusive education), and the notion of deafness as a "disability," has continued to dominate policy matters and educational goals. Although the stigmatization of deafness as a disability may benefit the deaf community in terms of basic facilities, it continues to undercut the argument that sign language users are a "linguistic" minority.

Sign Language in the NE Region

In the NE Region, 70% of India's spoken languages, i.e., 220 languages as per the 2001 Census and 122 languages as per the 2011 census, are found. The most striking feature of NE states is its linguistic situation. Here are some examples: *Hindi* has become the lingua-franca in Arunachal Pradesh in spite of having its own tribal languages and *Hindi* being a language which is distant from the area. Similarly,

regardless of the prevalence of 17 tribal languages in Nagaland, a creolized language called *Nagamese* is the lingua-franca amongst the tribes. Further, Bengali is the official language of Tripura along with *Kokborok* which is one of the prominent tribal languages of the state. Although English plays a dominant role in the state of Sikkim, yet, Nepali is the main lingua-franca in the state. In Mizoram, the tribal language, Mizo is the official language of the state along with English. In Manipur, *Meiteilon* is predominantly the language of the nontribals, yet it is the "linking" language amongst all the different tribes inhabiting the state. There are 33 different languages in Manipur and 5 are recognized by the state government. Meghalaya, widely known as the "Scotland of the East," has two main dominant languages *Khasi*, an Austro-Asiatic language, and *Garo*, a Tibeto-Burman language. Although both languages are the Associate official languages of the state, English is the dominant official medium in the field of education, administration, and the media.

The Deaf people coexist with these varied linguistic communities who are themselves struggling to empower their own languages and fighting for linguistic survival in the globalized world. It is therefore premature to even consider any sign language in the NE states as a heritage language at this juncture, as more investigation is still needed.

Attempts to study sign language and the deaf community in India started in the late 1970s by Vasishta et al. (1978) and Vasishta et al. (1985, 1987). Other studies on Indian Sign Language (ISL) were also carried out by Jepson (1991a, b); Cross (1977); Culshaw (1983); Zeshan (2000); and Zeshan et al. (2005). Sinhas (2012) also studied the grammar of ISL in detail. Wallang (2005, 2010, 2014) has also attempted to analyze the situation of deaf education in NE region with the main focus in Shillong (the capital city of Meghalaya) and document the language used by the community in the form of a Multi-media dictionary of Shillong sign language (ShSL). Besides these researches, Sign language has received little attention in India, and most of the research in the field of linguistics and language has focused only on spoken languages. Special emphasis has been given to languages categorized as minor/tribal languages through government projects and schemes under different nomenclatures to preserve and protect these "endangered" languages. The People's Linguistic Survey of India (Devy 2012), whose major focus was on documenting languages of indigenous and minority communities, has begun to document ISL. However, it does not provide any details regarding the number of sign languages operating in India and only discusses the possibilities of variations of ISL across the country. It can only be assumed that different varieties of sign language exist in the NE states. In this regard, linguistic observation is limited only to variations at the lexical level.

In Arunachal Pradesh, homesigns and the local variety of sign language also emerged amongst the deaf children, despite the influence of speech and the oral method of teaching in schools. In the Deaf Biblical Society, a residential school in Nagaland, the American Sign Language (ASL) was introduced by a Reverend Waling the founder of the school who had learnt the language from an American deaf signer, Bruce Swalbe, at Bengaluru in India. Teachers in the school have also been trained in ASL. Although d/Deaf individuals from the state of Nagaland claim

to use ASL alone, there are evidences of their own signs that relate to their religion, tradition, culture, food habits, and so on.

In the state of Mizoram, besides the influence of Indian Sign Language (ISL), it also has its own regional variety of signs that are similar to ASL. In fact, the social welfare department of Mizoram has documented the language in a glossary format (Rehabilitation Spastic Society 2004).

Teachers from the government schools in Tripura do not have exposure to any type of sign language though teachers claim to use ISL. They have their own locally devised sign language introduced by the Deaf children themselves and this can be found in Ferrando Speech and Hearing Centre (FSHC) which is one of the residential schools.

A few teachers from the only government school in Sikkim known as the Special School for the Deaf, Social Justice Empowerment, have been trained in basic level of ISL. A deaf teacher (a native signer) is also one of the teachers teaching in the school. He was educated in Darjeeling and thus, his language may be a variety of Kolkata. In Manipur, the government school teachers have a lesser exposure to ISL (NERIE-NCERT 2006) despite having a Deaf teacher in their midst. The Deaf teacher communicates in sign language fluently and naturally with the d/Deaf students in the school and the effects of this needs further investigation.

In Meghalaya, the deaf community consists of a small group of children who are either prelingually or postlingually deaf. (The term refers to hearing loss since birth, with no input of spoken language.) The sign language in Meghalaya, ShSL, has emerged from a group of children in special schools. Deaf individuals and children have remained isolated from each other, and there are no records of a deaf community prior to the development of these special schools. The social conditions within which ShSL has emerged is similar to the case of Nicaraguan Sign Language (Senghas and Kegl 1994 quoted in Wallang 2014, 2015). These children find a sense of oneness in the residential schools rather than in their homes. This sense of belonging comes from the one common behavior which they share amongst them – their language. The school binds them into a unique cultural group.

Sign languages are often used by the Deaf community in platforms such as residential schools, deaf associations, deaf clubs, etc. Since the natural sign language used in such places offer constant access to the language users, the shared sign language may be considered as "heritage language." Compton (2014) also notes that "the fulcrum of heritage in this light is a familial tie to the language irrespective of an individual proficiency in that language. Considering the dominance of oral education, the inordinate focus on English, and the method of "total communication" used in schools, any "heritage sign languages" of the NE states that may exist will be strongly influenced by the prominent borrowing from major sign languages use in metropolitan cities and ASL.

ShSL comprises of three different varieties of ISL – Kolkata, Mumbai, and New Delhi (Wallang 2007). It has emerged from a group of deaf individuals who were residing in the residential schools (FSCH and SCHH). BSL fingerspelling was initially introduced in these schools but today the Coimbatore variety is being used in the School and Centre for the Hearing Handicapped (SCHH) and the

Mumbai variety in FSHC (Wallang 2014). In the case of Assam, however, the sign language used by the deaf signers is largely influence by the dominant sign langauges – the Kolkata variety and the New Delhi variety of ISL.

Nevertheless, the spoken languages of this NE region have no influence nor any kind of relationship to the signs. For example, in Shillong, the word *Jainsem* in Khasi indicates a woman's cultural attire. Within the signing community, the word is defined according to how it is exactly worn rather than as it is defined in English, as two pieces of various types of material pinned across a woman's shoulders. To the Deaf community, this sign JAINSEM also serves as a symbol for the Khasi community.

It is very difficult to determine the nature of sign language operating in the deaf community in different areas of NE states or to determine the time of their emergence. "There are no records except for the incidence of the deafness in high iodine deficiency belt across the Himalayas and sub montane regions. The incidence of deafness in the Naga hills of Assam a century ago was reportedly eight times higher than the census average for India, with some villages where every second person [was] either deaf or dumb, or 'insane'" (Allen 1905, 37, qtd in Miles 2001). Compton (2014) notes that the number of speakers or signers of any language is difficult to determine because one must decide where to draw boundaries between language varieties at the same time decide who counts as a language user of the language. Compton 2014 in her paper considers ASL as a heritage language of deaf, hard-of hearing, and hearing people in the United States".

With the exception of Shillong Sign Language (ShSL), all the sign languages that emerge within the hearing communities of the NE region are not studied or documented. When discussing the sign languages operating in the NE states, it is apt to begin from the residential schools. Deaf children in the NE states (mostly from hearing families) are typically confined to residential or special schools rather than mainstream schools. These children use sign language daily amongst themselves. A Deaf child in a hearing family is not exposed to the natural sign language and communicates with his/her family using gestures and homesigns. Such children acquire and learn the natural sign language through interactions with adult signers within the school environment.

The children residing in the hills and valleys of the interior areas are also significant to the discussion of d/Deaf children in the NE states. Such Deaf children face a serious communication gap with both the village hearing community (dialect speakers) and the deaf community in the urban areas, and thus they remain largely isolated. The local languages, English language, and even Sign language are foreign to such a group. There is hardly any access to information because of the difficult terrain of these areas. The majority of them are not enrolled in schools and usually drop out from school before the end of the primary level. Sometimes, parents cannot send their children to schools because their area does not even have roads connecting with other villages.

Hence, the topographical nature of the NE states is one of the major hindrances of accessing information for many sections of the "disabled," particularly those living in such interior areas. "Regarding accessibility for persons with other kinds of

disabilities such as sign language accessibility for persons with hearing disabilities or braille accessibility for persons with vision disabilities, no information could be identified" (Deepak 2016, p. 44). Thus, community awareness programs in such areas are needed to promote better access to information and knowledge for such individuals.

All over the world, residential schools serve as important platforms in transmitting deaf culture and language. They naturally provide d/Deaf students a rich and comprehensible language environment where young Deaf students can strengthen the bond between themselves. Rarely can it be said that such a space is available in higher education, religious institutions, or any work place.

Most of the students either complete school successfully or drop out; either way, they become isolated from each other. Their identity as d/Deaf ceases to exist within the larger society as they explore their options in life. Those who go for higher education are usually those with mild cases of hearing loss who can associate with the hearing world and only a few are members of the deaf community. Those who have profound hearing loss are usually associated with skill-based education such as diploma courses in electricals, ear-mould technology, agriculture, carpentry, and other vocations which are accessible through deaf clubs and the cross-disability associations.

Sign languages are typically influenced or even dominated by other sign languages such as the Indian Sign Language (ISL), the American Sign Language (ASL), and the British Sign Language (BSL) which have a larger vocabulary and are easily accessible through different types of multimedia devices. For instance, ASL has predominated the areas of religion and education in a residential school in Nagaland, a state in the NE region, since it already has all the religious terminologies and vast educational resources. Although all languages tend to borrow from the more dominant languages, the phenomenon is amplified in sign language because of the absence of any documentation.

Sign languages in this region need serious linguistic documentation, and it is reasonable to state that local varieties may be endangered or might have been completely submerged under the influence of ISL and ASL through various means as can be observed in ShSL. Influences are mainly through interactions with native signers from different parts of the country and the world and other socioeducational activities. However, lexical varieties of the prevailing sign languages in this region can be observed as having their own cultural and regional uniqueness.

Attempts to bring sign language to school education in India has largely focused on the development of sign language dictionaries, corpus development, glosarries, instructional materials in CD-Rom format, etc. to strengthen ISL. Considering the language and cultural variations across India and within the NE region itself it matters how these dictionaries are documented and by whom. The most popular or the most accessible form of these will permeate and even dominate the sign languages of smaller deaf communities through various levels of education. This is one of the major reasons for the existing variations of sign language use even in a single state, wherein one special schools would use one variety while another school would use a different variety, for example, ShSL. The teachers in these schools view

such existing variations as a hindrance that complicates the integration of sign language in school settings, whereas such variations offer a range of opportunities for lexical expansion in that particular sign language.

Although documentation of sign languages is crucial for understanding their grammar, yet the dictionaries that emerge will not eliminate pedagogical barriers. Like any language, sign language develops out of social interactions within a particular community having its own specific and unique sociolinguistic environment. A dictionary will give precision to language use, but they are inadequate to meet the demands of pedagogical instruction. Had it been adequate, then it would have been quite easy to acquire and learn English considering the colossal publications of bilingual English dictionaries in India.

Educational Barriers for Sign Languages in the NE Region

Given the general attitude of the hearing people who are in power, deafness continues to be seen as a "disability" which requires some kind of assistance to integrate the d/Deaf with the larger society. The majority of the hearing populace still look at sign language as a universal language invented by the hearing to aid the deaf. This myth is still being propagated today largely because of a dearth of research and awareness efforts. Thus, a philosophy of integration and inclusion took precedence over the educational policies of the government. This philosophy has as its basic premise the notion that people suffering from "hearing impairment" are disabled and as per the Disability Rights Movement, basic human rights to individuals with any kind of disabilities has to be ensured.

"Deafness," however, is not a single category that can be put under one term, but a diverse phenomenon that requires different kinds of interventions. The term includes a large group of people – those having mild, hard of hearing, severe, and profound hearing loss; further, they can be differentiated in terms of exposure to spoken language, i.e., preligually deaf and postlingually deaf. There are other categories beyond the major ones mentioned which define other forms of deafness as well.

In Meghalaya, children with profound cases of deafness outnumber the other categories of deafness. Those with mild cases of hearing loss are able to cope in mainstream/regular schools but the ones with profound cases of hearing loss generally cannot. Children with "progressive" hearing loss (larger in number) are initially placed in the regular schools in the local community, but they gradually shift to the special schools or they drop-out from school as their hearing worsens. In reality, only the ones with mild cases of hearing loss can be found to be thriving in the schools because with the help of hearing aids, they are able to hear and speak and thus they require minimal adjustment in the classroom. On the other hand, the majority of the Deaf are those with profound hearing loss, and they are ones who are submerged and marginalized. It is a grave injustice to force people who can see in a soundless environment to understand concepts in the same manner as hearing children who learn by connecting sounds to what they see in their environment. Such profoundly

deaf students do not do well in general schools and usually drop-out because of the lack of trained teachers who have the expertise to accommodate them. Such children are mostly found in special schools.

The Indian government has tried to incorporate a philosophy of "inclusion" in schools everywhere in order to integrate the deaf children into mainstream society. Although the intention is noble, the reality is far from ideal. It is still quite rare to find prelingually deaf children in inclusive schools despite the efforts to enhance enrollment of children with special needs. There is minimal enrolment of "hard of hearing" children in mainstream/inclusive schools since there has hardly been any change to cater to the special needs of the deaf children. Speech still remains the medium of instruction for such children and a few adjustments and modifications have been made in the classrooms. Children with mild hearing loss require the use of hearing aids, appropriate seating arrangement to facilitate lip-reading, etc. Teachers also need to adjust and adapt their teaching methods by speaking clearly and loudly and providing more visual and concrete examples, etc. Hard of hearing children can still use the mother tongue/local language and learn to speak a second language (English). Since most of the Hard of hearing children have hearing parents, they are neither exposed nor involved in any sociocultural activity of deaf community. This may be due to the stigmatization of deafness as a "disability."

Morgan points out about sign language in India, "Of the special education programmes that do exist, the overwhelming majority do not provide an education that is fully accessible to the deaf pupils, as few use sign language effectively in the classrooms – not the least because deaf schools rarely have any teachers who are full signers (i.e., themselves Deaf). Deaf who leave school are thus almost invariably far behind their grade level in all academic subjects, and also often lacking in basic literacy. This educational gap is further exacerbated by the fact that there are few or no higher educational opportunities in India for Deaf persons. Access to institutes of higher learning is, for example, limited by the fact that whereas Indian universities without exception admit only students who have passed twelfth standard, almost no deaf school provides education beyond tenth standard."

Most "Deaf" children cannot be accommodated in mainstream/regular schools because of a dearth of sign language resources for teachers and students, a dearth of professional interpreters, absence of integration of sign language in teacher–training programs (special education or general degrees), minimal number of expertise in sign language, etc. Since most of the mainstream schools are not equipped to accommodate Deaf children, majority of the government personnel involved in reaching out to such children (severe and profound cases) recommend parents (of deaf children) to place their children in special schools.

Nature of Deaf Education

Teachers in the residential schools make use of the oral approach, gestures, homesigns, etc. to communicate with deaf children and those teaching in special schools (managed by the nongovernmental agencies) use English as the medium of

instruction. Educational institutions are confused about which sign language to use and teachers even take to inventing their own signs to bridge the communication gap with the students.

In some schools, sign language is prohibited by speech therapists and teachers who believe in the "Oral method" or "Oralism." There have also been studies on the achievements of deaf children under the oral approach, a number of which indicate that deaf children leave school with minimum reading skills and poor speech intelligibility, despite training in this area (Conrad 1979). Van Cleve and Crouch (1989) wrote about the 1880 Milan congress where sign language was abandoned in favor of the oral approach. The *Times* produced an enthusiastic report projecting "oralism" to be a miracle of modern pedagogy. It made sensational headlines and reassured society of the positive progress made by educators in overcoming problems of disability. The *Times* reporters, however, did not understand the diversity of deafness. Similarly, in the context of India and the NE region, children rarely complete their school education, and very few enter higher education, with the exception of the hard of hearing children.

A decade ago, special schools in the NE region were greatly influenced by the oral method of teaching d/Deaf children along with fingerspelling. Teachers were of the opinion that children should learn "Signed English" as this would help children get a better understanding of the rules and structures of spoken and written English. Although it was only a direct translation of English words into hand movements and gestures, it was misperceived as a "sign language." In truth, a teacher cannot modulate language communication effectively in the classroom without a sign language interpreter. The absence of such important facilitators from the classroom has hindered much of the academic participation from the "Deaf" students. This has contributed to the popular opinion that sign language is a language with "no grammar," "no vocabulary," "no function words," and so on and so forth.

Stokoe (1970, 1980) in his study of ASL described the use of sign language as a diglossic situation following Ferguson's model (1959). Stokoe defined the public or H variety of ASL as the Manually Coded English (MCE) and the domestic or L variety as ASL. The H variety is learnt in school, and the L variety is learnt at home. The H variety is "Signed English" where the structure of English is simply coded or translated word-by-word into manual signing. The sentence structure remains the same. No facial expression is incorporated in signed English. Iconic gestures that accompany speech (in reference to Emmorey's 1999) are also incorporated in this system of communication. Since most of the d/Deaf children have hearing parents, the L variety operates only amongst the native signers in residential schools. It is neither recognized as a language nor is it used officially as the medium of communication and teaching.

Although the hard work and the sacrifices that the teachers make for their deaf students are laudable, they are not properly trained in deaf education. There are no special educators trained in sign language in government schools of most of the NE states. At most, they may have been trained only with the basic skills of using sign language. Training and capacity building with regards to sign language or any area of disability fall under the purview or jurisdiction of the Rehabilitation Council of

India (RCI). The educational functionaries at the state and district level, however, cater only to the needs of general education (regular schools) and rarely provide training in any area of disability. Most of the special educators trained by RCI are employed by the nongovernment organizations and special schools. The existent training given by the state and district functionaries has never gone beyond the point where teachers begin to learn how sign languages works, and the data collected reflects the absence any special educators in government schools.

Hence, this has unconsciously perpetuated a negative attitude towards sign language and its culture. With the increasingly low academic achievements of Deaf children, the trend moved towards the adoption of a total communication approach to enhance linguistic input in the schools. Total communication method uses speech, lip reading, gestures, teaching aids, hearing aids, and so on in order to rehabilitate and integrate the deaf student into mainstream society.

Its successes, however, has only been with deaf people who have mild hearing loss (especially those who are postlingually deaf). It is completely incompatible and absurd to use this method with the larger majority of Deaf people who have profound hearing loss. It is akin to mental, emotional, and sometimes even physical torture that is inflicted on blameless children and adults alike. Yet, this is the prominent method in deaf schools today.

Again, this attitude stems from the lack of genuine interest or desire on the part of the hearing community to truly understand the condition of being deaf. In the past, any deformity in the human body is considered a curse from God. Similarly, Deafness became stigmatized in a similar vein, not so much as the "inability to hear" but rather the "inability to speak." It never occurred to the hearing community that the immediate effect of deafness to any human being is only the inability to speak a common language, which is not so different from a foreigner speaking a language no one understands. This utility-centric view of language which recognises only those languages that can be commonly used for a certain purpose shuns out any other peculiar mode of communication that hinders it.

Thus, deaf education is not seen as an area of language pedagogy but an area of disability; not as a first or second language but rather a tool or an aid to educate them on the conventional knowledge, skills, and ways of functioning in society. In effect, to eke out a living doing manual or written work which does not bring any attention to one's inability to speak the language or to speak at all. In other words, to live in the shadows of a dominant hearing community that is too self-involved to accommodate another "people" in the same status or as having the same opportunities.

Deaf and Inclusive Education

A medical model of deafness has always permeated the school system in India. Special schools become platforms to prepare children for integration into the larger sections of the society. Children are trained to adapt and function accordingly with a view of eventually helping them join regular schools. The paradigm shift from "special education" to "inclusive education"(IE) in the government outlook has

affected national education policies and approaches to now work towards developing models of inclusion (to be discuss in later section) and ensure that "All" children are included in regular/mainstream schools. The National Curriculum (2005) on school education looks to any disadvantages in education arising from any inequalities of gender, caste, language, culture, religion, or disabilities. Although many teaching-learning materials of educational organizations reflect an awareness of the diversity of hearing loss and the necessity for different teaching approaches, the ground reality shows a strong negligence of the importance of Sign language in education.

The majority of the schools in India, especially in the NE region, are still not using sign language as a medium of instruction and have no provision of interpreters. Even special schools are not equipped with trained teachers in sign language. Consequently, "Deaf" children in mainstream schools purporting IE are even more marginalized as their basic need for a natural sign language communication system in the classroom is ignored.

In order to effectively remove the barriers for a person with hearing loss the government must make special provisions in classrooms such as providing special services and early intervention programs, auditory training, interpreters, captioning, etc. To ensure successful inclusion of these children in education, schools have to be modified and redesigned to meet the physical and academic needs of such children (see UNESCO 2015).

When d/Deaf children are taught along with other hearing children in the same "inclusive" classroom, they encounter several difficulties because of the language barrier. There is minimal academic participation in actual classroom situations as they are often isolated, neglected, or side-lined. In most cases, deaf children are exasperated because they fail to lip-read, to speak, to write or rewrite grammatically correct sentences in the official language of the school. Most teachers are of the opinion that deaf children have "no language" and hence have tried to invent their own signs (gesture-like hand movements) or incorporate foreign signs (ASL) in their teaching. It is disheartening to find that teacher training courses (such as B.Ed. or even B.Ed. in Hearing impairment) completely ignore sign language, let alone consider it as significant to their training. Most of the teachers teaching deaf children in India have no knowledge of sign language, and in most cases it is not accepted or even allowed to be used.

Today, education, particularly, school education infers education for "All" eliminating factors such as gender, race, caste, class, religion, ethnic identity, disability, and any other discernment. However, many of the teachers' modules, instructional materials, etc. fail to address the problems of language education for the d/Deaf exclusively. In fact, sign language is mentioned at a very insubstantial level just so that all the sections of disability are covered. This is similar to adding just a pinch of salt to a meal that requires much more and will therefore fail to impact the overall taste. As the central government is pressing only for more enrolment, "IE" has come to mean merely the "quantity" of inclusion rather than "quality" of education for many stakeholders in education.

"Disability, like ethnicity, is a social construct, not a fact of life, although it is a property of such constructs that they appear misleadingly to be a fact of life" (Lane 2005, p. 6). Several teaching methods and strategies such as the use of supportive/assistive devices have been developed and incorporated into education with a view to overcome communication barriers (within the conceptual framework of disability as per the factsheet outlined by the WHO, 2005). In such a backdrop, the philosophy of inclusive education aims at minimizing and eliminating all kinds of barriers regardless of what terms or definitions are adopted for deafness. The goal is to include "All" children in schools.

An excerpt from an interview with a Deaf Indian expert (Madan Vasishta), who has been working in the USA for 48 years, is as follows: "Deafness is a communicational barrier. As a parent you make sure that your child gets the best education that is possible. Hence, a deaf child will be included only if teacher is a fluent signer and the students can sign fluently. The majority of deaf children who cannot speak clearly and cannot lip-read or hear even with the help of hearing aids, being in a general education classroom is only physical inclusion. Educationally they are not fully or even partially included."

There is a dearth of research on the number of Deaf children enrolled in inclusive schools, but there are enough statistics (in the national census or DISE) to show those under the category of "hearing impairment" (which hints at disability). The eagerness of policy makers to ensure the rights of PWD in education has overshadowed the true diverse nature of deafness. "Deaf" or to be more precise individuals with profound cases of hearing loss use Sign language as their mother tongue or first language. "The mother tongue is an aspect of the soul of a people. It is their achievement par excellence. Language is the surest way for individuals to safeguard or recover the authenticity they inherited from their ancestors as well as to hand it on to generations yet unborn" (Fishman 1989, p. 276 quoted in Lane 2005).

Eliminating Barriers

Regardless of the barriers faced by d/Deaf children in school education, it is the very arena where barriers can be "eliminated." IE aims at eliminating barriers through mainstreaming deaf children into the general/regular schools but these schools are ill-equipped to accommodate such learners in their classrooms. Therefore, the problem is not IE but the absence of an appropriate support system, in terms of availability of manpower (interpreters and special educators), resource teaching learning materials, etc. Inclusive schools still rely on the expertise of special schools to handle the more severe cases. Effective implementation of IE, with the existing system well in-place, can pave the way for successful inclusion of the Deaf, and a tolerable and inclusive society where "language" does not become a barrier, but rather something which offers access into a different world and a different culture.

Cawthon (2001) and Powers (2002) reported on the practices of deaf education and inclusion in the UK, where the adoption of a Whole school approach (every

teacher, staff, and others working in the school are sensitized and given the responsibility to ensure support services to deaf children) and the use of an interpreter has increased comprehension levels dramatically. Successful "inclusion" requires an effective communicative environment with access to formal curriculum through flexible assessment of the child. Powers (2002) further points out that a teacher (regular or special educator) must have the required skills and positive attitude to teach with an active involvement of the parents in the deaf community. Physical infrastructure needs to be modified to support d/Deaf children in IE settings, for example, the use of Visual fire alarms, calling bell, announcements through visual mode, noise reduction through carpeting or acoustic tiles, and so on.

In India, especially in the NE egion, education for the d/Deaf stops at the Secondary or Higher secondary level. Naturally, they would want to pursue higher education, but the few who have tried have faced major problems accessing it. Institutions at the higher level can rarely provide teachers who are trained in sign language, let alone equip themselves with the appropriate social service skills to handle such students. This blatant neglect of sign language in most spheres of their lives has deprived them of further academic achievement and undermined not only their right to education and work but also their right to life and personal liberty. This indifference has led to the continued increase in deaf illiteracy and subsequent lack of employment.

Apart from the potential IE has to break barriers in the larger society, there is also a need to understand the process of language acquisition for the Deaf (profound deafness). The area of language acquisition does not fall under the purview of spoken languages alone. Sign language acquisition also takes place in a natural way as is evident by hearing children acquiring sign language from deaf parents naturally. This blurs the differences between speech and sign language and proves that sign language is as natural as spoken language; it also gives deeper insights into the workings of human languages in general. Language acquisition studies Petitto, 1993, however, rarely consider d/Deaf children while churning out acquisition theories. These tenets of language acquisition are blindly followed and applied in deaf education.

Unlike the hearing children, the Deaf do not get any linguistic input or develop a linguistic system in their homes. They learn their first language, i.e., sign language, only when they are exposed to deaf signers, usually in residential schools. Moreover, they are expected to learn a second language whose sound pattern they cannot hear. English is a second language that comes to them only in print and yet with the help of various techniques they are able to read and write in it.

On this basis, the Sign/bilingual education (Gregory 1996) recognizes sign language as the first language of the d/Deaf and the culture that comes along with it. It tries to give equal emphasis to sign language and spoken language in a manner that is consistent with the "interdependence theory" (Jim Cummins) that proposes that the learner already brings along with him or her age appropriate language (receptive and expressive) skills in his first language (Mayer and Wells 1996) which he uses to learn other languages. In other words, it is possible to teach Deaf children a second language using their knowledge of the first language.

It is vital for the d/Deaf students to have a genuine grasp of sign language right from the preprimary level, so that they can have a strong foundation for learning of English. The Linguistic Interdependence model has several complexities in explaining reading achievements of deaf children in bilingual education programs. However, despite the introduction of bilingual education programs, the reading skills of deaf children do not seem to have improved significantly (Hermans et al. 2008).

It would be interesting to investigate the possibility of learning and mastering a second language simply through the visual representation or orthography of English. A comparative analysis of language acquisition between sign and spoken language would broaden the perspective of sign language. The process of bridging their native language and the written form of English requires more research in the field of Second Language Acquisition.

In our society there are rare cases of hearing children having deaf parents. The only case found so far is a one and a half year old hearing child, Panbornashua, whose parents are both prelingually Deaf. Their main medium of communication with their child is Sign language, but he is also exposed to spoken language since they live in the same compound as the father's parents. Spending most of his time with his mother, Panbornashua acquires more sign vocabulary than spoken in this bilingual-bimodal linguistic environment. At present he can articulate 40–60 signs with hand movements which are not well-formed similar to "baby talk." Comparatively, he knows spoken words in a manner. It is also interesting to note that he would sign to his parents if he hears the doorbell or let them know of noisy vehicles passing by the house. This case testifies that language acquisition takes place naturally despite the nature and modality of the language a child is exposed to. Further research is still required in this area.

Conclusion and Future Directions

Is it possible for a Deaf/prelingually deaf person to learn English (a second language) in the absence of hearing, without any phonological knowledge of how the second language even sounds like? If so, how does a human brain adapt to such a condition? To put it in another way, is it possible to master the use and function of a second language simply through the written form only? Neither Indian Sign Language nor the sign languages (in NE region) share any common phonological similarity with English.

Within the backdrop of a new philosophy – "IE" – misconceptions about sign language and the deaf community abound across educational programs and policies. In the context of overcoming barriers within an inclusive setup, two major paradigm shifts are needed in the common perspective towards deafness – the shift from "Total communication method" to a "Sign bilingual program" and from "Disability" to a "Linguistic Entity."

In other words, if the d/Deaf are recognized as a linguistic minority, it will necessitate the development of bilingual reading/supplementary materials, such as sign language primers for young children and so on. Sign language would be made

an integral part not only of the school curriculum but also a compulsory part of teacher training courses. Teaching manuals/instructional materials can be developed for teacher training programs, and sign language should be introduced in preservice and in-service programs for teachers. Similarly, parents/caretakers should also be trained in sign language.

The d/Deaf themselves need to learn how their own language works as they are greatly driven by the idea that their language is inadequate. Most are not even consciously aware that their language has an underlying grammar that is no different than any spoken language. It is often the case that they modify their signs to accommodate the needs of the hearing individuals. Hence, it is imperative that the d/Deaf signers receive formal education in their language in order to understand that the signs they produce are not simply spontaneous idiosyncratic hand gestures but they follow a systematic rule.

Thus, an in-depth understanding of sign language grammar and how it functions needs to be rendered in the planning and preparation of teaching and learning materials for the d/Deaf students. A policy document and guidelines for regulation of sign bilingual in education is the need of the hour. Sign Language should be brought within the framework of relevant national language policies. A local and national network of sign language interpreters should be developed in order to provide support services to school education. Until more educational institutions have interpreters of sign language in the classrooms, the socioeconomic condition of the d/Deaf will remain the same or worsen.

In the context of IE, integration of information and communication technology for easy access to other languages such as English, etc. can be developed. The use of sign language in "total communication" methods in IE settings need no longer be tied to the notion that it is only a "medium of instruction" that is used as a tool to fill the communication gap in the classroom. Instead, sign languages should be treated in the same way as any other mother tongue/home language in Indian education. The mother tongue or the "home language" at the primary level of education has been known to confer cognitive advantages to young learners, so why not sign language?

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