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EXPLORING THE CHALLENGES FACED BY VISUALLY IMPAIRED STUDENTS AND TEACHERS IN CLASSROOM ACTIVITIES AT MIDDLE SCHOOL LEVEL

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Abstract

According to the National Curriculum Framework for School Education 2023, the teaching-learning process must be made interesting and exciting for both students and teachers to achieve learning standards. A case study design was adopted to explore the challenges faced by the visually impaired students and their teachers in the process of teaching-learning and continuous assessments of various school subjects. One government-sponsored Bengali-medium special school located in Kolkata, West Bengal, was selected through purposive sampling. 11 visually impaired students from class VIII and their 5 teachers participated in the study. For collecting data from students and teachers, focus group discussion (FGD) and an interview schedule were employed, respectively. For analyzing the qualitative data using thematic analysis, QDA Miner Lite software was used. Findings revealed that visually impaired students did not get adequate teaching-learning facilities in the classroom and appropriate writing facilities in the examinations as per their needs. Further, teachers highlighted the problems related to teaching learning materials, lack of scribes, lack of assistive technology devices, and learning management systems. Outcomes of this study may therefore guide various stakeholders to overcome the problems faced by visually impaired students and their teachers in the classroom.

Keywords: Visually impaired students, Teachers, Teaching-learning, Assessment, Special school

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1. Introduction

The declaration of human rights and the rise of a humanist approach in education have ignited a global movement for equitable access and opportunities for individuals with disabilities to receive quality education. India also guaranteed access to education for all with the introduction of Sarva Shiksha Abhiyan (SSA, 2001) to make a significant step towards the global inclusive concept, providing inclusive and equitable education to persons with disabilities (PwD), which is necessary to enable them to contribute to society and enrich the nation. The present national commitment, i.e., "Equitable and Inclusive Education: Learning for All", has been focused on the National Education Policy (NEP, 2020). Further, the National Curriculum Framework for School Education (NCFSE, 2023) also highlighted the facilities to be provided to the differently abled students in terms of getting suitable teaching learning materials (TLMs), appropriate teaching strategies, assistive technologies, and continuous professional development to the teachers. Visual impairment refers to a condition where an individual has lost his/her vision or has some defect in their eyes which is affecting his/her ability to see clearly. Visual impairment is categorised into two types- blindness and low vision.

Students with low vision sometimes face unsupportive interaction from their teachers as they are unable to identify students' unique abilities in an educational setting (Milner, 2009). 167 institutions recognized by the Rehabilitation Council of India (RCI) are there for visually impaired students all over the country (MSJE, GOI, 2023). The teachers are like torch bearers who are showing the path of success to the visually impaired students. So, teachers should be knowledgeable and competent enough to teach these students and help them overcome their challenges. Though the concept 'inclusive education' was raised a long time before in India, and still, Government initiatives are being undertaken for the impaired students to provide them an inclusive setting in institutions, some gaps exist in the educational system, which are being faced by students and teachers both. In this study, an attempt has been made to find out the actual challenges faced by visually impaired students and their teachers inside the classroom setting. The core intention of this study is to answer the following research questions.

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1. What challenges do visually impaired students face in teaching-learning and assessment in their classroom?
2. What difficulties do teachers face in teaching and assessing visually impaired students?

2. Review of Related Literature

Visually impaired students face significant challenges in managing a scribe for their exam, and sometimes a scribe do not come at the last moment, which badly increases their anxiety and affects their ability to perform well in exams (Jeyarani and Srimathi, 2024). Khalid et al. (2021) reported that visually impaired students face major challenges, including limited access to teaching-learning material, a lack of assistive technologies, and support services for their exam preparation. They also face several educational challenges in the classroom, such as inadequate facilities, limited learning resources, and a shortage of trained personnel (Okoye & Adirika, 2019).

Agesa (2014) found that visually impaired students demand more skilled and competent teachers in fulfilling their responsibility to meet their special needs. There is a lack of assistive technologies that can assist low vision students in teaching and learning by enlarging TLMs, by bringing TLMs to the nearest distance, and by amplifying the TLMs (Bidika, 2014). Abebe (2014) observed a significant scarcity of teaching aids for students with impairments, and many teachers who are also disabled often have to work with limited teaching aids. Due to time limitations in the examination system, visually impaired students face challenges in their exams as they are unable to complete their exam paper within the stipulated period (Mastropieri & Scruggs, 2010; Salisbury, 2008). Msuya (2005) highlighted the need for adequate resources like braille materials, audio-visual aids, various teaching tools, and mobility devices such as white canes for visually impaired learners. Spungin (2002) suggested doubling the time in exams for visually impaired students. Cox & Dykes (2001) highlighted the need for comprehensive teacher training, particularly in developing countries, and also ascertained that there is a lack of suitable technology-based methods to assess the unique abilities of the visually impaired students effectively. Proper accommodation should be arranged in the examination system for the visually

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impaired students to make them realize that examinations are not barriers to their academic achievement (Gearheart et al., 1992).

3. Research Method

Research Design: A Case study design was adopted for the present study to explore the challenges faced by visually impaired students and teachers in the process of teaching-learning and assessment in classroom practices.

Population: There are 31 schools in West Bengal for visually impaired students sponsored by the Department of Mass Education Extension and Library Services, Government of West Bengal. Out of 31 schools, there are 4 schools that are located in Kolkata city. All the students studying at the middle school level in these 4 schools have constituted the population for the present study.

Participants: 11 visually impaired students studying in class VIII in 2025 and 5 teachers from a government-sponsored Bengali-medium special school located in Kolkata, West Bengal were taken as participants in this study through purposive sampling. The age of students lies in between 13 and 15 years.

Tools used for data collection: Researchers employed focus group discussion (FGD) and a semi-structured open-ended interview schedule for collecting data from the students and teachers, respectively.

Data analysis technique: Thematic analysis was utilized to critically analyse the data. The coding of response transcripts was done according to the respondents' challenges. After reviewing the codes repeatedly, QDA Miner Lite software was employed to find out the percentage of occurrence of each code and the percentage of participants who agreed on a challenge they are facing in the classroom.

4. Results and Discussion

Research Question-1: What challenges do visually impaired students face in teaching-learning and assessment in their classroom?

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Visually impaired (VI) students face problems in teaching-learning and assessment in the classroom, due to some important factors, as shown in Figure 1.

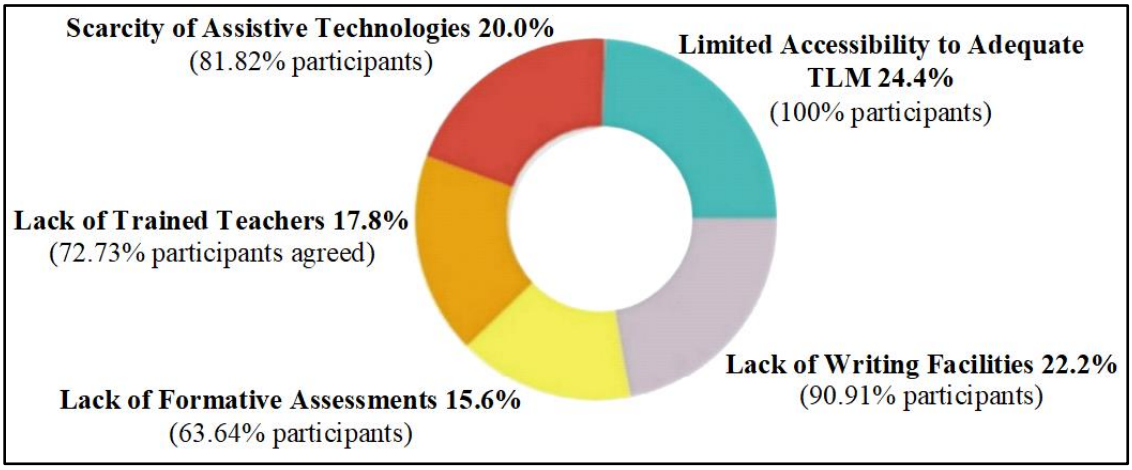

Figure-1: Challenges faced by VI students in the classroom

(i) From Figure 1, it is observed that 24.4% occurrence of code, i.e., "limited accessibility to adequate teaching-learning materials", and 100% agreement of the participants confirms that visually impaired students studying in middle stage school are facing challenges in their classroom in getting access to adequate teaching learning materials. Supporting this result, researchers of this study are sharing one of the female participants' classroom experiences:

> *"Teachers teach us only from our textbooks. We are not aware about TLM. Graph, chart, maps for such visual materials we want some braille or tactile based materials. No mobile or computers are used to teach our subjects rather than only for computer classes. No recorded materials are used to teach us".*

(ii) The "scarcity of assistive technologies" becomes a big hindrance in their teaching-learning, as asserted by 81.82% of participants, and the percentage of occurrence of code is 20%.

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(iii) 72.73% participants are facing challenges in the classroom due to "lack of trained teachers". The percentage of occurrence of code is 17.8%, confirming that more competent teachers are needed who can meet the students' needs by using assistive technologies to pave the way for students' achievement.

(iv) 72.73% participants are facing challenges in the classroom due to "lack of trained teachers". The percentage of occurrence of code is 17.8%, confirming that more competent teachers are needed who can meet the students' needs by using assistive technologies to pave the way for students' achievement.

(v) In case of assessment, students are facing challenges due to a lack of opportunity they get to be assessed on a regular basis. 63.64% respondents' agreement and 15.6% occurrence of code confirms that there is a "lack of formative assessments" in their classroom.

(vi) In case of summative assessment, 90.91% students acknowledged that they get "insufficient writing facilities," which is supported by 22.2% code occurrence. They also experience challenges like a lack of scribes, limited time to express their thoughts, tiredness, and pain in the hand for prolonged writing in the examination. For instance, one of the male participants said:

"Time management in exams is a big challenge and writing in braille for prolonged time is also challenging to maintain attention. Finding scribe is not easy at all and if the questions will be objective type it will be more helpful. As we are visually challenged, we need some more time to understand any topic and time is a big constraint for us to participate in any formative assessment on a regular basis".

Research Question-2: What difficulties do teachers face in teaching and assessing visually impaired students?

Teachers also face problems during their teaching-learning and assessment in the classroom due to some factors, as shown in Figure 2.

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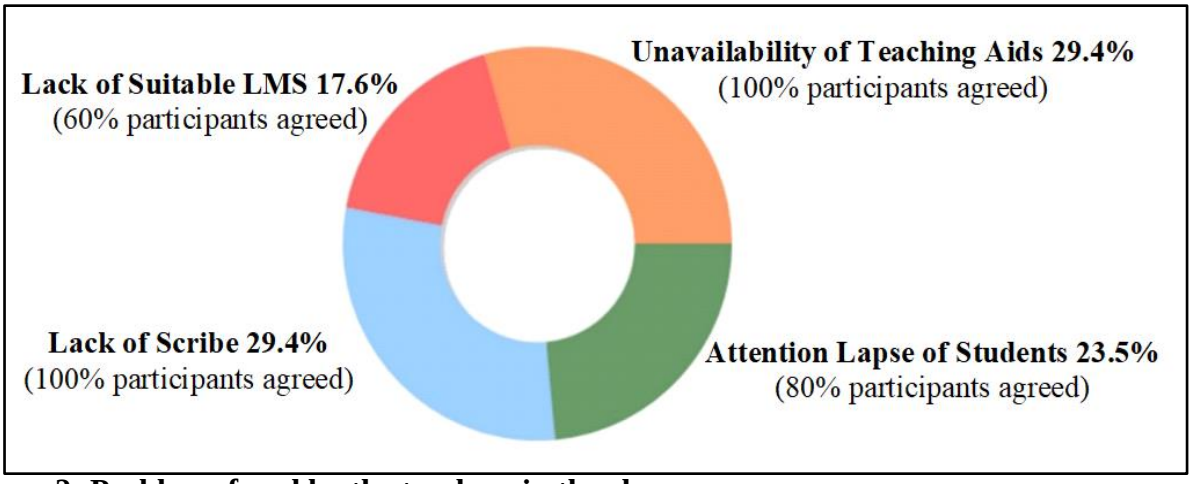

Figure-2: Problems faced by the teachers in the classroom

(i) After the analysis of teachers' responses as shown in Figure 2, it is observed that 29.4% of % occurrence of code "Unavailability of teaching aids", where all the teachers are confirming that there is a lack of availability of suitable teaching aids and limited teaching resources that the government is providing to the schools. As a support to this finding, a visually impaired teacher's response is quoted below:

> *"Government should provide more teaching aids to the school which can cater to the needs of the visually impaired students. As I am also a visually impaired teacher, for me it is very much challenging to explain a map with any visual teaching aid and also to understand whether the students are pointing it out appropriately. For such type of topics, we need more technology based teaching learning materials and set up which can meet the needs of the students. ICT is also required to provide some audio materials to the students".*

(ii) 17.6% occurrence of code "lack of Learning Management System (LMS)" and 60% agreement of the respondents are expressing that there is a lack of technology and various teaching platforms or software which can meet the challenges of visually impaired students.

(iii) 29.4% occurrence of code "lack of scribe" and 100% agreement among all the teachers confirm that they face difficulty in arranging a scribe in the exam. They also mentioned that

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sometimes scribes are not trustworthy, they do not write exact responses given by the visually impaired students, or are unable to understand what they are actually dictating to them.

(iv) 23.5% occurrence of code "attention lapse of students" and 80% agreement of teachers confirmed that due to prolonged writing in the examination, students feel boredom and they lose their attention before completing their paper. As one female teacher said:

> *"Finding a scribe for the visually impaired student to write in the exam is a big challenge for us. When it is not manageable, students themselves write in braille which requires more time, results in losing attention and interest at the end of the exam. We require some more potential learning management systems which can solve this exam related issues".*

Based on the findings, it can be said that visually impaired students have minimal accessibility to adequate teaching-learning materials and assistive technologies, which can lead to difficulties in understanding various concepts. This finding is consistent with the findings of previous studies (Khalid et al., 2021; Okoye & Adirika, 2019; Bidika, 2014; Msuya, 2005). The present study also revealed that there is a lack of trained teachers who are not competent enough to meet the challenges of visually impaired students, which is similar to the findings of earlier studies (Okoye & Adirika, 2019; Agesa, 2014; Cox & Dykes, 2001). Furthermore, students expressed that formative assessments are taken very infrequently in their classroom on a regular basis, as scheduled time for classes is very limited.

Further, Spungin (2002) suggested extending the class time so there will be more opportunity for teachers to conduct continuous formative assessments of students. In case of summative assessment, due to the lack of scribes, students are compelled to write in Braille for a long time, which results in pain in their hands, and they lose their attention in the examination, which hampers their learning as well as academic achievement. The studies conducted by Mastropieri and Scruggs (2010), Salisbury (2008), Kirk et al. (1993), and Gearheart et al. (1992) found the same findings in their studies, too. Teachers also highlighted the same problems as mentioned by

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the students, which is consistent with the study conducted by Jeyarani and Srimathi (2024). This study revealed that teachers who teach visually impaired students also face similar challenges, such as a lack of teaching aids and technology-based learning management systems in the educational setup. Teachers do not get enough time to prepare TLMs for students as they remain busy with other official work, and because of limited class time, teachers get very limited opportunity to employ technologies in their teaching strategy (Abebe, 2014; Cox & Dykes, 2001). That's why teachers want more resources from the government, which can meet the needs of the students.

5. Conclusion

Qualitative research followed by a case study design was undertaken to explore the challenges faced by visually impaired students studying at the middle school level and their teachers at a special school located in Kolkata city of West Bengal. Findings of the present study provide insight about the challenges faced by the visually impaired students and their teachers in their classroom teaching-learning process and assessment. Most of the participants highlighted similar kinds of problems like unavailability of proper TLMs, lack of scribes, lack of assistive technologies, and LMS, etc., which adversely affect the teaching-learning system and create hindrance in the academic progress of the students. There is an urgent need to take the necessary measures to provide the required resources and facilities to meet the needs of the students with visual impairment, as well as the teachers.

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