

Are we Really Marching towards Inclusion? : Usage of Sign Language at the Foundational Stage of Students with Hearing Impairment in Inclusive Schools

Sunita Kathuria* & Sangeeta Chauhan**

*Senior Research Fellow, Ph.D. Scholar; USE, GGSIPU, New Delhi

** Former Dean, USE, GGSIPU, Dwarka, New Delhi

Abstract

Growth and development refer to the changes that occur in relation to the physical, mental, social, and emotional domains of an individual that leaves a direct impact on the quality of life. Hence, to ensure the long-term benefits, a strong base must be formed at the early years of the child through quality education. Researches documented that children who miss on the early skills cannot independently access the curriculum in the later years. These deficiencies widen the learning gap, which accumulates over time and leads to unsatisfactory experiences in the school. One of the reasons for the lack of development of foundational skills is the limited access to a child's 'first language'.

In this paper, the researchers had tried to highlight the learning needs of students with hearing impairment at the formative stage of life, with a special focus on language accessibility in the schools. The paper made observations on the teaching-learning process of inclusive classrooms at primary schools of Delhi in relation to the strategies used to mainstream the students with hearing impairment at the primary stage. The study reported the attitude of special educators towards the use of sign language in the teaching and learning process. The study had a cross-sectional survey design. The researchers used an observation schedule and attitude scale to collect the data. 20 general teachers and 50 special educators were selected in the sample through purposive sampling. The findings of the study revealed that most of the special educators expressed less confidence towards handling the students with different disabilities with limited time and resources. Most of the teachers in inclusive schools either have a negative or neutral perspective towards the usage of sign language for teaching and learning of students with hearing impairment and supported the oral-aural approach. The implications of the study indicated the need for up-gradation of skills of teachers to deal with all the students in the best possible manner and also to provide a conducive environment for the development of foundational skills in the early years of life.

Keywords: *Foundational Skills, Indian Sign Language, Learners with Hearing Impairment, Inclusive Schools and Attitude*

The formative phase covers the period from 0 to 8 years of age, is considered to be most crucial for the right kind of physical, cognitive, social, and emotional development of an individual. Researches acknowledge that approximately 85% of the brain of the child develops before 6 as the majority of neural connections are established during this phase (NEP, 2020). Children require a loving and stimulating environment, proper nutrition, positive social interactions, and appropriate attention for optimal development, and deficiency of any of these may lead to irreversible outcomes in life (UNICEF, 2000). Shreds of evidence from various researchers had also confirmed that putting in efforts, time, and money during the childhood phase is one of the most worthwhile

ways to enhance skills, competencies, and efficiencies.

NEP 2020 highlights the need to be equally focussed at the foundational stage of the children and defines the foundational stage as the three years of pre-school and 2 years of Primary school; (Grade I and Grade II, covering children of 3-8 age). In total the foundational stage consist of 5 years of flexible, multi-level, play/activity-based learning and the curriculum pedagogy of ECCE with more focus on laying a solid foundation across academic subjects, creative subjects, and co-curricular activities (NEP, 2020). Therefore, the role of the teacher has become more complex and multi-dimensional. Researches revealed that a child, who performs poor and falls behind early, often finds difficulty in engaging self with the

curriculum of higher grades. Hence, the school must continuously attempt to provide a wide range of knowledge, develop competencies and foundational skills right from the early years of life. These skills increase the likelihood of performing better in all domains of life. This paper attempts to explore the readiness and level of preparation of general teachers to deal with the needs of students with disabilities in inclusive classrooms and also the attitude of special educators towards the use of signs to teach and learn curricular content in schools.

What does inclusivity in school mean?

Inclusivity means the practice of bringing in people who might otherwise be debarred or marginalized, for example, people with some kind of disability and people belonging to minority groups like schedule caste, schedule tribe, gender issues, etc. In this research, Inclusivity in school is operationalized as ‘mainstreaming of students having a disability, into the same schools and classrooms, with students without any disabilities’ (SSA document, Government of India, 2015). Inclusion is both a process and outcome of understanding, preparing, involving, accepting, supporting, valuing differences, and respecting diversity among today's school children and youth. It is potentially both a process and an outcome for achieving social justice and equality in our society.

Table 1

Grade Wise Enrolment Status of CwSN in School Education, All India

Year	Primary (I – V)		Upper Primary (VI-VIII)		Secondary Stage (IX – X)		Higher Secondary Stage (XI-XII)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2014-15	6314	5005	5688	4933	3458	2874	2462	2166
2015-16	5434	4553	5577	4636	3430	2872	2009	1726
2016-17	5376	4332	5279	3897	3259	2461	1898	1447

Table 1: the U-DISE data (2016-17), indicates the grade-wise enrolment status of Children with Special Needs (CwSN) in India from 2014-2017. The table clearly shows the decline in the enrolment and retention of CwSN in India. The census 2011 (Figure 1) data showed that out of the total population of disabled students of age group 5-19 years, 61% of the children were attending educational institutions, 12% attended earlier and dropped and 27% never attended. This indicated that there are more students in the educational setup and it is completely the

responsibility of the system to accept, modify and adjust as per the requirements of the students with special needs in the best possible manner.

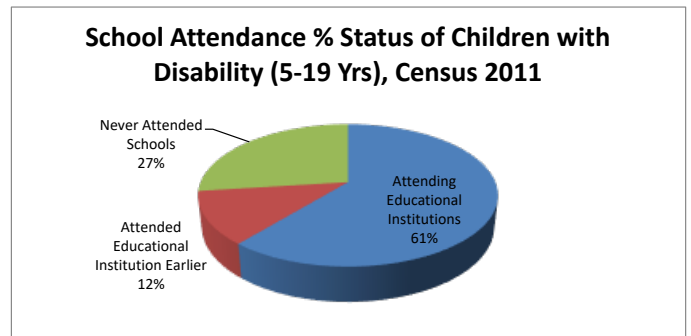


Figure 1: Status of School Attendance of Disabled Students (aged 5-19 years), Census 2011, India

Language deprivation and learners with profound hearing impairment

Language deprivation is defined as a state of chronic deficiency of complete access to the natural language during the formative phase of a child’s life. Access to language and language development is one of the most important aspects of an individual’s growth and progress (Lantolf, J. P., & Thorne, S. L., 2006). And, ethically, it is not less than a crime to keep a child deprived of his/ her natural language. Connor, in her research in 2002 emphasized on development of early vocabulary skills and stated in her research that early vocabulary skills have a significant positive relation to later literacy skills.

In the past, the two main groups, the oralists (people favoring the oral approach-lip reading, speech development, and mimicking the mouth shapes) and the manualists (people favoring fingerspelling and sign language) presented their opinions and arguments on language accessibility, education, and socialisation concerns of the people with complete hearing loss (Deaf). People belonging to the hearing world who have never come in contact with deaf people generally have negative preconceived notions and beliefs about deafness and sign language (Dirksen, H., & Bauman, L., 2004). Oralism was advocated by most of the people in hearing society as it was believed that the deaf people shall adjust better and lead a happy life in a so-called ‘hearing world’. Deaf children in developing and under-developed countries have very little or no access to their primary language

at the formative phase (Adoyo, 2007). Language deprivation is considered the same as child abuse as it leads to a profound impact not only on participation, education, independence, relationship building but also on critical skills like concept building and memory organisation (Kelly Kasulis, 2017). Researches repeatedly reported that the lack of exposure to language in the critical years of the child has distressing and everlasting effects (Gleason, 2000).

Deafness, Indian sign language and the power of language

Deafness: Deafness may be defined as partial or complete inability to use the acoustic modality or hear the sound which varies on degree, ranging from mild to profound. In the past, there were different models of disability being practiced in society like the charity model, bio-centric model, functional model, social model, human right based model, etc. Currently, with respect to people with hearing impairment, the culturo-linguistic model is in trend and accepted worldwide. From the culture-linguistic model approach, it is believed that the deaf culture is not a culture of individualism but collectivism. Deaf people see themselves as the people belonging to linguistic minorities and advocate the right to conserve and promote their language and culture (Emerton, R. G., 1996). Sign language is an integral part of deaf culture and is considered the natural language of deaf people (Mitchell, R. E., & Karchmer, M. A., 2005). A large number of deaf people depend on sign language for communication. NEP 2020 acknowledges the power of language and stated that children at the formative stage learn about the world better through the languages used at their homes and hence schools till grade V must provide educational experiences in a child's first language. Learning gaps created due to the non-accessibility of language and medium of instruction must be bridged. NEP, 2020 also approves the use of local sign languages to make the curriculum accessible to the child either through NIOS sign language modules or through general teachers'/ special educators' efforts. Language, literacy, and numeracy are the basics of achieving all higher-order competencies; these foundational skills are necessary for children to engage in future learning as well as to fully participate in society and the workplace as adults. Sign language is a mode of communicating ideas and thoughts, through

visually transmitted gestural patterns, by using hands, facial expressions, body (movement and orientation) rather than using acoustically conveyed sound patterns i.e. speech (Stokoe, W. C., Jr., 2005).

“Education delivered in the most appropriate languages and modes and means of communication for the individual, and in environments which maximize personal, academic and social development both within and outside formal school settings”. (RPwD Act, 2016, para. 35, p. 10)

Gleason in research conducted in the year 2000 reported that if a conducive and stimulating environment is provided to children, they begin to learn the language much before then they acquire physical maturity of speech organs and improper development of organs involved in speech should not be the reason of hindrance of expressive communication. Marilyn Daniel (1995) reported in her research that the use of sign language was found to be encouraging in the language development of hearing children also.

Review of related literature

This review of related literature is dealing with the researches conducted in past in the area of deaf education and the use of sign language. Some of the most relevant researches are discussed in this paper:-

Monney, M. (2017) conducted a study to know the influence of using Sign Language on the hearing students in the inclusive classroom. The study revealed that signing has a visual and kinaesthetic approach and could act as a tool for teachers to cater to the diverse needs of the learners in inclusive classrooms. The author mentioned the theory of multiple intelligence in support of this and highlighted the positive impacts of the usage of sign language on hearing individuals. The study revealed that the use of sign language in the inclusive classrooms showed the change in the attitude of the hearing students towards disability and made a positive impact on the interest of the hearing students in assisting and knowing more about disability. It helped to remove the misconceptions regarding the deaf world greater sense of responsibility and made the hearing students culturally sensitive with advanced communication skills.

Seven-week research conducted on the primary school students to determine the effects of

American Sign Language to develop second language vocabulary i.e. Spanish by Mejia-Menendez, I. (2016) revealed that the group which was taught new words accompanied with signing performed better in learning and recalling the words than the group which was taught without signing. Further, the study suggested examining the effect in the retention of learned words in the long run.

A study was conducted to explore the impact of sign language in addressing the communication difficulties of the non-deaf learners by Toth, A. (2009). The researchers in the study tried to put efforts to know if signing can help children with communication difficulties. The sample consisted of autistic, children with down's syndrome, Fetal Alcohol Spectrum Disorder, and learning disabilities. It was found that learning of signs has proved to be a bridge in the communication process of children with communication difficulties. The performance in vocabulary acquisition and production was found to be better than before.

Wilson, R.M., Teague, G., & Teague, M. (1984) researched to determine the effectiveness of the use of sign language and fingerspelling on improving the spelling performance of hearing students. The research revealed an improved performance of the kindergarten students in memorizing the spellings. The researchers suggested to replicate the study with a more precise design (ABAB) as this study with a single case design had given encouraging results.

On reviewing the literature, it was found that the use of sign language in the teaching and learning process had benefitted not only the children with hearing impairment but also the hearing students. Sign language had been found effective in enhancing vocabulary, language and literacy skills among children of different age groups. It was also found that very few studies have been conducted in this area in India but in the West, ample researches have been reported. Therefore, it is imperative to explore the same in length and breadth in Indian context so that focus with the right intensity and well-structured approach shall be used for the students with hearing impairment at the earliest.

Objectives of the research:

The current study was conducted:

- To observe the teaching-learning process of the inclusive classrooms having students with

hearing impairment at the Late Foundational stage.

- To study the attitude of special educators towards the use of Sign language in the teaching-learning process of students with hearing impairment at the Late Foundational stage.

Operational definitions:

Teaching-learning process: The teaching and learning process includes many variables and is referred to the usage of assessment, planning, implementation, and evaluation strategies to bring the desired changes in the students. In this study, the teaching-learning process is defined as the 'strategies' used by the teacher

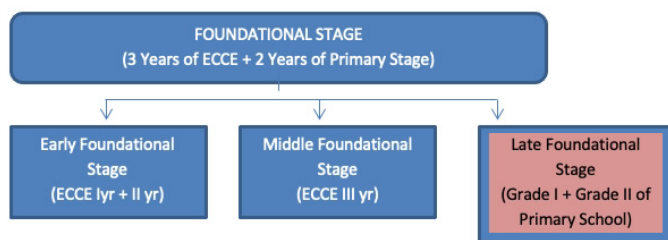
- to teach the curricular content,
- to make students learn the content
- to assess the students
- to give feedback for improvement of the students with hearing impairment in the inclusive classrooms of Delhi Government schools (MCD Schools).

Inclusive classrooms: The classrooms having students with and without disabilities studying together for the entire day and throughout the academic year.

Students with hearing impairment: In this study, students with some damage or malfunction of the hearing apparatus, which in turn, disable the child in terms of functional use of his/her hearing senses, wholly or partially affecting his/her normal functioning like daily living, educational or vocational, etc, studying at the primary stage (grade I to grade III) are referred as students with hearing impairment.

Late foundational stage: In this study, the children studying in the late foundational stage (grade I and II) are said to be students of late foundational stage students (Figure 2).

Figure 2: Classification of Foundational Stage



Attitude: An attitude includes a complex organization of evaluative beliefs, feelings, and tendencies toward certain actions that can have a powerful influence over the behaviour of the individual. Attitude covers three components: an affective, a behavioural, and a cognitive component which drives the feeling, belief, interest, knowledge, and behaviour towards a particular object.

Special Educators: In this research, the teachers who are professionally trained and qualified to teach and deal with the students with disabilities of the early primary stage (grade I and II) are referred to as Special Educators.

Sign Language: The language used to communicate with each idea and thoughts to others through visual-manual modality like, gestures, hand shapes, facial expressions, body movement, etc. is known as Sign Language.

Research methodology

Methodologically, the present study had a cross-sectional survey design. 70 teachers were taken in the sample, 20 general teachers (professional qualification: D.Ed./ B.El.Ed.), teaching at early-primary stage (grade I to grade II) and 50 special educators (professional qualification: D.Ed.: Special Education/ B.Ed. Special Education) dealing the students with disabilities studying at the primary stage in government schools of Delhi (inclusive schools).

Tools used in the study:

- Observation Schedule was used to observe the teaching-learning process of the inclusive classrooms (grade I and II) having students with hearing impairment. The tool had 20 statements with 4 point scale namely very evident, evident, slightly evident, and absent. The maximum score obtained on the tool was 60 and the minimum was 0. The observations were designed to know if and how the general teachers meet the needs of students with profound hearing loss in the regular setup. The schedule was developed to document the types and frequencies of differentiated instructions that students receive through modification in the teaching-learning process covering 4 main dimensions i.e. a) student’s engagement, b) adapted instructions, c) motivation, and d) assessment and feedback.
- Attitude Scale was used to find out the attitude of special educators towards the use of Sign

language. The tool with 20 items was prepared covering 4 main dimensions i.e. a) acceptance of inclusion of students with severe to profound disability (5 statements), b) awareness of the benefits of sign language (5 statements), c) competency on ISL (5 statements) and d) parental support (5 statements). The tool had 3 point scale namely agree, undecided, and disagree. The maximum score obtained on the tool was 40 and the minimum was 0.

Procedure: The research started after seeking permission from the principals of the schools taken under study. The researchers initially built rapport with the teachers for few weeks through casual interactions with them and then explained the objectives and rationale of the study. As per the rapport formation with the teachers, the attitude scale was administered. The researchers then purposively selected 20 general teachers who have a student with profound hearing impairment in their classroom and observed 4 classes of each 20 teachers. The observations carried on for 6 weeks wherein the researchers observed the teaching-learning process with respect to strategies adopted by the teachers to cater to the needs of SwHI.

Analysis and findings of the study

Objective wise analysis and findings of the study are as follows:-

Objective 1: To observe the teaching-learning process of the inclusive classrooms having students with hearing impairment at the Late Foundational stage.

Analysis and findings:

Table 2

Dimension Wise Percentage Analysis of Observation Schedule

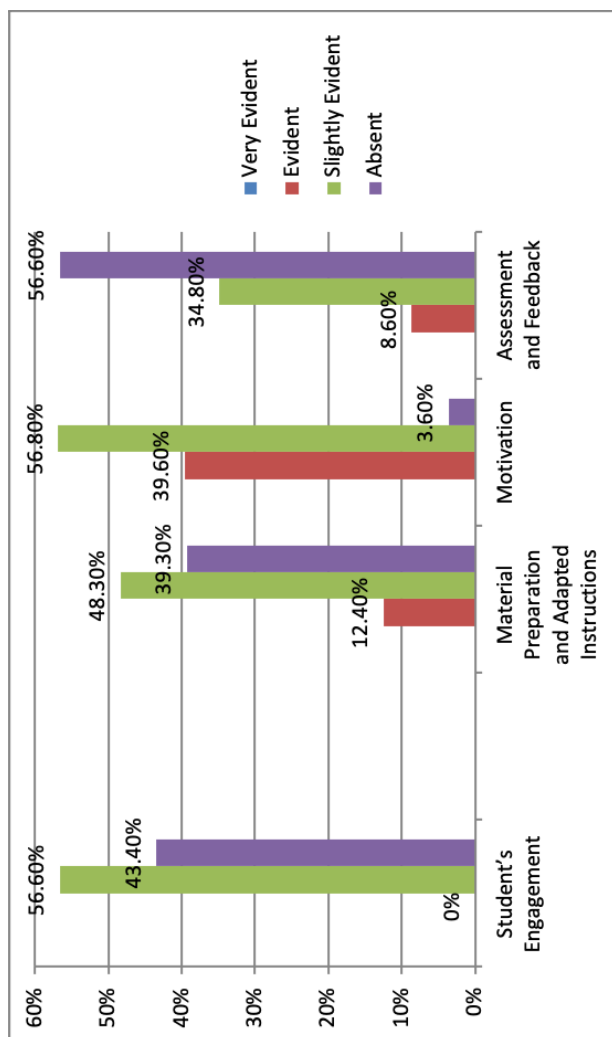
Teaching Learning Process (Dimensions)	No. of teachers observed	No. of classes observed	Very Evident	Evident	Slightly Evident	Absent
Student’s Engagement	20	4 classes of each teacher:	0%	0%	56.6%	43.4%
Material Preparation and Adapted Instructions			0%	12.4%	48.3%	39.3%
Motivation		Total class	0%	39.6%	56.8%	3.6%

Assessment and Feedback	es:80	0%	8.6%	34.8%	56.6%
-------------------------	-------	----	------	-------	-------

Graphical presentation of Dimension wise Percentage Analysis of Observation Schedule

- Table 2 depicts in the student engagement dimension that it was observed that the behaviour of only 56.6% of teachers was slightly evident in engaging the SwHI in the teaching-learning process. Teachers were observed communicating with the SwHI through pictures or trying to make the child do lip reading or through local signs. The researchers observed that 43.4% of teachers were most of the time busy dealing with other students and were not able to communicate well with the SwHI.

Figure 3



- Figure 3 indicates that as far as material preparation and adapted instructions were concerned, there were 12.4% of teachers who show evident behavior of being concerned about modification and adapting the curriculum as per the need of the SwHI. It was observed in one of the class that the teacher made significant efforts in making a picture

book for the teaching of EVS so that the concepts of types of houses, different types of festivals, our earth, different landforms, etc. can be taught to the students in a better way. The same picture book was given to SwHI for home, for further recapitulation, after the class. On the other hand, 39.3% of teachers seem to be reluctant in making any extra efforts in including SwHI in the class and classroom activities. Regular textbook and chalk and talk method were used to teach in the class. Few of the SwHI were found to be giving sometimes confused expression and sometimes 'lost in his own world' expression. Most of the SwHI were found to be copying the written texts from the blackboard. It was observed that most of the time; the curriculum is transacted through oral mode only which made little opportunity for the SwHI to get accommodated in the teaching-learning process. It was observed that approximately half of the general teachers believed that making modifications in the content and teaching a special child is the duty of a special educator and whatever was taught in the class, would be taken again in a different manner by the special educator. It was observed that teaching SwHI was found to be the duty of a special educator alone. The prosodic components of speech of some of the teachers were also found to be not appropriate as they should be for the students of early primary stage and SwHI.

- The behavior of providing reinforcement and motivation to the SwHI was found to be evident in approximately 40% of the teachers. In 56.8% of classrooms, it was observed to be slightly evident and was absent in 3.6% of classroom observations of teachers. Depending on the degree of disability, non-verbal reinforcements were expected but it was found that verbal reinforcements were used more than half of the time. Most of the teachers were found to be posing questions to SwHI which was a good sign of motivating them to participate in the class but in the absence of any answer for them, the discussion was not taken forward. Efforts to explore the ways of increased participation from SwHI were visible in very few teachers. The zeal of finding out the reasons behind the silence of the student on questioning was not evident in the behavior of the teachers and hence the

motivation or reinforcement used by the teachers in the class seemed ineffective.

- Only 8.6% of teachers were found to be concerned (evident) about bringing in different means of assessments and providing feedback to the SwHI and due to the communication barrier, 56.6% of teachers were not able to bridge the learning gaps. The Flexibility in teaching, learning, and assessment was missing in the inclusive classrooms. As the SwHI were studying in the inclusive schools with no exposure to deaf school (where strategies to learn oral or aural or signing are taught) at the formative phase of life, the language and speech development of the child was found to be quite affected. The affected speech and language understanding led to poor performance in classrooms. 56.6% of teachers were found to be more focused on completing their daily lesson plans and getting the written work done in the notebooks rather than learning or participation of SwHI in learning. Furthermore, the traditional methods of assessments didn't help much for SwHI in the classrooms, where they were expected to speak, read, comprehend and write the curricular content as other students do. The formative assessments conducted by teachers on regular basis were the same for SwHI, on which they used to perform poorly. One of the teachers was found using pictures and drawings to assess SwHI and used to give feedback through self-made signs (local signs).

Interpretation: It was interpreted from the data analysis of the above tool that though students with disabilities are included in the mainstream with the regular students still most of the students are not receiving what they are entitled to in the mainstream classrooms. Notionally, teachers in inclusive schools have divided their work between special educators and general teachers. The general teachers take the task of teaching regular students whereas the special educators are expected to teach the students with disabilities (SwD) in a pull-out model (SwD is taken out from regular classroom for some time to teach the contents taught in the class in a simplified manner). It was also observed in the inclusive schools that there is only one special educator appointed in the school and her/his specialization in special education could be only one, it could be either visual impairment, hearing impairment, learning disability, intellectual

disability, or multiple-disability. There is no active course in India which trains the special teachers in cross-disability. So, a special educator who is not professionally qualified to teach SwHI is not able to deal with the needs and problems of SwHI, especially of students with a higher degree of disability.

Objective 2: To study the attitude of special educators towards the use of Sign language in the teaching-learning process of students with hearing impairment at the Late Foundational stage.

Analysis and Findings: To study the attitude, Likert scale was administered to 50 special educators dealing with students with disabilities of primary stage, the analysis of the scale is as follows:-

Table 3

Attitude Analysis

Attitude of Teachers	Negative Attitude (0-10)	Neutral Attitude (11-30)	Positive Attitude (31-40)
Number of Teachers	20 (40%)	20 (40%)	10 (20%)

Interpretation: On analysing, if the score was found to be in the middle range of the psychological continuum, the attitude of the individual was described as 'neutral' and if it falls towards the favourable end of the continuum, it was described as a positive attitude (Table 3). Similarly, if the score fell towards the unfavourable end, it was described as a negative attitude. The table indicates that on analyzing the data through percentage analysis, it was found that 40% of the teachers i.e. 20 special educators, had a negative attitude towards the usage of Indian Sign Language in the teaching-learning process, and 20 teachers i.e. again 40% of the special educators had a neutral attitude towards ISL and its use in the classroom. Only 10 special educators, which makes 20% of the sample were found to have a positive attitude towards ISL and usage for the teaching and learning of students with hearing impairment. It shows that the majority of the special educators do not have a favourable attitude and were not much convinced towards its usage.

To find the plausible reasons behind the neutral and negative attitude, an interview was conducted with the special educators having an unfavourable attitude. On analysing the findings

of the interview through content analysis, main themes were identified and are presented:-

- Use of Sign language limits the socialisation process: Approximately 4/5th of the special educators (80%) carried the opinion that children with profound impairment must learn to communicate through oral-aural mode as learning of sign language would make them capable of interacting with other deaf people only but not with the people belonging to hearing world. One of the special educators while interview said that:-

“Socialisation with the hearing world is very important for deaf children as ultimately, the children with disability have to adjust in the society where they would find more of hearing people. So, they should be trained from the initial phase to adjust to the norms laid by hearing society, otherwise, they may feel isolated.”

- Positive approach towards Speech reading and Auditory training: Nearly 3/5th of the teachers (60%) had a positive approach towards the training on speech reading and auditory training. One of the special educators said

“It is very important to make the child with profound hearing loss read the lips of the speaker. And if the child tries to use signs to communicate, the parents must be strict and should not allow the child to use signing. If the child would be comfortable in signing, he would never make efforts to learn through oral mode. So, teachers and parents need to be stringent towards it.”

- Overly Optimistic: 2/5th of the special educators (40%), seemed to be overly optimistic towards the positive effects of oral-aural mode of communication and opined that the SwHI would develop listening and speaking skills with time. On questioning further on this that why do they feel so, one of the respondents said

“If parents emphasis is more on stimulating the auditory and speech system in deaf children, the children will learn to talk and hear speech at a better rate as compared to other deaf children, and I believe it would be good for both, the deaf child and the people around him to understand him”.

The other teacher said

‘If God takes away the power of one sense organ, he blesses the people with disability with a higher degree of sensitivity of other sense organ and this is how the loss is compensated and balanced to some extent. So, deaf children would also have one or the other sense organ which is substantially better than the normal individual.’

- Distraction in understanding: Approximately 3/5th of the respondents (62%) stated that teaching through different modalities may confuse the deaf child. So, to avoid confusion and putting undue efforts, deaf students should be taught to use either oral-aural mode or sign language.

“Focus must be on face and mouth rather than on hands. If we make them communicate through hands also they may get distracted and their focus may shuttle between the face, mouth, and hands, which is I suppose quite difficult.”

- Near about half of the special educators expressed their concern towards the development of speech first for language access rather than teaching sign language for language access. It was observed during the interview that teachers believe that working on the auditory modality and making the speech organs function as much as possible is more important than giving the deaf child an alternate of these. It was understood by the discussion that the teachers consider sign language as the last resort of communication. A sense of doubt and fear was very much visible in the statements of the special educators.
- Use of sign language makes the deaf individuals look different from the regular ones: Approximately 1/3rd of the respondents (31%) believed that if the deaf child would use sign language for communication, it may make the deaf child look different from others in the class and would make deafness real for them.

“I believe that we should try to make the children with disability as normal as possible. So, if we allow them to use sign language, their disability would become visible to all. Why create opportunities in the class for other students to make fun of their problem.”

Table 4

Dimension wise Attitude Analysis

S. No	Sample Size (n)	Dimensions	Percentage of Teachers	Attitude
1	50 Special educators	Acceptance of inclusion of students with severe to profound disability	50% : Agree 40% : Undecided 10%: Disagree	Neutral
2		Awareness of the benefits of sign language	30% : Agree with benefits 40% : Undecided/ Not sure about benefits 30%: Disagree with benefits	Neutral
3		Competency to communicate through ISL	20% : Agree that they are competent in ISL 20% : Not Sure, make their signs as and when required 60%: Disagree, not trained on ISL	Negative
4		Parental support	20% : Agree 20% : Undecided 60%: Disagree	Negative

Interpretation: The table 4 indicates that the attitude scale had four dimensions and on analysing the tool dimension wise, it was found that most of the special educators had a neutral attitude towards ‘Acceptance of inclusion of students with severe to profound disability’ and ‘Awareness of the benefits of sign language’ dimensions. Furthermore, it was also revealed that the special educators had a negative attitude towards the other two dimensions namely ‘Competency to communicate through ISL’ and ‘Parental support’. There were less than 1/3rd of the respondents who were positive towards these dimensions.

Conclusion: The teaching-learning experiences of students with profound hearing impairment in the inclusive schools of Delhi were found to be not appropriate and as per the guidelines of UNCRPD (2007), RTE (2009), RPwD Act (2016), and NPE (2020). Moreover, the attitude of special educators towards the use of ISL was found to be negative and neutral in this study. This study highlights the need for counseling

and conducting refresher training for teachers and special educators.

Educational Implications:

- The main objective of every teacher is always to make the subject and content accessible to all the students. Considering this fact, the findings of this study support that the students with benchmark disabilities, especially children with hearing and speech impairment, must be provided with the opportunity to access the curriculum, classroom activities, and co-curricular activities with an appropriate communication system (use of oral-aural approach, ISL, augmentative and alternative communication methods like communication boards, synthesisers, pre-stored utterances, use of signs, use of lip reading, etc.) must be made available to students.
- Indian Sign Language is a complete, natural language that has the same linguistic properties as spoken languages, with grammar that differs from English. So, the findings of this study imply that ISL shall be adopted and offered as one of the language subjects in school education (NCF, 2005).
- The onus of all-round development of the disabled child in the Inclusive system is not only on the special educator. This is the responsibility of every teacher to reach every student. So, to reach the student with severe hearing impairment, teachers and special educators should make the learning of basic sign language a part of their professional cum personal development. There are several free online Indian sign Language dictionary apps like <https://www.talkinghands.co.in/>, <https://indiansignlanguage.org/history/>, and <https://indiansignlanguage.org/abbreviation/>
- The teaching-learning process of the inclusive classrooms having students with hearing impairment at the late foundational stage (grade I & II) requires major reform. For this, the general teachers need to be prepared through frequent in-service training/ refresher training.
- Students with hearing impairment are observed as the learner with kinaesthetic and visual learning styles. Considering this, the teacher must plan the learning experiences in the classroom.

- The attitude of the special educators, who are assumed to be placed in the general schools for teaching and assisting students with disabilities, needs to be changed. A favourable attitude towards ISL is expected from the special educators. Rather, a total communicative approach must be adopted by

the teachers and special educators. For this, teachers need to acquaint themselves with recent researches on total communicative approach and interact with people from the deaf community, to know their real-life experiences.

References

- Akalın, S., Demir, S., Sucuoğlu, B., Bakkaloglu, H., & Iscen, F. (2014). The needs of inclusive preschool teachers about inclusive practices. *Eurasian Journal of Educational Research*, 54, 39-60.
- Barnes, C. (1999). Struggles for inclusive education. *British Journal of Sociology of Education*, 20(3), 445-447.
- Capirci, O., Cattani, A., Rossini, P., & Volterra, V. (1998). Teaching sign language to hearing children as a possible factor in cognitive enhancement. *Journal of Deaf Studies and Deaf Education*, 3(2), 135-142.
- Gleason, J. B. (2000). *The Development of Language*. Boston: Allyn & Bacon.
- Marilyn D. (1995). *Seeing language: the effect of sign language on vocabulary development in young hearing children*. ERIC.
- Mejia-Menendez, Itzel. (2016). *The Effects of Sign Language on Second Language Acquisition*. Retrieved from Sophia, the St. Catherine University repository website: <https://sophia.stkate.edu/maed/185>
- Motitswe, J. M. (2012). *Teaching and learning methods in inclusive classrooms in the foundation phase*. Unpublished master's dissertation. UNISA. Pretoria
- Monney, M. (2017). *"Hearing" the signs: influence of sign language in an inclusive classroom*.
- Toth, A. (2009). Bridge of Signs: Can Sign Language Empower Non-Deaf Children to Triumph over Their Communication Disabilities? *American Annals of the Deaf*, 154, 85 - 95.
- Wilson, R. M., Teague, G., & Teague, M. (1984). The use of signing and fingerspelling to improve spelling performance with hearing children. *Reading Psychology*, 5, 267-273.

Website links

<https://www.academia.edu/2145485/>

The_Importance_of_Sign_Language_for_Deaf_Education_and_Sign_Technology

<http://www.healthymindsconsulting.com/language-deprivation/?fbclid=IwAR2uA-ncCMVRDvvnjt-2pp663B86Tg5xuTN3EpjQUrOgftkr4QelfHQQsso>

<https://pib.gov.in/newsite/PrintRelease.aspx?relid=87932>

www.dise.in

[https://cprindia.org > sites > default > files > policy-briefs > SSA](https://cprindia.org/sites/default/files/policy-briefs/SSA)

<https://www.indiatoday.in/education-today/featurephilia/story/deaf-children-hearing-impaired-dont-have-college-options-teach-organisation-solving-problem-html-1313347-2018-08-24>