EXAMINING INCLUSION AND EXCLUSION IN HIGHER EDUCATION: A CASE STUDY OF BLIND STUDENTS AT A RURAL BASED SOUTH AFRICAN UNIVERSITY

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Abstract. *This study sought to examine barriers to learning for blind students at a rural based South African University. Premised on the qualitative design, data were collected through semi-structured individual interviews with 5 blind students, two academic support staff and four lecturers who were identified through purposive sampling. Emerging themes from the data were identified through content analysis of the verbatim responses. The study found that reasonable accommodation was not provided for blind students in the lecture halls at the university under study. The study further found that, study materials and computers in the university library and mainstream computer laboratories were not adapted for blind students. Third, lecturers were not trained to teach blind students with some lecturers using PowerPoint presentations while teaching when blind students could not access the screens. The study recommends universal design for all learning facilities, thorough training for all staff teaching students with disabilities and the development of a disability policy in the university.*

Keywords: blind, braille, reasonable accommodation, disability, universal design.

Introduction

The recognition of the rights of people with disability has been on the United Nations agenda for a while (UN Convention on the Rights of the Child (UNCRC, hereafter) 1989; UN Standard Rules on the Equalisation of Opportunities for Persons with Disabilities (UNSREOPD, hereafter) 1993; UN Convention on the Rights of Persons with Disabilities (UNCRPD, hereafter) 2006). Several countries, including South Africa, have ratified some of these conventions and started putting in place legislation to accommodate learners with disability. Legislation in the UK requires all public authorities, including higher education institutions, to actively promote equality of opportunity for people with disabilities (Goode, 2007; Richardson, 2015; Vickerman and Blundell 2010). In Brazil, the educational integration of persons with disabilities (visual, auditory, physical and intellectual) has increased (De Camargo et al., 2013). Australia, the United States of America and Israel, have legislation concerning the integration of students with disabilities into higher education (Fuller, Bradley and Healey 2004). Recently, the United Arab Emirates in the Middle East made efforts to promote the rights of people with disabilities (Alhammadi, 2016). In Australia, policy initiatives and legislation ensure that students with disability are presented with an equitable experience in, and access into, higher education (Dryer et al., 2016). In Zimbabwe, disability policies are in place although outdated (Chikukwa & Chimbwanda, 2013).

Findings from the literature indicate that despite a growth of interest in widening access, participation and inclusive higher education, the voices of disabled students themselves have hardly been heard (Fuller, Bradley, & Healey, 2004; Vaccaro, Kimball, Ostiguy& Wells, 2015; Moriña, 2019). Furthermore, while legislation has been enacted the

world over as shown in the preceding paragraphs to enable access for students with disabilities, little research seems to have been conducted on the category of blind students and their experiences of the higher education context. Studies conducted seem to either focus on students with disabilities in general or where research focus is on visually impaired students, blind students and partially sighted students are lumped together. (see for example, Fuller, Bradley, & Healey, 2004; Whitburn, 2014; Seyama. Morris, & Stilwell, 2014; Cunnah, 2015; Kendall, 2016; Patterson & Loomis 2016; Moriña, 2019**;** Kim & Kutscher, 2020).

It is incumbent upon universities to guarantee the necessary conditions and opportunities to ensure that all students can engage and learn. In this regard, it is useful to listen to the voices of the students (Moriña, 2019). This will help institutions of higher education better understand how they can support collegiate success among students with disabilities (Kim & Kutscher, 2020). Sachs and Schreuer (2011) aver that the opportunity that legislative changes present for the inclusion of students with disabilities in higher education institutions, and the resources dedicated to that purpose, call for an in-depth examination of the results to determine how these students participate in academic and student life at university.

The massification of higher education in South Africa following the advent of democracy meant that populations previously disadvantaged under apartheid now had access to education. In South Africa, the Ministerial Statement on the Implementation of the University Capacity Development Grant program 2021-2023 (DHET, 2020) concludes that the system has not yet been able to transform sufficiently to effectively and equitably support the success of previously marginalised groups. Disaggregation of the student data in the Ministerial Statement is only by race and gender. No statistics are given on the retention, throughput and graduation rates of students with disabilities. It is against this background that this study, grounded in the qualitative paradigm, used individual semi-structured interviews conducted with five blind students who were studying at the rural based university to examine the issue of inclusion and exclusion of students with disabilities in higher education. The population of this study consisted of all registered students with disclosed disabilities, all academic support staff in the Disability Unit and all lecturers teaching blind students. Purposive sampling was used to identify the blind students through available university records. Interpretative phenomenological approach (IPA) was used to engage participants to understand their lived experiences from their perspectives. The study seeks to contribute to the debate on the plight of students with disabilities with a specific focus on blind students in rural disadvantaged contexts.

Review of Literature
Conceptualising Disability

The South African White Paper on the Rights of Persons with Disabilities (WPRPD, 2015) conceptualises disability as a complex and evolving concept and argues that defining it must take into account that, "current definitions of disability have evolved over time, and reflect a more progressive view of disability than was the case in the past" (p.17). Among the various attempts to conceptualise disability, two dominant models have emerged, the medical model and the social model of disability.

The medical model focuses attention on the nature of the person's impairment and the degree to which this impairment may or may not prevent the person from carrying out various tasks or participate in activities in ways regarded as normal (Howell, 2005). This model sees disability as inherent in the individual, rather than as a social condition vested in the social milieu (Ndlovu & Watson, 2016). The model focuses on individual deficit or impairment, and attributes any restriction that the individual confronts in his or her everyday life as the

inevitable and tragic consequence of that impairment (Hammell, 2006; Ohajunwa, Mckenzie, & Lorenzo, 2015). The emphasis is on the impairment rather than the abilities the person might possess.

The disability rights movement rose against the medical model arguing that the circumstances of people with disabilities and the discrimination they face are socially created and have little to do with the impairments of people with disabilities (Howell, 2005). This gave rise to the alternative social model of disability. Rather than focusing on individual impairment, this model focuses on the physical and social barriers which exclude people with disabilities and renders them powerless and voiceless (Watson, 2004). As Armstrong, Armstrong and Spandagou (2011) show, a person's impairment is not the cause of disability, but rather disability is the result of the way society is organised, which disadvantages and excludes people with impairments. The solution to the problems of disabled people in this paradigm therefore lies in restructuring society in order to accommodate them. South African legislation, for example, the White Paper on the Rights of Persons with Disability (WPRPD, 2015) is aligned to the social model of disability.

Visual Impairment

Visual impairment relates to those students who are categorized as legally blind, having a visual acuity of 6/60 or less in the better eye, and/or a visual field of less than 10 degrees (Permvattana, Armstrong, & Murray, 2013). According to Shepherd (2001), the visual system can be considered as the dominant sensory modality in humans as almost half the brain is devoted to sight, and about 70% of the total capacity of the brain devoted to processing sensory information is devoted to handling visual information. Chikukwa and Chimbwanda (2013) define visual impairment or low vision as, "a severe reduction in vision that cannot be corrected with standard glasses or contact lenses and reduces a person's ability to function at certain or all tasks" (p.4). The level of visual impairment ranges from severe short-sightedness to blindness (Ghafri, 2015). Most learning typically occurs visually. The challenge facing visually impaired students is that the enormous amount of learning that normally takes place via vision must now be achieved using other senses and methods. The focus of this paper is on the challenges faced by blind students at a rural based South African university.

Legislative framework on education for people with disabilities in South Africa

Following the demise of apartheid, several pieces of legislation have been promulgated to advance the rights of people with disabilities in South Africa. These include the Constitution of the Republic of South Africa (CRSA, hereafter) (1996), the White paper on an Integrated National Disability Strategy (INDS, hereafter) (1997), the National Plan for Higher Education (NPHE, hereafter) (2001), White Paper 6 on Special Needs Education: Building an Inclusive Education and Training System (SNEBIETS, hereafter) (2001), the White Paper for Post-School Education (PSET, hereafter) (2013) and the White Paper on the Rights of People with Disability (WPRPD, hereafter) (2015). The South African legislation as explained in the paragraphs that follow, steers people away from the medical conception of disability discussed in a previous subsection, which focuses on individual impairment or deficit and instead focuses on the elimination of physical and social barriers that exclude people with disabilities and renders them powerless and voiceless - a tenet of the social model of disability. The CRSA (1996) declares all people as equal and outlaws discrimination on any basis and guarantees the right to quality services for persons with disabilities. The

entrenched Bill of Rights (BR) of the CRSA (1996) Subsection 3, states that no person may unfairly discriminate directly or indirectly against anyone.

The INDS (1997) acknowledges that the majority of people with disabilities in South Africa have been excluded from the mainstream of society and have thus, been prevented from accessing fundamental social, political and economic rights. The strategy cites several factors as having contributed to the neglect of people with disabilities, among them the political and economic inequalities of the apartheid system; social attitudes, which have perpetuated stereotypes of people with disabilities as dependent and in need of care; and a discriminatory and weak legislative framework that has sanctioned and reinforced exclusionary barriers.

Another piece of legislation, NPHE (2001) advocates for an increase in the number of non–traditional students entering higher education particularly women and people with disabilities. The plan requires universities to indicate in their three-year plans, strategies, time-frames and targets to increase the enrolment of students with disabilities. The year 2001 saw the publication of the Education White Paper 6: SNEBIETS which further outlined measures to include students with disabilities in the education system.

The PSET (2013), like the other pieces of legislation refers to the issue of inclusive education for all. The White Paper argues that the achievement of greater social justice is closely dependent on equitable access by all sections of the population to quality education and points out that, "the post-school system must respond to the special education and training needs of various social groups such as the youth, the disabled…" (p.10)

The most recent legislation on the issue of disability is the WPRPD (2015). The vision of the WPRPD is the creation of a free and just society inclusive of all persons with disabilities as equal citizens. This is aligned to the social model of disability, which argues that the solution to the problems of people with disabilities lies in restructuring society in order to accommodate them. In this regard, the WPRPD (2015) commits duty bearers to realising the rights of persons with disabilities by:

- Accelerating implementation of existing legislation that advocates equality for persons with disabilities;
- Taking calculated action to ensure that their rights as equal persons are upheld;
- Removing discriminatory barriers to access and participation;
- Ensuring that universal design informs access and participation in the planning, budgeting and service delivery value chain of all programmes (p.11).

It can be seen from the above discussion, though not necessarily the case for all 26 universities, that the South African higher education system provides support for students with disabilities within the diversity rights framework (Matshedisho, 2007) guided by national legislation and underpinned by the principle of fundamental human rights for all. Most public universities in South Africa have an office responsible for students with disabilities commonly referred to as a Disability Unit (DU).

The philosophy behind establishing the DUs according to Tugli et al. (2013) is to promote the equal participation of people with disabilities in all spheres of university life and to eliminate unlawful disability discrimination, including disability related harassment. These units, however, although in existence, do not always result in quality support for the students with disabilities.

Results from a study by Naidoo (2010) on factors affecting the academic development of students with disabilities at the University of KwaZulu-Natal show that the lack of staff in the Disability Unit and the disproportionate ratio of staff to students; lack of resources and lack of funding from the University negatively affected the efforts of the Disability Unit to offer support to students with disabilities. Similarly, a study by Tugli et al. (2013) revealed that the Disability Unit at the University of Venda was understaffed (only two staff members) and the

staff felt overworked and overwhelmed. Concern about Disability Units programmes being isolated or disability issues not being integrated into core areas of the institution's functioning emerged in the findings of a study by Howell (2005). Similarly, in a pilot study on challenges faced by students with disabilities at four universities in the Western Cape Province in South Africa, the Department of Social Development (DSD, hereafter) (2015) reports that students complained of the long time it took to get braille material due to staffing constraints in the Disability Units. Thirty-two percent of their participants indicated that they encountered barriers in accessing learning materials in accessible formats. The report noted:

> "These barriers include absence of Braille and large font material; delays in getting material transcribed or adapted into accessible formats; test scripts and old examination papers only available in small print; reference material in libraries needed for assignments and other projects not available in accessible formats." (p. 47).

In the same vein, the Foundation of Tertiary Institutions of the Northern Metropolis (FOTIM, hereafter) (2011) identified under-funding as a key constraint in the funding of several Disability Units. With inadequate budgets, such units cannot adequately cater for disabled students.

Another major challenge facing visually impaired students in South Africa is stigmatisation and alienation faced if students disclose their condition. According to findings of the DSD (2015), participants who chose not to declare disability gave reasons relating to societal negative perceptions including labeling, alienation, attitudinal problems and stereotyping. Some of these reasons for non-disclosure as the DSD (2015) shows, are indicative of the prejudicial nature of society towards persons with disability.

Study Context and Objectives

This study sought to examine barriers to learning for blind students at a South African University. The specific objectives of the study were to: Identify challenges faced by blind students at a rural based university; examine ways in which blind students mitigate these challenges and explore ways of ensuring reasonable accommodation for blind students in higher education. The institution studied is a small to medium-sized, comprehensive university located in a remote rural area and draws most of the students from previously disadvantaged rural schools. The institution has a Disability Unit established in 2001 to integrate services for students with disabilities. The Unit has three staff members and an intern and supports students with the following disabilities: visual, hearing, physical, speech impairments, chronic illnesses (e.g. epilepsy), painful conditions (e.g. back injuries & carpal tunnel syndrome), psychological disabilities (e.g. bipolar disorder & severe anxiety/depression), learning disorders and temporary disabilities (e.g. broken limbs). According to statistics from the Disability Unit, 118 students disclosed their disabilities in 2014 and of these 52 were partially sighted while five were blind while in 2022, a total of 99 students disclosed their disabilities15 as partially sighted and one as blind. Four of the five interviewed participants became blind later in their lives while one participant was born blind. Four of the participants were in their undergraduate studies, one each in levels one, two, three and four of their studies while one of the participants was a postgraduate student. With regards to gender, four participants were male while one was female and all the participants were black.

Research Methodology

Grounded in the qualitative paradigm, individual semi-structured interviews were conducted with five blind students who were studying at the rural based university in South

Africa. The population of this study consisted of all registered students with disclosed disabilities, all academic support staff in the Disability Unit and all lecturers teaching blind students. Purposive sampling was used to select participants for the study and is based on the assumption that a researcher wants to discover and gain insight, and thus, selects a sample from which the most can be learned (Yssel, Pak, & Beilke, 2016). Records in the Disability Unit were used to identify the blind students. The two academic support staff in the Disability Unit and four lecturers who had blind students in their classes were also included in the sample for triangulation of data. In this study, the researchers wanted to gain insight into the challenges faced by blind students in navigating the higher education landscape, hence purposefully selecting those affected by the impairment (blindness). This produced rich data.

The interpretative phenomenological approach (IPA) was used both during the interviews and the data analysis process. IPA is a qualitative approach which aims to provide detailed examinations of personal lived experience (Smith and Osborn 2015). IPA approach argues that good research interviewing recognises that the course and content of an interview cannot be laid down in advance (Smith, Flowers, & Larkin 2009; Alase, 2017). According to Tuffour (2017), the aim of IPA is to look in detail at how someone makes sense of life experience, and to give detailed interpretation of the account to understand the experience.

IPA has a commitment to understanding particular experiences in context (Rose et al. 2019). Such experiences cannot be predetermined. Rather than a rigid interview schedule that would be followed religiously therefore, a prompt sheet with a few main themes for discussion with the participants was produced to guide a loosely structured interview process (Biggerstaff and Thompson 2008). The theme statements were developed after a thorough review of literature sources that speak to the experience that is being studied, that is, blind students in higher education in rural contexts. The prompt sheet checklist ensured that while participants were given the freedom to take the lead in the conversation, the data gathered would still speak to the purpose of the research. The interview schedule was merely the basis for kick-starting the conversations with participants. As Jeong and Othman (2016) show, it is important that IPA researchers as a rule, utilise the open-ended question formula.

During the interviews, the researchers did not only listen to what the participants described about their experiences, but also focused on the interpretation of those experiences through probing, and asking critical questions to the participants, as suggested by Mavhandu-Mudzusi (2016). In addition to field notes taken during the interview, all interviews were recorded and transcribed verbatim in order for both researchers to be able to participate in the process of analysis. Coding was first conducted by each researcher individually and then in a joint discussion leading to a decision on core themes as suggested by Berggren, Rowan, Bergbäck and Blomberg (2016).

Interviews of each participant were analysed individually, to identify emerging themes. Following this, the researchers looked for common patterns across the analysed cases. This resulted in restructuring and relabeling the original individual themes into few overarching themes (Lourens & Swartz 2016a).

Ethical considerations

Working with people with a range of special needs demands sensitivity and an increased awareness of the great vulnerability of many of these research participants (Magwa & Magwa 2015). Appointments were made with each of the blind students individually where the research project and its purpose was explained to them. Participants were informed that their participation in the study was entirely voluntary and that they could withdraw at any time without consequence. Further, they were informed that confidentiality and anonymity would be maintained and that their identities would not be disclosed as pseudonyms would be

used. Participants gave informed consent. The five students were then given alphabetic name codes; Blind Student A (BSA), Blind Student B (BSB), Blind Student C (BSC), Blind Student D (BSD) and Blind Student E (BSE). Academic support staff (AS) were coded numerically as AS1 and AS2 while lecturers (L) were coded as L1, L2, L3 and L4. Ethical clearance was sought from the Research Ethics Committee of the University following the university's ethical clearance application procedures and was granted under reference number CHETL/11/01/E0811.

Results and Discussion

The results are presented and discussed according to the following emerging themes: challenges related to mobility and accessibility, instructional challenges, assessment practices, lack of knowledge, interaction with non-disabled students, academic support from the Disability Unit and academic support from the library. Samples of verbatim responses from the participants are used in the discussion of each identified theme. The choice of which participant to quote in each instance was guided by both the typicality of the response with regards to the theme identified and the need to represent all participants as much as possible in the quoted responses.

Challenges relating to mobility and accessibility

One of the themes that emerged from the data was in relation to accessibility and mobility around campus due to carelessness in infrastructure development and negligence by fellow students and academics. The following were examples of responses on the issue:

- *Changes along the route to places of choice are intermittently changed without our knowledge. We end up falling on trenches(BSA)*
- *I once fell into the ditch and luckily it was not so deep. I could not proceed to my class that day as I was mildly injured (BSD).*
- *It is not easy to move on the paths of the university because there are light poles erected on the middle of the paths (BSE).*
- *No. there are a lot of disturbances. People drive around the campus as if they are on a freeway. People park everywhere. Security staff are not consistent in monitoring this challenge (L3)*
- *No. it is horrible. University community parks the cars everywhere and they drive so fast on the campus roads. This is not good for those students with disabilities (AS1).*

The results show that new infrastructure development projects around the university were not communicated to the students leading to challenges for blind students as shown in the responses above. The student concerns are corroborated by both the academic support staff (AS1) and the lecturers (L3). More stringent security measures would go a long way in helping curb careless driving and undesignated parking in the university. The issue of mobility and accessibility is also reported in the literature. Howell and Lazarus (2003) argue that barriers for students with disabilities are exacerbated by higher education institutions in South Africa that remain largely physically inaccessible to many disabled students, especially physically disabled and blind students. Lourens and Swartz (2016a) found that simply getting around campus was a challenging task for the students who spoke of threats of motor vehicles and obstructions in the environment such as holes in sidewalks, low-hanging branches and road works. Similarly, a study by Chikukwa and Chimbwanda (2013) in Zimbabwe, found that totally blind students faced problems of construction work (trenches dug up everywhere), parked cars and water puddles. In this regard, amendments to campus design that are not only

visually impaired student-friendly, but also environmentally friendly are warranted (Berggren et al. 2016). This, according to (UNCRPD) (2006) means the design of products, environments, programmes and services should be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design.

One student however, felt accessibility was better for blind students compared to physically disabled students although he had problems with elevators as shown in this response:

- *Access into buildings is better to blind students because we can manage to go to the other floors of the building using steps. The lift in the main administration is not user friendly to the blind person as the buttons are not clearly marked in Braille and there is no voice synthesizer to help the blind user (BSB).*

From the analysis of the except above, it is indicative that students with sight challenge emphasise the need for good access into buildings. However, the access in existence is not user friendly to students with sight problems because there are no braille signs and audio configuration to assist in effective usage by the blind.

Instructional challenges

One issue identified by academic staff and lecturers was the issue of accessibility to learning and teaching in the lecture halls as a result of lack of universal design in the construction of lecture rooms:

- *Chairs in these lecture halls are located far from the white board making it difficult for visually impaired to see what is written. Most students with visually impairment just go to classes only to listen to the lectures (ADS1)*
- *The sitting arrangements are in a form of a stadium and it is difficult for a blind student to walk through. Chairs are built in and in a form of a row and it becomes difficult for a blind student to walk through to the chair (L4)*
- *Some lecture halls are not conducive for teaching visually impaired students. For example, lecture halls A and E. The board is far from the seats (L2)*

Such infrastructure design issues identified by lecturers in the responses reveal lack of universal design planning in the furniture installation in the lecturer rooms. Ensuring that universal design informs access and participation in the planning, budgeting and service delivery value chain of all programmes (WPRPD, 2015) will ensure that all categories of students are catered for.

Negative attitudes of lecturers and insensitivity to the needs of blind students during the actual learning and teaching process were major issues raised by the blind students, for example:

- *Some lecturers are arrogant. They do not provide pamphlets and they tell us to consult with other students. I followed one lecturer the other day and he told me; 'you disabled students like to be treated special. He is not God. I had to quit the module' (BSB).*
- *As a lecturer I have never given such students special handouts, except that they write their tests and examinations in Disability Unit where they are well-catered (L2).*
- *My students get materials like other students. I don't differentiate them because I was not orientated or trained to care for the students with disabilities (L4).*
- *They send materials to us and we adapt them according to the needs of students. The challenge only pops up if a student did not divulge his/her disability to the lecturer (AS1).*

There was justification by those lecturers who refused to give blind students materials so that they could take them for adaptation, for example - converting material to braille arguing that this amounted to special treatment. This argument y lecturers, in our view, cannot

be accepted as this is a category of students that does indeed need special treatment. The significance of the lecturer as partner in the success of the blind student is also evident from the student responses. This reproduction of negative attitudes in higher learning emanates from people viewing disability negatively (Ndlovu and Walton 2016) and could be attributed to the medical model of disability, which sees disability as inherent in the individual, rather than as a social condition. Ryan (2011) as cited in Dryer et al. (2016) conducted research into the knowledge, attitudes and experiences of staff within Australian universities. This research suggested that universities need to be more informed, and consistent with legislation in the area of disability as staff at times held negative or hostile attitudes towards students with disabilities. Similarly, Chikukwa and Chimbwanda (2013) in their study found that some lecturers were reluctant to modify their classroom procedures, giving students only partial accommodations. They further argue that given the significance of lecturer attitudes to the success of blind and visually impaired students, it is important to understand the significance of attitudes of not only the lecturers but also of peers and other campus administrators to the success of these students. Studies in the literture emphasise the importance of lecturer preparation programmes to provide extended experiences for future lecturers to facilitate conceptual shifts and improve attitudes about assisting students living with disabilities (Barton-Arwood, Lunsford, & Suddeth, 2016; Zongozzi, 2022)

As the social model of disability argues, a person's impairment is not the cause of disability, but rather disability is the result of the way society is organised, which disadvantages and excludes people with impairments (Armstrong, Armstrong and Spandagou 2011).

Assessment practices

Another major finding under instructional challenges related to assessment with regard to whether or not the assessment practices used accommodated the condition of blind students. All the five students were positive although they alleged that there was poor planning at times;
- *Blind students write their tests and examinations in the adapted exam lab in the Disability Unit. Test papers are either Brailed or given in an electronic format. With the aid of screen reading software, I find it very easy to read and write (BSE).*
- *I had to write a little bit late sometimes when the lecturer could not provide an electronic question paper to the exam department. The exam had to be scanned, edited and brailed while waiting in the exam room (BSC).*
- *The University staff seem to believe that students with disabilities should only be assisted in the disability unit. Even lecturers, when they have challenges with disabled students, they send them to the disability unit (AS1).*

The Disability Unit should be lauded for ensuring assessment accommodation for the blind students. The Unit seems to be aligned to the social model of disability, which focuses on removing the physical and social barriers which exclude people with disabilities (Watson, 2004). Adapting the assessment instruments for students with disabilities also resonates with one of the requirements of the WPRPD (2015) which legislates for the removal of discriminatory barriers to access and participation. Academic support staff in the Disability Unit, however, expressed concern at the fact that academics were abrogating their responsibilities and dumping interventions related to students with disabilities on the Disability Unit rather than co-owning the student support. It is significant to note that the findings of this study contradict those of Vickerman and Blundell (2010) where 11.1% of disabled students indicated that their assessments did not cater for their needs, compared with

3.6% of their non-disabled peers. The results further contradict those of Dryer at el. (2016) which showed that students with disability were often challenged by assessment practices. The issue raised in the last response above however, about examinations and tests being adapted while the students were already waiting in the examination room to write, points to poor coordination between the lecturers, the examinations department and the Disability Unit. The Disability Unit, the lecturer who sets the examinations paper and the examination department need to liaise with each other to ensure that all examinations have been adapted for disabled students before the examination date.

Lack of knowledge

The need for training of staff who work with disabled students came out strongly in the findings of this study. This appeared in responses from both students, academic support staff and lecturers as shown in these responses:

- *Lecturers do not really know how to assist a blind student. They demonstrate, project their PowerPoint presentations and write on the board forgetting that a blind student cannot see and needs special attention (BSC).*
- *In the class, the lecturer writes a lot on the board and narrates so little of what they have written. Sometimes they will just point at facts on the board saying this and that, when you combine this and that you get this (BSA).*
- *New staff should be inducted on how to interact with disabled students. Unfortunately, we have a backlog due to the pandemic (AS1).*
- *Lecturers should be trained to take care of students with disabilities (L4).*

With regards to the lecturers' capacity to help blind students, the results from all the categories of participants (students, lecturers and academic support staff) indicate that lecturers were not conversant with how to deal with these students. The way they presented their materials in class did not accommodate the needs of blind students. There was, however, one student who was positive and who stated that her lecturers were friendly and understanding as shown in this response:

> *My lecturers are friendly. They never ask questions that demand me to draw. I request all the slides from the lecturer immediately after lesson. Sometimes they give me hard copies which I take to the disability unit for scanning, editing and brailing (BSE).*

As shown in the responses, projecting power point presentations on the screens and writing on the whiteboards did not accommodate blind students if this was not accompanied by verbal reading of what was on the slides. Whatever is projected or written on whiteboards should also be read out aloud to accommodate this category of students. The issue of lack of knowledge and training of lecturers is reported in the results from a study by Mushome and Monobe (2013) which revealed that lecturers found teaching visually impaired students a problem as they had never been trained to teach this category of students. Chikukwa and Chimbwanda (2013) also found in their study that most lecturers lacked special training in handling students with disabilities even though they had first degree qualifications and even postgraduate degrees in Special Needs Education. If academics are to respond effectively to the needs of the visually impaired student, they will need to invest time in relevant staff development (Shepherd, 2001). As Vickerman and Blundell (2010) show, "Whilst equality legislation is an important part of the jigsaw, it is vital that this is matched by the education and training of higher education (HE) staff to respond proactively to the diverse needs of the disabled students they support" (p.28). On the issue of policies, citing the University of South Africa (UNISA), Zongozzi, (2022 argues that, "Although UNISA appears to have good disability policies in place, the problems mentioned so far seem to stem from poor

implementation of these policies" (p.1653). It is noteworthy however, that one of the five blind students interviewed was positive and stated that her lecturers were friendly and understanding.

Interaction with non-disabled students

One of the obstacles faced by people with disabilities in general and blind students in particular as shown in the results of this study is stigmatisation and isolation by abled people. The blind students in this study felt that their abled counterparts rejected them and did not want to associate with them. This rejection and isolation by non-disabled students was expressed as follows:

- *Some abled students do not like to form a group with a disabled student. They have negative perceptions that maybe we shall be a burden to them (BSD).*
- *The abled students do not easily fuse with disabled students. When lecturers require us to form groups, they isolate us (BSB).*
- *They don't want to help them. They say there are getting marks from something that they didn't work for (L3).*
- *All disabled students are side-lined by the able students. The able students do not want to create friendship with the disabled students (L1).*
- *The university is not good for the formation of diversity groups since students are not trained for this kind of formation (AS1).*

The rejection and isolation by abled students was expressed in cases where abled students did not want to form groups with students with disabilities when group work tasks were assigned. The sentiments from the blind students are echoed by the academic support staff (AS1) and the lecturers (L1 and L3). The argument for student training in issues of diversity suggested by one of the lecturers is indeed laudable.

Not all non-disabled students were labelled as having negative attitudes towards blind students. One blind student had not experienced any problems interacting with non-disabled students while one lecturer had witnessed cases of abled students assisting a blind student in her class:

- *I make friendships with my classmates. I do not have problems when it comes to formation of groups in the class (BSE).*
- *Yes, my students always assist the visually the impaired student, they always assist her with finding venues, with recording presentations for her and in case she doesn't come to class they always update her (L4).*

Such social stigmatisation, discrimination, isolation and stereotyping of disability can also contribute to depression and withdrawal of some students with disabilities (Tugli et al. 213). Fvazza et al. (2016) aver that, children with disabilities are among the world's most stigmatised and excluded population because of limited understanding and knowledge about persons with disabilities. Such stigmatisation and labelling, as the literature shows, might result in students concealing their disabilities where these are not easily visible. Yssel, Pak and Beilke (2016) found that one barrier was reluctance on the part of students to disclose their disabilities and be labelled. Citing Jacoby and Austin (2007), Vickerman and Blundell (2010) suggested that having a disability can increase the perception that they are devalued and stigmatised, and as such, this may be why some students were concerned about disclosure in case it results in negativity and lack of access.

A study by Lourens and Swartz (2016b) found that some partially sighted students, whose impairment was less obvious, went to great lengths to conceal their visual impairment in order to gain acceptance and inclusion into non-disabled peer groups. The fact that not all

abled students were labelled as having negative attitudes towards blind students shows that there are some students who are accommodating.

Academic Support from the Disability Unit

Results show that the Disability Unit was seen as a valuable resource centre for the blind students. Two students spoke positively about the Disability Unit. Factors external to the disability unit that negatively affected efforts to support blind students were identified by academic support staff:

- *The Disability Unit is the only accessible building in the campus. The staff is very helpful but the library staff are not competent enough to assist us (BSD).*
- *The Disability Unit staff are trying their level best but the staff is inadequate to cater for us effectively (BSB).*
- *As a unit we provide them with assistive devices on loan as soon as a challenge is identified. The problem is only their personal adapted devices that are purchased by their bursaries. You will find that the unit initiate the procurement process of assistive devices this year and they are only to be purchased two years later. Sometimes the devices are purchased when the student has dropped out or completed the degree (AS1).*
- *When the unit has secured some funds from Department of Higher Education for the improvement of its services, it becomes rocket science to release such funds. Something should be done to alleviate such delays (AS2).*

Timely provision of learning and teaching resources is critical for all students and even more critical for students with special needs such as blind students who do not have alternative access to learning without such resources. Procurement delays as identified by the academic support staff have to be rectified to promote equity of outcomes for blind students. All lecturers were not sure of the provision of devices because this responsibility was vested in the Disability Unit.

One student had issues with the operating hours of the Disability Unit. Unlike the university library that closed in the evening, the Disability Unit closed early leaving these students without access to adapted resources as shown in this response:

- *The main challenge happens after the Disability Unit is locked when the admin staff go home because we will not have access to the adapted lab. There are no internet cables in the hostels. If installed, we will be able to access the network licensed Job Access with Speech (JAWS), the screen reading software (BSE).*

This lack of after-working-hours access could be because of the reported shortage of staff in the unit. Such staff shortages are not peculiar only to this institution. Naidoo (2010) also reported that lack of permanent staff at the DU at the University of KwaZulu-Natal resulted in delays in students receiving study and examination related materials. While according to Tugli et al. (2013) the philosophy behind establishing the DUs is to promote the equal participation of people with disabilities in all spheres of university life, it appears from the results that at the university under study, blind students had no access once Disability Unit staff left at the end of their normal working day. Lack of 'after-working hours' access seems novel and peculiar to this study as such a concern could not be found in the literature reviewed.

Blind students received disability grants, which they used to procure laptops for their studies. The students, however, lamented the lack of internet services in the residences, which rendered their devices useless as shown in these responses:

- *There is no internet access in the residence (BSA).*

- *From 2010 we were given laptops that cannot access internet as there is no WIFI in the campus (BSC).*
- *AS1 No. there are no adapted labs in the residence. Visually impaired students have to travel to the library to study in the evening. The university should build labs that are adapted. This will help students not to travel long distances at night.*

This calls for the need for planning for an after-hours service for these blind students. A shift system could be introduced or alternatively arrangement could be made to have a security officer man the Disability Unit adapted lab after working hours. The university could also consider installing WIFI in residences as the students lamented the lack of internet services in the residences, which rendered their laptop devices useless in accessing information. Alternatively, accessible computers should be made available in the usual computer rooms that the general student population uses so that students with disabilities can access these after the disability unit has closed.

It was worrying to note that three out of the four lecturers had not bothered to check what conditions were like in the residences for blind students as they either were not sure or confessed to never having been to student residences.

Academic Support from the Library

Two of the students, as shown in the verbatim quotes below, felt the library was not conducive enough for them citing lack of resources and moody unapproachable staff:
- *There are no electronic or Braille books in the library. As from 2013, an adapted lab was established but still running short of important tools such as Pearl reading cameras, IPAL solo standalone reading device and many more (BSA).*
- *In the library, they have a school representative who assists me whenever I am looking for references but the staff members are often moody and unapproachable. There are no electronic books (BSE).*
- *The library is very good inside because there is a ground floor where the blind students can walk freely and have access of computers and internet (L3).*
- *The lab for disabled students in the library is too small with little resources (AS1).*
- *Blind students need a dedicated human support. Blind students need someone to direct them in the library (AS2).*

While lecturers viewed the availability of an adapted computer laboratory section in the library as adequate, academic support staff felt the adapted section could be enlarged. In unison with students, as shown in the responses, academic support staff felt resources for blind students in the library were inadequate. Close collaboration between the library and the Disability Unit could be one way in which adapted resources could be incorporated into the library budget.

Students with disabilities, including blind students, like any students need access to library resources to complete assigned tasks. Although an adapted lab had been built in the library, it had not been equipped with requisite resources. It should be noted that there was dearth of literature relating specifically to blind students. Studies reviewed referred generically to visually impaired students who would include partially sighted students. This study therefore, contributes to the debate by foregrounding the plight of totally blind students. A study exploring the use of the library by visually impaired students (Sehić & Faletar, 2014) found that in most cases, these students visited libraries only after all other options had been exhausted because their experience had taught them that their academic libraries did not possess adequate technology and resources needed for their studies. In this regard, Eskay and Chima (2013) assert that the education system in developing countries not fully embraced or adopted the technology associated with special library services for the visually impaired

students. This is evidenced in the lack of production and distribution facilities for reading materials for these students.

Ekwelem (2013) advises that as more people with disabilities attend higher education institutions, it is incumbent upon library management to provide the same level of service to them as is provided to users without disabilities. In the current case study, close collaboration between the library and the Disability Unit could be one way in which adapted resources can be incorporated into the library budget. With regard to attitude of library staff, while this study found that some library staff were moody and unapproachable, in contrast, a study by Sehić and Faletar (2014) found that students were treated with respect by library staff and did not discriminate against them. The students added that library staff were open, helpful and in most cases, available to spare some extra time for blind students. The issue of context could also be a contributing factor as there was a dearth of literature on blind students in higher education from rural contexts of Africa.

Conclusions and Recommendations

It can be concluded from the results of this study that considerable strides have been made towards accommodating the needs of students with disabilities in line with the social model of disability-both in relation to inclusive policy legislation in South Africa and efforts by the Disability Unit at this university. Tenets of the medical model can however still be seen in the lack of adequate institutional arrangements around universal design and in the way lecturers and students without disabilities treat students with disabilities.

The study found that reasonable accommodation was not provided for blind students in the lecture halls at the university under study as study materials in the library were not properly adapted, computers in the university library and mainstream computer laboratories were not accessible to blind students and lecturers were not trained to teach blind students. Some lecturers used PowerPoint presentations while teaching when blind students could not access the screens. The study recommends universal design for all learning facilities which, according to UNCRPD (2006) means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design. Adapted computers should be made available in the usual computer rooms that the general student population uses so that students with disabilities can access these after the disability unit has closed for the day.

The study further recommends thorough training for all staff on teaching students with various disabilities. A short term recommendation offered while the university is still looking for resources to hire more staff is that a shift system be introduced or alternatively, arrangements be made to have a security officer stationed at the adapted lab after working hours. The university should also consider installing WIFI in the residences. In addition, it is recommended that the Disability Unit, the lecturers and the examinations department need to liaise with each other to ensure that all examinations have been adapted for disabled students before the examination date.

The study further recommends improvement in the university's procurement processes to ensure that all students in general and blind students in particular receive the requisite resources needed for learning and teaching on time.

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