

## RESEARCH

# Experiences of Students with Disabilities in Inaccessible Built Environments: A Case Study of a Student with Mobility Impairment in a University in Ghana

Eric Tudzi, John Bugri and Anthony Danso

Kwame Nkrumah University of Science and Technology, GH

Corresponding author: Eric Tudzi ([erictudzi@yahoo.com](mailto:erictudzi@yahoo.com))

Using the intrinsic case study approach, this study sought to find out the experiences of a female student with rare mobility challenges and how her specific needs were being met in a university in Ghana. The Convention on the Rights of Persons with Disabilities stipulates that lack of the provision of reasonable accommodation is discriminatory. However, not much is known on this issue in the higher education setting in Africa regarding accessibility in the built environment. The study aimed to help fill this gap. It involved the use of semi-structured interviews in 2015 and 2016. Content analysis was used for the data. The study concluded that where there were unique accessibility challenges, it was inappropriate to leave the specific needs of a student with disability to the discretion of individuals. It recommends attitudinal change and institutionalising reasonable accommodation in the university.

**Keywords:** reasonable accommodation; higher education institutions; inaccessible built environment; students with disabilities; Africa; Ghana

## Introduction

The right to education has been internationally recognised as an overarching right. It is a human right in itself and is also indispensable for the exercise of other human rights (UNESCO 2015). Persons with disabilities (PwDs) have limited access to education in Africa because of structural and other social barriers (Oyaro 2015). The challenges faced by them with respect to the built environment are also manifest at the higher education level in African countries like Botswana (Fidzani et al. 2013), Uganda (Emong & Eron 2016), Tanzania (Matonya 2016) and Ghana (Tudzi, Bugri & Danso 2017). The context of these studies dealt with physical accessibility. This implies the need for the provision of accessible built environments to ensure that PwDs have equal, non-discriminatory and inclusive access to education. Furthermore, there is a need for the provision of reasonable accommodation to meet the specific needs of PwDs in environments that are manifestly inaccessible to PwDs. As Morley and Leach (2010) reported, students with disabilities although proud of their achievements against all odds, have difficulties accessing the built environment.

Accessibility may involve taking measures to guarantee access on an equal basis to the physical environment by PwDs as persons without disabilities (United Nations 2006). While accessibility standards seek to address the general needs of PwDs, reasonable accommodation addresses the specific and relevant needs of the individual with disability to enable him or her to enjoy his or her right in a particular setting or context (Degener 2016). Reasonable accommodation refers to the necessary and appropriate modification and adjustments, where needed in a particular case, to ensure PwDs the enjoyment or exercise of all human rights and fundamental freedoms (United Nations 2006). The concept of reasonable accommodation has been given varied terminologies, including reasonable adjustments, adaptations or measures and effective or suitable modifications (Department of Economic and Social Affairs 2005). Reasonable accommodation is manifested in various ways, including seeing to medical expenses (Kothari 2010), adjustments in teaching times (American Association of University Professors 2012) and changes in the physical environment (Harvard Law Review Association 2013). It could also involve adjustments in teaching, learning and assessments, or access to adaptive technology (Kendall 2016). The Independent Monitoring Mechanism of New Zealand (IMM n.d.) notes that interpretation of what constitutes reasonable accommodation is still evolving internationally and that the need for its provision should be considered on a case by case basis. This means to make a change that is reasonable to accommodate the need of a particular PwD. However, the change desired should be seen to be needed, not too difficult to make and not cost-prohibitive. The Convention on the Rights of Persons with Disabilities (United Nations, 2006) makes the provision of reasonable accommodation mandatory in the sphere of education for PwDs. Indeed, it is considered

discriminatory if an individual is denied reasonable accommodation. It is required of a would-be discriminator to take disability into account and to afford a degree of reasonable accommodation to ensure that the rights of the PwD can be made tangible (Quinn & Flynn 2012). A reasonable accommodation is an alteration to some element of the status quo that is intended to enable a PwD to participate in higher education among others to the same extent as those without disabilities (Harvard Law Review Association 2013).

The literature on the subject of reasonable accommodation is predominantly on developed countries like Japan, the United States (Hasegawa 2015) and EU member states (Heckl & Pecher 2008; Ferri & Lawson 2016), which are known to have made provisions for reasonable accommodation in their legal and regulatory frameworks. However, much of the literature on disability access in developing countries like Ghana does not address the issue. This paper seeks to help fill this gap, focusing on an individual's experiences in a higher education institution. Palmer and Williams (2017) noted that disability laws in developed and developing countries tend to differ by way of emphasis, alluding to the extent to which reasonable accommodation is provided for in the former. Though their study was on a developing country, the focus was more on the employment sector. The current study addresses the issue from the educational setting.

Article 9 of the Convention on the Rights of Persons with Disabilities (CRPD) notes that there is the need to identify and eliminate obstacles and barriers to accessibility in and around buildings, roads, facilities and schools. Article 24 which addresses the education of PwDs goes further to state that,

'States Parties shall ensure that persons with disabilities are able to access general tertiary education... without discrimination and on an equal basis with others. To this end, States Parties shall ensure that reasonable accommodation is provided to persons with disabilities.'

Since Ghana is a party to this international protocol, it is expedient that the country is seen to be upholding the provisions of the Convention.

Ghana is located in West Africa, and gained its independence in 1957. It is currently governed by its Fourth Republican Constitution which was enacted in 1992. According to its last population census, out of a population of 24,658,823 recorded, 737,743 were PwDs (GSS 2012: 12). This number could be higher because the census data captured only certain specific categories of PwDs (GSS 2012: xiii). Physical challenges (25.4%) were the second commonest type of disability after visual impairments (40.1%) (GSS 2013: 308). There were also more females (52.5%) than males (47.5%) with some form of disability (GSS 2012: 12). According to the World Health Organization (WHO 2017) about 15% people worldwide have disability and about 80 percent live in developing countries (UNDP 2014); this includes Ghana.

Ghana ratified the CRPD in 2012. It is accordingly enjoined by Article 4 to ensure non-discrimination and inclusive and equitable educational settings in the country, and also to provide reasonable accommodation to individuals. Ghana is party to international conventions that seek to protect the rights of PwDs like the African (Banjul) Charter on Human and Peoples' Rights (ACHPR) (1981), African Charter on the Rights and Welfare of the Child (1990), African Youth Charter (2006), Convention on the Rights of the Child (CRC) (1989) and the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (2003). Apart from its main law on disability (Persons with Disability Act 2006, Act 715), it also has other local laws such as the Children's Act 1998 (Act 560), Labour Act, 2003 (Act 651) and National Health Insurance Act 2012 (Act 852), which have sections that seek to protect some rights of PwDs. The country also has a National Disability Policy that aims to ensure the active participation of PwDs in the national development process by 2020 through equalisation of opportunities that will improve the quality of life of PwDs (GSS 2014: 15). This includes higher education for PwDs. The country's Constitution also guarantees the fundamental human rights of all persons, including PwDs, in Chapter Five. Furthermore, the state has an accessibility standard (GSA 2016) to help dictate how the built environment ought to be accessible to PwDs. Irrespective of these, the data on education regarding PwDs is not very encouraging. There is a low investment in the development of the human resources of PwDs as evidenced in the comparatively low level of educational attainment among PwDs compared with non-PwDs (GSS 2013: 335). Four out of ten PwDs who are 3 years or older have no formal education (GSS 2014: 29); and only 1.4% of PwDs have a bachelor or postgraduate level education (GSS 2014: 30). Act 715 also demands that within 10 years of its passage all places and services accessed by the general public should be made accessible to PwDs. However, the evidence after a decade of the passage of the law is far from expectation in some universities that were studied in Ghana (Tudzi et al. 2017).

Although disability and education are human rights issues (WHO 2011), the socio-cultural context in which disability is seen in Ghana has also been a debilitating factor. Disability has been associated with evil and the supernatural by many people. Hence addressing it in the context of human rights has not been that simple (Gyamfi 2014; GSS 2014). However, students with disabilities' rights to accessible built environments in universities need to be guaranteed. Unlike places like the United Kingdom, where the laws stipulate that universities should provide reasonable accommodation to students (Kendall 2016), the local laws in Ghana are not explicit on the provision of reasonable accommodation, although the CRPD is clear on that. Since Act 715 was passed in the same year as the CRPD, it is not surprising that the phrase 'reasonable accommodation' was not captured in the former. There has also been no new law in Ghana that specifically addresses the issue of reasonable accommodation. Although the phrase is not captured, the legal regime in Ghana allows for the enforcement of provisions of international conventions ratified by the state (Gyamfi

2014). Therefore, this study sought to find out about the experiences of a female student and the extent to which this provision in the CRPD was being met. The research methodology comes next, and is followed by the findings, discussions, recommendations and then the conclusion.

## Methodology

### *Data collection and related procedures*

The design employed for the study was qualitative and adopted the intrinsic case study approach (Stake 1995; Baxter & Jack 2008). The subject was a single female university student with severe ambulant challenges. She was of primary interest to the researchers to learn about her particular case as a student in a built environment that had accessibility challenges. The intrinsic case study type was used to better understand the case. The purpose was to 'catch the complexity of a single case' (Stake 1995: xi) and garner the needed understanding within the very important setting of higher education. To aspire to reach a higher education level is a great feat. It was, therefore, necessary to learn from her experiences. According to Yin (2018), unusual single case studies can be invaluable.

Hers was a rare type of disability with much complexity. It was not a regular occurrence in the university. The subject had to constantly depend on other persons to be able to move around even though she had a wheelchair. Such students with serious disabilities are in the minority. They are the ones affirmative action targets to correct the imbalances in society. Beyond the general accessibility provisions for PwDs, such students ought to be given every possible support in the form of reasonable accommodation that will address their peculiar needs. Their stories are worth knowing to help guide policy when such rare occurrences crop up. It is not proper to assume that the university environment can be inaccessible because persons with certain types of disabilities may not be present in the environment. There is also no justifiable reason why PwDs should 'be structured out' of education (Titchkosky 2008: 55).

The sampling process involved contacting the Examinations officers in the various faculties in the university for data on the population of persons with mobility impairment. This was because requisite official data on students with disabilities at the university's administration was inadequate at the time of the study. The data from the Examinations officers covered the gender, programme offered, year of study and extent of mobility impairment. From the information obtained, the researchers purposively selected one lady (Victoria) because of the severity and uniqueness of her mobility impairment. Her situation was deemed to be a vivid case for the intended study. She was subsequently contacted. The purpose of the study was discussed with her and she agreed to participate in the research.

The university was purposively chosen out of 10 public universities in Ghana because of its uniqueness. It was perceived by the researchers to be uniquely placed to provide the appropriate setting for undertaking the study. The university had many multi-level buildings, a large campus and an undulating topography. Its lecture halls and structures for other ancillary uses like offices, libraries and hostels were dotted all over the campus, which made it necessary for students to commute over various distances daily. These made a study regarding accessibility in the built environment for a person with such mobility impairment in the institution germane.

Aside from observing her navigation of the university environment and hearing her story, a few people who were connected with her were also interviewed. This was to help gather relevant background information for purposes of triangulation, and to validate the information gathered from the key participant. These were her parents, her uncle who also worked at the university, the Faculty Examinations Officer, the Department Examinations Officer, the porter at the main classroom block (Block 1) of the university, her former Head of Department (who was also her lecturer) and a long-serving staff at the university library who had a disability. The others were an officer responsible for students' affairs and one of the university's architects who had expertise in disability issues in the built environment and accordingly associated with such students. The observation was also to help the researchers to ascertain the trustworthiness of the information from the key participant.

The study involved the use of semi-structured interview guides and a semi-structured template for observation. There was video coverage as Victoria navigated the university campus in her wheelchair. In line with the qualitative research philosophy, the purpose of the video coverage was to afford the researchers some depth into what her experiences were in a real-life situation on the campus. The lead researcher played changing observational roles in the process. He was non-participant most of the time, but a participant at a stage when he had to assist in carrying Victoria in her wheelchair to enable her to ascend steps. The instruments sought to find out about Victoria's background, her experiences in the built environment of the university and issues about the provision of reasonable accommodation to meet her peculiar needs.

The data gathering took place from December 2015 to March 2016. After considering several options, Victoria proposed that she would be willing to undertake the first interview in December 2015. It took place at the Examinations Centre A. The Centre was a large single storey auditorium with neither accessible washroom facilities nor ramps to help surmount the challenge of steps at the two entry points. Her navigation commenced from the Examinations Centre A to her hostel. The hostel was a three-storey structure, but her room was on the ground floor. The main entrance to the floor was by several steps. Although washroom facilities had been provided in Victoria's room, they were not disability user-friendly. The team moved to the main classroom block (Block I), which happened to be the venue for most of Victoria's lectures. It was a three-storey building with a basement at one end. It was also without accessible washrooms, and access to the upper floors was only by stairs. From there the team continued to Block II which was also used for

some lectures. The block was a purpose-built auditorium which had steps internally and also had permanently fixed seats. There was neither provision for ramps nor designated seating places for PwDs as required by accessibility codes. The next place visited was the non-residential facility. The said facility was used by non-residential students as a waiting area between lectures and for private studies while on the campus. The team then continued to Examination Centre B. The Centre was four storeys high and was without a lift or ramps for vertical circulation by a wheelchair user. It had accessible washroom facilities but there were neither directional signs nor the international accessibility symbol to inform the building users. From there, the team passed by the university's main administration, the main library, the traditional halls of residence and the Block III lecture venue where Victoria took some lectures in her first year. Finally, the team returned to her hostel. All through the period, she voluntarily spoke of her specific experiences at the various locations.

The views of the other stakeholders were also sought at separate times during the data gathering period. Her relatives were the first to be interviewed. The views of her examinations officers and the porter at Block I were individually sought at different points while she was navigating the campus. For the rest of the participants, their views were obtained later at periods that each deemed most convenient. In the early part of 2016, there were two phone interviews with Victoria to fill in certain details and clarify certain aspects of the earlier interaction that seemed unclear. There was a debriefing after the data-gathering exercise.

The purpose of the study was discussed with each of the participants and they gave their prior approval to participate before their participation in the study. Victoria's prior approval was secured before the interview was video recorded. However, at her request, her face was blurred to hide her identity and to show due regard for her privacy. The informed consent form was explained to her and she consented before her involvement. The Publications and Ethics form of the university was also appropriately filled for the Human Research Committee's approval. Finally, Victoria was allowed to go through the paper to approve the form and content before publication. For ethical reasons, pseudonyms were used in this paper, and the identity of the university was also not disclosed.

### ***Data analysis***

The data was analysed manually using content analysis. Subsequently, the MAXQDA 2018 qualitative data analysis software was used to help speed up the process, and also to enhance the quality of the analysis (Mayring 2014). It helped to unearth certain themes which can help with a policy regarding the provision of reasonable accommodation to a student like Victoria. In line with the requisites of content analysis, it was a systematic approach, which included organising, exploring, coding and interpreting the data (Flick 2014; Boyatis 1998).

### **Findings from Victoria's story**

The findings from the case study on Victoria are presented in the sections below.

#### ***Background***

Victoria was a well-groomed female student with mobility impairment which was not congenital. Her condition was such that she had to be carried anytime she needed to move out of the wheelchair for any reason. She depended permanently on others who were without disabilities to move about. Her parents were low-income earners and at a point one of them had to quit work to provide constant support for her. She had other siblings and was actively involved in extracurricular activities that aimed at motivating and encouraging younger students with disabilities in other parts of the country. She was also among the best students in her class at the time of the study. These point to a diligent person who, when given the necessary support by way of the requisite physical environment and reasonable accommodation, can accomplish much academically, and also contribute her quota to the socio-economic development of her country. Unfortunately, Victoria had very scanty knowledge about the legal and regulatory framework within which disability issues ought to be seen in the country, and the associated human rights implications. Indeed, the study accomplished an unintended purpose of giving her some exposure in this regard. Her experiences are presented next.

#### ***Experiences in the university built environment***

According to Victoria, accessibility of the University's environment was generally challenging, and it had not been easy going about her activities in the University's built environment. For her first two years, she had to be commuting daily from her home to school by hired taxi cabs for lectures because of accessibility challenges confronting her on the campus. Her disability vis-à-vis the state of the university's built environment required that she constantly needed someone to be with her to meet her needs and consequently enable her to fully focus on and participate in the academic programme of the university. Unfortunately for her, there was no such provision in the university, so the parents had to take her home daily and also be with her on campus during lecture hours to attend to her needs, until a stage when her mother stopped working in order to physically support her in her education. According to her father, these problems had a toll on the family's finances:

'During the first and second years, I used to bring the child to school in a taxi cab. On the days that I did not have money she did not attend lectures. At times it was really difficult financially.'

Aside from this, the family faced frustrations from security personnel at the campus. On occasions that they could hire taxis and enter the campus, the security personnel often prevented the taxis from going beyond certain points for security reasons. This was because there was no special provision in the university to address her unique circumstance and thereby allow her to go beyond such points unhindered. Their only option at such times was to alight and wheel her to the lecture hall in her wheelchair. This was corroborated by her Faculty Examinations officer:

'I observed that they were hitherto coming to the university campus with taxi and they had a lot of trouble with security. So, I had to come in at one time... Other than that, they would have to alight at the security checkpoint and then wheel her all the way to the lecture room which I think is not the best.'

For her first and second years, most of her lectures were at the ground floors of Block I or Block II (the auditorium), which was comparatively better, although these facilities had physical barriers such as kerbs, ramps and an absence of specific seating for PwDs.

Another challenge for Victoria had to do with the dispersed locations of the various lecture halls. For instance, Victoria, on a typical weekday, had to attend a lecture at Block III and be immediately wheeled back after the class to attend another class at Block I, with an average travel duration of about 30 minutes. Aside from the distance and the fatigue, her mum also complained about the risks posed by the university's undulating terrain. She said the least mistake would lead to somersaulting when wheeling her. She further indicated that initially, because they did not know their way around the campus, they had to use longer routes, which were riskier and more tiring.

During the first semester of her third year, most of her lectures were at the upper floors of Block I, where the lecturers voluntarily offered to relocate some of the lectures to the ground floor whenever an empty space was available. This happened at a time when there was no university policy on the issue. At the Education Ministry level, too, the policy on non-discrimination merely touched on general entry requirements that had to do with the grades with which all applicants (including PwDs) could be offered admission into universities in Ghana. Therefore, in order not to miss the lectures that still had to take place on the upper floors, she was carried in the wheelchair to and from the top floors by her mother and other colleague students. The porter at Block I, who was often an eye witness, said:

'It is disheartening because people have to carry her in the wheelchair to and from the top floors. When I see it like that, I become sad. It is scary!'

When this came to their notice, the officer responsible for students' affairs and the university architect raised concerns about possible risks. However unknown to them, there had already been an accident. Her mother recounted:

'We were descending the Block I stairs one day when I slipped so she fell and I fell on top of her.'

The Faculty Examinations officer concluded that,

'if you do not know beforehand, you are likely to fix lectures on a top floor and it becomes a challenge carrying people with a disability up and down.'

Further enquiry by the researchers revealed that there was no coordination between the university's admissions office, which took delivery of admission forms of prospective students, and examinations officers who determined the venues for various lectures and examinations. The design of the admission form was such that it made provision for a prospective student to indicate whether he or she had a disability or not. Such information was not subsequently relayed to examinations officers after the admission process.

With group studies, Victoria said her friends understood her situation, so they usually came to her room at the hostel for such activities. She also had a laptop and her hostel had Wi-Fi services, which helped her obtain some online information.

### **Examination Halls**

Victoria wrote her examinations mainly at the Examination Centre A and Examination Centre B. It took an average of 25 minutes for her to commute between the two centres in her wheelchair, and on some days, she was required to write examination papers at both centres, which was stressful and tiring. At the Examination Centre B, which was a multi-level building where construction activities were on-going at the time of the study, she had to be lifted as she said, 'to conquer' the steps before even getting to the ground floor of the examinations centre. The Department's Examinations Officer confirmed this as follows:

'Generally, the building is not disability friendly. When the student comes here, people have to carry her to the examination centre and sometimes we have to make special provision for her to write her exam on the ground floor.'

**Library and IT services**

Victoria hardly went to the library. She had been to the main university library only once over the period of her stay in the university, and it was for registration purposes in her first year. On that occasion, she had to be carried. The place was not accessible, especially to those with mobility challenges due to the nature of the building design and the lack of appropriate facilities like lifts. Most materials for research were on the upper floors. The two main areas for IT were also on an upper floor and for that matter, Victoria was technically debarred from accessing those e-resources.

**Administrative Services**

Most of the administrative services or activities that Victoria had to perform, like seeing the Head of Department or staff at the administration, were handled by her parents or her friends because of the upper floor locations and inaccessible designs. This was to reduce stress, time and possible risks. However, there were some situations like biometric registration that she had to manage, strain herself and do on her own because there was no special concession for her.

**Residential accommodation**

Through the intervention of one of her lecturers after some years at the university, Victoria's challenges were presented to the officer responsible for students' affairs who was hitherto oblivious of the state of affairs. He was very empathetic and immediately took it upon himself to assist. In the absence of a policy document on reasonable accommodation in the university, he offered her and her mother accommodation in a students' hostel on the campus. Aside from the offer of accommodation, the officer responsible for students' affairs also placed his official office vehicle at the disposal of Victoria so that it could help ease some of the movement challenges on the campus. Nevertheless, the architect had this to say,

'Our residential facilities on campus are so bad that I cannot figure out any residential facility that can accommodate a person with her type of disability. But then she [Victoria] had to resort to it [hostel].'

**Sanitary accommodation**

The sanitary facilities at the hostel and the faculty were not user-friendly. Victoria could not use any of the sanitary facilities in the lecture halls. They were generally not designed with the student with disability in mind. This was reiterated by the architect:

'Even in her [Victoria's] room, the sanitary facilities are unfriendly. She is not able to use any of them on her own. She virtually has to be assisted before she can use it. All these could easily have been solved if the architect had thought through the needs of the person with disability. Assistive devices like grab rails should have been provided to help her to manoeuvre on her own in the washroom.'

By implication, Victoria's privacy, which is her right, is affected because of the inaccessible design of the sanitary facilities.

**Achieving her goals in life**

Victoria said the nature of the built environment should have been better to grant her the needed satisfaction in the pursuit of her aims in the school. She added that when she was at the senior high school, she read books that informed her that in the universities, special provisions were there for students with disabilities.

'I came here and it was very disappointing because there was nothing like that here. So, I had to go home and come back every day.'

Victoria suggested that,

'The University authorities should make certain provisions for us. I think elevators should be one of them because it is very difficult moving from the stairs down and it is very dangerous. It's been very challenging moving from one place to the other. So, if they make provisions like elevators, disability-friendly pavements, sidewalks and accommodation, we would be really grateful. We will also be grateful if we can be assisted with respect to accessible accommodation and financial support.'

**Themes for meeting unique needs**

The MAXQDA software analysis unearthed six themes which can help in policy development regarding the provision of reasonable accommodation to a student like Victoria. These were: Assistive, Study, Locational, Accommodation, Transport and Financial Support mechanisms. From **Figure 1**, almost all of the interviewees (90.91%) identified mechanisms that will influence the location of various activities in the university as very critical in terms of meeting peculiar needs of a student with disability. Coming next after locational mechanisms were transport mechanisms (81.82%). These relate to policies that will promote equal access to all parts of the university campus which are accessed

by other students. With 72.73% of the respondents, accommodation mechanisms were the next crucial issue to their stay on campus. These relate to the provision of accessible residential accommodation with the appropriate design and conditions.

Other areas that need to be factored into a policy on reasonable accommodation are the provision of assistive mechanisms, study mechanisms and financial support mechanisms. Assistive mechanisms refer to gadgets or facilities that will be needed to enhance her movement and other activities. Study mechanisms have to do with support systems for her studies, while financial support mechanisms refer to various means of assisting her financially.

As can be seen from **Figure 2**, Victoria, the fifth participant (Part 5), emphasised very much on the locational mechanisms. This points to the premium she placed on it in an attempt to be able to pursue her academic career in an inaccessible university built environment. Unsurprisingly the location mechanisms had the strongest level of relationship with the accommodation mechanisms. This implies that decisions on the provision of reasonable accommodation on either of them needed to be made cognisant of the other. There was also a strong relationship between the provision of assistive mechanisms and study mechanisms (**Figure 3**). This means the two also needed to be considered hand in hand.

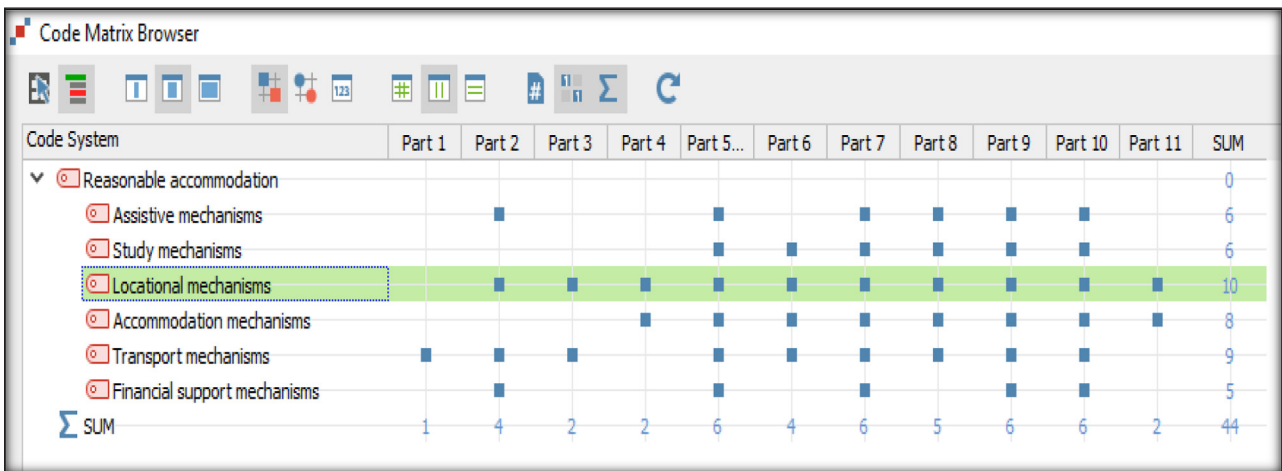


Figure 1: Themes for Reasonable Accommodation.

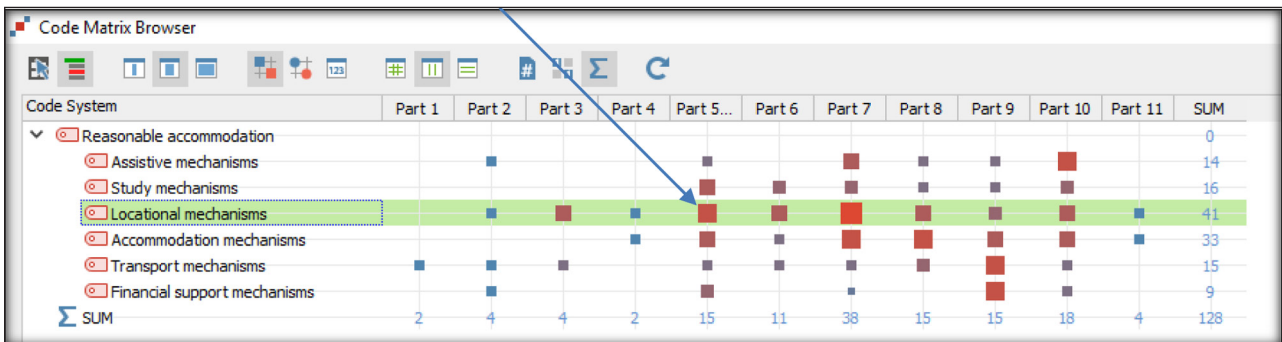


Figure 2: Areas of emphasis regarding reasonable accommodation themes.



Figure 3: Relationships among themes.

## Discussion

The plight of Victoria epitomises some of the challenges of PwDs in higher education institutions as espoused by Matonya (2016) in the study on Tanzania. Aside from confirmation of the inaccessibility of the university built environment, there was the need for attending to the unique need of Victoria by way of reasonable accommodation. However, this had been absent. The current study revealed that in the absence of reasonable accommodation, the determination to make it at the higher education level, coupled with the assistance from individuals within the university community, were major factors that enabled Victoria to surmount her challenges. This reinforces findings from other similar studies that self-determination is critical for success by students with disabilities in post-secondary education (Garner 2008) and Morley and Croft (2011) whose studies showed how self-motivation by PwDs impacted their ability to achieve their aims. Her academic performance also agrees with Morley and Leach (2010), that once admitted, some students with low socioeconomic status like PwDs can even perform better than their other colleagues. Meeting the unique needs of such students in universities will accordingly be a step in the right direction.

Soorenian's (2011) study of universities in the UK addressed the paucity of information on policies that affect PwDs in universities. The investigation by the researchers for the current case study also revealed that the university did not have a policy on disability, and consequently there was no official position on reasonable accommodation. In this situation, decisions to address the specific needs of Victoria were subjectively made by individuals who happened to be empathetic when Victoria's challenges came to their notice. Furthermore, the finding that, due to the lack of requisite data on PwDs, the examinations officer who did not know of Victoria's specific needs fixed inconvenient lecture and examination venues also confirms information from other similar studies. Shevlin, Kenny and Mcneela (2004) reported about data management concerns relating to students with disabilities in higher education institutions. Fuller, Bradley and Healey (2004) also noted that students with disabilities were dismayed that having declared their impairments, whether on registration or subsequently, there was no mechanism within the institution for that information to be relayed routinely to their tutors. This affected the provision of reasonable accommodation, as has been confirmed by the current case study. Kendall (2016) noted that ideally, adjustments for reasonable accommodation ought to be in place before the commencement of a PwD's programme of study. In a case like Victoria's, where the university collected requisite data on PwDs during the admission process, the institution ought to have used such data appropriately for the sake of such students before they commenced their programmes of study. In a situation where that is not done, a student should have the right to make such requests, as is seen in places like New Zealand (IMM n.d.). The intervention of the officer responsible for students' affairs came rather late (third year), and it was on his own volition rather than being based on policy. Furthermore, it had to be brought to his notice by a concerned lecturer because of the lack of official mechanisms to identify and meet such unique needs. These facts support the need for a policy on reasonable accommodation in the university.

It is averred that reasonable accommodation should be available for reasons related to the individual's disability (Harvard Law Review Association 2013) and the programme of study (Kendall 2016). The specific needs of Victoria had to do with physical accessibility issues of a person with unique mobility impairment. Considering reasonable accommodation in her case would therefore not include the provision of assistive devices required by a person with a hearing or visual impairment but more with accessibility within the physical environment. Hence, the provision of appropriate residential accommodation on campus for Victoria; appropriate venues for lectures and examinations, and altering transportation policies to allow Victoria to go past certain points on the campus when using a taxi are deemed to be within the ambit of what should comprise reasonable accommodation in her case. Also, the provision of an advanced wheelchair would have been more suitable. Aside from these, Act 715 (Section 18.1), which requires that funding of PwD education should be the responsibility of the government, should be enforced. Furthermore, Victoria's other peculiar needs in terms of reasonable accommodation ought to be identified and met. For instance, the challenges in accessing library material could be addressed by procuring copies of the relevant materials for her personal use. The university may also have footed the extra costs of helping her access e-resources, even if it meant procuring a modem for her and granting her special access to such e-resources. These agree with Stein et al. (2014) that reasonable accommodation should be based on individual needs, not necessarily on group identity.

There was no disability policy in place at the university at the time of the study. Although necessary, policies and laws alone will not yield the desired results (Pascalau-Vrabete and Baban, 2018). The organisational culture also needs to be looked at. This study supports Mulazadeh and Al-Harbi (2016) that there is a need for attitudinal change towards issues about PwDs. This is even more relevant in a country like Ghana, where the belief system of many is inimical to the guaranteeing of the human rights of PwDs (Gyamfi 2014). These concerns need to be addressed with the tenacity of purpose, given the inaccessible built environments in educational institutions in Africa (Fidzani et al. 2013; Oyaro 2015; Emong & Eron 2016; Matonya 2016), and Ghana in particular (Ashigbi et al. 2017; Tudzi et al. 2017). This study accordingly supports the view that socially constructed barriers should be removed from the higher education sector in an effort towards an inclusive education system (Ramaahlo, Tonsing & Bornman 2018).

## Recommendations

With the provision of inclusive education being a right, the university must work expeditiously to make all its buildings accessible. Furthermore, efforts towards meeting the unique needs of PwDs, by way of reasonable accommodation, should be institutionalised. Policy development can focus on assistive, study, locational, accommodation, transport and financial support mechanisms as key areas.



Assistive mechanisms could target the provision of an appropriate wheelchair. Study mechanisms may also deal with situations where the PwDs will be given special access to Wi-Fi and other information technologies to facilitate their access to university libraries and enable them to participate in lectures from comfortable and convenient settings.

Worthwhile considerations regarding locational mechanisms could be a policy in the university that would insist that the location of any group activity to be undertaken by students on the campus should, as far as practicable, be determined with prior consideration of the peculiar needs of any PwD in that group. This would include venues for lectures, examinations and group discussions.

Accommodation mechanisms could involve special provision to accommodate such students on the university campus once they are offered admission. The fixtures, fittings and other facilities in the provided accommodation should, as much as practicable, enable the PwD to lead his/her normal independent life without the need for any person's assistance. Aside from comfort, it will also guarantee the PwD needed privacy. Where the PwD's peculiar circumstance so require, the university's policy on reasonable accommodation should permit a non-student to stay in the accommodation so provided and to assist the PwD.

Regarding transport mechanisms, a means to guarantee this could be providing such students with special badges, or by making a special security feature on their student identity cards. Security sensors or personnel will then respond positively to the PwDs when they get to any points of restricted entry if they are using vehicles. Such cards should also permit the PwD to board commercial vehicles from one place to the other on the campus at no cost. In situations which may be quite acute, the university should be ready to dedicate a vehicle to assist such students to commute from one place to the other, as was the case for Victoria. Finally, financial support mechanisms could target ways of easing the PwD's financial burden. For instance, registration fees and other payments which are not classified as part of school fees could be waived. The institution should make budgetary provisions that will cater for such students.

## Conclusion

Victoria's type of impairment, in the light of an inaccessible university built environment required appropriate interventions. This was necessary for her to be able to enjoy her fundamental human right to education as would any other student. There was a need for retrofitting, development of accessible infrastructure and the provision of reasonable accommodation on the university campus. Some of the attempts at providing reasonable accommodation that were studied did help ameliorate the adverse peculiar conditions experienced by Victoria, but they were usually an afterthought. This was because there was no policy, and by extension, nothing in place officially to address the needs of Victoria, who had a rare type of disability in the university. Poor records management on students with disabilities in the university also did not help to facilitate even the subjective efforts at providing reasonable accommodation. This was because it failed to bring the needs of individual students into the limelight for redress. The above notwithstanding, Victoria worked hard to achieve academic laurels at the higher education level. This confirms that a student with disabilities has capabilities and should be given all the support that his or her unique state requires to enable him or her exercise the right to education, and to become all that he or she is capable of becoming. The findings from this case study support Harvard Law Review Association (2013), that the issue of reasonable accommodation should be addressed with a multi-method approach, yet legislation needs to be emphasised. The importance of institutionalising reasonable accommodation in the university, as revealed in this study and supported by the CRPD (United Nations 2006), is critical, so that decisions are no longer left to the discretion of individuals while students with disabilities are denied their fundamental right to education. While waiting for policy, data gathered on PwDs during admission to the university should be appropriately disseminated to key leaders and teachers in the university for them to also make decisions promptly regarding the provision of reasonable accommodation to students like Victoria. This would include fixing of appropriate venues for lectures, examinations and registration. The themes unearthed could form the basis of policy on reasonable accommodation in the university.

## Competing Interests

The authors have no competing interests to declare.

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