# School, Transition And Visual Arts Higher Education Experiences Of Students Who Are Deaf And Hard Of Hearing

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| ARTICLE INFO | ABSTRACT |
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| | This study explored lived experiences of individuals who are deaf and hard of hearing (DHH) in their educational journeys from school to visual arts higher education. In-depth interviews assisted by a qualified sign language interpreter were conducted with six individuals who are DHH and graduated from a visual arts higher education program in India. Thematic analysis with an inductive approach highlights participants' school, transition, and visual arts higher education experiences. The results indicate the struggle of students who are DHH to succeed in learning environments governed by the norms of people without hearing loss. The results indicate communication and literacy challenges in school, lack of transition planning for higher education and difficulties in adjusting to the hearing environment of higher education institution. In conclusion, focusing on the enrollment of students who are DHH in inclusive learning environments, a comprehensive approach to providing support services at all educational levels, collaborative efforts in transition planning, and strict policy enforcement is essential.<br><br>**Keywords:** Deaf and hard of hearing, higher education, inclusive education, school education, transition planning, visual arts |

## School, Transition and Visual Arts Higher Education Experiences of Students Who Are Deaf and Hard of Hearing

As per the Census of India (2011) report, hearing loss is the second most common disability in India. According to the National Sample Survey Organisation (NSSO), 291 persons per one lakh suffer from severe to profound hearing loss. Of these, a large percentage are children between 0 to 14 years (Ministry of Health and Family Welfare, 2022). Hearing loss impacts the development of speech and language abilities, puts the child at a disadvantage in school and higher education, and limits future professional opportunities (Varshney, 2016). The higher prevalence of deafness in India demands robust strategies for rehabilitation and education. In India, the education of students with disabilities is a significant concern, and educating them in special or regular schools has been debated for a long time. Since independence in India, the number of special schools has increased to 3000 (Sanjeev & Kumar, 2007). For example, Ali Yavar Jung National Institute of Speech & Hearing Disabilities (AYJNISHD) (2022) lists 387 special schools for the deaf across India. Special schools for the deaf provide accessible communication modes, tailored curricula, special education teachers and support services. In addition, the push to integrate students with disabilities in regular schools also gained momentum. Integrating children with disability in regular schools is stressed in the National Policy on Education (1986) and the Program of Action (1992). The previous Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act (1995) of India emphasised free education to all children till they are 18 years of age. These policies pushed forward the integration of students with disabilities in regular schools.

Since the Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994), the term inclusive education has been recurring in Indian educational policies. The recent push towards inclusive education of students with disability resulted from India being a signatory of the United Nations Conventions on the Rights of Persons with Disabilities (CRPD). Article 24 of the CRPD protects educational rights for persons with disabilities (United Nations, 2006). India has embraced the article's principles and implemented them into a recent Rights for Persons with Disabilities Act (2016). This Act stresses reasonable

accommodations and suitable means and modes of communication for the deaf and hard of hearing (DHH). The education section of the Act recognises sign language for teacher training and teaching students who are DHH (Rights for Persons with Disabilities Act, 2016). The erstwhile Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) focused on providing inclusive education so that children with and without disabilities participate and learn together in the same class in a neighbourhood school (Ministry of Education, 2020). Singal (2019) states that the push towards inclusive education resulted in a significant increase in school enrolment of children with disabilities; however, the quality of teaching and learning remains a cause of concern. School and higher education empower all students and provide economic and social benefits, including those who are DHH. Despite the progress in the education of children with disabilities, issues of inadequate learning material, trained teachers, technology access, infrastructure and policy implementation affect the education of students who are DHH in India (Mandke & Chandekar, 2019). Aich and Mathew (2016) found that barriers due to poor academic preparation, limited literacy skills and inaccessible learning environments impact the learning of students who are DHH in secondary and higher secondary education, which could further impact their accessibility in higher education. The transition of students who are DHH from school to higher education in India requires targeted research. Punch and Duncan (2020) highlighted that transition education, planning, and support as essential for individuals who are DHH to achieve greater educational and career outcomes. Studies from developed countries showed a lack of transition preparation and inadequate expertise in the transition needs of students who are DHH (Luft, 2014; O'Brien, 2015). While highlighting the importance of specifics of transition planning, O'Brien (2015) suggests that policy decisions regarding youth with hearing disabilities should draw on the knowledge of professionals who are deaf and professionals working with youth with hearing disabilities. Punch and Duncan (2020) suggest collaborative efforts for transition planning for students who are DHH and highlight the importance of social skills, role models and family engagement. Students with disabilities face many challenges in their higher education (Vickerman & Blundell, 2010), including those who are DHH (Bisol et al., 2010). Academic and social adjustment at higher education institutes could be more challenging for students who are DHH, mainly due to communication and accessibility concerns (Powell et al., 2014; Hendry et al., 2021). In India, communication barriers and lack of support services were the major obstacles faced by students who are DHH in higher education (Kunnath & Mathew, 2019). The scarcity of research and support in transition planning and higher education of students who are DHH may impact the relevant supportive strategies in India. Unfortunately, studies focusing on the experiences of students who are DHH studying/ studied in visual arts programmes at higher education levels are rare. In the Indian context, the current study seeks to understand the school, transition to higher education, and visual arts higher education experiences of individuals who are DHH.

## Method

### Research Design

Qualitative research design is most suitable for understanding participants lived experiences. A qualitative method was best suitable for this exploratory study as the experiences of students who are DHH in visual arts higher education are not researched in the Indian context.

### Participants

The participants were graduates of a 4-year higher education programme in visual arts. Higher education graduates were chosen for this study because they would be able to reflect on varied academic experiences from school to higher education. For this study, six graduate students who are DHH participated. All the participant was enrolled/graduated in a different academic year and belonged to different visual arts specialisations such as applied art, painting, printmaking, and sculpture at the same institute. All participants were the only member of their family to have hearing loss, and they used oral and gestural modes of communication at home. All participants reported the identification of hearing loss at birth. Although preferred communication modes varied among participants, all were proficient in Indian Sign Language (ISL). Table 1 below provides the demographic information of participants.

**Table 1: *Participants Demographic Information***

| Participants | Age | Gender | Degree of hearing loss | Communication preference | School setting attended |
|---|---|---|---|---|---|
| P1 | 28 | Male | Profound | ISL | Special school for the deaf |
| P2 | 38 | Male | Profound | ISL | Special school for the deaf |
| P3 | 32 | Male | Profound | ISL | Special school for the deaf |
| P4 | 29 | Male | Severe | ISL | Special school for the deaf |
| P5 | 32 | Female | Profound | TC | General school |
| P6 | 38 | Male | Profound | TC | General school |

*Note.* ISL: Indian Sign Language, TC: Total Communication

### Data Collection

The study brief included background information about the study, participant's rights and anonymity information and the researcher's contact details. For the study brief, the first author created a video in English and ISL in collaboration with a qualified sign language interpreter. The first interview participant of this study circulated this video to his known contacts through social media applications along with the written transcript. With the assistance of a sign language interpreter, participants were briefed about the study and filled out the demographic information and consent form before the interview. The first author conducted the individual interviews at the time and quiet location preferred by the participants. Each interview was held in Jan-Feb 2019 and lasted between 50 and 90 minutes. All the interviews were audio/video recorded with the consent of the participants and later transcribed by the first author. Few participants checked their transcripts (member checking); later, another qualified sign language interpreter fluent in English verified all the transcripts from the recordings for accuracy.

### Ethical Consideration

The Institute Human Ethics Committee at the authors' home institution provided the ethical approval for the research. All participants in this study voluntarily agreed to participate and signed a consent form. Strict confidentiality of the participants is maintained.

### Data Analysis

This study used thematic analysis and an inductive approach to examine the interview data. The inductive approach entails theme identification entirely based on the data. The six-phase thematic analysis proposed by Braun and Clarke (2006) was followed and is detailed below. The six phases include 1) Familiarisation with the data, 2) Generating initial codes, 3) Searching for themes, 4) Reviewing themes, 5) Defining and naming themes, and 6) Producing the report. We used the Microsoft Excel programme to document the transcript responses and further initial thoughts, codes, and themes during the analysis phase.

(1) **Familiarisation with the data:** The first author transcribed the recorded interviews. Initial remarks about the responses were noted after carefully reading and listening to the collected data.

(2) **Generating initial codes:** In this step, data-driven coding was applied based on the semantic content of the responses. Multiple codes were assigned for the tabulated responses. Here the data was also categorised into broader categories of barriers and supports. Each data item from each transcript was coded in the manner described below, and the data was then collated according to the codes.
*Response*: The teacher could communicate with the hard-of-hearing students to some extent but not with profoundly deaf, like me. *Coded for*: Communication barrier with the teacher, lack of direct interaction with the teacher, lack of signing skills.

(3) **Searching for themes:** The themes should be coherent and consistent, representing the central idea or concept (Braun & Clarke, 2006). The collated codes reflecting similar issues and patterns were sorted at this stage to identify themes. The phase resulted in several potential themes and sub-themes.

(4) **Reviewing themes**: In this step, the themes were reviewed by revisiting the coded and collated data to establish that the themes are coherent and distinguishable. Here only the themes concerned with understanding the phenomenon under consideration were finalised.

(5) **Defining and naming themes:** The themes were refined for their content and ensured that they produced a consistent account. Some codes became themes, whereas few themes were named based on the overarching concept.

(6) **Producing the report:** The report provides sufficient evidence -data extracts- of the themes within the data. Including quotes from all the participants illustrates the breadth of the themes across the dataset.

### Findings

This qualitative study was conducted to explore the academic experiences of students who are DHH and graduated from visual arts higher education program from a single public institution in India. The following themes are provided here as the results of the thematic analysis of the collected data. Theme 1: Experiences of school education, Theme 2: Experiences of transition from school to higher education, and Theme 3: Experiences of higher education in visual arts; with sub-themes i) Interaction with teachers and ii) Interactions with peers.

### Experiences of School Education

While sharing their school experiences, all the participants reflected on the school settings they attended and the availability of support. Among the six participants, two attended a general (public) school, and four attended special schools for the deaf. Each participant attended a different school in a different locality. Participants who attended general school preferred total communication and reported that they were the only student who was DHH among hearing peers in their class where support services were unavailable. P6 felt isolated at the general school due to the predominant oral mode of communication and had minimal interactions with teachers and peers without hearing loss. He reported completing school education without much learning and often relied on rote learning. He described his learning experience at the general school he

attended "All the teachers were hearing, and I could not understand their oral instructions. I had to study on my own. Instead of writing from my ideas, I just copied whatever they told me to write." Unlike P6, P5 had positive experiences at the general school she attended and appreciated support from many individuals.

I initially faced some difficulties, but after my mother sensitised school teachers, they started supporting me. She advised them to speak slowly with a little loud voice and to be patient with me. My best friend and I would always sit together during the spoken teaching instructions, and she would explain ideas to me both verbally and in writing. After school, my mother helped me study at home.

P5's experience highlights the critical importance of collaborative efforts to succeed in the general education setting for students who are DHH (Luckner & Muir, 2001).
Studying among similar peers and sharing a common language was the best part of school for the participants (4) who attended special schools for the deaf. These participants stated they learned sign language through interactions with deaf peers and enjoyed their time together in special schools. On the other hand, participants' (3) interactions with teachers at these special schools were challenging due to limited or no signing skills among the teachers and the absence of support services. Most participants preferred communicating in sign language and expected signed instruction from teachers or a sign language interpreter. P3 shared concerns over the mode of teaching instructions: "There was no sign language, the teachers were using basic home signs, and that is not a professional language." P1 raised a similar communication barrier at his school and shared its impact on learning

All the teachers were hearing and did not communicate in sign language. The communication among deaf students was in sign language, but the teaching was oral. I could not understand the topics or the textbooks the teachers were explaining, which was an issue for all the other deaf students and me. P1

Such communication barriers in special schools left participants relying heavily on the rote learning method they mentioned as "copy-paste." P2 shared dissatisfaction with the mode of communication and lack of support from teachers

All I was doing was copying and pasting the text. I did not have the knowledge or the understanding. Teachers could not help much; instead, they encouraged me to copy-paste the given content, only to memorise and write it down without comprehension. I did not know what the actual meaning of the content was. P2

Rehabilitation Council of India (n.d.) states that special schools lack developed sign language and fail to develop linguistic skills, resulting in rote memory without internalising teacher inputs among children who are DHH, hampering their social and psychological maturity. The learning barriers at the schools had an impact on learning strategies and also on literacy skills. Most participants reflected on their limited reading and writing skills, such as P1, "I did not have the reading ability" and other participants mentioned their skills as "little bit", "somewhat" or "good". Reading and writing skills can be seen as prerequisites for students to succeed in higher education, especially for students who are DHH, as they face communication challenges with individuals without hearing loss. While sharing experiences from higher education (Theme 3), participants often referred to reading and writing challenges.
Echoing communication barriers in a general school, P4 decided to shift (after three years) to a special school for the deaf. The special school provided a positive learning environment for P4. He states, "In the special school, they had sign language interpreters, and the teachers had a positive attitude towards deaf students. So, there was accessibility to learning for deaf students, and our progress was good." The above comment highlights the importance of a positive learning environment and communication accommodations required in school for students who are DHH. The special schools for the deaf lack uniformity in the provision of support services. Participants described both supportive and unsupportive school environments, with several indicating inadequate academic preparation for further education.

## Experiences of Transition from School to Higher Education

All participants were focused on pursuing higher education and had varied ambitions about career choices during transition planning. Since they were young, all participants were involved in artistic endeavours like drawing and painting, and few reported having no art subjects in school. Several participants stated of winning awards in art competitions during their school years. Due to the motivation for such creative activities during school, half of the participants decided to pursue their interest in visual arts in higher education with their parents' support.

When I was in twelfth standard (higher secondary), I had no idea what I wanted to do after completion. While I did not make significant progress in reading and writing at school that would prepare me for higher education, I have greatly benefited from my exposure to and participation in the arts. P3

At the same time, half of the participants had different choices regarding their higher studies. P1 had doubts about pursuing a visual arts education and stated, "School principal guided my parents that I should enrol in an art college. Then, my parents decided I should join a visual art course. Nobody shared how that would work out for me." Such was not an isolated incidence. P2 had a different career path in mind

It was not my aim to pursue visual arts. My dream, my ambition was to pursue a career in engineering. I enrolled in visual arts because my parents told me to. I like learning about technology, science, and English, and I felt more intrigued by these subjects than visual arts.

Similarly, P5 was interested in computer courses and learned a few software after graduating from higher secondary but pursued visual arts after a convincing discussion with her parents. In a previous study, Aich and Mathew (2016) reported a similar finding that many deaf students pursued courses not by their choice but due to the compulsion of their parents. A shared concern among participants was insufficient information about the institute and the learning environment.

Before admission to the institute, I was not informed that it is a hearing environment. I faced many difficulties over there. All four years, I have struggled because there was no sign language interpreter and the teacher communicated orally. It was a hearing environment, so I did not have much access. P1

Several participants reported inadequate information about the course, support services, certification and job prospects. P3 himself decided on the course but stated, "The problem I faced was that it was not a degree course. It was a diploma. I was unaware of the difference between a diploma and a degree and the benefits of getting one." Most participants were unaware of the absence of support services and the enrollment ratio of students with and without hearing loss, which came as a surprise following their enrollment. None of the participants mentioned professional guidance from inside or outside the school regarding planning for higher education. Thus, revealing the lack of clarity and counselling that would support students who are DHH in their transition to higher education.

### Experiences of Higher Education in Visual Arts
The visual arts higher education curriculum combines practical and theory courses. The visual art curriculum's theoretical and practical components equip students with the knowledge and skills required for their future careers. All the participants emphasised access to the full curriculum and degree certification in visual arts equal to their peers without hearing loss. While learning the language of arts, the language of communication and lack of support services were the primary concerns among all the participants. Sawyer (2017) highlights the interactive nature of teaching and learning in visual arts studios (practical) and the importance of interactions between teacher-student and student-student that revolves around the artwork(s) in progress. All the participants discussed their interactions with teachers and peers at length and are reported here under the following sub-themes.

### *Interactions with Teachers*
Participation in higher education necessitates engagement with instructors, peers, and the environment, in addition to completing academic tasks. As all the teachers were hearing and lacked sign language skills, participants' interaction with them posed challenges. As P3 clarified, "We have better learning opportunities as the teachers here are more qualified than in school. However, I wish they could teach us sign language so I could understand easily." Participants shared barriers to accessing common lectures and subsequent one-on-one discussions with teachers for clarifications. At the institute, although teachers had experience teaching students who were DHH, they were familiar with basic signs only. The complications of interacting with teachers were felt daily, especially by those who preferred to communicate in sign language.

Teachers don't know sign language. They used to provide some notes in writing, but I could not understand those. So, I would ask them what they meant, and the teacher would tell me in simple language that I have to make it this way or that way. Teachers understood alphabets signs which is okay, but there was no word-to-word communication. When there is no communication, there are barriers and no accessibility. P2

The communication barriers isolated participants from crucial learning activities. Even though participants have enjoyed art activities since childhood, the communication barrier resulted in demotivation to a few, such as P3 "Initially, I was very interested; however, due to the teaching methods, I lost interest over time." P2 discussed leaving the institute with his parents on multiple occasions. Participants typically spent more time gathering essential academic information, such as lectures and assigned work. Teacher's attitudes toward students who are DHH may contribute to the fact that they made so few communication adaptations for them.

Sometimes I felt that the teachers were hesitant to talk to me, but I would persistently share my queries. Whenever I had a doubt, I talked to my teachers and friends. Some teachers' attitudes towards me were positive, some were negative, and some were neutral. Still, I fought to get information from everyone. P5

The above comment highlights the efforts students who are DHH need to make to access crucial academic information. The responses from the participants echo P1's remark of struggle to adjust to a hearing environment (Theme 2). Komesaroff (2005) coined a similar term, *hearing university*, to describe the dominant (hearing) interests in educational and social institutions. The oral mode of instruction and fewer communication adaptations impeded participants' direct interaction with their teachers. Lang (2002) states that the lack of interactions with teachers and peers places students who are DHH in a dependency situation.

## *Interactions with Peers*

Students with and without hearing loss in higher education could feel both unease and excitement about making new acquaintances and learning alongside peers who share their interests and ambitions. Interaction among students with and without hearing loss poses several challenges and requires efforts and awareness of each other's needs (Alasim, 2018). Due to communication difficulties with teachers, participants counted on interactions with their peers without hearing loss to access information. Many participants initiated teaching signs to peers without hearing loss, such as P2, "I would interact with my hearing classmates if I had any doubts. I have taught some signs to a few and the class representative, and they would help me through those signs." Participants discussed the various methods their peers would use to convey their points. They appreciated the efforts their peers made in supporting them.

There were language issues, so I had to ask other students to help me understand what the teacher said. My classmates would try to come up with a solution, such as writing, but I could not understand that. Then they would ask me to wait and draw something to show me, and eventually, I could understand what they were talking about. P1

Many participants shared similar communication barriers with their peers as they had with their teachers. Since the peers could not communicate fully in sign language, participants had little opportunity to interact with them.

There was no sign language interpreter, the teacher used to teach me orally or give me something in writing that I could not understand. So, I used to ask hearing students, which was also unsatisfactory. So, I studied by myself, failing several times, and spent a lot of time doing that. P6

On the contrary, P4 faced such communication barriers to a lesser extent. He and a student who was hard of hearing enrolled simultaneously, who supported him throughout the four-year stay at the institute.

I saw many new faces after admissions, including a girl who was hard of hearing. She could both speak and sign. After the first year, we went to our separate chosen specialisations but became close and worked together. Often, teachers could not understand me and asked me to call her. The teacher said that we should come together whenever I want to talk. P4

The above comment highlights the importance of peer support and the need for communication in sign language, which other participants also stressed. Studio discussions were particularly challenging for all the participants. Studio discussions between teacher-student and student-student are integral to art and design education (Shreeve et al., 2010). Students learn about the diverse perspectives of their peers and teachers through studio discussions, which may enrich their understanding and practice. Even though the discussions seemed engaging, participants could not participate, such as P1, who responded, "Often there were lengthy discussions, and as I could not hear, I had no idea what was going on or what they were discussing. I would often feel bored in such situations." Most participants felt disappointed for being left out of discussions and would ask peers about them. P2 elaborated, "I often asked hearing classmates what they discussed and what came out of the discussion. They would inform me a little bit, like only 10%. They did not tell me in depth about the discussion." Participating in discussions is a better way to clear up misconceptions, improve ideas, and broaden one's perspective, to which the participants had limited access. Based on studies in art education, Lampert (2006) asserts that an emphasis on classroom discussion, independent inquiry, problem-solving, and analysis improves critical thinking. The participants' comments reveal that social interactions with peers without hearing loss were significantly less frequent than academic interactions. The lack of signing skills and the absence of a sign language interpreter impacted individual and group discussions in the studio.

Although participants were the only student who was DHH in their class, they had batchmates and senior students who were DHH from different specialisations. Several participants shared their interactions and support from other students or seniors who were DHH when feeling isolated. P3 said, "Sometimes I felt very lonely and bored, So I would go to the canteen and meet other students or seniors (DHH)." Another participant shared

I used to talk to my seniors (who were DHH) and never had a communication gap with them. I had better communication with students who were DHH and were well-skilled in sign language. They helped me in college. I could cope because these students helped and supported me. P2

All the participants expressed the need for sign language interpreters except P4, who had a friend's support who was hard of hearing.

I used to study with my friend, who was hard of hearing, so I never felt the need for another interpreter. Teachers always called her when I needed to talk to them. We had a good friendship, I could get all the help I needed from her. P4

Participants reported more social interactions with students who were DHH than those without hearing loss. Peer Support is an essential factor that adds to the student's social interaction, friendship and belonging to college life. Peer support can be one of the most powerful resources for helping individuals with disabilities to

succeed (Riester-Wood, 2015).

## Discussion

The exploratory study with qualitative research design highlights the barriers and supports participants experienced during their educational journey from school to completion of higher studies. All the participants completed their education with positive and negative experiences that are unique to each of them and can not be generalised.

The question of accessibility and equity in education for students who are DHH goes beyond the school settings they attend and rests on the communication support they provide. Participants of this study attended special or general school settings, whereas most schools followed oral education without support services such as a sign language interpreter. Bhattacharya and Randhawa (2014) also stated that most schools in India lack clear communication policies and follow oral education of children who are DHH, failing to improve their literacy, academic, and speaking abilities. The findings indicate that only one of four special schools provided sign language interpreters. Lederberg et al. (2013) emphasise that the environments children who are DHH grow up in should be accommodating, providing easy access to language experiences. Lack of accommodations, such as the absence of interpreters, may create isolation for children who are DHH, making it challenging for them to express themselves and comprehend others (Alofi et al., 2019). The oral mode of instruction at schools led to comprehension difficulties and rote learning among the participants of this study. Marschark et al. (2002) suggest that problem-solving, manipulating objects in play or laboratories, concept mapping, and writing promote communication in contrast to passive, rote learning. Few of the participant's satisfactory experiences at schools underscored the importance of support from others and the availability of sign language interpreters. Such collaborative efforts of parents, teachers and support services are crucial in providing access to language and learning environment for students who are DHH.

The findings reveal gaps in transition planning where the schools play an essential role. Although few teachers supported participants during the transition, a lack of professional guidance was apparent. Guidance from professionals, including those who are DHH, should be involved in transition policies and practises (O'Brien, 2014). Punch and Duncan (2020) suggest that schools must involve their teachers, special education teachers of the DHH, career counselling professionals and parents to work together during transition planning. All participants reported family support during the transition phase. However, ambition and goals differed among participants and, in some cases, were given less significance. For making informed choices, detailed information about college courses, support services, and employment prospects should be made available to students who are DHH in accessible formats. Physical visits to higher education institutions could be a way to familiarise students with the new environment. Interactions with teachers and senior students could be part of the physical visits for additional clarity on the learning environment and support that the institute provides. Schools must have professional counsellors besides their teachers who could guide students who are DHH regarding career choices, college information and facilitating campus visits. Apart from these factors, Punch and Duncan (2020) highlight the importance of career awareness, work experience and social and personal skill development for healthy post-school outcomes. Limited academic preparation of the participants, such as literacy skills during school, posed barriers to adjustment and interaction in the hearing environment at the higher education institute. Saunders (2012) states that academic preparation is critical to succeeding in higher education for students who are DHH. According to studies, students who are DHH taking a preparatory course before pursuing higher education are better equipped for challenges (Alsalamah & Poppen, 2022; Saunders, 2012). Preparatory courses could benefit students who are DHH as communication, literacy and social challenges continue to impact their higher education in India. In the Indian context, focused studies on transition planning for students who are DHH are essential to address local diversities and realities.

Although the shortcomings of school education created specific barriers for the participants to face in further studies, the higher education environment posed its own set of challenges. The higher education experiences of participants reflect a struggle to participate in the learning environment. The main concerns raised were lack of direct interaction with teachers and peers, difficulties in accessing information, participation in discussions and absence of support services. These concerns are crucial to studying visual arts specialisations at the higher education level. The interactions between teachers and students are fundamental to developing as a practising artist or designer (Shreeve et al., 2010). Student's interaction with teachers and peers provides valuable exposure to their diverse perspectives, thinking, ways of seeing and working in visual art practice. Though the institute provided only practise-based subjects to students who are DHH, the findings show that it does not become automatically accessible for them. While focusing on individualised support, the institute must provide a range of communication supports, such as sign language interpreters, note-takers, and text-to-speech services. With communication support, the institute could easily improvise to teach theory subjects to students who are DHH and provide equal opportunity and certification as other students. Al Hashimi et al. (2021) suggest teaching art theory courses to students who are DHH in self-contained classrooms and adapting the theoretical content to their linguistic ability will maximise their academic achievement. Woodward & Hoa (2012) attributes the academic programme's success at the secondary and tertiary level for students who are DHH to incorporating sign language in teaching, deaf teachers trained in sign language and sign language

interpreters. The availability of sign language interpreters can facilitate academic and social interactions at higher education institutes (Hendry et al., 2021). Rogers et al. (2003) suggest that supportive, collaborative relationships and learning partnerships with peers may increase motivation for active participation for students who are DHH and thereby favourably affect positive learning and life outcomes. While interpreters are essential to facilitate interactions, research has also shown the significance of the interpreter's subject-matter expertise and signing skills commensurate with higher education standards (Napier & Barker, 2004, Hyde et al., 2016).

All students require some form of support in the educational sphere that is evolving in response to the changing demands of the working world. This study identifies some of the barriers students who are DHH face in their education that needs consideration. Institutions in India need to enhance strategies and support for students who are DHH to improve their educational and employment outcomes.

## Conclusion

The findings of the study indicate a struggle of students who are DHH in various phases of their educational path. As highlighted in the introduction section, educational policies in India propose communication accommodations and trained teachers for students who are DHH. However, the finding highlights a lack thereof in school and higher education levels. Findings show that even those schools that are specifically designed for students who are DHH, are not equipped to address their communication needs. The inaccessible language environment and lack of support in school impacted participants learning and command of reading and writing skills. This has further implications for students who are DHH in higher education where interactions in oral mode are inaccessible, and support services are unavailable. Addressing the linguistic needs of students who are DHH in school and higher education should be at the forefront to facilitate their learning. Although, the current institute only provided practice-based subjects to students who are DHH, they were not easily accessible to them.

This study has several implications for practice and further research. The study findings are significant given the push for inclusive education in India at every educational level (see National Education Policy, 2020). Institutions and educators must focus on modifying the learning material and teaching strategies to address the needs of students who are DHH. Institutions must provide awareness programmes on deafness at schools and higher education levels. Disability awareness workshops were also recommended by the Rights for Persons with Disabilities (2016); however, the implementation of the such programmes should be monitored. Deaf-aware teachers and peers will most likely make efforts to facilitate interactions with students who are DHH. All the participants of the current study emphasised the need for sign language interpreters. Access to interactions with teachers and peers provide necessary exposure to their views, expertise, and ways of working in studio subjects. Sign language interpreters could provide accessibility to the interactive teaching and learning practices in visual art education, such as in classwork delivery, discussions with teachers and peers, explaining artworks, and teaching art theory courses.

Studies concerning experiences of visual arts higher education of students who are DHH are not conducted in India so far. This study contributes to this research gap, however, further research may benefit from involving interviews with teachers and observation methods in visual art studios to gain a comprehensive understanding. Research in the Indian context focusing on the transition experiences of students who are DHH is scarce. This study identifies a few aspects of transition experiences and the minimal transition support that students who are DHH receive from schools and higher education institutes. Hence, future research needs to identify additional factors (for example, Punch and Duncan, 2020) that influence transition planning for students who are DHH in India to develop subsequent supportive policies and strategies. During the literature review, a limited number of studies could be identified in the Indian context concerning the higher education experiences of students who are DHH. More research is needed in the concerned area to understand the local context and realities in India.

Some of the limitations of this study need consideration. Qualitative studies aim not to make generalisations but to provide crucial insights into lived experiences. Based on the data collected from six participants within a single institute, the study findings cannot be generalised to all the students who are DHH and other institutions in India. Existing literature on the educational experiences of students who are DHH shows that their experiences vary across institutions depending on personal, institutional and communication factors. Hence, studies involving more participants who are DHH from multiple institutes are essential, especially in the Indian context, due to the scarcity of research. Additionally, the study was only based on the experiences of graduate participants; studies with current students who are DHH may provide additional insights. Despite many challenges, the students who are DHH successfully completed their education, however the access to education should not be a struggle for any student. Hence, the responsibility for successful inclusion lies with institutions and all the individuals who are a part of it.

## Conflicts of Interest

The author(s) declare(s) that there are no conflicts of interest regarding the publication of this paper.

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