Inclusive pedagogical and assessment practices for visually impaired students: Shifting from a deficit to an asset-based approach

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Abstract
This paper examines inclusive pedagogical and assessment practices for visually impaired students, advocating a shift from a deficit to an asset-based approach. Through narrative inquiry and literature analysis, the barriers faced by students with visual disabilities and lecturers, as well as implementation challenges and emerging best practices in South African higher education institutions, are explored. Despite progressive policy frameworks, significant gaps exist between policy intentions and classroom realities, leaving students and lecturers marginalised, with staff often feeling overwhelmed and incapacitated, and students feeling vulnerable, excluded, and disempowered in the educational process. The research reveals how traditional deficit-focused accommodations have inadvertently reinforced exclusion rather than promoting inclusion. Calling for an asset-based humanised approach that recognises students with visual disabilities as valuable contributors to educational environments rather than 'problems requiring fixing'. This transformative approach necessitates reimagining pedagogical practices, assessment methods, and institutional support systems to harness technological innovations while centring visually impaired students' diverse capabilities and knowledge contributions.

Keywords
Higher education; Inclusive pedagogical practices; Inclusive assessment; Students with Visual Disabilities (SWVD).

Introduction

Visual impairment encompasses conditions ranging from blindness to varying degrees of low vision that significantly affect an individual's ability to process sensory information, presenting educational challenges since most learning occurs visually (Ndebele and Gadisi, 2022). Despite increased global enrollment of students with visual disabilities (SWVD) in universities (Cumming and Rose, 2021; Kendall, 2016), their experiences and perspectives remain largely overlooked in research (Ndebele and Gadisi, 2022). This paper examines the effectiveness of inclusive pedagogical and assessment practices for SWVD in South African universities, focusing on how institutional practices either empower or hinder their full participation in higher education, addressing two fundamental questions:

1. To what extent do current inclusive practices support the needs and outcomes of SWVD?
2. What are the most effective disability-inclusive practices for SWVD success, and how can lecturers implement these practices?

Policy-Practice Disconnect: Implementation Challenges

While South Africa has established comprehensive legislation protecting the rights of students with disabilities, including the Constitution (1996), the Integrated National Disability Strategy (1997), and various White Papers on inclusive education, significant implementation gaps persist (Hanass-Hancock et al., 2023). These gaps manifest in educational attainment disparities between persons with and without disabilities, with statistics showing an upward trend in persons with disabilities not attending educational institutions (StatsSA, 2024). The 2024 StatsSA report reveals a strong correlation between

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poverty and disability, particularly in education, with success influenced by resource limitations, inadequate teacher training, and physical and attitudinal barriers.
Despite policy statements advocating for the rights of students with disabilities, there is a notable absence of specific implementation frameworks, resulting in ad hoc and uncoordinated efforts (Mutanga and Walker, 2017). Research consistently highlights a significant disconnect between disability-inclusive policies and their practical implementation, particularly inclusiveness, accessibility, and reasonable accommodations for blind and visually impaired students (Gow et al., 2020; Lourens and Swartz, 2021; Mokiwa and Phasha, 2012; Mutanga, 2017). This disconnect has resulted in slow progress toward creating truly inclusive educational environments for SWVD in South African universities.

Regardless of their academic potential, SWVD often feel unprepared when transitioning to universities (Lourens and Swartz, 2021). Moreover, they also experience difficulties adjusting from sheltered environments to independent university settings, facing social challenges due to limited exposure to mainstream educational environments (Lourens and Swartz, 2021). Fraser and Maguvhe (2008) identify several barriers limiting blind students' participation in education, including lecturers' lack of specialised training, outdated learning materials, limited access to Braille books, and the eliminating of Braille specialist positions. They emphasise that, depending on the severity and type of visual impairment, students require different accommodations and approaches 'to be mediated by educators who fully know and understand them' (Fraser and Maguvhe, 2008, p.85). While assistive technologies (such as screen readers, closed-circuit television, Braille text, and talking calculators) are recommended, universities often cannot provide these expensive resources consistently for blind students to participate fully (Mutanga and Walker, 2017).

Therefore, for SWVD, successful teaching approaches should incorporate concrete and tangible materials, as students generally perform better when exploring through touch (Fraser and Maguvhe, 2008; Ndebele and Gadisi, 2022). Singh and Suknunan (2023) further suggest reconceptualising pedagogical practices through Universal Design of Instruction (UDI) to improve accessibility. Multiple studies emphasise the need for a more systemic and holistic approach to inclusive pedagogies and assistive technologies in South African universities (Engelbrecht and de Beer, 2014; Ndebele and Gadisi, 2022; Lopez-Gavira et al., 2021).

Unlike previous research on barriers and deficits, emerging literature emphasises abilities and success stories (Delport, 2021). Few studies examine the experiences and perspectives of students and lecturers teaching SWVD at South African universities, for example, Lourens and Swartz (2021), Lyner-Cleophas (2016), Mokiwa and Phasha (2012), Mutanga and Walker (2017), and Ngubane-Mokiwa and Khoza (2021). Delport (2021) and Lourens and Swartz (2021) agree that lecturers and students with disabilities can be powerful advocates to drive inclusive positive change in higher education. This approach calls for deep reflection on how institutions, through their policies and practices, can empower rather than disempower students with disabilities regarding access and inclusion. The findings of this study have significant implications for policy implementation, resource allocation, faculty (lecturer) development, and institutional support systems in South African universities. Addressing these issues is critical for higher education institutions to fulfil their commitment to disability-inclusive education as articulated in the 2030 Agenda for Sustainable Development's commitment to 'leave no one behind'. More research is needed to conceptualise the drivers and enablers of inclusivity that can inform education policies to reduce disability gaps (Ferreira-Meyers and Pitikoe, 2021; Hanass-Hancock et al., 2023).

Research Approach

This study employs a qualitative interpretive approach combining narrative inquiry and systematic literature review, this methodological integration provides both experiential depth and scholarly

breadth (Bertram and Christiansen, 2014; Clandinin et al., 2016; Creswell, 2013; Padgett, 1998; Remler and Van Ryzin, 2014). The narrative component centres on the personal experiences of a lecturer (Dr. Shiloh) and her interactions (verbal and written communication) with a blind student (Thulile) at a South African university, using pseudonyms for confidentiality. This approach recognises that 'personal narratives or autobiography show the integrity of lived experiences and the oral traditions of storytelling in the construction of narratives' (Arya, 2012, p.563). For this purpose, the personal narrative was used to recall and share moments of experience, providing real-world context and insights into lived experiences within South African higher education (Connelly and Clandinin, 1990). The narrative grounds theoretical concepts in lived experience, providing concrete illustrations of challenges and successes that visually impaired students and lecturers encounter. The narrative created an authentic context and served as a structural tool connecting thematic areas explored in this study.

For the literature review, a systematic approach following Struwig and Stead's (2013) methodology was implemented, examining scholarly literature published between 2014-2024 focused on inclusive education for visually impaired students. Major academic databases searched included Google Scholar, EBSCOhost Web, JSTOR, SAGE Journals, and ERIC, selecting only English-language publications with full-text availability. This focused approach examined current research on inclusive pedagogical and assessment practices in South African higher education contexts, identifying common themes, challenges, and recommendations (Cohen and Manion, 2018; Remler and Van Ryzin, 2014). Thematic analysis was employed to identify common themes across the data sources (Bertram and Christiansen, 2014; Creswell, 2013).

Trustworthiness and ethical considerations were addressed through pseudonyms, maintaining confidentiality, and obtaining ethical approval (Cohen and Manion, 2018). While not aiming for generalisability, the study employs thick descriptions, enabling readers to determine the findings' applicability to similar contexts (Creswell, 2013; Lincoln and Guba, 1985). The researcher acknowledges potential limitations, including subjective bias, while maintaining reflexivity throughout the research process (Clandinin et al., 2016).

Research gaps persist in large-scale comparative studies between disabled and abled students' experiences and non-academic staff perspectives (Mutanga, 2017; Majoko, 2018), identifying the need to address systemic barriers beyond procedural compliance in higher education inclusion (Nieminen, 2024, 2024a). Future research could evaluate the implementation and effectiveness of inclusive practices, expand to include more visually impaired students across South African universities for comparative perspectives, and explore how early experiences shape students' academic trajectories and how university policies impact SWVD's educational journeys.

In addressing the study's research questions, the following sections present an integrated analysis of findings from systematically examining emergent themes across personal narrative and literature sources. These explore the challenges and barriers to inclusion for SWVD, intersectionality and holistic support, and inclusive pedagogical and assessment practices.

Overview of Challenges and Barriers to Inclusion for SWVD

Despite technological advancements and disability-inclusive policies in higher education across South Africa, significant gaps remain in creating truly inclusive university environments. Gow et al. (2020), Kendall (2016), Lourens and Swartz (2021), and Mutanga (2017) identify persistent barriers, including inflexible teaching practices, inadequate understanding by lecturers, student unwillingness to disclose disabilities, and inconsistent support systems across university departments. For SWVD, key challenges include stigmatisation and discrimination, difficulties accessing graphical content, incompatible software, delayed access to electronic materials, lecturers' lack of pedagogical skills in

inclusive approaches, and consequently low completion rates (Cassells and Weber, 2018; Mokiwa and Phasha, 2012; Ngubane-Mokiwa and Khoza, 2021).

Student Experience of Exclusion and Adaptation

The narrative of Thulile, a blind first-year student aspiring to become a teacher, illustrates these challenges vividly. Initially, Thulile describes her experience as '*bittersweet'*, '*overwhelming'*, and '*frustrating and heart-wrenching',* struggling to '*fitting in with fellow first-year students and creating a functional relationship with lecturers',* and subsequently, '*building relationships with lecturers and peers to accessing academic materials'*. However, '*through hard work, determination and collaboration'* (Thulile), her experience changed for the better as she '*slowly adapted to her new environment with ease*'. Many SWVD in South Africa's higher education sector face multiple interconnected challenges, and they often feel vulnerable, excluded, and disempowered in teaching, learning, and assessment processes. These obstacles include physical accessibility barriers, lack of reasonable accommodations, attitudinal barriers from students and staff, technological barriers, inflexible teaching practices, limited resources, and insufficient understanding from lecturers (Kendall, 2016; Lopez-Gavira et al., 2021; Morelle and Tabane, 2019; Ndabele and Gadisi, 2022).

F*aculty Challenges and Preparedness*

Lecturers also face significant challenges in accommodating students with disabilities. Dr. Shiloh's experience exemplifies this reality—when '*informed by the Disability unit that a blind student had enrolled in her class shortly before the module was about to commence*', she '*had no idea how to accommodate her needs*' and '*had no prior experience, training, or guidance for teaching visually impaired students'.* This news filled her with '*both anxiety and curiosity*' as she worried about inadvertently creating barriers for Thulile due to her lack of knowledge and skills. These challenges stem from both external and internal factors. External factors include the absence of a national disability policy specifically for higher education. In contrast, internal factors encompass a lack of expertise, knowledge, responsibility, and skills in meeting the needs of students with disabilities (Mutanga and Walker, 2017).

Lecturers often feel overwhelmed by individualised accommodation requests and uncertain about maintaining academic excellence while adequately supporting SWVD. This uncertainty can lead faculty to 'distance themselves from the accountability of providing adequate support to students with disabilities' (Mutanga and Walker, 2017, p.6). Limited knowledge, piecemeal accommodations, insufficient training in inclusive pedagogical practices, inadequate specialised support, high student-to-faculty ratios, and resource constraints all affect the quality of support provided. Moreover, conservative teaching approaches and complex institutional information-sharing structures further hinder effective inclusive practices (Bunbury, 2020; Mahanya and Podzo, 2021; Ndebele and Gadisi, 2022; Singh and Suknunan, 2023; Lopez-Gavira et al., 2021; Majoko, 2018).

Physical and Digital Accessibility Challenges

Universities face ongoing challenges in implementing inclusive practices, particularly physical and digital accessibility. One significant concern for students like Thulile, a future teacher, was her '*inability to utilise resources such as a chalkboard as a meaningful tool to present a lesson'*. Physical accessibility barriers remain prevalent in educational settings, with campus infrastructure often presenting obstacles (Lopez-Gavira et al., 2021; Ndebele and Gadisi, 2022). The physical learning environment impacts pedagogy in various ways. To illustrate, in some classrooms, students with poor vision might not see what is on the board, and students with hearing impairments might not hear clearly when the lecturer teaches from the podium, which highlights the importance of considering classroom configuration and teaching positions when working with students with different disabilities (Ndlovu and Walton, 2016).

Students with visual disabilities (SWVD) often need to exercise patience regarding classroom distractions and delayed access to converted reading materials, according to Lyner-Cleophas (2016). For example, PDFs need conversion before screen readers can process them, and when lecturers delay sending materials to the Braille office for text conversion. This situation puts SWVD at a disadvantage compared to their sighted peers, creating inequality (Lyner-Cleophas, 2016). Inaccessible materials from academic publishers are also identified as a significant barrier, leading Cassells and Weber (2018) to argue for collaboration and accountability from South African academic publishers in making materials more accessible to SWVD.

Thulile's struggles highlight how technological barriers can exacerbate educational challenges. Despite the university providing '*assistive technology* [like JAWS (Job Access with Speech), a screen reader compatibility software] ... *challenges persisted'*, particularly with '*completing online assignments and activities…Certain parts of the assignment were inaccessible to me due to their visual nature'.* Thulile also explained how '*the visuals used to explain certain concepts are a challenge to understand if not adequately explained in some lectures'*, reinforcing the findings of Ferreira-Meyers and Pitikoe (2021) on digital accessibility challenges. Further illustrating the broader systemic issues identified in the literature (Ferreira-Meyers and Pitikoe, 2021; Ndebele and Gadisi, 2022). Challenges with accessibility and inflexible pedagogical practices force students to rely on others for assistance, diminishing their independence and self-efficacy. Blind students struggle to access graphic learning materials, and delays in accessing learning materials disrupt students' timetables and learning goals, especially where independent study is essential (Mokiwa and Phasha, 2012).

The emergence of computer-assisted teaching and assessment in higher education presents opportunities and challenges for SWVD. For example, students with high-incidence disabilities strongly prefer synchronous online discussions, though their performance is slightly better in asynchronous formats (Dahlstrom-Hakki et al., 2020). While McNicholl et al. (2019) view Assistive Technology (AT) through a universal design lens, where mainstream devices with accessibility features can help normalise AT use and reduce stigma, improve academic engagement and learning outcomes, while promoting positive psychological changes. Barriers to effective AT use exist, such as inadequate training and support, and technological limitations. As a result, computer-assisted teaching can promote inclusion or create a 'digital divide' between disabled and non-disabled students (Konur, 2007). For instance, the COVID-19 pandemic further accentuated this digital divide and created 'digital isolation' for visually impaired students, who faced intensified challenges with computer literacy, lack of assistive technology, and inaccessible course materials (Ferreira-Meyers and Pitikoe, 2021). The pandemic-driven shift to online learning created additional challenges for visually impaired students, particularly in rural areas.

Within rural contexts in South Africa, researchers further identified additional barriers to higher education related to physical infrastructure and technology access, such as inaccessible study materials, inadequate computer lab facilities, limited computer literacy, lack of assistive technology, limited after-hours support, poor internet connectivity, difficulties navigating learning management systems, negative faculty attitudes, non-inclusive teaching methodologies, and insufficient reasonable adjustments (Ferreira-Meyers and Pitikoe, 2021; Lopez-Gavira et al., 2021; Mahanya and Podzo, 2021; Ndebele and Gadisi, 2022).

Clearly, universities are not doing enough to accommodate blind and visually impaired students, especially during emergencies like COVID-19, which accelerates the digitisation of education. More strategic planning, resource allocation, policy changes, and awareness are needed to make blended learning inclusive. As Dr. Shiloh realised, '*technology alone couldn't bridge the divide'*, much more is required to address implementation challenges and the low completion rates among SWVD in South African universities. Universal Design for Learning (UDL) frameworks have emerged as a crucial

strategy for integrating assistive technologies and digital resources in inclusive education. As Dalton (2018) demonstrated how UDL principles enhance digital and media literacy by providing multiple means of representation, action, expression, and engagement, particularly benefiting students with diverse abilities. However, despite increased Information and Communications Technology (ICT) usage in South African universities, simply making digital materials accessible does not guarantee positive educational experiences for visually impaired students (Bong and Chen, 2024; Hannas-Hancock et al., 2023; Mokiwa and Phasha, 2012; Ngubane-Mokiwa and Khoza, 2021). While most interventions for students with disabilities in Online Higher Education (OHE) focus primarily on accessibility, Reyes et al. (2022) argue that successful OHE inclusion requires a balanced combination of: accessibility, flexibility and self-paced learning opportunities, socialisation, and inclusive pedagogical practices that address technological and limited physical contact barriers.

Attitudinal Barriers

Attitudinal barriers are depicted as more perilous than structural barriers (Engelbrecht and de Beer, 2014), and addressing these barriers is key to shifting staff beliefs and perceptions of disabled students (Bunbury, 2020). To illustrate, student experiences describe faculty support as ranging from helpful to unsupportive, with positive attitudes typically stemming from 'personal interest in disability issues rather than because of institutional training or policies' (Engelbrecht and de Beer, 2014, p.6). Furthermore, Lopez-Gavira et al. (2021) and Sandoval et al. (2021) indicate that while faculty generally show positive attitudes toward accommodations, they often lack specific knowledge about effectively addressing students' needs. Bong and Chen (2024) also revealed that while lecturers typically maintain positive attitudes toward inclusive education, only 4.5% consider themselves accessibility experts, highlighting the need for comprehensive training programs that engage all lecturers through flexible options covering relevant legislation, accessibility standards, and hands-on practice with assistive technologies. This situation is reflected in Dr. Shiloh's experience, who, while not adequately capacitated to teach Thulile (a visually impaired student), became increasingly conscious of Thulile's needs and considered appropriate accommodations for teaching, learning and assessment practices.

Disclosure Challenges and Student Empowerment

The non-disclosure of disabilities in universities presents complex challenges, with many students delaying disclosure due to fear of discrimination, stereotyping, and admission rejection (Kendall, 2016; Majoko, 2018; McKinney and Swartz, 2022). To explain, Smith et al. (2021) highlight particular challenges for students with non-apparent disabilities, especially mental health conditions, who reported higher levels of discomfort and negative peer interactions compared to those with apparent disabilities. Notably, self-determination, family support, and positive self-concept are crucial factors promoting disclosure, while social stigmatisation and lack of information about accommodations deter it (De Cesarei, 2015). Furthermore, the cumbersome process of repeatedly submitting applications and medical certificates for exam accommodations despite having permanent disabilities represents another barrier for students with disabilities (Engelbrecht and de Beer, 2014).

Thulile's journey epitomised transformation – from vulnerability and exclusion to advocacy and empowerment. Initially experiencing vulnerability, exclusion, and disempowerment upon entering university, she developed perseverance, advocacy, and an unwavering commitment to her goals. Her story highlighted both the challenges faced by visually impaired students and the life-changing impact of inclusivity within the university environment. Thulile expressed how she '*faced the challenge of having to conscientise fellow students on how to treat me as a visually impaired individual'*. Initially unsure how to interact with her, her peers learned to communicate more effectively. Her unique perspective enriched class discussions, and peers discovered her presence enhanced their learning experience. Dr. Shiloh acknowledged this mutual benefit, stating she '*didn't just teach Thulile, she learned from her*', learning that the challenges of blindness are met with resilience and that the experiences of a blind student can illuminate the path for others. Thulile '*often found herself educating*

both staff and students about appropriate accommodations for her needs', which aligns with research by Mutanga and Walker (2017) arguing that while students with disabilities often face systemic barriers, there is a mutual need for proactive engagement. They emphasise both students and lecturers require support to create truly inclusive educational environments, moving beyond blame to collaborative solutions.

Intersectionality and Holistic Support and Well-being

Thulile's academic journey illuminates the complex intersectionality of barriers faced by students with disabilities in South Africa. Research by Moodley and Graham (2015) highlights how disability, gender, race, and socio-economic factors create compounded challenges, particularly for Black women with disabilities. As a Black blind woman, Thulile experienced multiple obstacles. She struggled with '*difficulty fitting in with fellow first-year students and creating a functional relationship with lecturers'*. Despite receiving a bursary and an assistive device, '*financial constraints ultimately forced her to suspend her studies'*, demonstrating how economic factors can override academic potential and institutional support. Moreover, the challenges extend beyond individual experiences. Brown and Moloney (2019) elaborate on the 'dual' discrimination women with disabilities face, through gender bias, manifesting in lower income levels, increased workplace stress, and reduced job autonomy. Notably, the severity of disability emerges as a crucial factor, with gender disparities becoming most pronounced among those with severe disabilities. Therefore, support should extend beyond the university environment, as Ndlovu and Walton (2016) revealed a critical gap in support systems, noting that South African universities lack comprehensive support beyond the academic environment, unlike the British context. Furthermore, mental health and well-being also present additional complexities, as Jones et al. (2021) highlight the intricate relationship between assessment practices and student psychological health. They argue that examination stress is linked to various mental health issues, including anxiety, depression, and physical health problems that can negatively impact academic performance. While no universal solution exists, they advocate for context-specific approaches incorporating student voices while maintaining academic standards. This underscores a holistic approach to inclusive education that addresses broader socio-economic and psychological barriers.

Inclusive Pedagogies for Visually Impaired Students

Two primary theoretical approaches to inclusive pedagogy exist: the 'commonality approach' that designs universal solutions, and the 'individuality approach' that tailors specific solutions (Stentiford & Koutsouris, 2021). This theoretical division directly reflects the broader debate between medical and social models of disability in education. The medical model views disability as an individual deficit requiring specific accommodations, while the social model recognises disability as constructed within political, sociocultural, and historical contexts (Hanafin et al., 2007; Nieminen, 2024). According to the social model, society's structures and systems disable people, not their impairments, representing a significant shift by focusing on how inaccessible environments create barriers rather than on individual limitations (Lyner-Cleophas, 2016). Importantly, Bunbury's (2020) research indicates that both models significantly influence staff approaches to inclusive practices, suggesting that transitioning toward the social model could facilitate positive changes in attitudes toward students with disabilities. Historically, traditional approaches have typically relied on individual accommodations aligned with a medical model of disability. However, this approach potentially compromises assessment validity and reinforces hierarchies, contradicting inclusivity principles (Nieminen, 2024, 2024a). In contrast, the Assessment for Inclusion (AfI) framework offers a transformative approach by anticipating diverse student needs rather than relying on retroactive accommodations. This framework moves beyond viewing disabled students as the 'problem to be fixed' (Nieminen, 2024, p.843). Instead, it integrates inclusive design with necessary individual accommodations while considering broader socio-political, historical, and sociocultural factors.

Universities increasingly face the challenge of developing more inclusive pedagogical and assessment practices for diverse student populations, particularly for visually impaired students. Recent studies emphasise the need for a systemic and proactive approach that extends beyond simple accommodations to consider more profound systemic changes (Nieminen, 2024). Bunbury (2020) advocates combining medical and social models through inclusive curriculum design that accommodates diverse student capabilities while maintaining academic standards. Adopting a social model approach that focuses on removing social and institutional barriers while promoting interaction between disabled and non-disabled students creates an environment where all students can thrive (Bunbury, 2020; Hanafin et al., 2007; Jones et al., 2021; Nieminen, 2024, 2024a).

The narrative of Dr. Shiloh exemplifies transformative teaching and assessment practices. She attempted to adapt her teaching methods and worked diligently to '*verbalise visual content and restructure assessments to be more inclusive... emphasising critical thinking… rather than traditional approaches'*. Thulile expressed pride in her achievements, particularly given '*the difficulties she faced in doing the research and compiling the required information into a coherent and successful essay'*. Thulile also explained that despite her inability to use specific resources, she '*really enjoyed the practical lessons... was quite good at delivering meaningful lessons during teaching practice lectures'*, and she understood her '*passion, voice and determination to practice as a teacher*'. Despite these positive examples, Mokiwa and Phasha (2012) found that assessment practices present persistent challenges for visually impaired students, in particular: inflexible pedagogical and assessment approaches such as multiple-choice questions that require blind students to retype questions and answers, consuming disproportionate time for minimal assessment value; unfulfilled promises and inadequate support from ICT personnel who often lacked expertise in assistive technologies; and outdated software incompatible with current assistive technologies during examinations.

In the context of this study, the crucial role of inclusive pedagogy in teacher education programs and professional development is essential for successful implementation, as supported by Mahanya and Podzo (2021). They argue that inclusive pedagogy must be deeply entrenched in teacher education programs to ensure future teachers possess the knowledge, skills, and resources to create inclusive learning environments. This can be realised through ongoing professional development opportunities, curriculum modification, and proficiency in assistive technologies. Through this integrated approach to inclusive pedagogy for visually impaired students, educational institutions can move beyond reactive accommodations toward proactively designed inclusive educational environments that recognise diversity as a strength rather than a challenge to be overcome.

To this point, the discussions reveal complex interconnections across multiple dimensions of inclusive education. Addressing challenges in higher education requires a holistic approach that integrates inclusive and accessible assessments, digital accessibility improvements, institutional policy reforms, improved communication with Disability Support Units, supportive student-lecturer relationships, and comprehensive faculty training to overcome knowledge gaps.

Rethinking Inclusive Practices

The following practical approaches can be implemented regardless of institutional constraints to improve inclusive pedagogical and assessment practices for students with visual disabilities to enhance their well-being and academic success in higher education.

Flexible teaching and assessment approaches are essential to improve inclusive education. Traditional pedagogical and assessment practices often create barriers for diverse students, particularly those with visual and other disabilities (Hanafin et al., 2007; Nieminen, 2024, 2024a). Traditional assessment methods often create what Nieminen (2024: 842) describes as a fundamental 'paradox' between assessment functions and inclusive education principles in higher education, where 'exclusion is

deeply woven into the fabric of what we call assessment'. He further states that students with disabilities often perceive themselves as 'different' and 'lesser', contributing to their exclusion (Nieminen, 2024, pp. 842). Dr. Shiloh's experience with Thulile illustrates this challenge when an assignment requiring visual diagram analysis proved incompatible with Thulile's screen reader. '*The first assignment required analysing visual diagrams and submitting responses through an online portal that wasn't compatible with Thulile's screen reader'*, Dr. Shiloh recalled. Her initial response was characteristic of the medical model approach—seeking individual accommodations for Thulile while maintaining the same assessment for other students. For example, Dr. Shiloh explained that she merely created an alternative version to meet examination office requirements, increase font sizes, and provide extra time for SWVD to complete assessment activities. Still, this approach highlighted her differences rather than promoting inclusion. Rather than relying solely on individual accommodations approaches that often highlight differences, effective inclusive pedagogy should involve restructuring assessments to emphasise critical thinking and conceptual understanding, as supported by Bunbury (2020) and Lyner-Cleophas (2016). This approach enables students to demonstrate their skills through written reports, oral presentations, or group discussions. Thulile's case shows these practices maintain academic rigour while removing unnecessary barriers for students (Jones et al., 2021). Engelbrecht and de Beer (2014) further emphasised that students prefer individualised support services tailored to their specific needs rather than generalised support based merely on the nature of the disability, demonstrating the importance of direct communication with students.

Proactive curriculum planning and preparation are crucial for disability-inclusive pedagogy. Fraser and Maguvhe (2008) recommend developing alternative assessment methods when standard approaches are not feasible. Assessment modifications represent another critical area for intervention. The narrative highlights how traditional assessment methods created barriers for Thulile, especially with online assessment activities. While Dr. Shiloh illustrated how she attempted to make '*assessments more inclusive and diverse, through oral expression, group work activities, online activities, and essay and multiple-choice questions'*. Assessment practices often neglect the individual needs of SWVD, and merely providing reactive solutions is not enough. Assessments should offer multiple ways for students to demonstrate their knowledge, which can showcase different strengths and abilities. Therefore, lecturers should provide multiple modes (audio, text, visual) of delivering content, verbalise visual content effectively, ensure materials are available in accessible formats (electronic texts for screen readers, braille, large print), and consider classroom arrangement to create appropriate learning spaces (Ndlovu and Walton, 2016). Ndlovu and Walton (2016) emphasise the need for reasonable accommodations, including lecture recordings and accessible assessment arrangements. Cassells and Weber (2018) also recommend digitising educational materials, prioritising textbooks in library reserved sections, implementing Interactive Whiteboards (IWB) for accessing written lecture content, and improving accessibility of online platforms. Dr Shiloh realised that technology alone cannot bridge accessibility gaps. Singh and Suknunan (2023) also noted that despite increased enrollment of SWVD, equal access to educational technology remains problematic in South African universities. Therefore, effective technology implementation should complement rather than replace pedagogical adaptations (McNicholl et al., 2019), include SWVD in the development process, provide ongoing opportunities for feedback, and ensure digital resources are screen-reader compatible (Bong and Chen, 2024).

Comprehensive ongoing lecturer awareness, training and development is essential for effective inclusive teaching in higher education. Dr. Shiloh's initial anxiety stemmed from having no prior training, knowledge and experience teaching SWVD. Thulile recommended '*comprehensive training for lecturers on teaching students with disabilities*'. Cassells and Weber (2018) recommend formal training courses and guidelines developed with Disability Unit expertise to help lecturers work effectively with SWVD across all teaching aspects—from communication to evaluation methods.

Furthermore, faculty should understand disability policies and available technologies, request specific training on teaching SWVD and assistive technology like JAWS, work closely with disability support units, and regularly solicit feedback from SWVD.

Institutional coordination between the disability support services and academic departments is crucial. The narrative reveals how institutional disconnects created additional challenges for Thulile and Dr. Shiloh. '*Everything felt overwhelming at first—from building relationships with the lecturer and peers to accessing academic materials',* Thulile shared. Dr. Shiloh learned about Thulile's enrollment shortly before teaching began, with no prior training or guidance. Dr. Shiloh described navigating this institutional gap by creating a bridge between disability services and herself as being proactive. Disability Units should provide direct support through assistive technologies (screen readers, magnification software, braille displays), indirect support through training lecturers and collaborative teaching approaches, early communication with faculty about enrolled SWVD, and regular consultation throughout course delivery (Ndlovu and Walton, 2016). Thulile too believed *'in better collaboration between the lecturers and the DSU* [Disability Services Unit]. *Collaboration in terms of better communication, and the initiation of training programmes wherein the unit trains lecturers on how to best deal with students with various disabilities'.* She further mentioned how *'the teaching staff should be proactive in seeking information from the DSU and liaise with the unit on how to best intervene in making these students' stay in varsity accessible'.* Similarly, the University of Pretoria's support model demonstrates effectiveness through collaborative efforts between publishers, disability units, lecturers, and students to create truly inclusive environments (Cassells and Weber, 2018).

The transformative relationship between Thulile and Dr. Shiloh demonstrates how recognising SWVD as valuable resources rather than problems can lead to professional and personal growth for the lecturer. '*She taught me that being effective meant more than just delivering content—it required adaptability, empathy, and openness to learning from students themselves',* Dr. Shiloh reflected. This approach challenges the deficit model of disability (Moriña et al., 2020) and provides critical support when intersecting challenges—like Thulile's financial constraints—threaten educational progress (Moodley and Graham, 2015).

Creating structured peer collaboration and community-building opportunities also helps address social barriers while developing essential communication skills for all students. The narrative showed how '*peers, initially hesitant, discovered that her* [Thulile] *presence enhanced their own learning experience'*. Cassells and Weber (2018) advocate for greater disability awareness across campus through educational platforms, mainstreaming rather than segregating SWVD to boost confidence and independence, and 'conscientisation' of the entire university community about students with disabilities.

Successful inclusion requires interconnected strategies combining policy implementation and evaluation, curriculum adaptations based on Universal Design principles, appropriate resource allocation, improved technological accessibility, ongoing disability awareness and training, and collaborative partnerships between faculty, support staff, disability units, and SWVD (Cassells and Weber, 2018; Fraser and Maguvhe, 2008; Hanass-Hancock et al., 2023). In doing so, universities must foster cultural change that challenges stereotypes and stigma while encouraging disclosure through education and awareness. Success depends on institutional commitment to addressing both visible and invisible disability needs, robust support services, stakeholder collaboration, and an active involvement of students with disabilities in decision-making processes (Bong and Chen, 2024; Bunbury, 2020; Jones et al., 2021; Ndebele and Gadisi, 2022; Ndlovu and Walton, 2016). Effective implementation within the South African higher education context requires understanding individual disabilities and their intersectionality with poverty, gender, and race. This approach encompasses

shifting toward a social model of disability that addresses systemic barriers while developing context-specific solutions that balance academic standards with student and staff well-being (Hanafin et al., 2007; Jones et al., 2021; Nieminen, 2024, 2024a).

Conclusion

While South African universities work toward the 2030 Agenda's inclusive education goal of 'leaving no one behind', significant challenges remain in translating policy into practice, particularly for SWVD. This research examined the persistent challenge of transforming inclusive education for visually impaired students from deficit-focused to asset-based in South African higher education. A shift beyond traditional accommodations that inadvertently reinforces exclusion toward an asset-based humanised approach, recognising SWVD as valuable knowledge contributors and active participants. The study exposes the deep-rooted systemic barriers that continue to marginalise visually impaired students and overwhelm lecturers. The proposed transformative approach is not only about providing access and implementing technological innovations but fundamentally demands a holistic reimagining of pedagogical and assessment practices. It calls for a coordinated effort that integrates technological support, ongoing inclusive pedagogical training, collaborative efforts by faculty-DSU-students, and institutional cultural change. Ultimately challenging long-standing deficit perspectives that have historically positioned disability as a problem to be managed rather than to value diversity.

References

Arya, R. (2012) 'Black feminism in the academy,' *Equality, Diversity and Inclusion*, *An International Journal*, 31(5/6), pp.556–572.

Bertram, C. and Christiansen, I. (2014) *Understanding research: An introduction to reading research.* 1st ed, Pretoria: Van Schaik Publishers.

Bong, K.W. and Chen, W. (2024) 'Increasing faculty's competence in digital accessibility for inclusive education: a systematic literature review', *International Journal of Inclusive Education,* 28(2), pp. 197-213. doi: https://doi.org/10.1080/13603116.2021.1937344.

Brown, R.L. and Moloney, M.E. (2019) 'Intersectionality, work, and well-being: The effects of gender and disability', *Gender & Society*, 33(1), pp. 94-122. doi: https://10.1177/0891243218800636.

Bunbury, S. (2020) 'Disability in higher education – do reasonable adjustments contribute to an inclusive curriculum?', *International Journal of Inclusive Education*, 24(9), pp. 964-979. doi: https://doi.org/10.1080/13603116.2018.1503347

Cassells, L. and Weber, C. (2018) 'A report on the current access to academic information at the University of Pretoria for visually impaired students: challenges and opportunities', *Perspectives: Policy and Practice in Higher Education*, 22(3), pp. 82-91. doi: https://doi.org/10.1080/13603108.2017.1405851.

Clandinin, D.J., Caine, V., Lessard, S. and Huber, J. (2016) *Engaging in Narrative Inquiries with Children and Youth.* London: Taylor & Francis.

Cohen, L., Manion, L. and Morrison, K. (2018) *Research methods in education.* 8th ed, London: Routledge.

Connelly, F.M. and Clandinin, D.J. (1990) 'Stories of experience and narrative inquiry', *Educational Researcher*, 19(5), pp. 2–14.

Creswell, J.W. (2013) *Qualitative inquiry & research design: choosing among five approaches*, Los Angeles: Sage.

Clandinin, D.J., Lessard, V.C.S.and Huber, J. (2016) Engaging in narrative inquiries with children and youth, London: Routledge.

Cumming, T.M. and Rose, M.C. (2021) 'Exploring universal design for learning as an accessibility tool in higher education: A review of the current literature', *The Australian Educational Researcher*, 49(5), pp. 1025-1043. doi: https://doi.org/10.1007/s13384-021-00471-7.

Dahlstrom-Hakki, I., Alstad, Z. and Banerjee, M. (2020) 'Comparing synchronous and asynchronous online discussions for students with disabilities: The impact of social presence', *Computers & Education*, 150, pp. 1-11. doi: https://doi.org/10.1016/j.compedu.2020.103842.

Dalton, E.M. (2018) 'Beyond Universal Design for Learning: Guiding Efforts to Ensure Accessible Education', *South African Journal of Higher Education*, 32(6), pp. 155-172.

De Cesarei, A. (2015) 'Psychological factors that foster or deter the disclosure of disability by university students', *Psychological Reports*, 116(3), pp. 665-673.

Delport, D.H. (2021) 'There Is More Than Meets the Eye: Success Stories of a Visually Impaired Student and a Lecturer', *INKLUSI: Journal of Disability Studies*, 8(1), pp.1-14. doi: https://10.14421/ijds.080101.

Engelbrecht, L. and de Beer, J. (2014) 'Access constraints experienced by physically disabled students at a South African higher education institution', *Africa Education Review*, 11(4), pp. 544-562.

Ferreira-Meyers, K. and Pitikoe, S. (2021) 'The learning experience of a visually impaired learner regarding emergency blended teaching and learning at a higher education institution', *Perspectives in Education*, 39(1), pp.340-352. doi: http://dx.doi.org/10.18820/2519593X/pie.v39.i1.21.

Fraser, W. J., and Maguvhe, M. O. (2008) 'Teaching life sciences to blind and visually impaired learners', *Journal of Biological Education*, 42(2), pp. 84-89.

Gow, M.A., Mostert, Y. and Dreyer, L. (2020) 'The promise of equal education not kept: Specific learning disabilities – The invisible disability', *African Journal of Disability*, 9(0), pp. 1-10. doi: https://doi.org/10.4102/ajod.v9i0.647.

Hanafin, J., Shevlin, M., Kenny, M. and McNeela, E. (2007) 'Including Young People with Disabilities: Assessment Challenges in Higher Education', *Higher Education*, 54(3), pp. 435-448. doi: https://doi.org/10.1007/s10734-006-9005-9.

Hanass-Hancock, J., Murthy GVS., Palmer, M., Pinilla-Roncancio M., Rivas Velarde M. and Mitra, S. (2023) *The Disability Data Report. Disability Data Initiative.* Fordham Research Consortium on Disability: New York. Available at: http://www.ace.disabilitydata.fordham.edu (Accessed: 25 June 2025).

Jones, E., Priestley, M., Brewster, L., Wilbraham, S.J., Hughes, G. and Spanner, L. (2021) 'Student well-being and assessment in higher education: the balancing act, *Assessment & Evaluation in Higher Education',* 46(3), pp.438-450. doi: https://doi.org/10.1080/02602938.2020.1782344

Kendall, L. (2016) 'Higher education and disability: Exploring student experiences', *Cogent Education*, 3(1), pp. 1256142. doi: https://doi.org/10.1080/2331186X.2016.1256142.

Konur, O. (2007) 'Computer-assisted teaching and assessment of disabled students in higher education: The interface between academic standards and disability rights', *Journal of computer assisted learning*, 23(3), pp.207-219. doi: https://doi: 10.1111/j.1365-2729.2006.00208.x.

Liasidou, A. (2013) 'Intersectional understandings of disability and implications for a social justice reform agenda in education policy and practice', *Disability & Society*, 28(3), pp. 299-312. doi: https://doi.org/10.1080/09687599.2012.710012.

Lincoln, Y.S. and Guba, E.G. (1985) *Naturalistic inquiry*. Beverly Hills: Sage.

Lopez-Gavira, R., Moriña, A. and Morgado, B. (2021) 'Challenges to inclusive education at the university: the perspective of students and disability support service staff', *Innovation: The European Journal of Social Science Research*, 34(3), pp. 292-304. doi: https://doi.org/10.1080/13511610.2019.1578198.

Lourens, H. and Swartz, L. (2021) '"Suddenly I was in a self-catering world": South African students with visual impairments reflect on the transition from special schools to higher education', *International Journal of Inclusive Education,* pp. 1-12. doi: https://doi.org/10.1080/13603116.2021.1979668.

Lyner-Cleophas, M. M. (2016) *Staff and disabled students' experiences of disability support, inclusion and exclusion at Stellenbosch University* (Doctoral dissertation, Stellenbosch: Stellenbosch University).

Mahanya, P. and Podzo, B. Z. (2021) '"Inclusion" through professional "exclusion": A phenomenon of pre-service visually impaired teachers in tertiary institutions', *The Dyke*, 15(2), pp. 110-121.

Majoko, T. (2018) Participation in higher education: Voices of students with disabilities, *Cogent Education*, 5 (1):1542761. https://doi.org/10.1080/2331186X.2018.1542761

McKinney, E.L. and Swartz, L. (2022) Integration into higher education: experiences of disabled students in South Africa, *Studies in Higher Education*, 47 (2):367-377. https://doi.org/10.1080/03075079.2020.1750581

McNicholl, A., Casey, H., Desmond, D. and Gallagher, P. (2019) The impact of assistive technology use for students with disabilities in higher education: A systematic review, *Disability and Rehabilitation: Assistive Technology*, 1-16. https://doi.org/10.1080/17483107.2019.1642395

Mokiwa, S.A. and Phasha, T.N. (2012) Using ICT at an Open Distance Learning (ODL) institution in South Africa: The learning experiences of students with visual impairments, *Africa Education Review*, 9 (sup1):S136–S151. https://doi.org/10.1080/18146627.2012.755286

Moodley, J. and Graham, L. (2015) The importance of intersectionality in disability and gender studies, *Agenda*, 29 (2):24-33. https://doi.org/10.1080/10130950.2015.1041802

Moriña, A., Sandoval, M. and Carnerero, F. (2020) Higher Education Inclusivity: When the Disability Enriches the University, *Higher Education Research & Development*, 39 (6):1202-1216. https://doi.org/10.1080/07294360.2020.1712676

Mutanga, O. (2017) Students with disabilities' experience in South African higher education – A synthesis of literature, *South African Journal of Higher Education,* 31 (1):135-154. http://dx.doi.org/10.20853/31-1-1596

Mutanga, O. and Walker, M. (2017). Exploration of the academic lives of students with disabilities at South African universities: Lecturers' perspectives, *African Journal of Disability*, 6 (1), 1-9. https://doi.org/10.4102/ajod.v6i0.316

Ndebele, C. and Gadisi, M. (2022) Examining Inclusion and Exclusion in Higher Education: A Case Study of Blind Students at a Rural Based South African University, *Education. Innovation. Diversity (EID)*, 2 (5):21-36. https://doi.org/10.17770/eid2022.2.6945

Ndlovu, S. and Walton, E. (2016) Preparation of students with disabilities to graduate into professions in the South African context of higher learning: Obstacles and opportunities, *African Journal of Disability*, 5(1), 1-8.

Ngubane-Mokiwa, S.A. and Khoza, S.B. (2021) Using community of inquiry (CoI) to facilitate the design of a holistic e-learning experience for students with visual impairments, *Education Sciences*, 11 (4):152:1-12. https://doi.org/10.3390/EDUCSCI11040152

Nieminen, J.H. (2024) Assessment for Inclusion: Rethinking inclusive assessment in higher education, *Teaching in Higher Education*, 29 (4):841-859. https://doi.org/10.1080/13562517.2021.2021395

Nieminen, J.H. (2024a) Embracing the paradox of inclusive assessment, *Presented at the International Assessment in Higher Education Conference (AHE) conference* in, 20-21 June 2024, Manchester, United Kingdom.

Padgett, D.K (1998) Does the glove really fit? Qualitative research and clinical social work practice, *Social Work*, 43 (4):373-381. https://doi.org/10.1093/sw/43.4.373

Remler, D.K. and Van Ryzin, G.G. (2014) *Research methods in practice: strategies for description and causation*. Thousand Oaks: Sage.

Reyes, J.I. Meneses, J. and Melián, E. (2022) A systematic review of academic interventions for students with disabilities in Online Higher Education', *European Journal of Special Needs Education*, 37 (4):569-586. https://doi.org/10.1080/08856257.2021.1911525

Sandoval, M., Morgado, B. and Doménech, A. (2021) University students with disabilities in Spain: faculty beliefs, practices and support in providing reasonable adjustments, *Disability & Society*, 36 (5):730-749. https://doi.org/10.1080/09687599.2020.1751078

Singh, J. and Suknunan, S. (2023) Universal design of instruction to enhance learning for university students with visual disabilities, *African Journal of Disability,* 12(0):a1156. https://doi.org/10.4102/ajod.v12i0.1156

Smith, S.A., Woodhead, E. and Chin-Newman, C. (2021) Disclosing accommodation needs: exploring experiences of higher education students with disabilities, *International Journal of Inclusive Education*, 25 (12):1358-1374. https://doi.org/10.1080/13603116.2019.1610087

StatsSA (Statistics South Africa) (2024) *Profiling The Socio-Economic Status And Living Arrangements Of Persons With Disabilities In South Africa 2011–2022*. Pretoria: Statistics South Africa.

Stentiford, L. and Koutsouris, G. (2021) What are inclusive pedagogies in higher education? A systematic scoping review, *Studies in Higher Education*, 46 (11):2245-2261. https://doi.org/10.1080/03075079.2020.1716322

Struwig, F.W. and Stead, G.B. (2013) Planning, designing and reporting research. Cape Town: Pearson Education South Africa.