

Article

Barriers to Inclusive Assessment and Examination Accessibility Among Visually Impaired Students in Indian Senior Secondary Schools

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Abstract:

Accessible and equitable assessment remains a major barrier for visually impaired students despite growing commitments to inclusive education. This study examined barriers to inclusive assessment and examination accessibility among visually impaired students in Indian senior secondary schools. Guided by the Social Model of Disability, this study focused on barriers related to examination support, accessibility resources, communication, administrative procedures, and institutional attitudes. A cross-sectional survey was conducted with 60 visually impaired Class XII students, including students with blindness and low vision, enrolled in inclusive schools in Delhi. Data were collected through a researcher-developed questionnaire and analyzed using descriptive and inferential statistics. The findings revealed moderate to high levels of examination accessibility barriers across all domains, indicating that barriers are multidimensional and interconnected. Students with blindness experienced significantly greater barriers than those with low vision, particularly in accessing accommodations and support services. This study highlights persistent gaps between inclusive education policies and their implementation in examination systems. The findings underscore the need for standardized accommodations, accessible technologies, disability-responsive institutional practices, and stronger policy implementation to ensure equitable assessment and meaningful participation of visually impaired students in mainstream education.

Keywords: Visual Impairment, Inclusive Assessment, Examination Accessibility, Educational Inclusion, Senior Secondary Schools, India

1. INTRODUCTION

Inclusive education is widely recognized as a rights-based approach aimed at ensuring equitable access, participation, and learning opportunities for all students, including those with disabilities. International frameworks such as the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), particularly Article 24, and Sustainable Development Goal 4 (SDG-4), emphasize inclusive and equitable education through accessible systems and meaningful participation (United Nations,

2015). In India, the Rights of Persons with Disabilities (RPwD) Act, 2016 and the National Education Policy (NEP) 2020 similarly support inclusive education and equitable assessment practices. Despite these commitments, barriers persist in ensuring accessible examination systems for visually impaired students (World Health Organization [WHO], 2021; Hernández-Torrano et al., 2022).

Inclusive assessment refers to practices that enable all learners to demonstrate their competencies equitably,

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regardless of disability. Examination accessibility denotes the extent to which systems, materials, and procedures allow students with disabilities to participate independently and fairly. Accessibility barriers include institutional, procedural, technological, communicational, and attitudinal factors. In this study, visually impaired students refer to learners with blindness and low vision enrolled in inclusive senior secondary schools (Miyauchi, 2020; Çetin, 2025).

Recent scholarship emphasizes that equitable assessment extends beyond physical access and requires accessible examination practices aligned with Universal Design for Learning (UDL). Research highlights persistent barriers such as inaccessible materials, inadequate accommodations, visually dependent assessment formats, limited assistive technologies, and weak institutional support (Miyauchi, 2020; Shoaib et al., 2023; Alsamiri, 2025). These barriers continue to restrict meaningful participation in high-stakes examinations.

The Social Model of Disability underpins this study, viewing disability as arising from environmental and institutional barriers rather than individual impairments. From this perspective, examination accessibility is shaped by institutional readiness, administrative systems, communication processes, and availability of accommodations (Shoaib et al., 2023; Alsamiri, 2025).

Visual impairments significantly affect access to printed and visual examination materials. Students often require Braille papers, large print, screen readers, scribes, and compensatory time. However, uneven implementation of these accommodations limits independence and participation (Miyauchi, 2020).

Although inclusive education in India has received increasing attention, research has largely focused on classroom inclusion and general accessibility issues. Limited empirical work has examined examination accessibility as a distinct construct, despite its critical role in educational progression and opportunities. Evidence remains fragmented regarding how multiple barrier dimensions collectively influence examination experiences of students with blindness and low vision (WHO, 2021; Hernández-Torrano et al., 2022).

Delhi provides a relevant context due to its diverse inclusive education system and growing participation of students with disabilities in mainstream examinations. However, empirical evidence on examination accessibility barriers in this context remains limited.

Unlike previous studies focusing mainly on classroom inclusion or isolated aspects such as assistive technologies and accommodations, this study examines examination accessibility as a distinct construct. It empirically demonstrates strong interrelationships among five barrier domains ($r^* = .70-.86$), indicating that these barriers function as interconnected components of a systemic structure rather than independent factors. In particular, the strong association between Resource and Accessibility Barriers and Communication Barriers ($r^* = .86$) highlights

overlapping institutional and informational constraints. This provides a conceptual contribution by framing examination accessibility as a multidimensional and networked construct.

Therefore, this study investigates examination accessibility barriers among visually impaired Class XII students in inclusive senior secondary schools in Delhi, focusing on support systems, accessibility resources, communication processes, administrative procedures, and institutional attitudes. This study addresses a critical gap in Indian literature and contributes to the development of more equitable and accessible examination systems.

2. REVIEW OF LITERATURE

2.1. Inclusive Assessment, Disability, and Educational Accessibility

Contemporary scholarship conceptualizes inclusive education as a rights-based approach that seeks to ensure meaningful participation, accessibility, and educational equity for learners with disabilities rather than merely facilitating their physical presence in mainstream schools. International frameworks, including the UNCRPD, SDG-4, and the Salamanca Statement, advocate equitable educational opportunities and accessible assessment systems (Ainscow et al., 2019; O'Callaghan et al., 2025). However, scholars differ in their interpretation of inclusion. While traditional approaches emphasize accommodations that enable participation within existing systems, disability studies scholars argue that inclusion requires transforming educational structures that systematically disadvantage learners with disabilities.

This debate is reflected in the Social Model of Disability, which locates barriers within institutional environments rather than individual impairments. Inclusive Assessment theory similarly advocates flexible assessment practices that allow diverse learners to demonstrate competence through equitable means. Universal Design for Learning (UDL) extends this perspective by promoting multiple means of representation, engagement, and expression (Esparza et al., 2026). Nevertheless, researchers argue that many assessment systems continue to privilege standardization and visual modes of evaluation, creating tensions between policy commitments to inclusion and actual assessment practices (Tai et al., 2021; Nieminen, 2025). Collectively, these perspectives suggest that examination accessibility should be understood as a systemic issue shaped by educational design rather than individual limitations.

2.2. Examination Accessibility and Assistive Support

Examination accessibility remains a central concern for visually impaired students, particularly within high-stakes assessment systems. Studies consistently identify barriers such as delayed Braille and large-print materials, inadequate tactile resources, insufficient compensatory time, and limited availability of trained scribes (Çetin, 2025; Nisbet, 2020). Although accommodations are widely regarded as essential, their effectiveness remains contested.

Some researchers report that accommodations improve participation and academic outcomes (Razmjooe et al., 2023), whereas others argue that accommodation-based approaches merely compensate for inaccessible systems without addressing underlying structural inequities (Tai et al., 2021). This divergence highlights a broader debate regarding whether inclusion should rely primarily on individual accommodations or on universally accessible assessment design.

Assistive technologies have further expanded opportunities for participation. Screen readers, refreshable Braille displays, optical character recognition systems, and accessible digital platforms can enhance learner autonomy and examination access (Esparza et al., 2026). However, technological accessibility is often constrained by affordability, inadequate infrastructure, inaccessible examination software, and limited technical support (Shoaib et al., 2023; Patel et al., 2021; Kerdar et al., 2024). The results of this conceptual study further underscore that examination accessibility is shaped by the interdependence of technological, pedagogical, and institutional factors, rather than by assistive technology alone (Shahzad et al., 2026).

2.3. Institutional, Administrative, and Attitudinal Barriers

Beyond resources and technology, institutional processes substantially influence examination accessibility. Delays in approving accommodations, complex documentation requirements, inaccessible procedures, and weak institutional accountability frequently restrict equitable participation for visually impaired students (Taneja-Johansson et al., 2021; Singal, 2019). Evidence indicates that policy provisions often fail to translate into effective implementation, revealing a persistent gap between legislative intent and educational practice.

Attitudinal barriers further reinforce exclusion. Negative perceptions, low expectations, and limited disability awareness among educators may undermine accessibility initiatives despite formal support mechanisms (Hernández-Torrano et al., 2022). Communication barriers, including inadequate dissemination of information regarding accommodations and examination procedures, also reduce students' participation in decision-making processes (Miyauchi, 2020). Rather than operating independently, these barriers interact to create cumulative disadvantages, supporting the Social Model's assertion that exclusion emerges through interconnected environmental and institutional factors.

2.4. Research Gap and Conceptual Framework

Within India, research has primarily examined classroom inclusion, teacher attitudes, and general educational accessibility (Singal, 2019). Comparatively little attention has been devoted to examination accessibility as a distinct area of inquiry, particularly at the senior secondary level where examination outcomes significantly influence educational progression and future opportunities. Furthermore, limited evidence exists regarding how examination access and support, resource and accessibility

barriers, communication barriers, administrative and procedural problems, and attitudinal and support problems interact to shape the experiences of students with blindness and low vision.

Delhi provides a significant context for examining examination accessibility due to its diverse educational infrastructure, expanding inclusive schooling initiatives, and increasing participation of students with disabilities in mainstream board examinations. Despite these developments, limited empirical evidence exists regarding the barriers encountered by visually impaired students within examination systems. Guided by the Social Model of Disability, Inclusive Assessment Theory, and Universal Design for Learning (UDL), this study conceptualizes examination accessibility barriers as a multidimensional phenomenon shaped by environmental, institutional, and procedural factors affecting equitable participation in assessment.

Figure 1 illustrates the conceptual framework underpinning this study. The framework proposes that examination accessibility barriers arise through the interaction of five interrelated domains: Examination Access and Support, Resource and Accessibility Barriers, Communication Barriers, Administrative and Procedural Problems, and Attitudinal and Support Problems. Together, these domains influence the examination experiences and equitable participation of visually impaired students in inclusive senior secondary schools and provide the basis for investigating accessibility barriers within mainstream examination systems.

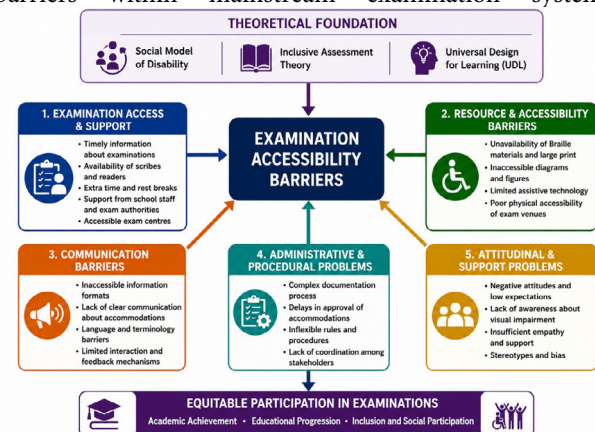


Figure 1: Conceptual framework of examination accessibility barriers for visually impaired students.

3. RESEARCH OBJECTIVES

The research objectives of this study are:

1. To examine the examination accessibility barriers faced by visually impaired students in inclusive senior secondary schools in India.
2. To compare the examination accessibility barriers experienced by students with blindness and students with low vision in inclusive senior secondary schools in India.

4. RESEARCH QUESTIONS

1. What examination accessibility barriers are experienced by visually impaired students in inclusive senior secondary schools in India?
2. How do examination accessibility barriers differ between students with blindness and students with low vision in inclusive senior secondary schools in India?

5. HYPOTHESIS

H₀ (Null Hypothesis)

There is no significant difference in the examination accessibility barriers experienced by students with blindness and students with low vision in inclusive senior secondary schools in India.

6. METHODOLOGY

6.1. Research Design

This study employed a cross-sectional quantitative survey design to investigate examination accessibility barriers experienced by visually impaired students in inclusive senior secondary schools. This design was considered appropriate for examining students' perceptions of examination accessibility and identifying patterns across multiple dimensions of assessment-related barriers within inclusive educational settings.

6.2. Participants and Sampling

This study was conducted in eight CBSE-affiliated inclusive senior secondary schools in Delhi, comprising four government and four private schools. A total of 60 visually impaired Class XII students participated in this study, including 30 students with blindness and 30 students with low vision. Participants were selected through purposive sampling because they had direct experience of school- and board-level examinations within inclusive educational environments.

The participants ranged in age from 19 to 22 years. The relatively higher age range reflects educational delays and interrupted schooling commonly reported among visually impaired students due to late school enrolment, health-related challenges, and barriers to educational access. Participants were required to be officially identified as visually impaired, enrolled in an inclusive senior secondary school, and have prior experience of formal examinations. Students with multiple disabilities were excluded to maintain greater homogeneity within the sample.

Although the sample provided valuable insights into examination accessibility experiences, its limited size, restriction to male students, and confinement to schools in Delhi reduce the generalizability of the findings. Consequently, the results should be interpreted within the specific context of this study.

6.3. Instrumentation

Data were collected using a researcher-developed structured interview schedule designed specifically for

visually impaired students. The instrument consisted of 30 items distributed across five domains: Examination Access and Support, Resource and Accessibility Barriers, Communication Barriers, Administrative and Procedural Problems, and Attitudinal and Support Problems. Each domain contained six items measured on a five-point Likert-type scale ranging from *Never* (1) to *Always* (5), with higher scores indicating greater perceived barriers.

To ensure accessibility, the instrument was administered in Braille, large-print, and audio-supported formats according to participants' preferences. The interviewer-administered approach was adopted to minimize comprehension difficulties and promote consistent administration across respondents.

6.4. Instrument Development and Validation

The instrument was developed following a review of literature on inclusive education, examination accessibility, assistive technology, and disability-inclusive assessment practices. Initial items were generated from themes frequently identified in previous empirical studies and policy documents relating to educational accessibility.

Content validity was established through expert review by five specialists in inclusive and special education who evaluated the relevance, clarity, and representativeness of the items. Their recommendations informed revisions to item wording and domain coverage. A pilot study involving 10 visually impaired students, who were not included in the final sample, was conducted to assess clarity, accessibility, and administration procedures. Minor modifications were made based on participant feedback.

Internal consistency reliability was examined using Cronbach's alpha, yielding a coefficient of .82, indicating satisfactory reliability for research purposes. However, the instrument was not subjected to exploratory or confirmatory factor analysis; therefore, findings should be interpreted with appropriate caution regarding construct validation.

6.5. Data Collection Procedure

Data were collected individually within participating schools during the 2025–2026 academic session. The researcher administered the interview schedule in accessible and familiar environments to ensure participant comfort and facilitate accurate responses. Standardized administration procedures were followed throughout the data collection process.

6.6. Ethical Considerations

Permission to conduct this study was obtained from the concerned institutional authority and participating school administrations prior to data collection. Informed consent was obtained from all participants, and confidentiality and anonymity were maintained throughout this study. Participation was voluntary, and students were informed of their right to withdraw at any stage without penalty.

6.7. Statistical Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize examination accessibility barriers. Pearson correlation analysis was employed to examine relationships among the five barrier domains, while independent-samples *t*-tests were conducted to compare the experiences of students with blindness and low vision. Statistical significance was evaluated at the .05 level.

7. DATA ANALYSIS AND RESULTS

7.1. Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including means and standard deviations, were computed to examine the prevalence of examination accessibility barriers across five domains: Examination Access and Support, Resource and Accessibility Barriers, Communication Barriers, Administrative and Procedural Problems, and Attitudinal and Support Problems. Internal consistency of the instrument was assessed using Cronbach's alpha coefficient.

Pearson correlation analysis was conducted to examine relationships among the five domains of examination accessibility barriers. Independent-samples *t*-tests were used to compare overall barrier scores between students with blindness and students with low vision. In addition, multiple linear regression analysis was performed to explore the extent to which Resource and Accessibility Barriers, Communication Barriers, Administrative and Procedural Problems, and Attitudinal and Support Problems were associated with Examination Access and Support. Statistical significance was evaluated at the .05 level.

7.2. Descriptive Statistics of Examination Accessibility Barriers

Table 1 presents the descriptive statistics for the five domains of examination accessibility barriers. Mean scores ranged from 3.22 to 3.46, indicating moderate to high levels of perceived barriers across all domains. As shown in Figure 2, Examination Access and Support recorded the highest mean score ($M = 3.46$, $SD = 0.59$), followed by Attitudinal and Support Problems ($M = 3.36$, $SD = 0.71$). Communication Barriers showed the lowest mean score ($M = 3.22$, $SD = 0.70$), although the value still reflects notable challenges experienced by participants. The relatively similar mean scores across domains suggest that examination accessibility barriers are multidimensional and extend across support, resource, communication, procedural, and attitudinal aspects of the examination process.

Table 1: Descriptive Statistics of Examination Accessibility Barrier Domains

Domain	N	M	SD
Examination Access and Support	60	3.46	0.59
Resource and Accessibility Barriers	60	3.23	0.70
Communication Barriers	60	3.22	0.70
Administrative and Procedural Problems	60	3.25	0.72
Attitudinal and Support Problems	60	3.36	0.71

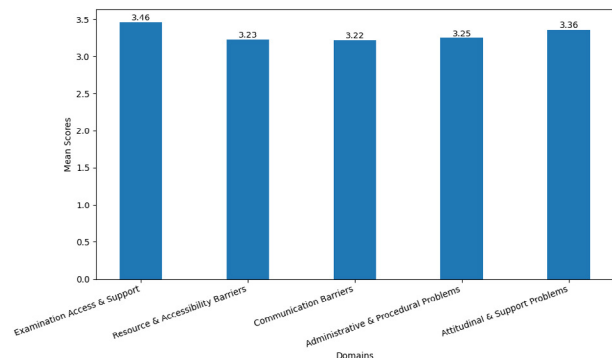


Figure 2: Mean scores of examination accessibility barrier domains.

The instrument demonstrated excellent internal consistency, with a Cronbach's alpha coefficient of .95.

7.3. Correlation Analysis of Examination Accessibility Barrier Domains

Pearson correlation analysis revealed strong positive relationships among all five domains of examination accessibility barriers (Table 2). Correlation coefficients ranged from .70 to .86, indicating that students reporting barriers in one domain were also likely to report barriers in other domains. The strongest relationship was observed between Resource and Accessibility Barriers and Communication Barriers ($r = .86$).

The strong intercorrelations suggest that examination accessibility barriers may operate as interconnected dimensions of a broader accessibility construct.

While these findings highlight the interconnected nature of examination accessibility barriers, the relatively high correlations may also suggest overlap among related constructs. Therefore, the results should be interpreted as evidence of association rather than as proof of distinct causal relationships among the domains.

Table 2: Pearson Correlation Matrix of Examination Accessibility Barrier Domains

Domain	1	2	3	4	5
1. Examination Access and Support	1.00	.76	.70	.78	.73
2. Resource and Accessibility Barriers	.76	1.00	.86	.81	.80
3. Communication Barriers	.70	.86	1.00	.76	.84
4. Administrative and Procedural Problems	.78	.81	.76	1.00	.84
5. Attitudinal and Support Problems	.73	.80	.84	.84	1.00

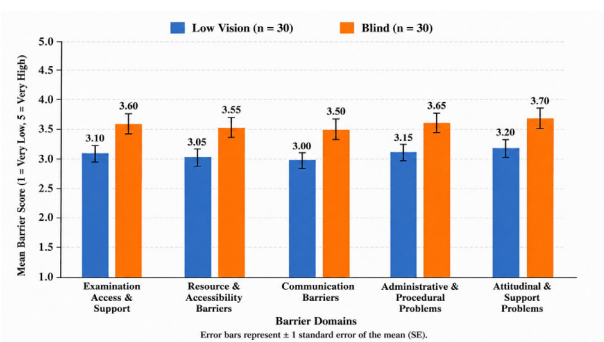
**Figure 3:** Heat map of correlation matrix.

7.4. Comparison of Barrier Scores by Vision Category

An independent-samples t -test was conducted to compare overall examination accessibility barrier scores between students with blindness and students with low vision. The analysis revealed a statistically significant difference between the two groups, $t^*(58) = 3.48$, $p^* < .01$. As shown in Figure 4, students with blindness ($M = 3.60$, $SD = 0.51$) reported higher levels of examination accessibility barriers than students with low vision ($M = 3.10$, $SD = 0.60$). The effect size (Cohen's $d^* = 0.89$) indicated a substantial difference in perceived barriers between the two groups.

Table 3: Independent-Samples t -Test Comparing Examination Accessibility Barrier Scores by Vision Category

Group	N	M	SD	t	df	p
Low Vision Students	30	3.10	0.60	3.48	58	<.01
Blind Students	30	3.60	0.51			

**Figure 4:** Comparison of examination accessibility barrier scores by vision category.

The findings indicate that visually impaired students experience barriers across multiple dimensions of examination accessibility. The results further suggest that barriers related to resources, communication, procedures, and attitudes are closely interconnected and collectively shape students' examination experiences within inclusive senior secondary schools.

8. DISCUSSION

This study examined examination accessibility barriers experienced by visually impaired students in inclusive senior secondary schools in Delhi and found moderate to high levels of barriers across all five domains. These findings indicate that examination accessibility continues to pose a significant challenge despite national and international policy commitments to inclusive education. Consistent with the Social Model of Disability, the results suggest that barriers emerge not from visual impairment alone but from the interaction between learner needs and the design, implementation, and accessibility of examination systems.

Higher levels of barriers reported in Examination Access and Support and Attitudinal and Support Problems indicate that challenges extend beyond the provision of accommodations to include institutional responsiveness, resource adequacy, and support structures. This aligns with prior research emphasizing that inclusive assessment requires proactive system design rather than reactive accommodation-based approaches (Tai et al., 2021; Nieminen, 2025).

A key contribution of this study lies in the observed strong interrelationships among all five barrier domains. The correlation coefficients ($r^* = .70-.86$) demonstrate that accessibility barriers are not isolated constructs but are structurally interconnected. This finding supports the study's central contribution that examination accessibility operates as a networked and multidimensional construct, where difficulties in one domain tend to reinforce challenges in others. In particular, the strong association between Resource and Accessibility Barriers and Communication Barriers ($r^* = .86$) reflects the convergence of informational, procedural, and infrastructural constraints during examinations.

While these correlations confirm the multidimensional nature of barriers, they also suggest potential overlap

among domains, indicating that students may experience examination accessibility as a unified system of disadvantage rather than as separate categories of difficulty. This reinforces the need to conceptualize examination accessibility holistically rather than through fragmented analytical frameworks.

A significant finding was the difference between students with blindness and those with low vision, with blind students reporting substantially higher barriers across domains. This disparity can be attributed to greater reliance on specialized accommodations such as Braille materials, screen readers, tactile resources, scribes, and compensatory time. When these supports are delayed, inconsistently implemented, or unavailable, examination participation becomes significantly constrained. In comparison, some students with low vision may partially rely on residual vision, enlarged print, or mainstream digital tools, reducing dependence on specialized support.

These findings highlight the importance of recognizing heterogeneity within the visually impaired population. The results suggest that uniform accommodation policies may be insufficient to address diverse functional needs, reinforcing the need for differentiated and flexible accessibility provisions within examination systems.

The findings also point to broader structural and implementation-related issues. Administrative and procedural barriers indicate that accessibility is influenced not only by available resources but also by institutional processes such as approval systems, coordination mechanisms, and communication efficiency. Delays or inconsistencies in implementing accommodations reduce the effectiveness of otherwise available support systems. Similarly, attitudinal barriers highlight the continuing influence of institutional culture, awareness levels, and responsiveness of educators and administrators in shaping students' examination experiences.

From a systemic perspective, this study demonstrates that examination accessibility is shaped by the combined effect of institutional, procedural, communicational, and resource-based factors. This supports the conceptual framing introduced in this study, where accessibility barriers function as interdependent components of a broader structural system rather than independent challenges.

From a policy perspective, the findings suggest that the primary challenge is not the absence of inclusive policies but the inconsistency of their implementation. Although frameworks such as the RPwD Act (2016), NEP 2020, UNCRPD, and SDG-4 provide a strong foundation for inclusive assessment, their effectiveness depends on integration into examination design, administrative systems, and institutional practice. Strengthening Universal Design for Learning (UDL)-based assessment approaches may help shift examination systems from accommodation-dependent models toward proactively accessible frameworks.

9. IMPLICATIONS

The findings have important implications for policy, institutional practice, and examination reform. First, they highlight the need to strengthen not only the provision but also the effective implementation of existing policies such as the RPwD Act (2016) and NEP 2020. The strong interrelationships among accessibility barriers indicate that examination accessibility functions as a systemic and interconnected construct, requiring coordinated action across resources, communication, and administrative processes rather than isolated interventions.

Second, examination authorities and schools should establish integrated accessibility management systems involving structured planning, coordination, and continuous monitoring. Regular accessibility audits and stronger interdepartmental collaboration can help reduce procedural delays, communication gaps, and inconsistencies in the delivery of accommodations that affect students' examination participation.

Third, the findings emphasize the need for differentiated accommodation frameworks that account for variation within the visually impaired population. The higher barriers experienced by students with blindness suggest that uniform provision of support may not ensure equitable access. Flexible, need-based arrangements are therefore essential to address diverse functional requirements.

Fourth, this study underscores the importance of disability-sensitive professional development for teachers, invigilators, and examination personnel. Training in inclusive assessment practices, accessible communication, assistive technologies, and disability rights can enhance institutional responsiveness and reduce both attitudinal and procedural barriers.

Finally, investment in accessible technologies must be aligned with institutional capacity and support systems. Screen readers, Braille materials, and digital examination platforms can improve access only when supported by adequate infrastructure, training, and administrative commitment.

10. LIMITATIONS

The findings of this study should be interpreted in light of several limitations. This study was conducted with a relatively small sample of visually impaired male students from inclusive senior secondary schools in Delhi, which may limit the applicability of the findings to other groups and educational contexts. As this study focused on a single urban setting, the experiences reported here may not fully reflect examination accessibility barriers in rural areas or other regions of India.

In addition, the cross-sectional design captured participants' experiences at one point in time and therefore could not examine changes in accessibility practices over time. This study also relied on students' self-reported perceptions, which may have been influenced by individual experiences and response tendencies. Finally, the absence of

qualitative data from teachers, parents, scribes, and school administrators limited a deeper understanding of the institutional and contextual factors shaping examination accessibility. Future studies employing larger and more diverse samples, along with mixed-methods approaches, may provide a more comprehensive picture of examination accessibility for visually impaired learners.

11. FUTURE RESEARCH DIRECTIONS

Future research should examine examination accessibility across diverse educational contexts, regions, and disability groups to enhance the generalizability of findings. Longitudinal and mixed-method studies may provide deeper insights into how accessibility practices evolve over time and influence students' examination experiences. Further research should also explore the effectiveness of assistive technologies, accessible digital assessment platforms, and inclusive examination accommodations. Incorporating perspectives from teachers, parents, administrators, and examination personnel would contribute to a more comprehensive understanding of the factors shaping accessible and equitable assessment practices.

12. CONCLUSION

This study examined examination accessibility barriers experienced by visually impaired students in inclusive senior secondary schools in Delhi, India. The findings

indicate that students continue to face barriers across multiple dimensions of the examination process, including examination access and support, resource accessibility, communication, administrative procedures, and institutional attitudes. The strong interrelationships among these domains suggest that examination accessibility operates as a systemic and interconnected construct, shaped by institutional, procedural, and resource-related factors rather than by individual impairment alone.

This study further revealed that students with blindness experience significantly higher levels of examination barriers than students with low vision. This highlights the need for differentiated and need-responsive accessibility provisions within examination systems. Persistent challenges related to accessible examination materials, support services, communication mechanisms, and procedural arrangements indicate a gap between inclusive policy frameworks and their effective implementation in practice.

By focusing specifically on examination accessibility as a distinct construct, this study contributes to the literature on inclusive assessment by providing empirical evidence of the multidimensional and networked nature of accessibility barriers in the Indian context. The findings emphasize the importance of moving beyond fragmented accommodation-based approaches toward more integrated and system-oriented examination practices.

DECLARATIONS

Author(s) Contribution

Conceptualization: Md Amanullah; Data curation: Md Amanullah; Formal analysis: Mohd Shahzad; Funding acquisition: Md Amanullah; Investigation: Mohd Shahzad; Methodology: Dr. Saurabh Ray; Project administration: Dr. Saurabh Ray; Resources: Md Amanullah; Software: Mohd Shahzad; Supervision: Dr. Saurabh Ray; Validation: Dr. Saurabh Ray; Visualization: Md Amanullah; Writing – original draft: Mohd Shahzad; Writing – review & editing: Mohd Shahzad. All authors have read and agreed to the published version of the manuscript.

Uses of AI Acknowledgement

I am used AI for Grammar correction and Paraphrasing.

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Availability of Data and Materials

The Data supporting this study are available upon request and stored in Drive.

Competing Interests

No conflict of interest regarding this paper.

Clinical Trial Registration (if applicable)

Not Applicable

Human Ethics and Consent to Participate

The study did not involve any clinical interventions or experiments requiring formal ethical approval.

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