

Barriers To Educational Equity for Visually Impaired Undergraduates in Jaffna and the Role of Assistive Technologies

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Abstract

Educational equity in higher education remains a critical concern, particularly for students with visual impairments who encounter systemic, pedagogical and technological barriers in mainstream classrooms. This study investigates the challenges faced by visually impaired undergraduates in the Jaffna region of Sri Lanka, with a specific focus on barriers to equitable learning and the role of assistive technologies in addressing these challenges. Despite increasing discussions on inclusive education, limited studies have explored the experiences of visually impaired undergraduates in universities within the Jaffna region. Adopting a qualitative research design, this study was conducted among visually impaired undergraduates in universities in the Jaffna region, where data were collected through semi-structured interviews with ten participants using purposive sampling, including both blind and partially sighted individuals. The collected data were analysed using thematic analysis. The findings reveal multiple barriers such as inaccessible teaching practices, ineffective lecture recordings, lack of Braille and accessible learning materials and limited institutional support. Participants reported that traditional lecture-based teaching methods often fail to accommodate their needs, leading to reduced academic engagement and performance. Furthermore, the absence of structured integration of assistive technologies exacerbates educational inequities. However, the study also highlights the potential of assistive technologies, including screen readers, audio-based tools, and accessible digital platforms, in improving learning accessibility. The findings underscore the need for inclusive pedagogical practices, improved access to resources, and institutional commitment to technological integration. This study contributes to the discourse on inclusive education by offering context-specific insights and practical recommendations for enhancing educational equity in higher education. The findings may assist policymakers, educators and higher education institutions in developing more inclusive learning environments for visually impaired students.

Keywords: Assistive Technologies, Educational Equity, Higher Education, Inclusive Education, Visual Impairment, Sri Lanka

Introduction

Education is widely recognized as a fundamental human right and a cornerstone of social justice, contributing not only to individual empowerment but

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also to national development and societal cohesion. However, the concept of educational equity extends beyond mere access to education; it emphasizes fairness in opportunities, meaningful participation, and equitable learning outcomes for all learners, regardless of their backgrounds or abilities (UNESCO, 2020). In the context of higher education, ensuring equity becomes increasingly complex, particularly for students with disabilities who often encounter systemic, pedagogical, and infrastructural constraints that hinder their full academic engagement.

A growing body of global research has highlighted that students with visual impairments face persistent barriers in accessing higher education due to the dominance of visually oriented teaching methods and assessment practices. Studies have shown that inaccessible course materials, lack of alternative formats (such as braille, audio, or digital text), and limited classroom accommodations significantly restrict their learning experiences and academic performance (Kelly & Smith, 2022). Furthermore, researchers emphasize that inclusive education requires not only physical access but also curriculum adaptation, faculty awareness, and institutional commitment to universal design principles in teaching and learning environments (Meyer et al., 2014).

In Sri Lanka, although inclusive education policies have been introduced and aligned with international frameworks such as the United Nations Convention on the Rights of Persons with Disabilities, implementation at the university level remains uneven. Existing studies indicate that higher education institutions often lack structured support systems, accessible infrastructure, and adequately trained academic staff to meet the needs of students with disabilities (Perera & Samarasekara, 2019). As a result, visually impaired students frequently depend on informal support networks, peer assistance, or personal coping strategies to manage their academic workload.

Regionally, in the Northern Province of Sri Lanka, particularly in Jaffna, the challenges are more pronounced due to socio-economic constraints, limited institutional resources, and slower integration of assistive technologies in academic settings. Empirical observations suggest that visually impaired undergraduates in this region encounter difficulties in accessing lecture materials, participating in group activities, and completing assessments in accessible formats. The scarcity of specialized support services such as disability resource centres, trained note-takers, and assistive technology training further exacerbates these challenges. These conditions create a gap between policy-level commitments to inclusion and the lived experiences of students.

Assistive technologies have emerged as a critical component in addressing these disparities by enabling visually impaired students to access information, communicate effectively, and participate independently in academic activities. Tools such as screen readers, text-to-speech software, braille displays, optical character recognition systems, and accessible learning management systems have been widely recognized in the literature as essential enablers of inclusive education. Recent studies (2021-2025) highlight that when appropriately implemented and supported, assistive technologies significantly improve academic engagement, autonomy, and learning outcomes for visually impaired learners. However, the effectiveness of these technologies depends on factors such as affordability, availability, user training, and institutional support.

Despite the increasing recognition of assistive technologies in global research, there remains a limited number of context-specific studies focusing on how these tools are utilized within Sri Lankan universities, particularly in regional settings like Jaffna. This research, therefore, aims to explore the barriers to educational equity faced by visually impaired undergraduates in Jaffna and examine the role of assistive technologies in mitigating these challenges. By doing so, it seeks to contribute to the existing body of knowledge on inclusive higher education and provide practical insights for policymakers, educators, and institutions to enhance accessibility, participation, and equitable learning outcomes.

Research Questions

1. What barriers hinder educational equity for visually impaired undergraduates in Jaffna?
2. How do teaching practices affect their learning experiences?
3. What role do assistive technologies play in supporting these students?
4. How can technology-based strategies enhance inclusive education?

Literature Review

Educational equity for visually impaired students remains a significant concern within higher education systems worldwide, particularly in developing countries where inclusive educational practices and assistive technologies are still evolving. The United Nations Convention on the Rights of Persons with Disabilities emphasizes the right of persons with disabilities to access education on an equal basis with others through inclusive learning environments and necessary accommodations (Convention on the Rights of Persons with Disabilities, 2006). In Sri Lanka, although free education policies and inclusive education initiatives have improved educational

access, visually impaired undergraduates continue to encounter multiple academic, social, infrastructural, and technological barriers that hinder educational equity (Jayasena et al., 2024).

One of the most persistent barriers identified in the literature is the lack of accessible learning materials. Jayasinghe et al. (2024) found that visually impaired undergraduates across several Sri Lankan universities, including the Eastern University, Sri Lanka, identified the shortage of accessible books and academic resources as their primary educational challenge. The absence of Braille materials, accessible digital texts, and adapted examination papers restricts students' participation and limits their academic opportunities. The study further revealed that visually impaired students are often confined to limited subject streams because many academic disciplines lack accessible learning resources (Jayasinghe et al., 2024). Similarly, Belay and Yihun (2020) observed that visually impaired students struggled to access Braille texts, references, and audio learning materials, making assignment completion and examination preparation extremely difficult. These findings demonstrate that inaccessible educational resources remain a major obstacle to educational equity.

Teacher preparedness and inclusive pedagogy also emerge as significant concerns within the literature. Karunaratne (2008) highlights that many teachers lack basic knowledge of Braille and inclusive teaching strategies, contributing to the exclusion of visually impaired learners from classroom activities. Belay and Yihun (2020) further note that teachers commonly rely on visual-centred teaching methods and frequently use expressions such as “look at the board” or “as you can see,” reflecting limited awareness of the needs of visually impaired students. Similarly, Jayasena et al. (2024) found that lecturers in Sri Lankan universities often depend heavily on PowerPoint presentations, charts, diagrams, videos, and Learning Management Systems that are inaccessible to visually impaired undergraduates. These practices create unequal learning conditions and negatively affect academic engagement.

Research additionally suggests that teachers are inadequately trained in both traditional inclusive pedagogy and accessible digital learning environments. Rajapakshe et al. (2026) argue that institutional guidance for accessible online learning remains insufficient, leaving visually impaired students disadvantaged within virtual learning systems. Their study identified barriers such as poorly designed digital platforms, limited screen reader compatibility, and lack of institutional support for accessible online education. Likewise, Dorabawila et al. (2022) emphasize that

although inclusive education policies exist in Sri Lanka, higher education institutions continue to face challenges in implementing effective disability-inclusive teaching and assessment methods.

Infrastructural barriers further contribute to educational inequality for visually impaired undergraduates. Belay and Yihun (2020) documented inaccessible physical environments, including crowded school compounds, inaccessible pathways, lack of suitable restroom facilities, and examination arrangements that exposed visually impaired students to distracting environments. Although conducted outside Sri Lanka, these findings resonate strongly with the Sri Lankan higher education context, particularly in under-resourced regions. Jayasena et al. (2024) similarly identify barrier-ridden infrastructure and inaccessible classroom environments as major academic limitations experienced by visually impaired university students.

Social stigma and psychological challenges also play an important role in shaping educational experiences. Liyanage (2017) argues that negative societal attitudes toward persons with disabilities, including pity, discrimination, and marginalization, remain deeply rooted within Sri Lankan society and educational institutions. Karunaratne (2008) describes experiences of exclusion and humiliation during school activities, particularly physical education, where visually impaired students were often isolated from participation. Belay and Yihun (2020) further reveal that visually impaired students frequently internalize feelings of inferiority and dependency, negatively affecting self-esteem and emotional well-being. These psychological challenges are intensified by limited peer interaction, social exclusion, and academic stress.

The literature consistently identifies assistive technologies as a critical tool for promoting educational equity and inclusion. Assistive technologies such as screen readers, Braille devices, audiobooks, speech-to-text software, tactile learning materials, and accessible digital platforms can significantly improve academic accessibility for visually impaired students. Rule et al. (2011) argue that adaptive auditory and tactile learning materials enable visually impaired learners to participate successfully alongside sighted peers. Karunaratne (2008) further emphasizes that information and communication technologies provide opportunities for visually impaired individuals to achieve independence in education and employment. However, access to assistive technologies remains limited in Sri Lanka due to high costs, insufficient institutional investment, and inadequate technical support.

Rajapakshe et al. (2026) examined the accessibility and usability of virtual learning platforms among visually impaired undergraduates in Sri Lanka and found

that assistive technologies are often poorly integrated into educational systems. Their findings identified five major themes related to digital learning experiences: barriers to virtual learning, preferred learning platforms, accessibility tools, facilitators of educational success, and strategies for optimizing learning environments. The study highlights that although assistive technologies have transformative potential, their effectiveness depends on proper implementation, institutional commitment, and accessible digital design.

Several scholars propose practical solutions to improve educational access through assistive technologies. Jayasinghe et al. (2024) recommend expanding the availability of audiobooks, accessible examination systems, and information and communication technology-based learning opportunities for visually impaired students. Karunaratne (2008) additionally suggests encouraging local production of accessible software and hardware to reduce dependence on expensive imported technologies. These recommendations demonstrate that technological inclusion must be accompanied by institutional policies, teacher training, and resource allocation to ensure meaningful educational equity.

The Sri Lankan higher education sector has introduced certain institutional initiatives to support students with disabilities. Universities such as the University of Colombo and the University of Peradeniya have established Centres for Students with Disabilities to provide accommodations and support services (Jayasena et al., 2024). These centres focus on disability awareness, infrastructure development, and expansion of assistive technologies. However, existing literature suggests that institutional support alone is insufficient unless accompanied by inclusive teaching practices, accessible educational resources, and positive attitudes among academic staff.

Within the Jaffna context, the literature reveals several important yet underexplored dimensions. The Jaffna Peninsula experienced prolonged civil conflict, which resulted in infrastructural destruction, economic marginalization, and disruption of educational services. These historical conditions may have intensified the educational barriers experienced by visually impaired students in the region. Although studies such as Jayasinghe et al. (2024) include participants from institutions serving Northern and Eastern regions, no study specifically focuses on visually impaired undergraduates in Jaffna. Additionally, the predominantly Tamil-speaking context of Jaffna introduces linguistic barriers because many assistive technologies, Braille materials, and accessible learning resources are primarily developed in Sinhala or

English. The intersection between visual impairment, language accessibility, and post-conflict educational inequality remains largely absent from existing scholarship.

The literature also identifies several gaps requiring further investigation. First, there is limited research specifically examining the lived experiences of visually impaired undergraduates in Jaffna. Second, empirical studies on the implementation and effectiveness of assistive technologies in Sri Lankan universities remain insufficient. Third, the relationship between linguistic minority status and disability has not been adequately explored in the Sri Lankan context. Finally, there is a lack of longitudinal research investigating how assistive technologies influence long-term academic achievement, social inclusion, and employment opportunities for visually impaired graduates.

The reviewed literature demonstrates that visually impaired undergraduates face multiple intersecting barriers to educational equity, including inaccessible learning materials, inadequate teacher preparation, infrastructural limitations, social discrimination, psychological distress, and limited access to assistive technologies. Although assistive technologies have substantial potential to improve accessibility and inclusion, institutional neglect, poor implementation, and economic constraints continue to limit their effectiveness. The absence of focused research on visually impaired undergraduates in Jaffna highlights the need for context-specific studies that examine regional, linguistic, and technological dimensions of educational equity in Northern Sri Lanka.

Methodology

This study adopted a qualitative phenomenological research design to explore the barriers to educational equity experienced by visually impaired undergraduates in the Jaffna region and to examine the role of assistive technologies in supporting inclusive learning. A phenomenological approach was considered appropriate as it enables an in-depth understanding of participants' lived experiences, perceptions, and interpretations within their higher education contexts.

The study was guided by the Social Model of Disability, which conceptualizes disability not as an individual limitation alone, but because of social, institutional, and environmental barriers that restrict equal participation (Oliver, 1990). This framework provided a critical lens to examine how inaccessible teaching practices, inadequate learning resources, and limited institutional support contribute to educational inequity among visually impaired undergraduates.

The study population comprised visually impaired undergraduates, including both blind and partially sighted students, studying in higher education institutions in the Jaffna region. For ethical reasons, the names of the universities were anonymized. A total of ten participants, aged between 22 and 25 years and including both male and female students, were selected for the study.

Participants were recruited using purposive sampling, as this technique allows the selection of individuals who have direct lived experience relevant to the research phenomenon. Inclusion criteria required participants to be visually impaired undergraduates currently enrolled in higher education institutions in the Jaffna region and to have experience with accessibility challenges and/or assistive technologies in academic settings. Participants were approached through personal networks and referrals.

Data were collected through face-to-face semi-structured interviews conducted in Tamil between 12th February and 3rd March, 2026. Each interview lasted approximately 20 to 30 minutes. Semi-structured interviews were selected to allow participants to freely express their lived experiences while ensuring that key areas such as classroom accessibility, teaching practices, learning materials, institutional support, and assistive technologies were adequately covered.

During the interviews, detailed notes were taken to capture participants' responses and relevant contextual information. The recorded notes were later translated from Tamil into English for analysis purposes.

The data were analyzed using thematic analysis, following the six-phase approach outlined by Braun and Clarke (2006). Initially, the interview notes were read repeatedly to ensure familiarity with the data. Meaningful segments of data were identified and assigned initial labels. These labels were then systematically reviewed and grouped into broader categories to generate themes.

To support systematic organization of the emerging themes, Microsoft Excel was used as a data management tool. The final themes developed from the analysis included: Inaccessible Teaching Practices and Pedagogical Exclusion; Limitations of Lecture Recordings as an Accessibility Tool; Lack of Accessible Learning Materials and Dependency on Others; Absence of Specialized Academic Support and Institutional Gaps; Limited Access to and Integration of Assistive Technologies; and Interconnection of Barriers: A Systemic Perspective.

Ethical considerations were strictly followed throughout the study. Prior to data collection, verbal informed consent was obtained from all participants after

explaining the purpose of the study, voluntary participation, and their right to withdraw at any time. Confidentiality and anonymity were ensured, and all data were used strictly for academic purposes.

Findings and Discussion

The interview data were analyzed using thematic analysis (Braun & Clarke, 2006), involving repeated reading of transcripts to ensure familiarity, followed by the identification of meaningful segments and the generation of initial codes. These codes were then organized into broader categories and refined into key themes. The analysis revealed interconnected themes, including inaccessible teaching practices, limitations of lecture recordings, lack of accessible learning materials, insufficient academic support, and limited integration of assistive technologies, highlighting the structural, pedagogical, and technological barriers faced by visually impaired undergraduates in Jaffna.

Inaccessible Teaching Practices and Pedagogical Exclusion

A dominant theme across interviews was the prevalence of visual-centric teaching practices, which significantly hindered participation and comprehension among visually impaired students. This theme directly addresses Research Question 1 and Research Question 2, as it highlights structural and pedagogical barriers affecting equitable learning experiences.

Participants reported that teaching heavily relied on PowerPoint presentations, board work, and visual demonstrations without sufficient verbal description:

“Most of the time, lecturers explain using slides, but I cannot see what is on the screen ...” (Participant 3)

“They write on the board and move very fast...” (Participant 7)

These findings indicate that instructional practices are not sufficiently adapted to diverse learning needs, resulting in pedagogical exclusion. This aligns with García et al. (2022), who argue that visually impaired students are often marginalized in visually dominated teaching environments due to a lack of accessible instructional design. From an equity perspective, this reflects a gap between inclusive education policy and classroom practice, where accessibility is not embedded in pedagogy.

Limitations of Lecture Recordings as an Accessibility Tool

While lecture recordings are often assumed to support inclusive learning, participants revealed that their effectiveness is limited. This finding relates to

Research Question 1 and Research Question 4, particularly regarding the usability of technology-based learning tools. Recordings often included irrelevant discussions and lacked structured content:

“I record lectures, but sometimes there are jokes or unrelated talks. It is difficult to find the important points later.” (Participant 2)

“Recording helps a little, but it is not enough. I still miss many important explanations.” (Participant 5)

This highlights a critical issue: accessibility is not achieved through availability alone. Although recordings provide access to content, they do not necessarily ensure meaningful learning.

From an analytical perspective, this reflects a gap between access and usability. As Seale (2020) suggests, accessibility must consider how students interact with learning materials, not just whether materials are available. Without structured and intentional design, lecture recordings fail to support equitable learning outcomes.

Lack of Accessible Learning Materials and Dependency on Others

Participants consistently identified the lack of accessible learning materials as a major barrier to independent learning. The absence of Braille textbooks and accessible digital formats forces students to rely on peers or external support. This finding primarily addresses Research Question 1 by highlighting barriers to independent and equitable learning.

“We don’t have Braille books for most subjects. I depend on others to read for me” (Participant 1).

“Some materials are shared as PDFs, but they are not readable with screen readers” (Participant 6).

This dependency undermines students’ autonomy and creates an unequal learning environment. Educational equity requires that students have independent access to knowledge, which is currently limited.

This finding is supported by Mutanga (2023), who highlights that inaccessible learning materials significantly restrict participation and academic performance among students with disabilities. The lack of accessible formats reflects systemic neglect rather than individual limitations.

Absence of Specialized Academic Support and Institutional Gaps

Another critical theme was the lack of structured academic support tailored to visually impaired students. This directly relates to Research Question 2 and Research Question 4.

Participants expressed the need for individualized academic support:

“There are no separate sessions for us. We are expected to learn like others, but our situation is different” (Participant 4).

“If there was someone to guide us separately, it would make a big difference” (Participant 8).

Participants also highlighted difficulties in accessing library resources independently. Many reported that library materials were not available in accessible formats and that they often struggled to find individuals who could assist them in reading academic books and reference materials.

“Sometimes I go to the library, but there is nobody to help me read the books. I return without getting the information I need” (Participant 5).

This reveals a disconnect between inclusive education policies and actual practices within universities. While inclusion promotes shared learning environments, equity requires differentiated support.

From a critical standpoint, this reflects institutional shortcomings in addressing diversity. Perera and Samarasekara (2019) note that Sri Lankan universities often lack the infrastructure and trained personnel to support students with disabilities effectively. The absence of targeted support contributes to academic disadvantage and marginalization.

Limited Access to and Integration of Assistive Technologies

Assistive technologies were identified as both a potential solution and a significant gap. This theme addresses Research Question 3 and Research Question 4. Participants reported reliance on personal devices rather than institutional support:

“I use a screen reader on my phone, but the university does not provide any tools” (Participant 6).

“Technology helps a lot, but not all students can afford it” (Participant 2).

Participants emphasized that assistive technologies enhance accessibility, but their effectiveness depends on availability, affordability, and integration into teaching practices.

This aligns with Fernández-Batanero et al. (2022), who argue that assistive technologies play a crucial role in inclusive education but are often underutilized due to systemic barriers. Similarly, Alharbi and Drew (2024) highlight that emerging technologies, including AI-based tools, have the potential to transform learning experiences, yet their impact remains limited without institutional support.

Towards Educational Equity: The Role of Inclusive Technology

However, the findings emphasize that technology alone is insufficient for achieving educational equity. Its effectiveness depends on alignment with inclusive pedagogical practices, accessible learning materials, and supportive institutional structures. This includes clear verbal instruction, structured delivery of content, provision of accessible formats such as Braille and screen-reader-compatible materials, and proper document formatting.

In addition, universities must strengthen institutional support through training, resource provision, and the implementation of accessibility policies. Overall, a holistic and integrated approach combining pedagogy, technology, and institutional support is essential for achieving meaningful inclusive education for visually impaired students.

Conclusion and Recommendations

The findings of this study reinforce the argument that educational equity is not achieved through equal treatment alone, but through responsive and inclusive practices that recognize and address diverse learner needs. Visually impaired students are not inherently disadvantaged by their impairments; rather, the limitations arise from educational systems that are not adequately designed to accommodate diversity. This highlights the structural nature of inequity within higher education settings. Consistent with recent scholarship (Fernández-Batanero et al., 2022; Seale, 2020), the study underscores that accessibility must extend beyond mere physical access to include pedagogical, technological, and institutional dimensions. Assistive technologies should not be treated as optional add-ons but as integral components of teaching and learning processes. Moreover, institutions bear an active responsibility to ensure that inclusive practices are embedded within their academic frameworks. Therefore, achieving educational equity requires a fundamental shift from access-based inclusion toward a more comprehensive, equity-driven transformation that prioritizes participation, usability, and meaningful engagement for all learners.

Based on these findings, several key recommendations can be made to enhance educational equity for visually impaired students in Jaffna. First, inclusive teaching strategies should be systematically adopted by lecturers, including the use of

clear verbal explanations, structured delivery of content, and descriptive communication of visual information. Second, the provision of accessible learning materials is essential, with emphasis on formats compatible with assistive technologies such as screen-reader-friendly documents, Braille resources, and properly structured digital content. Third, institutions should invest in assistive technologies and ensure their availability, maintenance, and integration across academic departments. Fourth, targeted training programs should be implemented for lecturers and academic staff to build awareness and competence in inclusive teaching practices and the effective use of assistive tools.

Ultimately, educational equity can only be achieved through a coordinated and holistic approach that integrates pedagogy, technology, and policy. Universities must move beyond fragmented efforts and adopt institutional strategies that embed inclusivity at every level of the educational experience. By doing so, higher education institutions can create an environment where visually impaired students are not merely accommodated, but are actively supported to participate, succeed, and reach their full academic potential.

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References

- Alharbi, A., & Drew, S. (2024). AI-based assistive technologies in education. *Education Sciences, 14*(2), 120–135. <https://doi.org/10.3390/educsci14020120>
- Belay, T., & Yihun, M. (2020). Challenges faced by visually impaired students in inclusive educational settings. *International Journal of Special Education, 35*(1), 45–58.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Convention on the Rights of Persons with Disabilities. (2006). *Convention on the Rights of Persons with Disabilities*. United Nations.
- Dorabawila, Y., Perera, H., & Fernando, S. (2022). Disability-inclusive practices in Sri Lankan higher education institutions. *Sri Lankan Journal of Educational Research, 6*(1), 33–49.

- Fernández-Batanero, J. M., Montenegro-Rueda, M., Fernández-Cerero, J., & García Martínez, I. (2022). Assistive technology for inclusive education: Asystematic review. *Educational Technology Research and Development*, 70(5), 1231–1250.
- García, M., Rodríguez, P., & Torres, L. (2022). Barriers to inclusion in higher education for students with disabilities. *Education Sciences*, 12(4), 215–230.
- Jayasena, N., Wijesinghe, T., & Fernando, K. (2024). Educational accessibility challenges faced by visually impaired undergraduates in Sri Lankan universities. *Journal of Inclusive Education Studies*, 8(2), 55–72.
- Jayasinghe, S., Perera, M., & Ramanathan, V. (2024). Accessible learning resources and educational equity among visually impaired university students in Sri Lanka. *Sri Lanka Journal of Social Sciences*, 47(1), 88–104.
- Karunaratne, R. S. N. (2008, October 5). *Providing a good education to blind students in country: Why and how? The Sunday Times*.
https://www.sundaytimes.lk/081005/Plus/sundaytimesplus_17.html
- Kelly, S., & Smith, J. (2022). Accessibility barriers in higher education for visually impaired students. *International Journal of Inclusive Education*, 26(7), 745–760.
- Liyanage, I. (2017). Social attitudes and disability inclusion in Sri Lanka. *Sri Lankan Journal of Social Development*, 3(2), 14–29.
- Meyer, A., Rose, D. H., & Gordon, D. (2014). *Universal design for learning: Theory and practice*. CAST Professional Publishing.
- Mutanga, O. (2023). Students with disabilities in higher education: Challenges and opportunities for inclusion. *International Journal of Inclusive Education*, 27(6), 789–805.
- Oliver, M. (1990). *The politics of disablement*. Macmillan.
- Perera, L., & Samarasekara, G. (2019). Inclusive education in Sri Lanka: Challenges and policy implications. *International Journal of Inclusive Education*, 23(2), 123–137.
- Rajapakshe, D., Silva, P., & Kumari, H. (2026). Accessibility and usability of virtual learning environments among visually impaired undergraduates in Sri Lanka. *Asian Journal of Educational Technology*, 11(1), 25–44.
- Rule, A. C., Stefanich, G. P., Boody, R. M., & Peiffer, B. (2011). Impact of adaptive auditory and tactile learning materials on students with visual impairments. *Journal of Science Education for Students with Disabilities*, 14(1), 1–12.
- Seale, J. (2020). Accessibility in higher education: Policy, pedagogy, and practice. *Studies in Higher Education*, 45(1), 1–15.
- UNESCO. (2020). *Global education monitoring report 2020: Inclusion and education-All means all*. UNESCO Publishing.