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ONLINE LEARNING IN DISTANCE EDUCATION: THE PLIGHT OF DISTANCE LEARNERS IN GHANA

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ABSTRACT

Distance education (DE) in Ghana continues to evolve as new approaches to teaching and learning are constantly being integrated into educational programmes. The latest addition is the introduction of online learning to supplement or replace the face-to-face sessions conducted across study centres. Even though COVID-19 forced some educational institutions to adopt hybrid teaching and learning, the DE programmes at the University of Cape Coast (UCC) were slow to adopt these modalities of instruction. This study aimed to explore the online learning experiences of students who enrolled in DE courses at the main campus of UCC. The purpose of the study was to report on the challenges associated with online learning and bridge the digital divide gap. The study utilised a narrative inquiry approach with a sample of 12 students to explore their experiences and challenges as distance learners and to also note differences in digital barriers between those employed and self-employed/unemployed. Students found online learning to be convenient and improved their digital skills. However, the students felt that the high cost of internet data, poor quality of the internet, distractions, and limited interaction hindered the full benefit of online learning. Those employed and who used the online meeting tools at the workplace served as support systems for the others. It is, therefore, recommended that the necessary steps be put in place to address these challenges. Additionally, instead of online learning replacing face-to-face sessions, blended learning should continue to be used to maintain good social and pedagogically appropriate interactions.

Keywords: distance learning, distance education, digital divide, online learning, Ghana.

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INTRODUCTION

The reason for pursuing an educational programme varies, especially when considering the factors that influence the choice of study programmes. Unfortunately, not everyone gets the opportunity to get admission to tertiary institutions. For various reasons, an individual may face limitations in applying for a regular programme, especially those working and with family responsibilities (Amponsah, 2010; Badu-Nyarko et al., 2017). Moreover, most of these higher educational institutions (HEIs) lack the needed infrastructure to admit the increasing number of prospective students (National Council for Tertiary Education [NCTE], 2018). To compensate for this deficiency, the HEIs make use of modules and learning management systems (LMS) to engage students in teaching and learning on a distance basis instead of investing more in infrastructure development which is more costly (McPheea & Pickren, 2017). Interestingly, DE continues to grow in Ghana as a result of the increase in demand for tertiary education certificates among individuals, who may be interested after completion of the programme to acquire a job, seek promotion, gain knowledge to advance their career, personal fulfilment, and for vocational purposes (Amponsah et al., 2018; Ginsberg & Wlodkowski, 2010; Lim &Wang, 2016).

Students pursuing DE programmes were issued with printed materials to facilitate teaching and learning during the beginning years of DE in Ghana (Badu-Nyarko et al., 2017). In recent times, students undertaking higher educational programmes on a distance basis have their modules in soft copy form and are also making use of LMS as well as being engaged in online teaching and learning. Some of these transformations were a result of the pressure presented by COVID-19 (Adarkwah, 2021a; Amponsah & Bekele, 2023; Osabwa, 2022) and the need for HEIs to be competitive (International Telecommunication Union, [ITU] 2017). Adopting and using technology in addition to using distance learning modes have also been identified to increase enrollment levels among demographically excluded students (Kumi-Yeboah et al., 2023), especially those in rural areas. However, to be able to participate in the digital world, new skills are required by individuals and especially students. Students are expected to expand their range of skills (Vuorikari et al., 2022) irrespective of gender, age, educational and socioeconomic background to participate in DE where hybrid teaching and learning approaches are used.

DE at the University of Cape Coast (UCC), according to Segbenya et al. (2019) started in 1998 through the establishment of the Centre for Continuing Education (now College of Distance Education [CoDE]). However, the then centre admitted its first batch of three-year Diploma in Education students during the 2000/2001 academic year. Per the structure of the programmes run by CoDE at UCC, students are issued with printed course modules at the beginning of the semester and they are required to attend bi-weekly lectures, write quizzes (assessment tests) and also write an end of semester examination. The bi-weekly lectures are in the form of tutorial sessions where students meet with a facilitator and a discussion session is carried out. However, in recent times, the distribution of printed course modules is now supplemented with a soft copy which students are expected to download from their online portal. Even though COVID-19 forced most educational institutions to adopt more hybrid teaching and learning, the DE programme at UCC took more time to follow other educational institutions. It was not until the 2022/2023 academic year that the CoDE decided to adopt online learning in addition to the traditional face-to-face sessions for students.

As noted by UNESCO (2023), the application of digital technology in education is uneven; therefore, countries and, most importantly, educational institutions should be circumspect in its application. In the African context, numerous researchers

(Adarkwah, 2021b; Amponsah & Bekele, 2023; Krönke, 2020; Lembani et al., 2020) have also identified unequal access to technology and its related resources. This makes it possible for DE students at UCC to be at a crossroads with the realities of the digital divide. Warf (2019) suggests that the integration of information and communication technology (ICT) and online learning into education should encourage students to understand and appreciate the important role ICT plays in the lives of individuals and why they should embrace its use. Again, applying technology to education should not eliminate the essence of addressing educational challenges of equity and inclusion, quality education, and efficiency (UNESCO, 2023). Moreover, though students must be brought to speed with the changing needs of the globe and technological advancement, Saade and Bahli (2005) believe that integrating technology into education does not translate to quality education, especially with the problem of access and internet familiarity. This can reduce the interest of students and compel them to opt for face-to-face instruction rather than embracing technology-enhanced forms of learning.

Undoubtedly, investing in technological tools and providing training on how to use them are steps to bridge the technological divide. Yet, it will be challenging if DE students find themselves "distance" in this technological era of education. These students may feel "distance" because they may have little access to digital resources available on campuses of educational institutions while their counterparts pursuing regular courses have more access to the resources. Students pursuing regular programmes are mostly fortunate to utilise available ICT infrastructure provided by HEIs. These students can have access to computer labs equipped with computers, faster internet connections, and electricity, and they can also consult ICT personnel employed by educational institutions to help resolve any challenge the students face. This uneven access by DE students forces them to use their resources as compared to those provided by the institution, which may be in better condition and work better when used for learning. As identified by Agormedah et al. (2020), students relied mostly on smartphones to participate in the online learning sessions. and Most of these smartphones had limited functionalities compared to laptops. The authors also identified a gap between rural and urban areas in terms of technological infrastructure and internet access.

It is believed that DE is more convenient for workers and individuals with family responsibilities because classes are mostly carried out during weekend periods. DE learners are often believed to be between the age range of 25 to 50 years mostly pursue such an educational programme (Moore & Kearsley; 2005). However, studies looking at the experiences of DE students employed and those self-employed or unemployed in online learning and using digital resources are limited at UCC and Ghana as a whole. Srichanyachon (2014) indicated that students with no knowledge or prior experience in online learning are likely to experience difficulties without a support system or technical assistance. Therefore, getting the lived experiences of DE students from UCC will help attract attention to their plights for a better support system to be made available for the students. The digital divide may have "divided" the DE students; therefore, further investigation into the plight of such students can help improve the quality of their education. Further, identifying the challenges of DE students can also help facilitate the adoption of effective strategies to achieve goal 4 of the Sustainable Development Goal (SDG), especially within the Sub-Saharan region which faces similar challenges. Therefore, the following questions are worth answering as we explore the experiences of the students:

1. What are the experiences of DE students at UCC during online teaching and learning?

2. What challenges are DE students likely to face in the absence of using digital resources available on the UCC campus?
3. How different are the digital barriers faced by unemployed or self-employed students from those employed in organisations with digital resources?

To understand the phenomena under study and address the questions posed above, the remaining sections of the study look at the review of related studies, research design, sampling, results and discussions, conclusion and recommendations. Suggestions for further research are also presented to help conduct future studies to obtain information on how to ensure effective online learning and distance education towards the achievement of SDG 4.

LITERATURE REVIEW

Distance Education and the Digital Divide

DE in Ghana has been in existence for almost two decades now. It started as an opportunity to allow individuals working and with family a convenient means to access higher education (Allen & Seaman, 2007). The DE programme has gone through a lot of transformation from the initial correspondence course format to the current utilisation of e-learning and other digital technologies with face-to-face sessions (Edumadze et al., 2017). Indeed, while study materials were previously mailed to students during the correspondence study era and students were expected to give feedback by completing questions attached to the study materials, the incorporation of online teaching and learning has expanded access to DE and open access to HE. There is potential in DE, as indicated by Lembani et al. (2020), to ensure the quality of education at all levels of education and within any geographical area, including rural or marginalised communities. As already indicated, COVID-19 forced more HEIs to adopt online learning. Even though the number of HEIs using online learning in the Global North was considered to be high, only 29% of such institutions adopted online learning within the African context (Koninckx, et al., 2021).

Within the DE space, especially in Ghana, students are faced with the challenge of tutors not being able to effectively lead the class due to experience and failure to implement what they (tutors) have been taught during training periods as revealed by Badu-Nyarko and Amponsah (2016). The authors further noted that students felt that tutorial periods, which were held face-to-face, were not adequate to enable them to understand the programme they were pursuing. As a result, students may feel isolated by the distance learning system and may even feel not motivated (Badu-Nyarko & Amponsah, 2016) to get the best out of what they learn and feel imparted to cause a positive change in their community, workplace and the nation as a whole. Most of these students pursuing DE are also already considered to be "distance" because having full access to resources of an educational institution is mostly far from them. The introduction of ICT and its related technologies like LMS and online learning are likely to create more distance between them and students pursuing regular courses on campus.

Additionally, the integration of technology in education is not just to make education accessible to individuals geographically divided but to also equip students with skills that would ensure they cope and take advantage of digital technologies used at the workplace. Thus, digital skills are crucial skills required by DE students to survive in their education pursuit otherwise, there is the likelihood of students dropping out (Gan & Sun, 2021). Yet, adult learners in DE have been recognised to face difficulties in the use of ICT for learning. Safford and Stinton (2016) found from their study that adult learners found it difficult to locate, store and even

retrieve information in digital form because the learners were less exposed to ICT. Lembani et al. (2020) believe that incorporating digital or ICT can lead to unequal access by students since digital resources are unequally distributed within communities, countries and the world at large. This creates a digital divide, which is believed to be the gap that exists between those who have access to, adopt, use and benefit from ICT tools especially computers and the internet and those who do not or are denied such an opportunity (Fink & Kenny, 2003; Gan & Sun, 2021).

Keniston (2004) argues that no matter the economic status of a country, some individuals are denied the opportunity to take full advantage of information technology and therefore a digital divide can exist anywhere in the world. This makes the conceptualisation of the digital divide by Chen (2015) more interrogative with an emphasis on privileged and underprivileged individuals in a particular society. Thus, those privileged individuals will have the opportunity to have access, be able to use and benefit from digital tools and related technologies while those underprivileged may not have the opportunity. Individuals employed in organisations with access to computers and the Internet are more likely to benefit from online learning and gain competencies in the use of ICT tools than those individuals who are self-employed or unemployed without access to computers and the internet. More importantly, Kim and Kim (2001) posit that the digital divide goes beyond the availability and use of ICT devices but such usage must translate or show improvement in the quality of the life of the individual. This presupposes that reducing the gap in the digital divide should also be targeted at improving the lives of people and not just putting in place infrastructure and training individuals on how to use them.

Theoretical underpinning

This study is underpinned by the technology acceptance model (TAM). Propounded by Fred Davis (1989), the author asserts that a technological system's acceptance is vital to the success or failure of the technology in terms of whether people will use it or not. According to the author, acceptance of the technology by potential users is influenced by two factors including perceived utility and perceived ease of use. These two factors are influenced by external variables and the factors subsequently influence the attitude and the behavioural intentions of the user to use the technology and then predict the actual use of the technology. TAM has developed into a crucial paradigm for comprehending factors that influence people's decisions to embrace or reject technology (Marangunić & Granić, 2015). It was also thought that the perceived usability of technology was influenced by the perceived simplicity of use (Davis, 1989; Masrom, 2007). According to Alfadda and Mahdi (2021), TAM has garnered empirical evidence for its ability to predict technology acceptance and adoption with robustness and parsimony. It elucidates how an individual's behavioural intention to accomplish a job determines their behavioural performance. TAM has been used in numerous studies testing factors influencing user acceptance of online learning (Farahat, 2012; Lazim et al., 2021) and the use of online applications like Zoom (Alfadda & Mahdi; 2021) spreadsheet applications (Mathieson, 1991), e-mail (Szajna, 1996), web browser (Morris & Dillon, 1997).

A limitation of the TAM relates to the user behaviour variable, which is often assessed using subjective methods like behavioural intention and interpersonal influence. Lai (2017) also posits that by looking at the factors identified in TAM by Davis (1989), the model cannot be completely used to understand all the factors that influence the acceptance of a particular technology by users and therefore calls for extension of TAM. Other extensions have been made and aside from perceived usability and ease of use, other researchers have identified self-efficacy, computer anxiety, performance expectations, social factors, experience, subjective norm,

information quality, enjoyment, accessibility and content enjoyment as some of the external factors (Abdullah & Ward, 2016; Kemp et al., 2019; Lai, 2017; Robinson, 2019; Salloum et al., 2017). However, TAM by Davis (1989) has been widely used and produced positive results. As such, in this study, the application of TAM by Davis (1989) is to help explore the extent students of CoDE are likely to accept online learning and use the platform for their learning. As already noted, online learning is one of the new trends in DE in Ghana which is mediated by technology and just as Davis (1989) opines, students are more likely to accept and participate in online learning when they perceive that online learning will help improve their performance. Again, the model also posits that students are more likely to assess whether the online tools are easy to use or not. Once they accept that the tools are easy to use, it will influence their attitude and behavioural intentions which will lead to the use of the platforms.

METHODOLOGY

The research design adopted for this study was the narrative inquiry. According to Clarke (2023), narrative inquiry involves trying to make meaning of experiences through and by stories of what individuals go through. Moreover, the narrative inquiry adopted for this study is grounded in the meaning shared by Clandinin and Rosiek (2007) who posit that narrative inquiry is,

> Framed within this view of experience, the focus of narrative inquiry is not only on individuals' experiences but also on the social, cultural, and institutional narratives within which individuals' experiences are constituted, shaped, expressed, and enacted. Narrative inquirers study the individual's experience in the world, an experience that is storied both in the living and telling and that can be studied by listening, observing, living alongside another, and writing, and interpreting texts (pp. 42–43).

In simple terms, the authors hold that the underlying basis of narrative inquiry is to understand and inquire about the experiences of individuals, as they are being socially and contextually constructed. Therefore, this approach was adopted to help us make sense of the knowledge and experiences of DE students at UCC as they engage in online learning. Exploring such experiences by the students through this approach will also help us to thoroughly understand their encounter with online learning rather than just presenting simple data.

Sample and sampling procedure

With a total of 95 study centres across Ghana, only one of the centres is located on the main campus of the university. Thus, the Cape Coast study centre was purposively selected for this study because that is the main campus of the university and that is where most of the infrastructure of the university is found. Moreover, it is assumed that the study centre has the complete infrastructure of the university and DE students are likely to have full access to the digital resources of the university as compared to those in other study centres. During the 2022/2023 academic year, students were informed that online learning was going to be added to the face-to-face session. This means that instead of the regular bi-weekly sessions, students were going to do less face-to-face to enable the online session to also run. All UCC DE students at the Cape Coast study centre were identified as the population for the study. In terms of sampling, the maximum variation purposive technique was used to select respondents with diverse variations and significant common patterns that may permeate the variations of the participants (Palinkas et al., 2015). Specifically, this technique allowed for the selection of DE students who are either employed, self-employed or unemployed. Twelve (12) students were

purposively selected by identifying whether they were employed, self-employed or unemployed. To capture diverse perspectives and inclusivity, gender variations were recognised. Again, an equal number of four students each pursuing distance programmes at the diploma, first degree, and postgraduate programmes, were recruited to take part in the interview sessions to get the diverse variations and commonalities in their experiences. The summary of the demographic characteristics is presented in Table 1 below.

Table 1: Demographic characteristics of participants

Variable	**Number**
Gender:	
Male	4
Female	8
Total	12
Programme status	
Diploma	4
1st Degree	4
Postgraduate	4
Total	12
Employment status	
Employed	6
Self-employed	3
Unemployed	3
Total	12

Source: Field data

Data collection

A semi-structured interview guide was used as the main instrument for the study. This allowed for consistency and at the same time broader perspectives on the research questions for the study. The questions in the semi-structured interview guide were gathered from the review of the literature. The six open-ended questions and other emerging questions from the interactions were probed to help gather rich and detailed information from the participants. This also allowed participants the opportunity to express themselves freely. Each of the interviews was conducted face-to-face at the university during their revision and examination week (two Saturdays and one Sunday). The interviews were conducted in English and lasted between 15 to 20 minutes. The participants were first informed about the study and the need for them to be part of it. They were informed that the study was voluntary and they could at any point opt out of the interview if they felt they were not comfortable with it. They were further assured of the confidentiality of the information they provided. The interviews with the participants were recorded using a voice recorder and notes were also taken while the interview was ongoing. We acknowledge that as graduate students in a tertiary education institution in Ghana, our experiences with the digital divide and online learning challenges may influence our interpretation of the data collected from the participants. However, to reduce these biases, we employed participant validation by allowing them to review the preliminary findings to ensure that the analysis reflect their experiences shared. We have also provided a detailed account of the data collected from the participants and the direct quotes from them will help provide authenticity to readers.

Data analysis

The data was then transcribed and analysed into themes and sub-themes manually. Thematic analysis, specifically the guidelines of Braun and Clarke (2006), and Clarke and Braun (2013), was used for the analysis. With these guidelines, we first read through the transcripts carefully to highlight all information-rich quotes. We then prepared a coding scheme, as the next step, to help the analysis of the transcribed data in line with what Braun and Clarke (2006) recommend, similar themes from the text were grouped while different themes were separated. To ensure the themes told compelling stories, the themes were then reviewed and refined with the original data and the codes, in line with the fourth step of the guideline. The experiences of the students formed the themes and just as Clarke and Braun (2013) emphasised in their last stage of the thematic analysis, this write-up is presented from the data to tell a persuasive and coherent story. Some of the participants were contacted to validate the findings of the data collected in order to enhance the credibility of the data. The anonymity of the participants was preserved through the use of pseudonyms.

Through the analysis of the results from the data, the ensuing themes and sub-themes emerged. The presentation of results follows the emerged themes and sub-themes and is also presented in a summary form in Table 2 below.

Table 2: Emerged Themes and Sub-themes

Themes	**Sub-themes**
Online learning effectiveness	Convenience in online learning
	New skills acquired
	Interaction during online
	Face-to-face sessions and recording
	Support services received
	Devices used
	Participation
Challenges of students	Cost of data
	Network issues
	Distractions from others
	Access to recordings
	Training
Effective online learning	Internet data
	Support service
	Access to recordings

FINDINGS

The study was interested in exploring the online learning experiences of students who enrolled in DE courses at the main campus of UCC. The sub-sections below present the results of the study based on the three themes and 15 sub-themes that emerged from the data analysis as shown in Table 2.

Online learning effectiveness

Participants shared varying views on the effectiveness of online learning. All the 12 participants expressed that online learning was a good move by the university but it could be the best approach only if the university was able to address the challenges associated with online learning.

Convenience in online learning

Online learning can provide comfort to participants especially if they previously had to move from one place to another to participate in learning. Unlike face-to-face where all students are expected to converge at a point to participate in learning, online learning provides students with convenience by allowing them to stay wherever they are, as long as they can connect to the internet with the right device, to participate in learning. These sentiments were expressed by all the participants who noted that online learning was convenient for them because they could join from any geographical area without taking a car to campus during the weekend.

"*I would say online learning is good even though I can't give it 100 percent but it has brought a lot of good to the distance education programme. It is convenient because there is no need for you to take a car and come to campus but you can stay wherever you are and participate in class. All you need is an internet connection and your phone and you are good to go*" [Bellan].

The participants also stressed that online was more convenient because they could multitask while in class.

"*Oh, I think the online classes are more convenient than going to class almost every two weeks. You see, classes are on weekends and you are denied all other activities during that period. But when you're in online class, you can cook, and sort out your other things while you listen to class on your phone. It is better that way*" [Trudie].

As DE students, most of them are workers who are expected to be at work during the week days and the weekends for classes. Such routines can deny them the opportunity to take an active part in social activities and at the same time carry out household chores. Thus, their expressions of convenience also reflect their ability to undertake these other activities and that of the classes at the same time. The students also expressed that the online classes helped them to save on their transportation costs because the majority of them had to commute from their place of abode to the study centre during face-to-face sessions.

New skills acquired

Eight of the participants indicated they had benefitted from online learning even amid the challenges they faced. One of the benefits was the acquisition of digital skills. Some of them indicated that it was through online learning that they got to use online applications like Zoom and Google Meet. This has enabled them to hone their skills in digital literacy which are part of the 21st century skills needed in the work environment. One of the participants buttress this point as follows:

"*Oh yes! I can say I'm an expert in using Zoom and Google Meet for online learning and meetings because of the online learning. I have even helped my boss to set up online meetings on three occasions. I can say I'm an ambassador now because I have also taught some of my office colleagues how to use those platforms*" [Anna].

Such experience shared by the student gives hope that higher educational institutions are making progress in breaking the industry-academia skill gap. That is, students can acquire competencies that enable them to apply at the workplace just like digital literacy skills. Moreover, such skills, as expressed by the participants, also make the participants relevant to the workplace and also become

trainers to other workers who might lack such exposure to the digital tools. However, participants had their reservations about how interactions and class sessions fared.

Interaction during online learning

The participants also talked about the interactions that take place during online learning. Most of them revealed that there was less interaction in the online class which affected the effectiveness of the online class. They specifically stressed the inadequate engagement with the facilitator since the facilitator during a face-to-face session would allow students to share their views on topics for discussions. However, in the online sessions, facilitators hardly ask students to share their opinions. One of the participants had this to say:

"*Unlike the face-to-face session, the facilitator could easily call out a student and ask the student to explain or answer a question and because everyone is looking at you, you have to talk. But with the online, the facilitator can even call you and you can pretend you did not hear and blame the network for that*" [Ben].

This implies that it is not deliberate that some facilitators have decided not to allow students to share their views, but rather the behaviour of the students had informed such a move from the facilitators. Since some students are unwilling to share their opinions and also blame the internet, most facilitators are likely to ignore the opportunity for students to contribute to discussions. Yet, three of the participants noted that facilitators allow students to ask questions and seek clarifications anytime students did not understand what was being taught. Aside from the limited interaction between facilitators and students, four of the participants mentioned that there was little interaction between students.

"*We don't interact with each other much during online classes. It is mostly the lecturer who talks and if you talk while he or she is teaching you will be seen as disturbing. In our normal class, you can ask a friend and the friend can even clarify what the lecturer said. We are human beings too and the human connection is also important a little joke from friends can even help you connect to what is being taught. I do miss these interactions*" [Trudie].

"*In the classroom (traditional classroom), the facilitator could read your facial expressions to detect whether you understand what is being taught or not. But with online, it is hard for the facilitator to see you and because of the number of students*" [Naa].

On the whole, the arguments put forward by these students express their desire for more human connections in the form of interactions during the online learning periods. The students expect their facilitators to engage them more by asking students questions. Again, the online environment is expected to mimic the face-to-face sessions where students can easily interact with each other while class is ongoing in order to help them express their human needs as social animals. Such lack of interactions could prompt the students to rather prefer face-to-face sessions to online which assures students of such constant interactions. This is also expressed by the participants in the next sub-theme.

Face-to-face sessions and recording

The postgraduate students who took part in the interview were selective in terms of the type of courses that should be taught online. For them, it was not okay to have courses with calculations to be taught online. According to one student:

"*Courses that involve calculations should not be done online. It is difficult to follow lecturers doing calculations because sometimes the network is not stable and you can hardly understand what the lecturer is illustrating. The lecturer may be demonstrating on a whiteboard but the writing looks blurry and you can hardly see it*" [Paul].

Three of the postgraduate students also further indicated that they always took solace in the recorded videos from the online class since they could watch the recorded version and get clarification. In other words, students have mixed feelings when it comes to the type of course being studied online. Some of them felt that courses that would require the lecturer to demonstrate on the board must be done face-to-face. This will enable the students to follow the demonstration and also ask questions for clarification. Moreover, the strength of the internet is also considered a factor because having strong internet connectivity could enable students to follow demonstrations and interact with the facilitator. Nonetheless, the views of the students also bring to the fore the need to add asynchronous learning to the synchronous one. This was expressed by one of the students who expressed that:

"*One other good thing about online learning is that you get the opportunity to re-watch videos recorded during lecture time. Most of the lectures are recorded and even if you cannot join or your network is bad, you can watch the lecture again"* [Bellan].

Thus, the study found that students prefer courses with no or few demonstrations to be held online while courses that require calculations or demonstrations from the facilitator to be done face-to-face. Alternatively, the students also expressed their willingness to partake in calculation courses online when they can have access to recorded videos as well as have more reliable internet connectivity. This will provide them with the opportunity to rewatch the demonstrations for clarification and understanding. This further shows the importance of engaging with students effectively during online learning since students require more interactions and demonstration of what is being taught.

Support service received

The study sought to find out from the participants the kind of support they received during the online classes. It was noted that such supports were received from their colleagues rather than the university. One of the participants shared that:

"*I remember when we first started the online class, most of us were skeptical because that was our first time so most of us went to the university campus. Most of us were helped by other colleagues who had used those tools before at their workplace. I think COVID helped because it was through COVID that most of my colleagues who were conversant with Zoom were able to use it. Some of my colleagues were also not able to log in because they faced some challenges so they joined other colleagues to listen to the lectures. But for now, most of us are proficient in its use so we stay away from campus and only come to campus for the face-to-face*" [Bellan].

Thus, some of the students initially faced challenges in using the online tools because it was their first time. This forced them to seek support from the university campus and unfortunately, they could not get such support from the university. They had to rather fall on colleagues with such digital skills. Two of the participants further indicated that the ICT personnel of the university were not available on weekends. Aside from this, there was no communication from the university on the

availability of such support systems according to the participants. It was further noted that students who were employed and had access to digital technologies at the workplace possessed the skills in using the tools and that enabled them to assist their colleagues who needed help. From those who mentioned support services, to participate well in online learning they require exposure to the tools used online. This will help them easily use the tools on the device they prefer to use.

Devices used

Participants were asked to indicate the device they owned and used for online classes and whether the device was the best to help them participate well in the online class or not. Out of the 12 students interviewed, all of them owned smartphones and seven of them also owned laptops in addition. Two of the unemployed and two of the employed did not have a laptop. Interestingly, of those who have, only two of them preferred to use their laptops for online learning if they were at home.

"*I prefer to use my laptop for classes instead of my phone. I get messages while using my phone and that distracts me from being active in class. I use the internet connection on my phone to give my laptop internet and I put my phone on silence to avoid any distractions*" [Emma].

It was noted from the interview that most of the laptop owners mostly used it to transfer lecture slides from their phones to the laptop in order to print out the slides and read them instead of reading them from their phones. Smartphones were preferable because the students could easily have access to internet connectivity through their network provider. Students who needed to use their laptops had to rely on the internet from their phones or had to visit their workplace to connect to the Wi-Fi of their organisation.

Participation

All the participants were of the view that most students were mostly absent during online classes as compared to face-to-face. Some of the participants had this to say:

"*When you compare the number of students who attend the face-to-face and the online, the online has low attendance. Moreover, you may see us online but we will be doing different things while class is ongoing*" [Naa].

"*Oh! The number of students who used to attend online classes has reduced koraa. Most students don't come*" [Bellan].

According to some of the participants, the situation was so because of the challenges that students mostly face during online learning since those interviewed indicated a number of challenges that sometimes impede their engagement in online learning. One of the graduate participants also emphasised that some students deliberately decide not to join online because they have the opportunity to watch the recorded version. They could easily download and watch the sessions again and have all the needed information as compared to the challenges they were likely to encounter when they joined online. Again, all the participants acknowledged that the first two sessions of the online sessions had most of their mates joining but some had refused to join again because of the challenges outlined below.

Challenges of students

Cost of data

All the participants in the interview mentioned the high cost of data as their major challenge with online learning. According to them, the university did not support them with data and even though the internet was available on campus they did not have access to the password.

"*As a master's student, you are expected to have six hours of lecture per course and imagining you are using Zoom or Google Meet, means you have to spend almost 1 gigabyte of data every day. We were promised to receive data from the university during the orientation and just don't know, maybe it will be sent tomorrow*" *[Trudie].*

"*Why should the university give regular students internet data and not us? We pay more fees than them but we have never been given data*" *[Emma].*

As already noted, the majority of the students rely on internet connectivity from their phones. This also means that the students needed to have enough airtime to purchase the internet data from their network provider or had to connect to a Wi-fi. Such cost was borne by the students instead of the university providing such support. It could also be noted that the university had internet facilities available on the university campus that students could connect to but unlike the regular students, DE students did not have access to it. The extent of the digital divide was expressed by the participants when they indicated that regular students had unlimited data access at a higher speed than distance students who may have to use their data at a high cost with a lower speed data connection. Moreso, if the DE students decide to use the internet on the university campus, they had to travel just like coming for a face-to-face session and the essence of having an online class instead of face-to-face, for them, would have been defeated.

Network issues

Another major challenge highlighted by the students was a poor network with the internet since the students were using internet service available on their phones. The participants explained that the internet connectivity on their phones was slow as compared to the Wi-Fi connection. It was further revealed that the internet connectivity was also dependent on where you are located since the internet reception will be determined by how strong the signals from the network provider are. Such bad internet connection can affect the interest of students as well as affect the flow of learning which was expressed by the students. Again, some of the students added that such a challenge had been a major contributor to the reasons some students have refused to participate in online learning. Two of the students had this to say:

"*Aside from the high cost of data, the network is also sometimes bad. You sometimes struggle to log in and even if you are lucky you are faced with constant breaks in the interaction. You have to be going on and off on several occasions and by the time you realise you would have missed 2 or more slides and the lecturer will not go back for you*" [Mary].

"*I am a staff of UCC so I have access to the internet when I am on campus and it is very fast. So if I have time I come to the office and do the online. But if you are home or outside campus, hmmm, the network is always bad and slow*" [Paul].

In addition, it can be noted that students employed and with internet facilities at the workplace are more likely to have alternative internet access compared to those unemployed when faced with bad internet connection. That is, using the office Wi-Fi provides more reliable and fast internet access and can mitigate the challenge of bad internet services. However, this may come as an extra cost if students employed have to move from their houses to the office. They are likely to pay for the means of transportation if they are not closer to their workplaces.

Distractions from others

Ten of the participants expressed that a lot of distractions take place while in online classes. The distractions were mostly from other colleagues who unmute their microphones while unknowingly and sometimes knowingly and the noise from their microphones distract the class.

"*Some of my course mates are very old and most of the time when they join the class they leave the microphones unmuted and you could just hear all sorts of noise from the background and you could often hear the lecturer mentioning names to mute their mic. These things happen very often so you sometimes even do get what is being taught*" [Emma].

Three of the participants also indicated that lecturers also get distracted trying to admit students into the online platform. According to the students, they are placed on waiting when they initially log in to the online class and the lecturers who had the host controls had to let the students in. Unfortunately, some lecturers keep the students in the waiting room for a longer period because the lecturers felt that the students were late while other lecturers forget there was an option of waiting room and it was the host that must let students in.

Access to recordings

All the undergraduate students revealed that their classes were not recorded by their lecturers and as such they could not get the opportunity to follow discussions that took place when students experienced poor networks or when their data was finished.

"*It is very unfortunate that the lecturers do not record the class sessions. You don't get access to recorded videos. It is only slides we receive and sometimes it becomes difficult to understand what is in the slides*" [Mary].

Hence, the students called for not only synchronous learning but asynchronous as well to help them access videos and sessions they missed. However, the graduate students had the opportunity to re-watch the recorded classes and such practice helped them to appreciate the importance of online learning.

Training

It was also noted from the interview that most of the students had challenges logging in and effectively using the online tools because they lacked training. This made them struggle and had to seek help from proficient colleagues. They were of the view that the university should have taken them through training sessions before the start of the online and such training could have facilitated an easy transition. Specifically, one of the students stated that:

"*It was too bad I had no idea about what Zoom and the rest were. It was very challenging in the beginning and I was expecting the university to at least train us on how to use them but they didn't*" [Frema].

Thus, out of the 12 participants, only three were proficient in the use of the online tools before the online learning began. All three proficient students were individuals who were employed and had acquired the skills at the workplace. Two of the unemployed students and one of the employed students also admitted that if not the online adopted by the university they had no idea what Zoom was. The study further obtained that two of the participants were still in the learning stage to effectively use the online tools. They posit they were not regular participants in the online sessions and they were also old age and needed more time to effectively use the tools.

Effective online learning

All the participants revealed that online learning was important and should be maintained by the university. They suggested the university should provide distance students equal access to university resources and support as provided to regular students.

Internet data

One of the ways suggested by the students to make online learning effective was having access to internet data and high-speed and reliable internet connectivity. The students felt that it was the responsibility of the university to help them get access to the internet data since regular students have access to the internet of the university. Five of the participants suggested that the university could lease with the telecommunication companies to have internet packages for DE students. According to them, once the university was fronting such effort, the likelihood of students getting a specialised offer that guaranteed speed was high and that could reduce the frustration students go through any time they wanted to join class online. Two of the students stated:

"*Since the university has high-speed internet access on campus for regular students, they should also at least provide us with internet data to ease the burden of buying data all the time for lectures*" [Emma].

"*For me, I think the university can't do it all by itself. They need to collaborate with the government and the telecommunication companies to improve internet access. If network problems are prevalent in Cape Coast, how much more those in the rural areas?*" [Paul].

The above highlights the importance of collaboration between academic institutions, government and the industry to enhance the provision of quality internet connections. From their suggestion, the university is expected to draw closer to the industry to build quality relationships that would promote the interest of the university, the industry and the students as a whole. The students also emphasised that telecommunication companies have different packages but the institutional ones are less expensive and more reliable than individuals buying data from the network providers.

Support service

Three of the participants recommended support services for lecturers to help manage the online classroom. According to them, they felt the lecturers mostly have a hard time managing the online class, especially using the online tools. The lecturers sometimes forget to record the sessions for graduate students and students had to keep reminding them. Some also expressed that they had to be in the waiting room for long before the lecturer would be reminded to let them in. Aside from these, students mostly distract the class by unmuting themselves unknowingly and the noise from their background causes a lot of disturbances. Specifically, one of the participants indicated that:

"*You see, the university can do more to make online learning more effective. Some of the lecturers struggle to coordinate and facilitate the class all by themselves so they need to get someone to support them. We should also be given training about the dos and don'ts in online learning because some of our mates really disturb and distract us with their mics on*" [Anna].

Thus, apart from lecturers getting support, students must also be given training on how to conduct themselves during classes. Though students might learn how to join the online classroom, the participants felt that the etiquette in the online environment must be provided to all students to reduce distractions. According to one of the students, even though lecturers often announce to students to mute themselves, some end up ignoring such directives while others unintentionally unmute themselves because they are still not proficient in the use of the platform.

Access to recording

All the undergraduate students noted that lecturers should record the class and also make the link available to students. The students acknowledged the digital divide since they do not have equal access to reliable internet. Thus, to help all students gain equal access, the participants felt that the recorded videos, when made available to them, could help bridge such unequal access. A student had this to say:

"*Me I think the lecturers should record the class while the online is going on and later give us access to the link for us to watch. It will really help ensure effective learning even if you encounter network problems*" [Mary].

This re-echoes the call for asynchronous learning to enable students to access recorded videos to reinforce learning. Moreover, students who face network challenges as well as those who could not join the class, could get the opportunity to watch the videos to gain an understanding of what was taught.

DISCUSSION OF FINDINGS

The study sought to explore the online learning experiences of students who enrolled in DE courses at the main campus of UCC. The study adopted TAM to help explore the extent students of CoDE are likely to accept online learning and use the platform for their learning. From the analysis of the experiences of DE students at UCC on online learning, it could be noted that the integration of online learning into DE has brought a lot of benefits. Specifically, the participants noted online learning is more convenient, enables them to multitask, and enhances their digital skills by using platforms like Zoom and Google Meet. Additionally, the experiences shared by graduate students can also be inferred that they have seen improvement in their education because of the opportunity to watch recorded lectures for first-hand clarification of what the lecturer had said. This adds credence to other studies that have found that online learning as well as using LMS are beneficial to students

(Aljaraideh & Bataineh, 2019; Adarkwah, 2021b; Cavus, 2015; Tagoe & Cole, 2020) and can help students to accept and participate in online learning as emphasised in TAM. Also, it can be pointed out that an external factor in relation to TAM that influences the students in this study to continue using online learning is the convenience they enjoy instead of attending face-to-face sessions. The convenience can be attached to the perceived usefulness as indicated in TAM. Nonetheless, these findings are against the views of students revealed in the studies of Egielewa et al. (2021) and Mpungose (2020) who indicated students' unwillingness to continue with virtual learning after COVID because of the difficulties students faced. While the experiences of students in this study show positive signs of the benefits of online learning, it is important to encourage students to be more focused during online learning to avoid just being online without following what the lecturer may be teaching as expressed by Bean, et al. (2019). Yet, Passmore (2009) cited by Osabwa (2022) aver that the active engagement of students in online learning can be improved by the level of competence of the instructors. A competent instructor with the right pedagogical training can put together activities to ignite the active participation of the students even in online learning. Having access to mobile phones and computers with internet and using them shows a good step in improving the digital literacy of students, however, such digital literacy as expressed by Krönke (2020) is at the basic level if they are not used frequently. Again, because mobile phones have limited functionalities compared to laptops, those who use laptops to engage in online learning may likely improve their digital skills more than those who use mobile phones. The students cannot be blamed for this since the only means most of them have to get an internet connection is through their phones which is provided by the type of telecommunication company they subscribe to. This further reveals the digital divide existing between regular students and distance students because regular students, as expressed by the participants, could have an alternative to internet service provided by their mobile phone telecommunication company by using Wi-Fi provided by the university.

The major challenge faced by DE students in this study is poor internet connection and high cost of internet data which is contrary to the study of Arthur-Nyarko & Kariuki (2019) who identified electricity as the major factor affecting online learning in Ghana. The issue of poor internet connection is experienced by almost all the participants in this study regardless of their employment status and it affects the quality of the learning as expressed by Bean, et al. (2019). The students also acknowledged the distractions coming from other students who do not mute their mics, do not have access to online class recordings and lack training on how to use online learning tools as contributing factors to their challenges in online learning. These challenges and especially the poor quality of the internet reflect the extent of the digital gap that has been identified by earlier studies that exist within the African continent by the International Communication Union (ITU 2017), Adarkwah (2021b), Krönke (2020) Gan and Sun (2021), Lembani et al. (2020). This might be one of the reasons why students may prefer to use their phones rather than to use computers for online learning since students sometimes have to be moving around searching for good internet services provided by telecommunication companies. As stated in TAM, if these challenges are not addressed it can affect the extent students will accept and participate in online learning. In terms of differences in the digital divide among employed and unemployed students, the study found that those employed with internet facilitate at their workplace are likely to use the facilitate when facing challenges with their phones. The employed students stressed the quality of internet access from Wi-Fi at work just that the challenge they would have was to move from their convenient place to the workplace.

The experiences of the students show there is still hope for the integration of online learning into distance education in Ghana. When the right structures are put in place students are more likely to accept and participate fully as well as benefit from online learning which will improve the human resource capacity of the country. For instance, the students call for improvement in internet connectivity and training in online learning and acquisition of ICT skills. This is not out of place since Safford and Stinton (2016) suggested that the first step in making online learning effective is training which will help students to cope with such a system. This suggestion has also been supported by other authors like Adarkwah (2021b), Tagoe and Cole (2020), and West et al. (2007). The suggestions of these students also fall in line with the strategies offered by Osabwa (2022) to higher educational institutions to consider the capacity development of infrastructure, staff and students. According to the author, HEIs must endeavour to train their teaching staff on how to use innovative technologies, offer course content and curriculum in digital tools to students, provide support services and put in place supportive infrastructure to help bridge the digital gap. Unfortunately, HEIs cannot do all these on their own. They need the support of the government and other important stakeholders to enable HEIs to put in place some of these infrastructures. Just like those employed in this study emphasised using better internet at the workplace than outside the workplace or campus, it is evident that telecommunication companies can offer quality internet services to even ordinary clients if the companies get evidence of profitable initiative. The students also recommend the recording of online classes and links to the recordings made available to them. This was part of the suggestions made by the Association of African University (2020) to African Universities amid COVID-19 to facilitate other forms of teaching and learning aside from face-to-face.

CONCLUSION

This paper seeks to explore the experiences of DE students at UCC in using online learning. The challenges likely to be faced by students in the absence of using digital resources available on the UCC campus and the differences in the digital divide between students employed and unemployed were also looked at in the study. The adoption of online learning in addition to face-to-face learning in DE in Ghana shows a step in the right direction even as educational institutions edge towards bridging the digital divide and fostering the acquisition of digital skills. Distance students at UCC in this study believe they had experienced benefits like convenience and improved digital skills while engaged in online learning. The convenience experienced by the students can fall in line with the external factors in TAM because that seems to be a major reason why they considered online learning to be useful and could encourage them to continue learning online. Aside from the benefits, the challenges they face make them experience the bane of the digital divide when compared with their regular student counterparts. The challenge of the high cost of internet data, poor internet access, lack of support services, limited interaction between students and lecturers and among students, and lack of training require swift interventions to improve the prospects of integration of online learning into face-to-face sessions. These challenges cannot be addressed by HEIs alone but require the support of government, telecommunication companies, other private organisations and international communities to play their parts to ensure fruitful teaching and learning. Further, the experience of the participants also highlights the limited interaction between students and lecturers and interaction among students during online learning. This is why the university needs to continue with blended learning to encourage collaborative learning and support between students and lecturers, as well as among students (Ngai et al., 2018) to foster positive interaction and promote the psychological well-being of the students. The online learning experiences of DE students employed and those self-employed or unemployed showed some differences, especially in the use of meeting tools in the

initial stage. Those who had used the tools at their workplace before the start of the online were proficient and comfortable in the use of the tools and were able to give a helping hand to those who lacked the skills. Thus, education has shown another great impart since those who lacked the skills have eventually gained experience and found online learning to be convenient.

LIMITATIONS

One of the main limitations of this study is the small size of the sample. This does not allow for generalisation. The study was also limited to only one of the study centres of the university as compared to the other 95 centres. Moreover, the experiences of regular students were also not captured to allow an effective comparison. In the future, a large-scale quantitative study can be conducted to allow for greater generalisation of the findings of the study. Other studies could also explore the experiences of DE faculty members. Despite these challenges, it is believed that this study has been able to capture the views, experiences and challenges of DE students, with special reference to students employed and unemployed, in online learning to help bridge the digital gap, especially in the global south.

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