Access constraints experienced by physically disabled students at a South African higher education institution

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Abstract

Current developments in government law and policies have created the hope that people living with a disability will enjoy the same rights and privileges as the non-disabled. Unfortunately, only 2.8% of disabled persons have access to higher education. The aim of this study was to determine if a group of students, living with a physical disability, experienced constraints with regard to access to a South African higher education institution. This study, following a two-phase sequential mixed method approach, consisted of a questionnaire survey, a focus group discussion, and individual interviews. It was found that students living with a physical disability experienced constraints relating to the accessibility of the relevant higher education institution. Since access constraints affect the lives of students living with a disability, it is necessary to provide guidelines to universities on how to address these challenges.

Keywords: Access constraints, Students with disabilities, Higher education institutions.

Introduction

Though there has been a rise in the number of disabled students entering higher education internationally (Hadjikakou and Hartus 2008, 103), students with impairments are often denied the privilege of higher education. In South Africa only 2.8% of disabled persons have access to higher education, and about 30% of disabled persons have no education at all (Statistics South Africa, 2005). With respect to the level of education, disabled persons aged between 18 and 20 years were, on average, 7% less educated than non-disabled persons (Statistics South Africa, 2005).

Education statistics in South Africa (Department of Education, 2010) indicate that 799 387 students were enrolled in public higher education institutions in 2008. In May 2010, the relevant higher education institution had 0.8% students who were identified as being disabled, and the remaining 99.2% as having no disabilities.

To enable learners with impairments to apply for higher education, institutions must have adequate enabling mechanisms in place to provide access and additional support to students with impairments where needed (Department of Education, 1998).

Both the South African Constitution (Republic of South Africa, 1996) and the INDS (Office of the Deputy President, 1997) provide the basis for the way disability issues and the rights of disabled people are understood and addressed in the legislative and policy framework in South Africa. Organisations are required to take active steps to address the disadvantages experienced by people with disabilities and to accommodate and provide access to services and facilities. The question arises whether educational institutions provide adequate access to students with disabilities, and how disabled students experience access constraints.

The problem that was investigated in this study was that very limited information is available on the possible constraints that a group of physically (mobile) impaired students

may experience to gain access to the relevant higher education institution's facilities. The initial study focused on visually and mobility impaired students, as the prevalence of visual and physical impairments are among the highest in South Africa (Statistics South Africa, 2003). The focus in this article is on mobility impaired students only.

The purpose of the study presented in this article was to determine whether a group of physically impaired students experienced constraints with regard to access of the facilities at a South African university. A two-phase, sequential mixed method (quantitative and qualitative) design was followed in conducting a questionnaire survey, a focus group discussion, and individual interviews with participants to determine possible access constraints.

Sustained by our research, this article not only provides insight into the constraints experienced by physically impaired students, but also provides guidelines for the university (and any other higher education institution) on how to overcome the constraints.

Physically disabled students (mobility)

According to Clark (2007), accessibility has improved considerably during the past decade through the use of automatic doors, ramps, and lifts for those with restricted mobility.

However, it appears that some doors are still not wide enough for electric wheel chairs or to allow access to auditoria and laboratories.

It is thus clear that physically disabled students may experience a variety of constraints. These constraints are discussed through a literature review in the sub-sections that follow.

Physical accessibility constraints

Pierce (1998) found that one of the commonest complaints of physically disabled people was the inaccessibility of the environment caused by architectural barriers. A lack of accessibility

to services within a community prevents functional independence and full social integration for physically disabled persons (McClain, Cram, Wood and Taylor 1998). Losinsky, Levi, Saffey and Jelsma (2003) found that difficulty in accessing educational institutions, in particular, disadvantages individuals with a disability as it limits their chances of developing their employment potential. Shevlin, Kenny and McNeela (2004) indicated that participants encountered access difficulties at every level of university life. A systematic survey of disabled and non-disabled students conducted by Madriaga, Hanson, Heaton, Kay, Newitt and Walker (2010) found that more students with disabilities identified greater difficulties in gaining physical access into university buildings in the UK. Tinklin and Hall (1999), Borland and James (1999) and Holloway (2001) reported that difficult physical access constituted a major obstacle to participation at university for students with disabilities despite the notion that difficulties faced by students with physical and sensory impairments are the most amendable.

Service information constraints

Student's perceptions of support vary according to the institution attended and the subject studied (Fuller, Riddel and Weedon, 2009). Goode (2007) found that despite the implementation of a disability action plan at a British university, students were actively managing their identities and disabilities and struggling with issues such as disclosure and the tensions associated with highlighting their particular needs. The participants of Holloway (2001) were frustrated by the lack of a coordinated approach to assist them and the amounts of time spend seeking support and extra provisions for themselves because of their impairment.

Hill (1992) surveyed the offices of students with disabilities at 27 Canadian universities. She commented that problems persist in the following areas: identifying those students who require special services, making students aware of the services, and developing

fair and equitable admission policies. A few years later, Haller (2006) conducted an inquiry into information on disability-related topics that universities provide in their general recruitment materials, as well as into their services and information on disability service materials.

In addition, Fuller, Healey, Bradley and Hall (2004) and Dowrick, Anderson, Heyer and Acosta (2005) noted that students with impairments had difficulty in finding out about available advice and support for learning and assessment. They also recommended that student support services should provide more information and greater outreach to students. These students with disabilities explain that although their disability had been disclosed, there was no mechanism in place within the institution for the information to be provided routinely to student support services. Even when disabled students are given support, they often remain disempowered and marginalised (Holloway, 2001).

Fuller et al. (2004) also noted that, together with these constraints, it is the attitudes of students with disabilities that play an influential role in their access and participation.

Attitudinal constraints

Kennedy (2000:17, cited in Haller 2006) argues that attitudinal barriers are considered much worse than architectural barriers: "They might put a ramp to a stage of the theatre, but their policy doesn`t allows students with mobility impairments to audition for a play." Furthermore, Collins (2002, cited in Shevlin et al., 2004) reported that students with impairments identified attitudinal issues as the most significant barrier to progress. Negative attitudes towards students with disabilities may result in low acceptance of peers, few friendships, loneliness and even being rejected or bullied and this can have dramatic effects on the lives of students with disabilities (De Boer, Pijl and Minnaert, 2012).

Students with disabilities were faced by a variety of responses from academic staff, ranging from helpful to unsupportive, as described by Holloway (2001) and Tinklin and Hall

(1999). Shevlin et al. (2004) reported that positive staff attitudes were reflected because of a personal interest in disability issues rather than because of institutional training or policies. These authors also state that even in the same university, levels of awareness varied considerably between departments and that this reflected the lack of embedding of institutional support for students with disabilities. Negative attitudes of faculty and administrative staff may furthermore prevent students from disclosing their disabilities and from requesting accommodations they are entitled to (Jung, 2003; Johnson, 2006).

It is expected that in South Africa support from academic staff will be wide-ranging, depending on their mind-set towards disabled students.

In higher education institutions, the attitude of academic staff towards a student with a disability plays a significant role in the students' studies, especially when it comes to educational support.

Educational support constraints

Assistive technology and faculty mentors were considered important elements of support in higher education in the studies of Fuller et al. (2004), Dowrick et al. (2005) and Shevlin et al. (2004). Furthermore, the importance of student disability services to improve coordination across support services emerged: "students repeatedly mentioned individual counsellors or staff who offered support" (Dowrick et al., 2005, 43). Although disability support providers offered students a precious link to the university`s services, students preferred individualised support services. They indicated that higher support service providers should focus on each individual's need rather than on a strategy according to the nature of disability (Dowrick et al., 2005). These findings are confirmed by Brandt (2011) who noted that students argued that direct contact would give students the chance to make their needs visible and to voice their opinions about what they are being offered at the higher education institution. Students

suggested that students, faculty members and the leaders in the higher education institution have a discussion over lunch once a month.

Financial constraints

According to the World Health Organization (WHO), 80% of disabled people in the world live in low-income countries, with the majority being poor and having no access to basic services, including rehabilitation facilities (WHO, 2003). On the African continent, it is estimated that only between 1 and 2% of the disabled people have access to rehabilitation, care, and education services, which makes disability a life-and-death issue. These inequalities are perpetuated by the failure of most African governments – including that of South Africa – to provide essential services for disabled people (Secretariat of the African Decade of Disabled Persons 2001). Though students with disabilities received financial support from the National Student Financial Aid Scheme of South Africa (NSFAS) and the higher education institution, this support is not sufficient and most students still need a job to support themselves while studying (Ugreninov and Vaage, 2006).

Other relevant access constraints

Physical impairments can affect students in various ways in specific psychological, academic, and social environments (Chiriboga, 2007), for example:

- Psychological problems – Students with disabilities face high levels of stress as they begin to understand their impairment and how it will influence their future. Fear, anger, and uncertainty are common reactions, and can result in psychological disorders, such as depression, low self-esteem, and anxiety.

- Academic problems – Students with disabilities are likely to demonstrate a decreased level of academic achievement and have a more difficult time. Limited time to study due to medical appointments, treatment side effects, and physical limitations may cause them to struggle academically.

- Social problems – People with disabilities are confronted with prejudices that make integration more difficult at work, at school and in the public realm (Keller and Siegrist, 2010). Papasotiriou and Windle (2012) reported that their participants had fairly limited social interactions at university. This was due to subtle forms of exclusion related to attitudes towards disability, while 'chosen' indifferences to peers also emerged (Papasotiriou and Windle 2012, 939). Other barriers to social connections are connected to physical restriction (Papasotiriou and Windle, 2012). These students often have fewer opportunities to socialise with their peers because of time away from campus. Without peer interaction, they could fail to develop appropriate social skills, thus making them less appealing to their peers.

Higher education institutions in South Africa and in the rest of the world should be aware that students with mobility impairments experience possible psychological, academic, and social problems in addition to the obvious physical effects. Accommodations and interventions might be necessary within the environment to create a satisfactory and positive academic experience for students with disabilities.

Research Method

In the inquiry a sequential mixed-methods explanatory approached was followed in which the researcher applied the quantitative and qualitative methods where they complement each other and allow for a more complete analysis while gaining an in-depth understanding of the access constraints experienced by physically disabled students.

Research approach and design

The researchers agree with Creswell (2007) who acknowledges that the most often used designs include the mixed methods sequential explanatory design. The purpose of this design is to use the qualitative findings to help clarify the quantitative results and this was indeed what the researcher aimed to do. The quantitative results provide a general picture of the

answers to the research problem, while the qualitative results refine, explain or extend the general picture.

In this approach, the limited availability of the participants for interpersonal contact with the researcher rendered self-administered questionnaires the most viable method to gather data. The second research method, in which a qualitative approach was used, was more interpretive in nature, thus allowing for a greater in-depth understanding of the participants' experiences.

Data collection and sampling of participants

The target population comprised 129 registered visually and mobility disabled students (living in Tshwane) registered for 2010 at the relevant higher education institution.

A purposive sample (Hagan, 2006) was used and the participants had to meet the following criteria to be included in the sample:

- They must be representative of different study fields, including Humanities, Law, Economics and Science Management, and Engineering.

- They must present a physical disability, for example, quadriplegics, paraplegics, and cerebral palsy.

- They must live in the Tshwane district, to be easily available and approachable for the focus group discussion and interviews.

Normally, researchers in quantitative research are very concerned with probability sampling, whereby the sample is selected in such a way that it will mathematically represent subgroups of large populations (Shaughnessy, 2008; Vito, Kunselman and Tewksbury, 2008). However, because of constraints in the research conditions, we could not select probability samples used in large-scale surveys, and the research relied more on the qualitative than quantitative research method. Therefore, we applied non-probability sampling. A

combination of purposive and convenience sampling was applied as the most appropriate sampling methods (Babbie and Mouton, 2006).

Twenty-three students participated in the quantitative research by completing the questionnaire. In addition to the quantitative research method, the qualitative research method was also implemented to form part of a two-phase sequential research design. For the qualitative approach, the research was conducted on a sub-sample of the quantitative research sample where 12 students presented their detail and confirmed their willingness to participate in the follow-up qualitative research phase. A focus group discussion with the 12 students and eight individual follow-up individual interviews were conducted with them. The primary purpose of the qualitative phase was to gain greater in-depth understanding of the access constraints experienced by students living with a physical disability.

Data analysis

The research instruments included both closed- and open-ended questions. The closed-ended questions drew on 'yes' and 'no' answers and on the quantity of proportions, and were therefore descriptively analysed. The open-ended questions were analysed according to themes by using inductive techniques.

The qualitative data gathered from the focus group discussion and individual interviews were analysed by making use of ATLAS.ti which is a code-based theory-builder designed to become an extension of the researcher herself (Babbie and Mouton, 2006). ATLAS.ti supports content analysis and grounded theory so, so a combination of these two methods was used in this research. Archer (2008, 4) states that ATLAS.ti allows for the analysis of textual, graphical and audio data, and Willig (2001, 151) describes ATLAS.ti as moving beyond mere coding and retrieval.

Ethical considerations

Researchers in the social sciences have an ethical obligation to their colleagues, their study population and the larger society (Berg 2009, 60).

Before conducting the research the researcher obtained written permission for conducting the study from the dean of students of the relevant institution. The participants were informed about the nature of the research and the responsibilities of the parties involved as well as the research procedure to be followed.

During this study, the researcher endeavoured at all times to be honest, respectful and sympathetic towards all the participants. In the consent letters, the researcher explained the purpose of the research study and informed the participants that some of the questions would be sensitive and personal and possibly make them feel uncomfortable. The participants were also informed about their right to refuse to answer questions at any time, without any penalty or loss of benefits involved.

In the focus group discussion, the participants were informed that they should keep all the information that was discussed confidential. However, the researcher could not guarantee that all the participants would honour their commitment. All other information and responses of the participants shared during the study were kept private and the results were presented anonymously in order to protect the identities of the participants.

Limitations of the study

Several limitations were encountered in the course of the study. The sensitive nature of the topic could have been one of the reasons why some students declined the invitation to participate. Also, attendance of the focus group discussion was restricted on account of the physical difficulty of gaining access to the institution's campus.

Students could find it difficult to attend a focus group discussion and interviews because these are sometimes time-consuming or the arrangements can be arduous. To counter

these limitations, we relied on the students' willingness to participate, but also explained the importance of the study to them and informed them that the results would assist the institution to overcome accessibility barriers.

An unavoidable obstacle was the actual time that it took to collect the data. As the data collection process involved three methods, namely self-administered questionnaires, a focus group discussion, and individual interviews, the research took seven months to complete. The whole research process was time consuming, as we first needed to analyse the questionnaire data. We also transcribed the focus group discussions and individual interviews, and became conversant with the qualitative analysis software package, ATLASti.

Findings and discussion

The different categories of constraints and the number of constraints that were experienced by the participants are presented in Table I as observed from the questionnaire (QS), focus group (FG), and individual interviews (II).

Table I: Number of constraints experienced

CONSTRAINTS EXPERIENCED	QS	FG	II	TOTAL
Architectural access barriers	18	3	2	23
Library constraints	4	1	4	9
Parking access constraints	5	0	3	8
Requesting annual medical certificate	0	4	2	6

QS=Questionnaire survey FG= Focus group II= Individual interviews

Architectural access constraints

Table I shows that most constraints (n=23) are associated with the architectural environment, which comprises almost 40% of the constraints. These results are supported by results from a

study conducted by Pierce (1998) who found that the most common complaints regarding inaccessible environments were related to the architectural environment.

McClain et al. (1998) discovered that a lack of accessibility to services within a community prevents functional independence and hinders the full social integration of physically disabled persons into society. In addition, Losinsky et al. (2003, 305) found that, in particular, difficulty accessing educational institutions disadvantages those with impairments, as it limits their chances of educational opportunities and thus the development of their employment potential.

The following quotes confirm the architectural constraints identified in the questionnaire:

"Entrances to buildings, Heavy doors, Toilets for disabled Counters, taps, etc. that are too high."

"Steepness of ramps. These are difficult to go up and often require assistance."

"Outside ramps and walk ways are not always in a good state of repair and have holes in them which we cannot get around, try and push yourself over grass in a wheelchair."

"The campus is too big for someone rolling around on a wheelchair."

"The hill -top makes accessibility difficult, accessing the buildings."

"The whole environment is difficult to access."

The following quotes confirm the architectural constraints identified in the follow-up individual interviews:

"The doors, they are not easy accessible, because when I open the door I have to move back."

"… the floor is very uneven and it is very uncomfortable pushing yourself going under, it is very bumpy, very uncomfortable …"

The following architectural constraint is very important as it was identified through the focus group discussion and confirmed by all participants:

"The uphill, the doors, the stairs."

Library constraints

Constraints relating to the library were identified during all three data gathering methods. The research findings reported by Tinklin and Hall (1999) support the finding of our study that the relevant higher education institution offered limited library access for disabled students.

One of the key findings in Fuller et al. (2004) was that 21% respondents reported barriers to using libraries.

The following quotes confirm the library problem identified in the questionnaire:

"The Library is difficult because I have to wait for the security guard to open the wider door for me, while other students are staring wondering why I get special treatment."

"Library - The stairs are impossible with a wheelchair and to get access to go through the offices to the library is not easy."

The following quotes confirm the library problem identified in the follow-up interviews:

"Access to the library is a nightmare."

The following quote confirms the library problem identified in the focus group discussion:

"The library is full during 8:30 or 9 o'clock so for me as physically challenged when I get there, because I get there I have to ask the security to open the library for me but they cannot open because the library is already full as the library can accommodate only 500 students at a time.

Parking access constraint

More than 10% of the identified constraints are associated with parking. This finding supports the results of a study described in Shevlin et al. (2004), in which students with disabilities described accommodation and transport issues as complex, and the transport as often inadequate. Parking on campus is often indicated as problematic for students with

disabilities, often there are not enough accessible spaces, or they are far from the buildings. Moreover, when construction projects take place, students with mobility difficulties find it challenging to navigate around the building sites and find an accessible route. The limited availability and accessibility of parking accommodation, both on and off campus, make the students more dependent for their transport on family members and peers.

The following quote confirms the parking constraints identified in the questionnaire data:

"Parking of able-bodied persons parking in disabled allocated parking bays.

The following quotes confirm the parking constraints identified in the follow-up individual interviews:

"Most of the time and sometimes it is very difficult to find parking around the university and then that parking is also not well suited for people on wheelchairs because one it is not even, so where you park your wheelchair can just run away from you, it is quite steep."

"It is for me very difficult to park. The escalators to the library have not been working for the last three years, and there is no parking. I have to park at the building opposite the library that is if parking is available".

Requesting annual medical certificates as a constraint

It is noticeable that approximately 80% of disabled people in the world live in low-income countries, with the majority being poor and having no access to basic services, including rehabilitation facilities (WHO, 2003). Keeping this in mind, students have reason to be frustrated about the university requesting medical certificates every year instead of a once-off obligation. This annual submitting of medical certificates causes unnecessary financial expenses that the students regarded as avoidable.

Some students commented on this issue in the follow-up interview:

"The only snag is that every time prior to the exams you have to submit that application, yet in my forms I am indicated that I have a disability and given the record

that they have of my profile, for me it should automatically tell the university that this

is a permanent disability."

"There are cost implications, for those who do not have a medical aid you have to pay

out of your pocket and given that disability do not come cheap."

The following quote confirms the medical certificate problem identified in the focus

group discussion:

"It is about a bursary, the bursary requirements; proof of ID is there, proof of pay slips,

salary slips, medical certificate, and proof of disability. It worries me; the proof of

disability worries me. Why, because each and every year when I apply for the bursary

it needs the proof of disability, meaning that did I ever change or will I ever change to

be a normal person again, I am this way and I will remain this way continuously."

Our results indicate that physically disabled students do experience access constraints.

These constraints could be eased with some minor changes, for example by raising awareness

among security guards to assist disabled students the moment they arrive on campus. In the

following sections, we suggest guidelines that could help alleviate the problems in each area.

Recommendations for implementation by the organisation

As Isaac, Raja and Ravanan (2010) claim, efforts to alleviate poverty and disability need to

be implemented at several levels. They furthermore suggest that constraints can only be

removed through the intensive and integrated effort of government, corporations, NGOs and

educational institutions. The following guidelines are provided to address the main access

constraints at the higher education institution where the research was conducted:

Architectural access

Architectural access problems are the most important access problems experienced by mobile

disabled students. The university is located on the slope of a mountain, and will remain

dangerous for wheelchair user students. However, it is suggested that the university

encourage students with disabilities to attend another campus and arrange transport for them

to the main campus. It is further suggested that the university bring about changes that will enable students with disabilities to move in and out of buildings safely and independently. They must be able to access the bathrooms, cafeterias, classrooms, and other areas of the university and community.

The university could make some minor adjustments as indicated below. Such improvements would improve accessibility vastly:

- Release some of the springs on heavy doors.

- Ensure that door and lift door sensors are working correctly, and so open properly for disabled students.

- Provide ramps in various halls, as no wheelchair-bound person likes to be carried around.

- Widen the toilets and doors that are not wide enough for a physically disabled person to manoeuvre through.

Library

The University is committed to serving their students and is ready to tackle issues around accessibility. As a result, the university launched two "libraries on wheels" during November 2010. This is the first academic library in Sub-Saharan Africa to introduce mobile services to its clients. The mobile libraries will take the library to its clients in remote areas in Limpopo and Cape Coastal regions. The mobile libraries provide essential reading materials to students, however remote their location. The mobile libraries are fully equipped with selected book collections, future satellite communication facilities, and computers to access prescribed and recommended articles, including over 30 000 e-books, 70 000 e-journals, 300 electronic databases, as well as electronic reserve materials. Though this effort showed much commitment to students in remote areas, the university intends taking it to all regions.

Parking

The limited disabled parking is still a constraint that needs urgent attention. Most of the parking areas are reserved for the institution's disabled employees. To convert ordinary parking to disabled parking the bay needs to be wide enough for the disabled person, and it should be marked as a disabled parking area.

Medical certificates

Students appear to find it difficult to comply with the university`s requirement of submitting a medical certificate every year, mainly for financial reasons. A fully equipped clinic, with relevant staff, is available on campus. The university should consider arranging appointments for students with disabilities so that they can obtain their medical certificates from the clinic. However, before the university can consider this, they first need to pay attention to the clinic`s accessibility.

Conclusion

All the constraints described in this article have a direct influence on the way students experience the campus and their studies. It is therefore critical that a university carefully considers each of these factors when trying to accommodate a student with a physical disability. In addition to investigating these constraints, we have provided guidelines on how the relevant university might overcome the constraints that students with a physically disability experience. There is a need to listen to and act upon the experiences of disabled students to make higher education institutions truly inclusive (Healey et al. 2006). Most of these implementation guidelines provided should also be relevant to other higher education institutions. Magnus (2009) asserts that there is a lack of tradition in higher education for accommodating disabled students. Higher education institutions need to consider modifications to the learning environment and become more aware of how they deal with disabled students.

Recommendations for future research

Higher education institutions still need to do much research to improve conditions for physical disabled students and to ensure their successful graduation. Further research could focus more on a wider range of students living with a disability, and among various higher education institutions. Future research could also attempt to create a model for accommodating students with disabilities successfully. This would not only have a positive effect on the ability of disabled students to improve their opportunities in life, but will contribute significantly and meaningfully to the broader agenda of social and economic development in South Africa.

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