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Access to Higher Education in Ghana: Examining Experiences through the Lens of Students with Mobility Disabilities

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ABSTRACT
This article examines the experiences of students with mobility disabilities accessing higher education institutions in the Accra metropolis of Ghana. To capture the accessibility issues that people with disabilities encounter in their daily lives as postsecondary students first hand, this study used PhotoVoice methodology, which uses a combination of photographs and corresponding narrations. Themes identified in the photographs and narrations highlight the emotional and academic impact of participant encounters with an inaccessible postsecondary environment. Implications for policy and practice are discussed.

KEYWORDS
Ghana; higher education; inclusive education; mobility disability; physical access; students with disabilities; tertiary education; university

Introduction
Access to education for people with disabilities has risen to the international policy priority agenda as the global inclusive education movement continues to gain momentum. Global educational policy directives such as the United Nations (UN) Sustainable Development Goals (SDGs; UN, 2015) and the Convention on the Rights of Persons with Disabilities (CRPD; UN, 2006) promote equal access to all levels of education for people with disabilities. Many nation states have endorsed these policy agendas by ratifying the CRPD and adopting their own national inclusive education policies, including Ghana. Despite such advancements in educational policy, little is known about the daily lived experiences of postsecondary students accessing higher education in Ghana. This exploratory study investigates access to higher education through the lens of postsecondary students with mobility disabilities in the Accra metropolis of Ghana. More specifically, the study uses PhotoVoice methodology to elicit the voice of Ghanaian postsecondary students with mobility disabilities and provide insights into the emotional and academic impact of their experiences accessing their higher education environment through images and narratives.

Of all world regions, sub-Saharan Africa has witnessed the fastest growth in higher education enrolment from 1970–2013 (Darvas, Gao, Shen, & Bawany, 2017). However, disability is a structure of inequality that has received little research attention in relation to higher education in sub-Saharan Africa (Mumba, 2009). Similarly, Ghana’s tertiary
education sector is recognised as one of the region’s success stories due to its relatively high enrolment rates (1,370 per 100,000 inhabitants) and high governmental expenditures (13% of total spending on education is dedicated to tertiary education; Darvas et al., 2017), yet there is little to no information available on the representation of students with disabilities in higher education in the nation.

Existing literature examining the intersecting relationships between disability, education, social discrimination, and economic disadvantage implies that people with disabilities are severely underrepresented in higher education in Ghana, but further data collection in this area is needed. An emerging body of research suggests that many Ghanaians with disabilities are poor, lack education, and are unemployed (Naami, Hayashi, & Liese, 2012; Naami, 2015; Appiagyei, 2006; Kassah, 2008). Given these circumstances, young people with disabilities in Ghana view further education as paramount to leading a better life, gaining employment, and self-sufficiency (Singal, Salifu, Iddrisu, Casey-Hayford, & Ludebye, 2015). Ghanaians with mobility disabilities in particular whose range of employment opportunities are limited due to the physical requirements of some jobs perceive inadequate education as a leading cause of their unemployment and identify further education as their most important support need (Naami, Hayashi, & Liese, 2012; Naami, 2015). Accessible higher education is therefore especially important to people with mobility disabilities in Ghana to break the cycle of poverty.

Physical access is a widely documented barrier for students with disabilities to higher educational and learning institutions, yet it continues to be a critical issue (Riddell, Tinklin, & Watson, 2005). While in some developed contexts such as the United Kingdom and the United States, physical barriers are being reduced in postsecondary environments (e.g., Kendall, 2016; Yssel, Pak, & Beilke, 2016), they persist in developing contexts with limited resources (e.g., Hadjikakou, Polycarpou, & Hadjilia, 2010). In Ghana, while this is the first study to focus on the inaccessibility of postsecondary environments, existing research has begun to document the widespread nature of physical access challenges experienced by people with disabilities in society, especially those with mobility disabilities. People with disabilities in Ghana have daily struggles physically accessing public buildings such as churches, government offices, banks, shops, and public toilets (Naami, 2010; Naami, & Hayashi, 2012; Naami, 2014; Tijm, Cornielje, & Edusei, 2011). Physical access challenges in the healthcare sector have also been documented, indicating inaccessible entrances to hospitals, consulting rooms, laboratories, outpatient departments, doctors’ offices, and pharmacies (Badu, Agyei-Baffour & Opoku, 2016; Rachel, 2018). Higher education learning institutions in Ghana are contextually situated within this larger inaccessible environment.

Applying the social model of disability, wherein disability is interpreted as being caused by external physical, social, economic, political and cultural barriers (Lindsay, 2003; Oliver & Barnes, 2012), it is likely that the widespread nature of physical inaccessibility in Ghanaian society persists within higher education environments as well. If the physical environment remains unchanged and inaccessible, the built environment is essentially ‘disabling’ and denies people independent access to facilities and services (Chard & Couch, 1998; Holloway, 2001). Faced with numerous practical difficulties navigating the disabling environment, post-secondary students with mobility disabilities are left feeling marginalised and their ability to study is undermined (Holloway, 2001; Reindal, 1995).

To help address these issues, in May of 2016, the government of Ghana launched a national Inclusive Education Policy designed to improve access to all levels of education
from preschool to tertiary. The Inclusive Education Policy document outlines specific policy objectives and strategies focused on restructuring numerous aspects of the current educational system, including the environment. The architectural principals of universal design are explicitly mentioned as the guiding theoretical framework to be used to create a ‘disability friendly’ accessible environment across all levels of education, including tertiary education (see Ministry of Education, 2016, Section 5.1.1.2.3 on Tertiary Education). Curb cuts or sidewalk ramps that are designed for people using wheelchairs, but used by all, are common examples of universal design that have been promoted internationally since the 1960s (Goldsmith, 2012). As Ghana is at the early stages of implementing this national Inclusive Education Policy, it is a critical time to study the educational experiences of students with disabilities to inform sustainable reform.

The limited amount of research conducted on inclusive education in Ghana is focused more on lower as opposed to higher levels of education. Research findings suggest that while there has been some improvement regarding educational access for children with disabilities, the aspirations of Ghana’s Inclusive Education Policy are far from being realised. For example, in 2004 the Basic Education Division of the Ghana Education Service (GES, 2004) estimated that only 0.6% of children with disabilities in the country received any form of education. Compared to more recent estimates, in 2012 the Ministry of Education estimated that approximately 3% of children with disabilities aged 4–14 in Ghana received any form of basic education (MoE, 2012). While these statistics exhibit an upward trend in increased access to education, the vast majority of children with disabilities remain out of school and will not have the opportunity to advance through the educational system towards higher education. There is great value in examining the experiences of postsecondary students like those in this study who overcame the odds and were fortunate enough to progress through the educational system to pave the way for the inclusion of future students and scholars with disabilities across all levels of education.

Another motivation for this study relates to the power of voice. The sparse literature on access to education for students with disabilities in Ghana is dominated by the voices and perspectives of educators, with the vast majority of studies focused on negative teacher attitudes towards inclusive education and disability at primary and secondary school levels (Agbenyega, 2007; Kuyini, Yeboah, Das, Alhassan, & Mangope, 2016; Nketsia & Saloviita, 2013; Ntuli & Traore, 2013; Obeng, 2007; Obi, Mamah, & Avoke, 2007). While the perspectives of educators are undoubtedly essential to take into account for the successful implementation of inclusive education policy in Ghana, it is also important that student voices are reflected in the literature that informs policy decisions to better understand their experiences and how to meet their needs to make inclusion a reality. This study gives voice to students with disabilities, seeking not only to identify barriers experienced first-hand when accessing the postsecondary environment, but also the emotional and academic impact of their experiences to provide a rich understanding of their educational journey.

PhotoVoice methodology, which typically uses a blend of photographs and narratives (Wang & Burris, 1997), was used to enable students with disabilities to tell their stories about the access barriers they encounter in their daily lives navigating the postsecondary environment. Of the limited studies that have utilised PhotoVoice methodology, it is most frequently used with people with mobility disabilities to document their experiences related to physical barriers to participation and accessibility (Dassah, Aldersy, & Norman, 2017), as was done in this study and the larger research project ‘Using PhotoVoice Methodology to...
Understand Accessibility Challenges Persons with Disabilities Encounter in the Accra Metropolis of Ghana’ of which it was a part. Furthermore, the recent literature review conducted by Dassah and colleagues (2017) on PhotoVoice methodology calls for more research using this method with people with disabilities in the Global South given that the method empowers marginalised groups and people with disabilities in the Global South are regarded as the poorest and most marginalised in the world (World Health Organisation & World Bank, 2011). To address the need for the voices of marginalised people with disabilities in the Global South to be heard, the larger research project (of which this study was a part) empowered adults with mobility disabilities in Ghana to tell their stories, and this study focuses on the voices of postsecondary students with mobility disabilities.

The purpose of this exploratory study is to investigate the experiences of students with mobility disabilities accessing higher education in the Accra metropolis of Ghana, paying particular attention to the emotional and academic consequences of the experiences. To achieve this purpose, the following research questions are asked:

1. What are the experiences of students with mobility disabilities in Accra, Ghana accessing the postsecondary education environment?
2. What is the emotional impact of students’ experiences accessing the postsecondary education environment in Accra, Ghana?
3. What is the academic impact of students’ experiences accessing the postsecondary education environment in Accra, Ghana?

Method

Participants

This exploratory study was conducted as part of a larger study on accessibility challenges that people with disabilities encounter in their daily lives in the Accra metropolis of Ghana. In the larger study, participants were purposefully recruited from local disability organisations, namely the Accra central chapter of the Ghana Society of the Physically Disabled (an association of persons with mobility disabilities), the Ghana Disability Forum (an umbrella organisation of all persons with all forms of disabilities), and the Centre for the Employment of Persons with Disabilities (an organisation that seeks to advance the employment of persons with all forms of disabilities). In addition to purposive sampling, snowball sampling was used to enhance the diversity of perspectives on the topic and ensure that at least one postsecondary student was represented in the sample to include perspectives on school environmental barriers. From the larger sample of adults with mobility disabilities (n = 10), this study focuses on the lived experiences of a subset of the sample (n = 2) who attended postsecondary education institutions to more deeply explore daily experiences within the context of higher education.

Two 26-year-old male postsecondary students with mobility disabilities attending tertiary higher education institutions in the Accra metropolis of Ghana participated in the study. Evans is a wheelchair user in his final year studying social work at a large public university. Felix has a hunchback and does not use any assistive devices; he is in his final year studying accounting at a midsize public technical university. Both participants are Akan, the largest ethnic group in Ghana.
Procedures

In accordance with the PhotoVoice tradition (Palibroda, Krieg, Murdock, & Havelock, 2009; Wang & Burris, 1997), participants participated in two full-day workshops. The first workshop trained participants in basic photography, ethics, photo captioning, narration, and analysis of the content of the photos. Examples of places and things to look for when taking photographs to convey challenges with physical access barriers were discussed. The participants were then each given a camera to take photos and journal their experiences for two months.

In the second workshop, the content and context of participant photographs were discussed in small groups, as well as the meanings and messages attached to the photos, which were then related to their collective experiences. The ‘SHOWeD’ framework (Palibroda et al., 2009; Wang, 1999) was used to facilitate participant discussion and critical analysis of the content of their photographs with the following questions: What do you See here? What is really Happening here? How does this relate to Our lives? Why does this strength or problem/concern exist? What can we Do about it? The second workshop was audiotaped with participants’ permission and transcribed for data analysis. Ethical clearance for all data collection procedures was obtained from the University of Ghana Office of Research Innovation and Development Ethics Committee for Humanities (approval #ECH 027/17-18).

Data Analysis

Qualitative thematic analysis was used to analyse the transcribed narrations and their corresponding photographs. Codes were developed iteratively and recursively by assembling a list of preliminary codes by reading the narration transcriptions and formulating codes by adding notes and labels in the margins. To thematically ground the initial preliminary codes, the researchers drew upon coding schema developed by Lofland, Snow, Anderson, and Lofland (2006). Specifically, the researchers incorporated Lofland et al.’s coding schema of encounters as ‘units of social organisation’ and emotions as ‘substantive aspects’ of participant experiences accessing the postsecondary environment into the coding procedure. After preliminary coding, the transcripts were then reread multiple times to continue adding new codes, refining existing codes, and checking to see if emerging concepts were present within the narrations (Roulston, 2010). The complete list of initial and final codes is presented in Table 1 in the Appendix.

Given the exploratory nature of the study, combined with the intent of the researchers to accurately represent the active voices of the participants, the researchers tried to ‘stay close to the data’ (Kelle, 2005) throughout the coding and data analysis process. To do so, they derived emerging codes relating to the research questions posed and created ‘in-vivo’ codes derived directly from phrases and words spoken by participants (Roulston, 2010). Furthermore, to analyse the feelings expressed by the participants in relation to their experiences, all of the words from the narration transcripts describing emotions were coded verbatim and visually organised into a ‘word cloud’ or ‘tag cloud’ using freely accessible WordSift computer software. The word cloud represents up to 50 of the most frequent words in a sample of text and indicates a word’s relative frequency with text size and depth of colour (with more frequent words being visually depicted as larger and darker in colour, while less frequent words are smaller and lighter in colour; for further
details about software features see Wordsift.org, 2018). The complete list of emotion words for each participant that was entered into the world cloud software is presented in Table 2 in the Appendix.

Results

Evans photographed and narrated a total of 17 encounters with the inaccessible environment of his university, while Felix photographed and narrated 10 encounters, totalling 27 encounters with corresponding photographs. The photographs and narration transcript data were organised around three major themes that correspond to the research questions: encounters with inaccessible environment, emotional impact of encounters, and academic impact of encounters. Subthemes within each of these areas that emerged from the data are described below and a combination of photographs and narration quotations are used to exemplify the findings.

RQ1. Encounters with Inaccessible Postsecondary Education Environment

The 27 encounters with the inaccessible postsecondary environment that were photographed and narratively described by participants took place at numerous locations across their university campuses. Inaccessible buildings on campus identified by participants include lecture halls, the library, residence halls, the computer testing centre, administrative buildings (e.g., reception, office of the registrar, finance offices), lecturer (i.e., instructor) office buildings, student union buildings, and the university post office. Within buildings, additional spaces that were identified by participants as inaccessible include the grocery store located inside the residence hall, classrooms inside of lecture halls, offices inside of administration and office buildings, and washrooms inside of lecture and residence halls. Within washrooms, toilet and shower stalls were specifically mentioned as being inaccessible. Additional structures on campus where participants experienced accessibility challenges include the entrance gate to the university and ATM machines. Furthermore, accessibility issues related to transportation to and from campus were highlighted by Felix, who expressed difficulties walking on a ‘muddy and rubbish filled path’ to campus, as well as challenges boarding and disembarking crowded ‘trotros’ (minivan taxis).

The primary reason that buildings and rooms were inaccessible to the participants was the presence of stairs in the absence of ramps or lifts (i.e., elevators). Numerous photographs showed stairways leading to building entrances and stairwells connecting the floors of multi-storey buildings. Additionally, the data contained many stories involving various people such as friends, classmates, strangers passing by, and in some cases security guards carrying Evans and Felix up and down stairs to allow them to enter buildings and rooms. The data also revealed many stories of participants having to wait outside in the ‘scorching sun’ for lengthy periods of time (upwards to an hour) for someone to help, or of giving up and being unable to move where they needed to go. The photo montage in Figure 1 highlights a sample of staircase photographs from the vantage point of Evans and Felix that led to their experiences of waiting, having to be carried, or of turning away whenever they encountered stairs. The photographs are organised visually to represent a mountain, because that is the analogy that Evans used to describe high staircases.
‘Accessible’ Spaces Remain Inaccessible
Beyond documenting experiences traversing spaces with stairs that are clearly inaccessible to people with mobility disabilities, participants also documented their experiences with spaces on campus that appear to be accessible and, in some cases, had been structurally modified to be more physically accessible and universal in their design, yet ironically remained inaccessible. To illustrate, consider the juxtaposition of the two washroom photographs in Figure 2.

The washroom on the left is clearly inaccessible due to the stairs leading to the entrance. However, Evans explained that the washroom on the right clearly labelled ‘Physically Challenged Ladies/Gents’ is also inaccessible because his wheelchair could not enter the narrow doorway. It should also be noted that the washroom signage does not reflect inclusive language and a more appropriate label such as ‘Accessible Toilet’ should be used to foster a climate of inclusion and accessibility.
Figure 3 depicts another example of a structure that was intended to be accessible but remains inaccessible. Evans explains the various ways that this lecture hall with ramp access remains inaccessible:

To get to the entrance of this lecture theatre, you first have to cross an open gutter [not pictured] then you can see the stone chippings which are also extremely difficult for wheelchair users. Then there is huge step to get on the ramp which will also require assistance for a wheelchair user. You see, there are several issues/barriers to enter one building: open gutter, stone chippings, and then a huge step before one can use the ramp provided for access to this lecture theatre. It is sad. There is no way a person in a wheelchair can access this building on their own without help. No way!

A final example of structures that were intended to be accessible but unfortunately remained inaccessible is the ATMs depicted in Figure 4. Evans shares the layered challenges he experienced when trying to use the machines on several occasions independently: ‘First, the ramps are very narrow and steep. In addition, there is not enough turning space to use the machine. And the machine itself seems a bit high for wheelchair users.’ The photograph also shows an open gutter that must be crossed to access the machines which serves as an additional barrier.

Figure 3. Inaccessible ramp to lecture hall.

Figure 4. ‘Lost security.’ Inaccessible ATMs near lecture halls and library.
Together, these examples of seemingly accessible but functionally inaccessible spaces on campus illustrate the numerous elements that those without mobility disabilities may not be aware of when designing or modifying architecture to be more universally designed. These examples show the importance of those involved in campus architectural design and modification considering factors such as door width, ramp slope, level ramp landings, turning radius, and height accessibility.

**RQ2. Emotional Impact**

Many negative emotions were expressed in relation to participants’ experiences accessing their postsecondary educational environment. Figure 5 shows a word cloud that visually represents the various emotive words that were expressed, with the most frequently mentioned emotions being larger in size and darker in colour.

The postsecondary education environment was perceived by Evans and Felix as presenting daily challenges and difficulties that led to feelings of exclusion, fear, sadness, pain, shame, isolation, humiliation, agony, discomfort, dejection, and so forth. Participants expressed how the constant struggle to overcome the challenges and difficulties created by the environment left them feeling exhausted, tired, beaten, and dispirited. For example, Felix described the physical and emotional burden by using a biblical metaphor, ‘It’s like carrying several crosses.’

![Word cloud](image)

*Figure 5. Word cloud visually representing emotions expressed by participants in relation to their experiences accessing the postsecondary environment.*

**Risk and Safety Concerns**

Of the numerous emotions that appeared in the data, the sense of fear that Felix and Evans had for their physical safety, and ultimately for their lives, merits special attention. For example, Felix captioned the following photograph of an open hallway located on the fourth floor of an administration building depicted in Figure 6 quite simply, ‘It is scary.’

The accompanying narration to the photograph explains the emotions that were elicited by the experience of passing through this open walkway:
I have to use this walkway which is narrow, sharp, sloppy, and slanted to get to the offices. Anytime I go there for my fees and educational issues I don’t feel comfortable passing here because I feel scared that I might fall.

*Figure 6.* ‘It is scary.’ Open walkway leading to administration offices.

Similarly, Evans shares a story of what he perceived as a near-death experience represented by a photograph in *Figure 7* that he captioned, ‘It is Risky’:

One day, I remember I nearly fell off my wheelchair while I was being carried up the multi-storey building to class. But thanks to the timely intervention of my friend, Agyei, he was very smart in saving me or else I would have fallen from the building. It is very unfortunate to be in an environment that you always have to risk your life due to lack of access.

*Figure 7.* ‘It is risky.’ Stairs and open walkways in multi-storey lecture hall.
The closing sentence in the above narration by Evans nicely summarises the general sentiment that both participants felt with respect to their concerns of risk and safety moving about their daily lives as postsecondary students with mobility disabilities in an inaccessible environment. Postsecondary students should never have to feel that they have to ‘risk their life’ to receive an education.

Adulthood and Personhood

When considering the emotional impact of experiences accessing the postsecondary educational environment, another dimension that emerged from the data requiring further elucidation is the relative positioning of the participants as being ‘less than’ in relation to their social roles as adults and as people. Both participants frequently referred to their displeasure of being infantilised when they had to rely on others to help them move around campus. For example, Felix shares, ‘I feel ashamed whenever they hold my hand as a child although I am an adult. But, if they don’t hold my hands, I cannot climb or descend the stairs.’ Likewise, Evans remarks, ‘I am not a child, but they always carried me as such . . . I feel infantilised.’

Beyond feeling excluded from the social category of ‘adult’ and being relegated to ‘child’ status, participants also expressed how they felt excluded from the social conception of ‘person’ or ‘human.’ To explain with an example, Evans aptly captioned one of his narrations of a story being carried upstairs by his classmates as, ‘I am a Person, not an Object to Carry.’ The experience of having to be carried not only makes him feel like a child as explained above but represents a form of objectification that denies him of his personhood.

The following narration and corresponding photograph in Figure 8 captioned by Felix as ‘I am not a car’ provides another example of personhood being invalidated:

This is the main entrance to university. It is a turning start entrance which I cannot use due to my condition. It is difficult to push through and risky as well. The security men at the entrance sometimes ask me to use the entrance for cars, which is more accessible, but I do not feel good about it because I am a human being and I should use the entrance for people and not the one for cars. I feel I am being treated unfairly by the university management by not providing an accessible entrance.

Figure 8. ‘I am not a car.’ Turn stall entrance gate in use.
It is especially symbolic that the location where Felix’s sense of personhood is challenged is the entrance to the university. If Felix feels inhuman and ‘less than’ when he enters campus, it is important to question how this sets the stage for his daily experience and feelings of inclusion. Upon reflecting on the photographs through the narration process, Felix and Evans attempt to reclaim the power that is lost by feeling like a child or an object by asserting their position in society as adults and as humans.

**RQ3. Academic Impact**

Not only did the physical barriers of the postsecondary educational environment have a negative impact on the emotional wellbeing of participants, but on their academics as well. More specifically, the architecturally inaccessible postsecondary environment restricted their access to academic content and academic support services, as well as their academic freedom. All three of these academic impact subthemes will be elaborated upon below.

**Access to Academic Content**

Physical barriers in the postsecondary environment reduced participants’ access to academic content that was delivered during lectures and tutorials, as well as content contained in library resources. One of the primary ways participant’s experienced limited access to academic content delivered during lectures and tutorials was due to absenteeism. Both participants admitted not attending some lectures due to the challenges explained above physically accessing lecture halls and classrooms. For example, Evans shares his experience on the first day of a required class when he approached a series of stairs leading up to the lecture room:

> When I got there the very first time, I didn’t know what to do. My heart jumped. While I was waiting downstairs figuring out what to, some of my classmates passed by and they asked me if I wanted to go inside. When I said yes, they carried me upstairs. But after that day I didn’t go to that class again. I had to depend on my friend’s notes. So, I almost failed that course. I had a very bad grade.

The above quotation shows how Evans avoided the daunting daily challenge of having his classmates carry him upstairs into the lecture room, and instead of attending class and taking his own notes, he relied on his friend’s class notes to learn the missed content. However, his academic performance significantly suffered as a result.

Similarly, Evans describes how a ‘mountain’ of stairs served as a barrier to his attendance at tutorials and the negative impact that this had on his academic opportunity, ‘Due to this “mountain” I only attended of few tutorials and then stopped. I always felt disappointed that I couldn’t go to tutorials to help me understand things that are taught in class better.’ Evans’ comment reflects a desire to attend tutorials to support his academic success, however the physical environment impeded his opportunity to conveniently access content delivered during tutorials.

Even when participants were able to overcome these challenges and attend lectures and tutorials, a second way that participants experienced limited access to academic content was an inability to concentrate during class. As mentioned above when discussing the first research question, participants reported how washrooms were inaccessible, and in relation to the third research question, this had a negative impact on their ability to concentrate in class. Felix explained that on some days he would stay 6-
9-hours on the upper floors of lecture halls because he could not move up and down the stairs during breaks between classes. The inability to move freely during breaks restricted his ability to use the washroom. As a result, he held his bladder for long periods of time, which served as a cognitive distraction from learning academic content delivered in class. Felix shares this sequence of events and their academic consequences:

Since I have difficulty in climbing and descending the stairs I have to always try to keep it, even when I am pressed to urinate, until lectures are over. The only other option I have is to leave lectures earlier and not return. When I choose to stay, sometimes I cannot even concentrate in class.

This quotation shows that Felix is faced with the difficult choice of having to either hold his bladder and struggle to concentrate on class content delivered during lecture or leave early but miss some content. Neither scenario affords him with the opportunity to be both physically and cognitively present to fully attend to material delivered during lectures; in the first scenario he remains physically present but cognitively distracted and in the second he is neither physically nor cognitively present.

In addition to having reduced access to academic content delivered during lectures and tutorials, the inaccessible postsecondary environment limits participants’ access to academic content contained in library resources. For example, Felix disclosed that he only went to the library once during his three years at the university because it is inaccessible, as he needed someone to carry him up and down the narrow stairways of the multi-storeyed building. The academic implications of his inability to access the library is shown in the following quotation, ‘I could not go and do further research or get books. So, I concentrated on only my [class] handouts and notes. This affected my [academic] results. I feel I have been denied an opportunity.’ Felix did not experience the same access to library books and research materials as his peers, which restricted the academic content he was able to draw upon to support his learning and academic outcomes.

Together, these experiences illustrate how the inaccessible postsecondary environment negatively impacted the academic performance of Evans and Felix by reducing their access to academic content across multiple settings compared to their peers without mobility disabilities. In essence, physical barriers translated to academic barriers in the form of reduced access to academic content delivered during lectures and tutorials as well as academic content contained in library materials.

Access to Academic Support Services
Not only does the physically inaccessible postsecondary environment restrict participants’ access to multiple forms of academic content, but also their access to academic support services, namely access to lecturers and examination accommodations. To explain, Evans shares a story of how the inaccessible environment limited his interactions with a lecturer to discuss his course performance:

I had problems with one of my examination grades. I realised the results of my friends were out and mine had the inscription “Not Available” on my academic records. I managed to get the lecturer’s number and called. When I informed the lecturer about the issue, the lecturer asked me to come to the office. Because I knew the place was not accessible I sent an email to explain things to the lecturer. Things did not go well, so I decided to go to the office, but I was unable to see the lecturer because the office is located in a multi-story building. I stood at the bottom of the stairway and I said, ‘My God, how can I go there?’ I went there alone without the assistance of
anyone. I attempted to climb the staircase to his office, but I could not because no one was there to help me... I had wanted to interact with my lecture but that didn’t happen. I feel that the issue of accessibility effects my academics and this makes me feel dejected.

Evans’ experience of multiple failed attempts to resolve an academic issue with his lecturer highlights how the inaccessible environment restricted his ability to interact with his lecturer, thereby placing limitations on his academic success. Furthermore, these academic limitations imposed by the physical environment were exacerbated by the lecturer’s apparent unwillingness to come downstairs to accommodate the student.

Encounters with examination accommodation services constitute another academic support service that was represented in the data as having an academic impact. One of the two universities have a designated room reserved for students with diverse needs to take their examinations with the necessary accommodations needed to provide equitable educational opportunity. Despite the existence of this disability support service, there are aspects of the postsecondary environment that limit the ability of students with mobility disabilities to access the service. Evans tells a story of how the physical infrastructure leading to the university’s examination room for students with diverse needs pictured in Figure 9 negatively impacted his academic ability:

One day I nearly lost my life on my way to write an exam. When I go to this split metal drain cover, the front tire of my wheelchair got stuck in there and I lost my balance and fell out of my wheelchair. You can see that the entire area is rough due to the broken pavement. I hurt my arm, but I couldn’t go back to the [residence] hall to rest because I had to go and write the two-and-a-half-hour exam. In fact, I wrote that exam with so much pain which lasted beyond the exam time period. Sometimes I had to pause and relax the arm to ease the pain before continuing.

Evans’ story overlaps with other subthemes discussed previously, including the issue of seemingly accessible spaces being inaccessible, the emotional impact of risk and safety concerns, and the inability to concentrate academically. Although the examination accommodation room was intended to be accessible to students with disabilities in support of their academic success, the split metal drain cover leading to the building created physical and emotional distress that negatively impacted Evans’ ability to remain cognitively engaged with his examination.

Figure 9. ‘Death trap.’ Split metal drain cover near special education examination accommodation room.
Academic Freedom

Beyond the issues of restricted access to academic content and support services, the inaccessible postsecondary environment also placed limitations on participants’ academic freedom by restricting the courses they enrolled in as well as their study habits. Regarding course selection, Evans explains his experience being forced to switch his programme of study from Mathematics to Social Work because the building associated with his preferred programme of study is not ‘disability friendly.’ The longstanding emotional resentment and sense of betrayal associated with this institutional limitation placed on his academic freedom is reflected in the following remarks made when looking at a photograph of the Mathematics Department building:

Anytime I see this building my heart jumps. This is supposed to be my primary department but because the building is not disability friendly, changes were made for me. The lecture halls have staircases which are not accessible for a wheelchair user. In view of the architectural design of the department, my courses were changed from economics, mathematics and statistics to sociology, social work and religion. Some of my classes of these new courses were also held in inaccessible buildings. One of them, interestingly, was held in the Mathematics Department. I feel I have been denied the opportunity to read the course of my choice.

The quotation clearly illustrates that Evans was denied his academic freedom and stripped of his agency with the statement ‘changes were made for me,’ as opposed to Evans deciding to make the changes on his own accord. Additionally, Evans highlights the irony of the situation in that one of his reassigned courses was held in the very building that was deemed to be inaccessible to him and instigated the course change.

Another element of participants’ academic freedom that was constrained by the inaccessible postsecondary environment is study habit autonomy. Both Evans and Felix reported feeling that they were denied the opportunity to study in the location of their choosing (namely the library) due to the physical barriers that characterised the library buildings. The way in which the inaccessible library building contributes to one’s lost academic freedom is shown in Evans’ description of his study habits:

I don’t like studying in my room but whenever I want to go to the library, I must ensure that one of my friends is also ready to go to the library because of the entrance of the library. So, if no one wants to come, then it means I can’t also come. My studies revolve around my friends, meanwhile we know that everyone has their best times of study. All of this affect my academic output.

If Evans was afforded full academic freedom with respect to his study habits, he would be free to study in his preferred location at his preferred study times, but instead Evans is reliant on his friends and feels that this negatively impacts his academic performance.

Discussion and Conclusion

The findings of this study have multiple implications for policy and practice in higher education institutions in Ghana, as well as other sub-Saharan contexts undergoing similar educational reforms. Given the numerous encounters with the inaccessible postsecondary environment that participants experienced throughout their daily lives as university students, the findings of this study suggest that the theoretical framework of universal design
and a ‘disability friendly’ environment that is proposed in Ghana’s Inclusive Education Policy (Ministry of Education, 2016) is not being upheld. Instead, consistent with previous research in other contexts, postsecondary students with mobility disabilities in Ghana face numerous practical difficulties navigating the ‘disabling’ environment and are left feeling marginalised and their ability to study is undermined (Holloway, 2001; Reindal, 1995). Accordingly, to inform continued Inclusive Education Policy implementation across Ghana, the findings of this study suggest that architectural changes should be made to university campuses to address the numerous physical barriers that participants identified. Furthermore, the nuances highlighted in this study around seemingly accessible spaces being functionally inaccessible should be attended to. It is essential to consider factors such as door width, ramp slope, level ramp landings, turning radius and height accessibility to ensure that future efforts to build and modify campus structures are more fully aligned with the architectural principles of universal design and are not an ineffective use of limited resources.

Additionally, the findings of this study call for further research for ongoing monitoring and evaluation of the accessibility of higher education for students with disabilities in Ghana and sub-Saharan Africa more broadly. Participants’ narrations and photographs illustrate numerous encounters with the inaccessible postsecondary environment that produced negative emotional and academic impacts. There is great potential for these and future accounts to inform sustainable inclusive education reform if policy actors and higher education administrators provide opportunities for first-hand experiences to be communicated as part of their monitoring and evaluation processes. Doing so would not only help address participants’ feelings of exclusion from the university community and society at large but would better position higher education institutions to meet the needs of students with disabilities informed by daily personal experiences. Administrators and campus staff without disabilities are likely unaware of the risk and safety concerns expressed by participants in this study, as well as the numerous ways an inaccessible environment can restrict students’ academic freedoms and access to academic content and support services. Further research on postsecondary students’ experiences of exclusion in Ghana and sub-Saharan Africa coupled with research examining the perspectives of university administrators and staff has the potential to bridge the gap in awareness and understanding to advance inclusive education.

There are undoubtedly limitations with the inferences that can be drawn from the experiences of two postsecondary students reflected in our study, and we acknowledge that a variety of perspectives may be missing from the images and narrations presented above. However, given the lack of research that focuses on postsecondary students with disabilities in Ghana, the challenges raised may be relevant to other students with disabilities at other higher education institutions. This study contributes to the growing body of international research showing that physical access to higher education continues to be a critical issue for students with disabilities (Riddell et al., 2005). Furthermore, there is value in sharing the voices of students with disabilities to inform the perspectives that are represented within the research and policy community. The PhotoVoice methodology used in this study provides a unique lens through which to view first-hand experiences in a deep and nuanced way and addresses the need for more PhotoVoice research in the Global South (Dassah et al., 2017). Future research should continue to address this need to bring additional marginalised voices to the global stage. While we admit that our study is limited in the breadth of perspectives represented, we feel that the depth of insights
offered from members of an incredibly marginalised and under-researched population provides a valuable contribution.

Overall, the voices and experiences of students with disabilities pursuing postsecondary studies are vital to inform sustainable policy decisions and implementation to ensure that an equal educational opportunity is being provided to all. As higher education continues to grow at unprecedented rates in sub-Saharan Africa and in Ghana in particular, it is especially important that the voices of students with disabilities do not remain silenced and are adequately represented. An ongoing commitment of higher education institutions globally is needed to improve the accessibility of the postsecondary environment to better meet the needs of students with disabilities and realise the goals of national and international inclusive education policies.

Notes

2. Tertiary education is defined in the Inclusive Education Policy as any public university, polytechnic, college of education, or public institution operating under the auspices of the national tertiary education supervisory bodies (Ministry of Education, 2016).
3. While some may consider hunchback to be a derogatory term, Felix self-identifies with this disability category, so the term is used herein.
4. Note that Evans took a total of 80 photographs and Felix a total of 68 photographs, however many of these photographs were duplicates because participants were trained to take multiple photos to capture the best shot. Each encounter was counted as a captioned narrative with multiple (approximately 3–6) corresponding photographs.

Disclosure statement

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References


**Table 1. List of initial and final codes.**

<table>
<thead>
<tr>
<th>Initial Codes</th>
<th>Final Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Encounters with inaccessible environment</td>
<td>1. Encounters with inaccessible environment</td>
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<tr>
<td></td>
<td>1A. Entrance gates to university</td>
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<td></td>
<td>1B. Lecture halls</td>
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<tr>
<td></td>
<td>1C. Library</td>
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<tr>
<td></td>
<td>1D. Computer testing centre</td>
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<tr>
<td></td>
<td>1E. Administrative buildings</td>
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<tr>
<td></td>
<td>1E.i. Residence hall</td>
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<tr>
<td></td>
<td>1E.i. Grocery store in residence hall</td>
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<tr>
<td></td>
<td>1F. Student union buildings</td>
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<td></td>
<td>1G. Lecturer offices</td>
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<td></td>
<td>1H. Campus ATMs</td>
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<td></td>
<td>1I. Campus post office</td>
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<td>1F. Washrooms</td>
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<tr>
<td></td>
<td>1F.i. Toilets</td>
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<td></td>
<td>1F.ii. Showers</td>
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<tr>
<td></td>
<td>1G. Modes of transportation to/from university</td>
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<tr>
<td></td>
<td>1G.i. Trotro</td>
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<tr>
<td></td>
<td>1G.ii. Walking path</td>
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<tr>
<td>2. Emotional impact of encounters</td>
<td>2. Emotional impact of encounters</td>
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<tr>
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<td>2A. Emotion words coded verbatim</td>
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<td>2B. Risk &amp; safety concerns</td>
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<td>2C. Personhood ‘I am a person, not ___’</td>
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<td>3A.ii. Study habits</td>
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<td>3B. Access to academic content</td>
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<td>3Bi. Content delivered during lectures</td>
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<td>3Bii. Content delivered during tutorials</td>
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<td>3Biii. Content in library resources</td>
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<td>3C. Access to academic support services</td>
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<td>3Ci. Access to lecturer to discuss course performance</td>
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<td>3C.ii. Access to examination accommodations</td>
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<tr>
<td>Word</td>
<td>Frequency</td>
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<td>Ashamed</td>
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<td>Bad</td>
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<td>Child (felt like a child)</td>
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<td>Denied</td>
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<td>Difficult</td>
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<td>Hurt</td>
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<td>Infantilized</td>
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<td>Insulting</td>
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<td>Isolated</td>
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<td>Left out</td>
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Total 34                      Total 46