Echoing the voices of SWVIs under Covid-19 inspired online learning

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Abstract

With the kind of interruption caused by the COVID-19 pandemic, many higher institutions, including the University of Ghana, swiftly shifted their engagements online which might have come with its setbacks. In view of that, this phenomenographic design study sought to investigate and document the qualitatively different perspectives of thirteen students with visual impairments (SWVIs) as they transitioned and studied fully in an online space. The experiences of the SWVIs were captured in five themes that emerged from the analysis of the field data. The five themes are pre-COVID-19 academic experiences, [initial] reaction to online shift, preparation towards online shift, coping mechanisms in fully online learning spaces and preferred post-COVID-19 learning space. In the end, the SWVIs expressed more challenges with online learning than benefits and opted for a switch to the face-to-face mode post-COVID-19. Consequently, the study recommends inter alia, training for students and faculty to build sustainable online relationships; deployment of participatory technologies to build learner autonomy; and the need for the University to craft a policy of inclusiveness which embeds ‘ubuntu’ (common humanity) and human awareness to reverse inequalities among its students.

Keywords COVID-19 · Emergency online learning · Phenomenographic method · Students with visual impairments (SWVIs) · Theory of care

1 Background

Since 1948, the United Nations and other stakeholders in education have emphasised the need to create room for inclusivity in education, hence, the declaration in the UN Charter that education is a right and not a privilege. In the year 2015, providing equal

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educational opportunities for all learners became an issue of concern, hence the establishment of the Sustainable Development Goals (SDGs) by the UN. Sustainable Development SDG 4 which touches on the need to ensure equitable and quality education for all citizens of the world by the year 2030 (United Nations 2015) has become the hallmark of most educational systems across the globe. This is invariably a call for inclusivity of all forms in education at all levels which could be made possible by leveraging digital educational tools.

Despite these efforts, emergency education has become the ‘new normal’ in almost all countries since the later part of the year 2019 when the COVID-19 pandemic started disrupting almost all human activities. By March 2020, UNICEF (2020) reported that globally, the education of over 1.5 billion students (nearly 90%) had been disrupted by the pandemic. This impelled governments to close schools in many countries across the globe. Consequently, the President of the Republic of Ghana announced measures to curtail exacerbation of a spread of the disease by the closing of all schools. However, based on the advice of the world bodies including the Commonwealth of Learning (CoL) (2020), various countries were to determine felicitous strategies for continuing its education even as scientists race against time to find a panacea to the pandemic.

The eventual result was moving school-based activities online. At the end of July 2020, some higher institutions in Ghana, including the University of Ghana (UG), had somewhat successfully ended their content delivery and assessments. This was based on a directive by the Pro VC (Academic and Student Affairs) of the University to roll out all UG programmes online (UG 2020a). In the end, both online instructors, administrators and students seem to have grown to live with the ‘new normal’ (full online learning). This is the result of the support offered by the University in these trying times. For instance, the University Management made special arrangements with Vodafone to provide sim cards for faculty, staff and students to support with data (UG 2020a). Additionally, both Vodafone and MTN (the two leading telecom providers in Ghana) agreed to zero-rate all activities that were routed through the University’s Sakai Learning Management System.

Despite the seeming successes that might have been chalked in the face of the COVID-19 lockdowns and the joy of going through a semester and even having virtual graduations, one group of higher education students whose voices might have been obscured or perhaps silenced are the students living with visual impairments (SWVIs). The Office of Students with Special Needs (OSSN) of UG (2019) defines SWVIs as those with *total or partial sight loss that impedes work or educational process and may necessitate accommodations, support services, or programmes (e.g., Braille, note-taking, enlarged prints, care attendants, etc.)* (p. 3).

As noted by the CoL (2020), the sudden appearance of the pandemic left very little or no room for planning, hence swift implementation over time for planning became the order of the day. This might have contributed to looking at the majority groups within the higher institutions at the expense of the somehow silent minority. However, Bates (2020) asserted that no single solution works equally effectively for all category of students, so he advocated for the provision of alternative options that cater for all manner of students including the disadvantaged. Zawacki-Richter et al. (2020) also shared that in the face of the pandemic, ‘openness in education’ is key in ensuring pluralistic and inclusive measures to widen participation in education.

Given that the UN Convention on the Rights of Persons with Disabilities (UN 2006) which sought to promote equal rights of people with disabilities at all levels of

education, there is the need to investigate how such persons are supported in their education especially in the face of the COVID-19 pandemic. In Ghana, the government promulgated the Persons with Disability Act (2006) to enforce the rights of such persons. However, Okyir (2018) argued that the law overgeneralises the needs of Persons with Disabilities (PWDs) and has failed in shoring the needs of such persons. Clearly, both the international and national laws were not particularly fit for addressing the challenges of PWDs so the government of Ghana launched a national inclusive education policy in 2016 to promote equal access to education. But Braun and Naami (2019) assert that the focus of the policy was on restructuring the curriculum and re-engineering of architectural designs to ease access for PWDs.

In all the policies discussed thus far, none has been explicit on SWVIs who are described in this paper as students with total sight loss. Such students mostly use assistive devices (e.g. screen readers and screen magnifiers for the blind and low vision respectively) and need academic support even in ‘normal’ times to maximise their learning in higher institutions. An exception was made when the UG (2020b) in rolling out online learning during the lockdown categorically emphasised that

For visually impaired students, the Team is ensuring that all materials that are put on Sakai for their respective courses are optical character recognized so as to make them usable with a screen reader. Additionally, the Team has acquired remote access licenses for the JAWS and Zoom Text (Fusion) application that will assist visually impaired students directly on their PCs (paragraphs 6-7).

Additionally, UG’s Office of Students with Special Needs (OSSN) outlined 13 services in its evaluation by Asiedu et al. (2018) among which I could pick four as directly earmarked for SWVIs engaged in online learning namely:

- The production of course material in appropriate formats such as braille, audio, large font sizes and electronic versions
- Transcription of braille assignments, exercises and examinations into print and vice versa
- Provision of digital recorders and Perkins Brailers to students
- Provide/direct students to appropriate quarters for professional counselling needs

It can be said that UG and its OSSN have put in efforts, policies and structures to assist special needs students in their academic life. Okyir (2018) has claimed that literature on struggles of PWDs is very limited in Ghana while Braun and Naami (2019) were emphatic that sparse literature on disabilities in higher education is dominated by the voices and perspectives of teachers. Given the limited literature and the fact that SWVIs need a lot of support in their academics, especially with the online shift, this phenomenographic design study sought to investigate and document their individual perspectives as they transitioned and studied fully in the online space.

2 Theoretical underpinning

To investigate the transition and lived experiences of SWVIs, this paper is framed within the Theory of care. In laying a foundation for this theory, Soto (2005) admits

that there cannot be one universally accepted conceptualisation. He, therefore, cites Thompson (1998) that *“if theories of care are not to be essentialist, they cannot be modelled on one social group and then applied to (or modified for) others.”* Soto (2005) further stressed the need for equal levels of caring and relationships between genders. In the context of study, the equilibrium should be between the SWVIs and the sighted students which can best be attained when the care perspective is based on attachment and compassion for the SWVIs.

The SWVIs in this study are comparable to immigrant students in a study by De Atilas and Allexsaht-Snider (2002) who experienced some emotional trauma in their new schooling environment. The sharp learning curve that the SWVIs experienced in swiftly moving from face-to-face to fully online learning could be traumatic. To avert this situation, the authors adduced that when teachers go beyond being information-providers in the classroom and develop caring relationships with students, the stress on the students could be lessened. In corroborating this, Noddings (2002) indicated that both the caregiver and the receiver need to enter into a mutually satisfying relationship. This kind of relationship in the view of Gay (2018) can develop students' affinity to learning, offer them emotional stability and maximise their success. Essentially, the Theory of care is about teachers building formidable relationships with their students. Hence, Gay (2018) opined that the care emanates from the relationships.

One of the central pillars of the Theory of care is the pedagogy of care which Thompson (1998) argues should reflect a caring community. In shedding light on this, the culture and values of the SWVIs should be factored into the curriculum (Expósito and Favela 2003). Dealing with immigrants as a minority and disadvantaged students, Thompson (1998) highlighted that educators need to dwell on multidimensional pedagogies to accommodate such a cohort of students. Villegas (1988) identifies a weakness of the theory and deemed it to be feminist in approach but he accentuates four tenets as its strengths, namely, *caring is a concern for person and performance; caring is action-provoking; caring prompts effort and achievement; and caring includes multidimensional responsiveness* (p. 865). These tenets coupled with Gay's (2018) assertion that the theory promotes a caring ideology which encapsulates the lived realities of minority students makes it an ideal theory to foreground this study.

Another area that calls for a Theory of care is during transitions in learning spaces, for instance, from face-to-face to fully online learning spaces as necessitated by COVID-19 pandemic. Though digital technologies have largely bridged the transactional distance that might have been compounded by social distance, Olcott (2020) has warned that remote emergency education may deepen social injustice and inequality while Teräs, et al. (2020) expressed concerns about student equity. They theorised that in as much as students with good study skills and support may excel in online studies, those with special needs and challenging life situations may under-achieve or truncate their studies. Their assertion brings into focus issues of social justice in open and online learning and the need to ensure access, participation and learner outcomes (Lambert 2019; Trotter et al. 2018). Such inequities could be more pronounced and affect minority students such as the SWVIs in this study that Mutavati, et al. (2020) termed such a situation shadow pandemic. Lambert (2019) thus noted that the success of open [online] education can be measured *“not by any particular technical feature or format, but instead by the extent to which they enact redistributive justice, recognitive justice and/or representational justice”* (p. 239).

Furthermore, findings from a study by Braun and Naami (2019) found that post-secondary educational environments presented emotional impacts such as feelings of exclusion, fear, sadness, pain, shame, isolation and infantilised or objectified as the students with disabilities had to be helped in almost all their educational endeavours. Though their study was on the physical environment, Bali (2020) highlighted the devastating impact that the COVID-19 pandemic has led to a global crisis and how minority students might be affected. Bali, therefore, raises the issue of prioritizing care, empathy and emotional support beyond the physical classroom environment and the need for policy to drive efforts towards supporting SWVIs in other learning spaces. The call for a policy is buttressed by Olcott (2020) who believes such a move will strategically balance influence from different sources.

Though the theory of care has been in existence long before the COVID-19 pandemic, Bali (2020) believes it should be recognised as a crucial element in learning as its importance will transcend the pandemic. This finds roots in Zembylas (2013) argument that the emotional ramifications of the pandemic called for purposely crafted designs and practices that has as its core values as care, inclusion and empathy for diverse students. Of principal concern in providing care for SWVIs are deeper levels of caring relationships, design elements and pedagogical practices that enhance the emotional sensitivity and support the development of caring relations in online learning, listening to marginalised and disadvantaged students and engaging in open and authentic dialogue, providing alternative forms of assessments, use of social media to create safe spaces for students and providing additional and stronger support to address these concerns and challenges (Robinson et al. 2020; Velasquez et al. 2013; Noddings 2012; Waddingham 2020). Similarly, Cronin (2017, p. 18) added the aspect of collaborative practices wherein he noted that “*employing participatory technologies and social networks for interaction, peer-learning, knowledge creation, and empowerment of learners*” help maximise learning experiences of SWVIs.

As this pandemic period has inspired online learning on a global scale, one may find so much sense in an assertion by Bates (2020) that no single solution can work effectively for all students. He, therefore, called for the provision of alternative options for disadvantaged students on the premise of issues of digital divide, poor accessibility and inadequate infrastructure. In support of this, Concerned Academics (2020) proposed a key element in the theory of care which they termed social pedagogy. They explained that their approach is consultative, inclusive and sensitive to the students, teachers and communities that work towards a framework which is mutually supportive in times of crisis and recovery.

In line with the above, Section 8.2 (Information and Communications Technology (ICT)) of the UG (2019) Policy for Students and Staff with Special Needs unequivocally states,

The University’s ICT shall offer students/staff with special needs the ability to access knowledge by adapting digital media to the nature of their disabilities and to enhance their social and academic integration in the University community. Assistive Technologies, (e.g., Spell-check and Correct Grammar Software, Supernova - magnification and screen reader software and JAWS -text-to-speech) shall be made available for individuals with special needs (p. 9).

Finally, Lambert's (2019) six dimensions of widening online participation is captured as critical in providing care for SWVIs. The dimensions are technology (access and use and free online resources); autonomy (students' choice and control over when and how much to study); purpose (improvement of socio-economic opportunities rather than deepening inequalities); skills (programme's ability to overcome inequalities in a pre-existing digital environment); social support (programme's ability to overcome inequality in social support) and learning materials (how textual, audiovisual materials, assessment and feedback are inclusive of learners' sociocultural and linguistic diversity) (Beaven et al. 2014; Daniel 2012; Devlin 2018; Funes and Mackness 2018; Negroponte et al. 2006; Tait, 2015). Based on Lambert's six dimensions and the critical dimensions espoused in the theory of care in the extant literature, the author is obligated to use it to undergird this study.

3 Research method

In this study, I employed the phenomenographic research method, which aligns with the constructivist paradigm, to investigate the transition and lived experiences of SWVIs in a fully online learning environment. The choice of the method is grounded in the definition by Marton (1986) that "*phenomenography is a research method adapted for mapping the qualitatively different ways in which people experience, conceptualise, perceive, and understand various aspects of, and phenomena in, the world around them*" (p. 31). Specifically, Marton's (1986) 'pure' phenomenography is brought into the fore as the study describes how the SWVIs conceived of various aspects of their transitioning to fully online learning and their experiences studying online rather than just the content delivered to them in their studies. Bringing this definition to light in this study means exposing the SWVIs lived experiences on a case by case basis before identifying the convergence and divergence within their experiences for critical analysis. The essence of the case by case indication resonates in Dall'Alba's (2000) concern that there might be a qualitative difference in how students experience a phenomenon. Though this study looked at a sample that is homogenous in terms of their visual loss, it is impossible for them all to have the same transition experiences from the conventional classroom to the fully online environment and also to have the same experiences learning online. This finds meaning in the non-dualistic ontological position by Marton (1981) that the phenomenon and how the subject perceives it are not separate due to the relationship between the two.

To focus the phenomenographic research method in this study, I resorted to a framework developed by Bowden in 2000a to guide such studies. Bowden's framework comprises Plan, Data Collection, Analysis and Interpretation. The first three phases of the framework are discussed in the ensuing parts of this methods section while the last phase is discussed in detail in the next section of this study.

3.1 Planning: Purposes and strategies

Bowden (2000a, b) articulated the need to be clear with the purpose of researching from the onset. He indicated that the purpose should be at the back of researchers' mind to guide all the processes involved in a study. In this study, it has been noted that the

voices of the SWVIs have been obscured in the discourse of moving delivery of UG academic engagements online. The underlying purpose was, therefore, to investigate the transition and lived experiences of SWVIs in a fully online learning environment and document these experiences.

Given the purpose of this study, the Coordinator of the Office of Students with Special Needs (OSSN) was contacted to share the purpose of the study with her and to request for contact information of students with visual impairments who could participate in this study. In fulfilling ethical protocols, I acknowledge that this study is part of a bigger project on learners' educational needs in Ghana by the School of Continuing and Distance Education of the University of Ghana. Ethical clearance was sought from the UG Ethics Committee for the Humanities and Ethical Clearance certificate with the code ECH/037/19–20 was granted for this study.

Having in mind the purpose of the study and those who would constitute the study participants, I obtained a sampling frame of the SWVIs from the OSSN which contained 31, 42 and 54 SWVIs for the 2017/2018, 2018/2019 and 2019/2020 Academic Years respectively. In addition to the names of the SWVIs, their phone contacts were also collected so I started placing calls from the 28th of August 2020 as part of the protocols to seek their permission to be interviewed for this study. After two weeks, 21 of the SWVIs had responded out of which 13 consented and participated in this study.

3.2 Data collection: The Phenomenographic interviews

As espoused by Limberg (2008) the aim of phenomenographic interviews is to encourage participants to reflect and fully explain their personal views of the phenomenon under study. Additionally, Bowden (2000b) believes such interviews are critical in revealing a range of perspectives on the phenomenon. It is in this spirit that problem questions were initially posed to help the researcher diagnose and have a better understanding of the SWVIs individualised perspectives of their transition and engagements in a fully online learning space. The problem questions were framed as open-ended questions to enable the participants freely and exhaustively share their experiences on the phenomenon. For instance, participants were asked how they were involved in the decision to shift delivery online. This also allowed the researcher to probe for the in-depth meaning of the participants' feelings and perceptions (Gaffas 2019). The questions designed for the interviews were premised on the Theory of care and extant literature but were screened for accuracy and validity in the Ghanaian context.

Between September and October 2020, the 13 SWVIs who agreed to participate in this study were interviewed. All participants are undergraduate students at the University of Ghana. The demographic characteristics of the participants in this study are presented in Table 1.

Due to the social distancing protocols established to help curtail the spread of the COVID-19 pandemic, all 13 interviews were done telephonically at times convenient for the participants. Since interviews were done on phone, participants were at liberty to locate themselves at any place convenient for them. Each interview was conducted in English and was recorded with software installed on the smartphones used for the interviews with permission from the interviewees. The interviews lasted between 22 to 30 min after which five research assistants trained by the researcher were tasked to transcribe all the interviews verbatim. The use of the interviews is premised on it being

Table 1 Demographic characteristics of participants

Personal Information	Number
Gender	
Male	9
Female	4
Total	13
Programme of Study	
LLB	7
B. A. Political Science and Philosophy	2
B. A. Education	1
B. A. Political Science	1
B. A. Sociology, Social Work and Education	1
B. A. History and Information Studies	1
Total	13
Level of Study	
Level 300	5
Level 200	4
Level 400	3
Level 100	1
Total	13

the most accepted means of data collection for phenomenographic studies (Bowden 2000a, b; Limberg 2008).

Though key questions were presented to participants as problem questions, probing questions were asked on an individual basis based on answers the participants provided. This was done on the basis that phenomenographic interviews should encourage participants to reveal their qualitative understanding and personal relationship with the phenomenon under consideration (Bowden 2000a, b). In the light of this study, the SWVI had their personal perspectives on their transition and full online engagements which this study seeks to document.

The transcribed field data was read severally by the researcher and research assistants to discover and agree on the categories and sub-categories that emerged. These are showcased in Fig. 1.

3.3 Reliability

In phenomenographic studies, reliability is addressed through interpretative awareness (Sandberg 1995). To achieve this, the purpose of the study was established from the onset and was aligned with various aspects of the study to focus the work at all times. The purpose helped to maintain a strategy that led to the achievement of the study's ends. This is reflected in the adoption of Bowden's 2000 framework for undertaking this study. Also, the researcher and research assistants engaged in fieldwork seeking to obtain and document only the views of the study participants. Also, as noted by Bowden (2000b), goodness and trustworthiness of such phenomenographic studies

Visual presentation of categories and sub-categories from the analysed data

Fig. 1 Visual presentation of categories and sub-categories from the analysed data

are achieved through the provision of full descriptions of the context of the study participants' conceptions as done in this study.

4 Results and discussion

After analysing the field data, five categories and fifteen sub-categories emerged as reflected in fig. 1 and discussed in much detail in the sub-sections that follow.

4.1 Pre-COVID-19 academic experiences

As this study aimed at establishing the transition and online experiences of the SWVIs, it was expedient to check their reflections on their academic experiences before zooming into the online learning space. Lambert (2019) identified social support as a pillar in caring for people in need. Given this, the reflections of the participants mainly delved into transportation arrangements, software availability and being the silent minority.

Concerning transportation arrangements, all the participants noted that through the OSSN, the University provided a bus that conveys them to and from lectures.

We have a bus that has been coming for us, so when you have a lecture you call the driver and the driver will come for you. Oh the Interim Assessments too, yeah

we were [some seconds of silence]. It's the same way. You call the driver, he comes for us, and he takes us to UGCS [University of Ghana Computing Systems], that's where we write our exam. (Female – Level 300b)

Though this arrangement seems excellent for prioritizing empathy and support (Braun and Naami 2019), the participants had some challenges which meant the support was short of certain elements and calls for the University to ensure full support for the SWVIs in that respect. The challenges therein are crystalised in a participant's voice

Errm, okay, sometimes errm, when you call the driver, errm he will tell you that the petrol is finished or sometimes, he's not around, he is not on campus....mmm {which means when that happens you will not be able to attend lectures right?} No, I attend! Sometimes I look for someone to assist me. (Female – Level 100)

In making a case for the Theory of care, Thompson (1998) argued that if such theories are modelled on one group and applied to other groups it does not serve its purpose, thus not being essentialist. In this wise, SWVIs stating that they sometimes have to get hardcopies of materials to convert into friendly formats leave much to be desired. It is not wrong for them to attend lectures like their sighted colleagues, but the challenge came into the fore when they reflected on their materials.

Errm, so, I, I go to lectures like any normal person and I access my, my books, I get the softcopy if that's possible, either than that, I get the hardcopy then, errm, get it scanned. Errm, so I upload it unto my laptop and there's a screen reader software that reads it out when I'm, I'm...it's there to help me use the laptop so that's what I use. (Female – Level 400)

In a bid to lessen the challenge with getting softcopies of learning materials, the University deployed assistive devices and software as enshrined in its policy (UG 2020b) to enable the SWVIs to engage in effective learning. The challenge, however, remains with some lecturers who refuse to accord such students the necessary help. Most of the students bemoaned this situation.

Sometimes the lecturers don't give the slides they dictate. Therefore, I rely on my colleagues to take it from them but sometimes they [lecturers] also give us some of the slides. When I take the slides in the softcopy form, I use my laptop for reading that's the JAWS software on it for reading and so that helped me a lot. (Female – Level 300a)

From the quote above, one can theorize that some of the lecturers in the University are not aware of or are not practising the Theory of care. The kind of affinity and formidable relationships that lecturers are expected to build with such students (Gay 2018) is missing and that is likely to compound the challenges the SWVIs face in their learning.

Similar to the above development the SWVIs lamented on cases where lecturers hardly recognised their presence and thus go about their classes as though disabilities did not exist. They indicate such situations make them a minority without a voice.

Bowyer et al. (2020) aptly captured that such instances put excluded individuals at risk of losing both their voice and their visibility. Such an instance is captured in what follows.

The truth of the matter is that because I am a minority. Definitely, the lecturer will be oblivious that there is someone like that [an SWVI] in the lecture hall and will therefore fail to recognise you when performing a demonstration. The lecturer will, therefore, be pointing on the screen meanwhile you do not have sight to see. Secondly, the lecturer goes very fast with respect to dictating notes. (Male- Level 200c)

Given such instances, it is apparent that the kind of multidimensional pedagogies for accommodation and the call for student equity in the learning environment (Teräs et al. 2020; Thompson 1998) that benefit such students are not being operationalised. The ramifications of educational inequity are such grave that Mutavati et al. (2020) termed it shadow pandemic as students' focus might be on the inequalities they face rather than the core learning issues.

Together, the pre-COVID-19 learning experiences have showcased the strides that the University has made in providing transportation and some assistive devices to maximise the learning of the SWVIs in this study but has at the same time, given the picture of the flip side which needs to be improved.

4.2 [initial] reactions to the online shift

One of the key recommendations Bowyer et al. (2020) gave for eliminating digital exclusion is the need to establish a robust baseline of what it means to be digitally inclusive. Contrariwise, the CoL (2020) document established that the speed with which the COVID-19 pandemic took the world by surprise did not leave room for people and institutions to plan. The argument of the CoL irrespective, the SWVIs had to be informed of the sudden switch from the conventional lecture room to a full online space. Their reactions to hearing such news ranged from feeling helpless, feeling relieved and having an aversion for the idea.

Students who felt helpless could be compared to the immigrant students in De Atilés and Allexsaht-Snider's (2002) study who experienced some emotional trauma in their new school environment. The fear of switching from one learning space which they might have created as their comfort zones to another raised fears among the SWVIs. The participant who felt helpless shared his sentiment.

Well, there was no option so we had to adjust to it when we heard of it ... it was like if you don't take part in the online learning you would have to defer or resit and a lot of us would not want to go through that. The option to defer if you don't take part in the online studies was clearly stated by an authority I wouldn't want to mention. (Male – Level 400a)

The student's expression of being helpless may sound defeatist and skews towards the challenges others might have expressed. Similarly, the sentiment of another participant who expressed aversion at the news is shared below.

Errm, so errm, the school, we stopped going for lectures I think starting from the 15th of March [2020], and by the end of that week, we were told to go home. So, I left campus on the 23rd By the end of the following week, that was when I heard, almost like the beginning of April. Errm, I was a bit...worried, err, yeah, I was a bit worried. (Female – Level 400)

One cannot fault the students for being worried and averse because they might have been fighting their own ‘battles’ as SWVIs who are in mainstream education. Their worries find roots in Teräs et al’s. (2020) argument that students with good study skills and support may excel in online learning but those with special needs may underachieve. Further analysis of the field data showed the SWVIs expressing their lack of technological skill. Consequently, the switch was likely to produce a counter effect of Lambert’s (2019) idea of purpose where the adoption of technology would end up deepening inequalities in schools. This goes to tell that despite the University’s provision of policies and assistive devices to help the SWVIs in their learning (UG, 2020b), focus has not been on training them on the use of the University’s LMS and other tools for learning. Their sentiments also have to do with the sharp learning curve they were bound to experience, hence, a cause for them to worry about being transitioned. The issues herein raised reflect in the voice of another participant.

Alright, I think when the President [of Ghana] announced that all universities should close down and I started hearing some rumours that this is what we are going to do, the University is going to go online that was around 20th March thereabout. Yeah, initially I was against it because personally, I am not technologically inclined, in terms of using the laptop, accessing the Sakai and other platforms. I have never used the Sakai since I came to the University of Ghana so I saw it to be a challenge, so I was against it. (Female – Level 300a)

Despite the challenges and the issues raised against the transition two students saw a metier that comes with it and expressed relief at hearing the news. The crust of their expression is found in what is shared in the following:

When the announcement was made officially. I basically got it through various WhatsApp platforms. Taking into consideration the circumstances we found ourselves. I guess it was a pretty massive news at the time and well we might have anticipated some of the challenges but the University had everything under control and that is why they allowed us to go online. I felt it wasn’t so much of a big deal because usually ... on campus, sometimes, there are online classes, so I felt it was a great move and a step in the right direction. (Male – Level 400b)

The quote above was not explicit on what the University had done to prepare the students for the transition. Rather, the participant was exhibiting some faith in the University’s ability to perform creditably and on the experience of the online classes that were organised occasionally. This scenario represents Bowyer et al’s. (2020) recommendation to build on initiatives as a way of innovating for inclusion. Also, it calls for consideration of Lambert’s (2019) attention to redistributive justice and

representational justice in educational settings to allay any such fears that students may face when there are change initiatives.

4.3 Preparations towards online learning

It has been established in the CoL (2020) document that the swift spread of the COVID-19 pandemic called for swift action over planning. Because of this, institutions such as UG had to swiftly switch its mode of operation to the virtual space. But transposing the SWVIs to the new learning space, one needs to ensure access, participation and learning outcomes (Lambert 2019; Trotter et al. 2018) as well as purposely crafted designs and practices with a keen focus on inclusion and empathy (Zembylas 2013) for the SWVIs. Participants' views on the preparation processes were two-pronged.

The first level of their preparation was identified as personal which comprised securing the needed software, basic tools and relying on family and friends. To this end, it can be adduced that the CoL's (2020) advice to deploy every necessary digital tool to continue with learning was exhibited by the individual SWVIs. Also, they resorted to using technology to bridge the geographical and transactional distance that had been occasioned by the social distancing protocols and did not allow the remote emergency education to deepen social injustices and inequalities the pandemic might have caused (Olcott 2020; Teräs et al. 2020). To showcase how the SWVIs had readied themselves for the full online engagements, two of them shared what follows.

In my own way errm, I heard we'll be having some lectures on ZOOM so I went to download the app and... I, I asked my sister to teach me how I will use it, or what I'll do when I'm.....going for a meeting there, and I asked some people, some of my sighted colleagues to teach me how I will use the Sakai. (Female – Level 100)

Okay, so personally since umm my challenge was ummm how to.... My challenge was with the SAKAI thing, like how to access it, so I started going there myself like I was calling people to help me... so like get access to it or something so that was what I was doing. (Female – Level 300b)

Based on the participants' responses, one sees the importance of communities of support to succeed. Soto's (2005) emphasis on equal levels of caring relationship among diverse groups becomes imperative in this wise so the SWVIs would not be left out in their studies. Similarly, Bali (2020) strongly advocated for care, empathy and emotional support beyond the physical classroom. Though the family and friends who offered support for the SWVIs might have played key roles in helping with their transitions, one needs to be cautious from what Braun and Naami (2019) termed emotional impacts in their study. Such emotional impacts include pain, shame and feeling infantilised when special needs students have to rely on others to be able to complete tasks.

The second level of preparations was institutional. At this level, seven of the SWVIs felt the University had not done enough to prepare them, three thought otherwise while two felt individual lecturers had stepped out of their ways to prepare them. Once again, Bowyer et al's. (2020) recommendations of investing and building the capacity of key

stakeholders and innovation for inclusion are brought into the fore when thinking of making digital education inclusive. Also, paragraphs 6–7 of the UG (2020b) statement on its preparation for students with disabilities is interrogated on account of the SWVI's experiences in their preparations and transitions.

The crust of the arguments raised by those who felt the University had not prepared them well mainly had to do with communication gaps and the lack of training. This runs contrary to the Theory of care wherein Gay (2018) established that care emanates from relationships. Also, the kind of authentic dialogue that Zembylas (2013) advocated for was not in the picture. Reflections from two of the SWVIs to this effect are as follows.

Okay, me like this, the University didn't prepare me for anything because I didn't see anything from them, I didn't....nothing let me put it that way. I didn't hear anything. (Female – Level 300b)

Not really. We were not contacted for any preparation, not training or anything like we were to figure it all out by ourselves just like our sighted colleagues. (Male – Level 400a)

Despite the seemingly negative reflections painted by some of the participants, it is on record that the University of Ghana was among the few public higher institution in the country that was able to swiftly move online and complete teaching and assessments and even had virtual graduations by the end of July 2020. This is to indicate that the University might not have deliberately overlooked the challenges of the SWVIs. Their challenges might also confirm findings from a study by Adarkwah (2020) that first, the incorporation of technologies in education still face a myriad of challenges and second, online learning in Ghana remains a challenge.

A participant seemed to have had a slightly different view from the others in terms of communication and training but also indicated that the latter could not suffice for their needs. He is quoted in the statement below.

No, no, no, they didn't apart from the office [referring to the OSSN] WhatsApp page. They told us we would be having virtual training, we were thinking maybe, they will be giving us voice messages telling us maybe to do this. ... They rather asked us to ask them questions about the challenges we had in doing things. (Male – Level 200a)

Such a situation calls for enforcement of purposely crafted designs and practices that are student-centred rather than institution-centred. The University had made a profound statement on how it had prepared a team and deployed software to help students with disabilities (UG 2020b). The OSSN (Asiedu et al. 2018) also highlighted at least four services earmarked for SWVIs but clearly, emergencies were not in the thinking when these novel ideas were being designed. Hence, the SWVIs were left out of the loop during the preparations to move them online and the training was not bespoke.

On the part of those who felt the University had been instrumental in their preparations, the crust of their arguments lied on how the OSSN and UGCS had worked together as espoused by Bowyer et al. (2020) that there is the need to invest and build the capacity of key stakeholders and innovate for inclusion if digital learning can be

possible. The kind of mutually satisfying relationships that Noddings (2002) mooted for also resonates in instances where students see their institutions taking their welfare to heart. In light of the ongoing, two of the SWVIs shared their experiences as follows.

Every information that I needed to get me prepared for online learning was provided by the Coordinator of the Office of the Student with Special Needs. (Male – Level 400b)

Okay, the University decided to relate with the office [OSSN] and the UGCS where we have sections that relate to persons with disabilities and they connected with them so they started teaching us how to use the JAWS to access the Sakai platform. (Female – Level 300a)

The above quotations make it difficult to understand why the majority of the students claimed the University did not do anything to help with their preparation. However, the essence of phenomenographic studies is to report emerging themes so there would be no attempt to belabour the views of any section of the SWVIs. Rather, this study appreciates a statement by Bowyer et al. (2020) that there is a lack of comprehension of the impact that digital exclusion might create. Also, Gay (2018) proposed that the Theory of care should capture the lived experiences of minority students. Consequently, the University could design bespoke training programmes for special groupings within the SWVIs so all of them or at least a majority would be satisfied with pieces of training they are offered.

Two participants rather felt individual lecturers had gone the extra mile to ensure their transition was smooth instead of the University. Such lecturers are described by De Atilas and Alexsaht-Snyder (2002) as those who go beyond giving information in the classroom to develop caring relationships with their students. Gay (2018) is of the view that such relationships breed care. A participant thus revealed,

I saw only one exceptional preparation from a lecturer. He did so well. He came to realize our challenges so he, therefore, created a WhatsApp group for us and also gave us some tutorials on how to approach online learning. (Male – Level 200c)

In the face of all these, De Atilas and Alexsaht-Snyder (2002) posited that caring relationships developed by lecturers can lessen the stress that students might have gone through. This can be identified in the tone of the student's anecdote above.

4.4 SWVIs coping strategies in full learning online space

The Theory of care is replete with strategies that if deployed would be helpful to SWVIs in their online higher educational engagements. Among the strategies deeply rooted in the theory are caring communities, multidimensional pedagogies, authentic dialogue, creation of safe online environments and Lambert's six dimensions (Lambert 2019; Robinson et al. 2020; Thompson 1998; Zembylas 2013). Placing the Theory of care in the context of this study, it came out that some of the SWVIs expressed several strategies that helped them to cope with their new learning space. First among the strategies is the mental adjustments they made. Based on Braun and Naami's (2019) findings, Ghanaian higher educational environments pose emotional impacts on

students with disabilities. However, the SWVIs in this study were able to avoid any such impacts through their mental adjustments.

I had to tune my mind into doing it and preparing for it because Law is not easy to be studied online. But if I'm speaking for the average visually impaired, it's not very easy to cope with. With the assessment and exams, it wasn't easy because a whole course like Law was given 24 hours for assessments However, I fixed my mind for what was coming. Because they always say that a good lawyer is one that knows where to find the lock. (Male – Level 400a)

Furthermore, the use of software was identified as a useful strategy in coping with fully online learning among the SWVIs. This resonates with a call by Cronin (2017) to deploy participatory technologies and social networks to aid the learning of such learners. On this note, a participant shared what follows.

Okay, so as for us our lecturers agreed to do all the classes on Zoom. So all I had to do was just download the Zoom app and it was easy for me since I have the screen reader on my phone and all that so we were doing all our lectures on.....we were having all our lectures on ermm Zoom so.... that was it. (Female – Level 300b)

From the quote above, it is seen that the students leveraged on technology by interfacing the Zoom application with the software provided by the University. This shows how the University was able to ensure the switch to the online learning space was effective at least in its ability to complete the semester in such challenging times. Aside from leveraging technology to participate in the online learning space, a section of the participants also saw how a data plan by MTN and Vodafone had been helpful in their engagements online. The telcos zero-rated all activities that took place on the University's Sakai LMS but it still stood that students needed to provide their own data when using Zoom or Teams which meant financial implications and a disadvantage to those who could not afford.

One other strategy that the SWVIs relished as key to their success in the online learning space was additional time for assessments which the University afforded them as a special privilege. Such a strategy is akin to the caring communities, multidimensional pedagogies and the creation of safe online environments (Thompson 1998; Zembylas 2013) that support such students to maximise their learning especially in the face of such a swift switch.

For the CAs [Continuous Assessments], extra hours were given to me. For the exams, maybe one hour is given to my seeing colleagues and I will be given one hour thirty minutes or one hour forty-five minutes. If two hours is given to my [seeing] colleagues, I will be given three hours for the online exams or any of the interim assessments. (Female – Level 300a)

Though such a dispensation reflects care for the SWVIs and may have enured to their online studies, it needs to be noted that it existed in the pre-COVID-19 period and not due to the full online engagements. Besides, two other issues that came into the fore which had already emerged in the preparation processes were lecturers' understanding

of the SWVI's situation and software availability. The provision of social support and the creation of safe online learning spaces are indispensable in helping SWVIs complete their studies successfully (Lambert 2019; Robinson et al. 2020). Consequently, the University provided the needed software and worked with the UGCS and OSSN to lessen the challenges of the SWVIs while some lecturers also went beyond only providing information to deploying WhatsApp and other social media tools to communicate, teach and assess the SWVIs. Also, the reliance on family and friends, which showed up in the preparation stages, showed up as a coping strategy among the SWVIs.

Friends and family, for instance, the family supported by providing data for some of my lectures because I am not working. Sometimes when there are difficulties or challenges with access to any button on my phone or laptop, they come through to help me. (Male – Level 300c)

Though there is a diversity of views in terms of the coping strategies employed by the SWVIs in this study, it is worth noting that all the strategies are germane in reducing the emotional impacts that the swift shift in learning spaces could have caused the students.

4.5 SWVI's preferred post COVID-19 learning space

The last part of the discussion of the results centred on which platform or learning spaces the SWVIs would prefer to use post-COVID-19. Their preferences were purely based on experience pre and during the COVID-19 learning experiences in the face-to-face (f2f) or online respectively. After analysing the field data, six of the participants indicated their preference for the f2f engagements, four opted for the hybrid while the remaining three chose to continue with the online engagements.

The choice of the f2f mood was mainly hinged on the challenges the participants experienced in the online space. For instance, they bemoaned the communication gap that was created as learning was shifted online. Such communication gaps defy the social support, safe online learning space and open authentic dialogue (Lambert 2019; Zembylas 2013) which are instrumental in cushioning SWVIs as they engage in online learning. In this light, a participant expressed the following misgiving about online learning as a reason why he would opt for the f2f post-COVID-19.

Key challenge.....okay, that was, that will be maybe, some lectures, we were not giving the attention we needed by lecturers. ... If there was a problem, there was no means of reaching the lecturer so we had to go back to the office and they will find the lecturer for us. So, the communication that was.... Few lecturers did well but on the whole.... (Male – Level 200a)

Besides the communication gaps, the deployment of video applications such as Zoom and Teams were not covered by the data plan between the University and the two telecom providers (UG 2020b). This brought financial burdens to some of the participants. Hence, their preference for f2f as reflected in the quote that follows.

Though the online is a good thing, I will prefer the face-to-face mode because I won't buy data, and there will not be network problems. (Male – Level 200b)

For participants who opted for the hybrid, their reasons were hinged in the semblance of the f2f and online environment. Such students might have been satisfied with the kind of relationship built in both spaces (Noddings 2002) or they might just have tuned their minds to survive in either of the spaces. Additionally, there is a possibility of the University doing well in providing some support in both spaces (Olcott 2020) which led to the students being ready to learn in a hybrid environment.

I prefer both now. Okay so, hmm it's... like it's the same thing. The lecturer will just come to the class, teach and if you have a question you ask or when he wants to ask a question, he asks and the students answer and all that so I feel like it's the same thing... I don't see why we should go or like I don't see why we shouldn't go. (Female – Level 300b)

The last result had to do with the minority among the SWVIs who preferred the online engagements. Their reasons were mainly hinged on personal gains that come with online learning. For instance, the SWVIs expressed benefits such as improved technological skills, ability to use the Sakai LMS and not being left out of lectures due to transportation challenges which all corroborate findings from the works of earlier research (examples, Concerned Academics 2020; Lambert 2019). Apart from these advantages, the most profound benefit that was central to the continual use of online learning was a timely release of results. Under normal circumstances, it takes a while for results to be released and sometimes undue delays depending on the volume of scripts a lecturer had to mark each semester. However, the deployment of the Sakai LMS in assessments to give a short turn around time was a joy to the few SWVIs who vouched for online learning.

Okay my benefit one, I didn't encounter a delay in my results in terms of my assessments. The moment I am done I get the results of what I have done on time so that's one benefit that has been encountered. (Female – Level 300a)

This development is grounded in the UG Policy (2019) that sought to assist students and staff with disabilities to access knowledge through the adoption of digital technologies suitable for their needs.

5 Conclusion and recommendations

This study investigated the transition and online engagements of a group of students whose voices have hardly been heard during the COVID-19 motivated online learning switch. This was done through a phenomenographic lens, a research method that has rarely been used but is effective in understanding the qualitatively different perspectives of SWVIs and their relationship with the phenomenon under study. Findings from the study suggest that though the University had made transportation arrangements for the SWVIs for their lectures and had provided them with some assistive devices to aid their learning, some of these students still described themselves as a silent minority. This is based on some lecturers' inability to identify their challenges and accommodate them during lectures. Other findings indicated that a greater majority of the participants had aversions at the news of a switch to online classes mainly due to miscommunication

and a lack of proper orientation by the University about the move. Besides, most of the SWVIs shared that they were not tech-savvy and had not used the University's Sakai LMS which made challenging transposing them from the conventional classroom to a full online space in such a swift fashion.

Regarding how the SWVIs prepared for the online switch, two levels came into the fore. Incidentally, the personal level of preparation outweighed the institutional one as the majority of the participants held that they had not received any form of support to prepare them for the online switch. Because of this, the findings further indicated that the coping strategies adopted by the SWVIs to study online were not different from what had pertained pre-COVID-19. The only significant difference remained the data plan which was engineered through an agreement between the University and two telecom providers in Ghana. Based on the SWVIs learning pre-COVID-19 and their online learning experiences during the pandemic, a large majority indicated their preference to switch back to f2f learning post-COVID-19. The key challenges that informed their decision included challenges in the online learning environment such as network failure and data challenges, slow typing abilities, lack of digital tools and inaccessible lecturers.

Overall, the Theory of care used to foreground this study is central in sustaining the learning experiences of SWVIs in online spaces. However, due to the challenges inherent in the findings of the study, it is recommended that both faculty and students are trained to build sustainable relationships for effective online engagements. The University should also consider more participatory technologies with lower cost implications to students so they would be encouraged to subscribe to online learning at their own volition. Such participatory technologies should also enhance learner autonomy and self-directed learning among the SWVIs.

Given the findings that emanated from this study, UG is compelled to craft a policy of inclusiveness which embeds 'ubuntu' (common humanity) and human awareness to reverse inequalities among its students. In terms of practice, there should be continuous development practices in the University to make staff have a clear understanding of inclusiveness of the challenges of SWVIs. Lastly, further studies could be conducted to investigate the perspectives of other stakeholders and students with other forms of disabilities on the phenomenon in other contexts.

6 Limitations

This study concentrated on a small sample from a single higher institution in Ghana so does not seek to make its findings a boilerplate for other institutions. Also, the study focused on students' perspectives and does not represent that of instructors, management and other stakeholders in the Ghanaian higher education context.

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