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COVID-19 Pandemic and the Shift to Digital Learning: Experiences of Students in a Community College in Ghana

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ABSTRACT

The novel coronavirus (COVID-19) pandemic has impelled many countries all over the world to institute sweeping measures to help reduce infection rates and ultimately its utter elimination. One of the many measures is the closure of schools which concomitantly implied that other innovative strategies to the delivery of subject matter to students while they remain at home be employed in order to avert the likely disruption to the academic calendar of schools. In Ghana, many higher education institutions have turned to the use of digital tools to facilitate teaching and learning. While this was an inevitable move given the prevailing circumstances, it represents a major shift in the teaching and learning experiences of many students in the country due to their familiarization with the traditional face-to-face classroom sessions. This present study explored the unique experiences of 15 conveniently selected students from a two-year college in the country with regard to the sudden shift to digital learning necessitated by the pandemic. This paper identified three main experiences: 1. the use of unregulated social media platforms for learning; 2. high data costs for surfing the internet coupled with instability of internet; and 3. empathy from the lecturers contributed to students' online learning engagement. These findings serve as an invitation for profound reflection on the unique place of technology-mediated teaching and learning in higher education in current and future pandemics.

Setting and context

In the latter part of the year 2019, there were reports in the media of an outbreak of respiratory illnesses in the Wuhan City of China. Studies later established that the illnesses were the result of a severe acute respiratory syndrome which became known as COVID-19 or Coronavirus. This novel disease has had global effects, affecting people from every country in the world with several deaths recorded. Aside the unfortunate deaths to millions of people worldwide, the virus has affected the socio-economic lives of many people as a result of the various measures put in place to address the growing number of infections including lockdown and social distancing. This has led to the closure of many businesses; limiting personal movement; encouraging stay-at-home and certain behavioral changes. Such a move has occasioned significant changes to the lifestyles of many people around the world.

In Ghana, as in many parts of the world, the incidence of COVID-19 cases in the country impelled the government to announce several sweeping measures to help curtail the spread of the virus. To begin with, there was an immediate closure of all the national borders and a ban placed on international travel. Nationwide stay-at-home protocols and lockdown were implemented with the view to

halting the growing infection rates. The lockdown meant that massive restrictions were placed on the movement of persons in the major cities of Accra and Kumasi. Internally, all public gatherings were banned including political, religious, and all other social meetings; and a ban was placed on all non-essential services. In the educational sector, there was an immediate closure of all schools in the country. The closure of schools has put immense pressure on the government, school administrators, teachers, and all stakeholders to look for innovative ways of promoting effective teaching and learning while students stay at home. According to Mackey et al. (2012), “creative and innovative solutions are required if a sound academic programme is to be maintained when faced with a lack of space and physical resources, interrupted schedules, dispersed students, and an extended period of civil emergency” (p. 130). It is important to note that:

In all of these contexts there would have been consensus regarding the nature of the crisis and the need for innovative responses, including the virtual. In conflicts, disasters and protests which can lead to educational disruptions, the responses to them are bound by specific ethical imperatives. In the wake of mass displacements and natural disasters, both students and academics are typically keen to find a way to resume educational activities as soon as feasible, as these events are understood as an undesired intervention into a desired educational ambition. (Czerniewicz et al., 2019, p. 6)

The observation by Czerniewicz et al. resonates with the current situation in Ghana. In order to bring to normalcy the academic life of students, many higher education institutions have turned to digital learning with the aim to employing digital technologies that are regularly used by students to enhance their learning. As has been noted by Dobrovolny et al. (2015, as cited in Blundell et al., 2016), digital learning refers to a wide range of educational opportunities facilitated by digital technologies. In this sense, digital technologies comprises, “various hardware and software tools, including Information Communication Technologies (ICT), that can be used to collect, store, process, and action data as well as facilitate creative and critical thinking, problem solving, collaboration, and communication” (Blundell et al., 2016, p. 536). There is no denying that technology-mediated teaching and learning strategies may offer opportunities for curriculum change and new methods of assessment in response to our changing educational objectives (Jattan & Chaudhary, 2015 as cited in Paul & Lal, 2018). Also commenting on the potential of digital technologies in higher education, Paul and Lal (2018) asserted that “the digital technologies in higher education are ubiquitous . . . The technologies when applied to the teaching process can significantly change the traditional education” (p. 18). Such changes can be seen in the development of curriculum, delivery of content, assessment, provision of feedback to students, and student engagement. With the use of different software, apps, websites and database programmes, teaching and learning can be undertaken at the convenience of students irrespective of their physical locations. While the benefits of digital technologies have been well documented, the incidence of the virus exposed the unpreparedness of many institutions of higher learning in the country to embrace innovation and the inevitable drive toward digitalization in teaching and learning. On the student front, there was a lot of resistance to the shift to digital learning with arguments such as lack of appropriate devices, internet and unstable electricity in some parts of the country which could ultimately affect effective student participation in the entire teaching and learning encounter. In this paper we explored through interviews with students from a community college in Ghana their experiences of the imposed digital learning due to the COVID-19 pandemic. To succeed in addressing this aim, we have organized the remainder of the paper as follows: The next and second section describes the context of the study and highlights the study’s specific objectives. The theoretical underpinning of the study is then espoused in the third section while related literature is reviewed in the fourth section of the paper. In the fifth section, the methods employed in the empirical aspect of the investigation are then explained after which we present and discuss the results that emanated from the fieldwork. In the penultimate section we make conclusions and some recommendations based on the study findings. The paper ends with an indication of the study’s limitations and suggestions for future scholarship in the area of digital learning.

The present study

The advent of the COVID-19 pandemic in Ghana has had unimaginable effects on the lives of all students in the country. In the higher education sector, the shift to digital learning was not only inevitable but a necessary step to help students continue with their learning while various stay-at-home measures are being implemented. The present study was conducted at the Rural Development College, an affiliate of the University for Development Studies in Ghana with the aim of exploring the unique experiences of the students regarding their sudden transition from the traditional face-to-face instructional mode to the digital teaching and learning space. The college is a public institution in the country, established and managed by the Department of Community Development, Ministry of Local Government and Rural Development. The college awards a diploma in community development (the only college awarding this qualification in the country). The core mission of the college is to offer training to students and practitioners in community development methodologies and practice. Students also undergo a 3-month industrial attachment followed by a 1-year mandatory National Service at the end of the two year-training.

To achieve the main aim of the study, the following specific objectives were addressed:

- (1) to identify the digital learning tools used by the students during the lockdown;
- (2) to explore students' views on ways of enhancing their digital learning experiences; and
- (3) to find out the challenges confronting the students in their transition to learning on the digital platforms.

The researchers are of the view that the findings from this present study could help promote effective learning in the digital space, not only for Ghanaian college students but also higher education students all over the world.

Theoretical framing

The Theory of Connectivism (ToC) foregrounds this study mainly based on Carreno's (2014) argument that most theories that have been used in the field of education preceded digital technology so are not suitable for such studies. He further stated that learning is a process that occurs within nebulous environments of shifting core elements – not entirely under the control of the individual. In this wise, we subscribe to the view that some aspects of learning occur outside the individual and may not be in the control of such individuals (Downes, 2012) as in the case of the participants in this study who experienced a sharp learning curve due to the effects of the COVID-19 pandemic on education. It is based on this notion that Downes (2012) and Spitzer (1999) averred that connectivism is an epistemological approach that is grounded in interactions within networks in terms of what happens within and outside of the individual's mind.

Thus, in exploring the experiences of college students in the sudden shift to digital learning, the ToC was deemed beneficial in documenting their transition. Especially, given that (Spitzer, 1999) noted the ToC transcends the thinking of individuals (cognitivism) to what to do (behaviorism) and the meaning they make of a phenomenon (constructivism). Another strength of the ToC lies in the assertion by Lave and Wenger (1991) that knowledge or experience does not only occur in the minds of individuals but at supra-individual and transindividual levels. These levels are important in the digital environment as there is the propensity of social and physical gaps being created. Hence, the need to stay connected by means of digital technology as witnessed in the wake of the COVID-19 disruption of education and other human activities.

In gauging the experiences of the participants in this study, the eight principles of the ToC, as established by Siemens (2004), become imperatives. The principles are:

- learning and knowledge rests in diversity of opinions
- learning is a process of connecting specialized nodes or information sources

- learning may reside in non-human appliances
- capacity to know more is more critical than what is currently known
- nurturing and maintaining connections is needed to facilitate continual learning
- ability to see connections between fields, ideas, and concepts is a core skill
- currency and accuracy of knowledge is the intent of all connectivist learning activities
- decision-making is itself a learning process (Siemens, 2004, p. 4).

Carreno (2014) discussed the elements of the ToC which he called the cycle of knowledge. We see this as a continuum wherein the first element of the theory is the individual, whose knowledge is included in a network that feeds into their institutions. He continued that the institution provides feedback to the individual through the network that eventually provides learning to the individual through the knowledge generated and shared.

COVID-19 and digital education

The COVID-19 pandemic caused schools to shut down on a global scale within the first quarter of 2020. The World Economic Forum [WEF] (2020) recorded that globally more than 1.2 billion children in 186 countries have been affected by the closure of schools. Ngware (2020), however, put the figure at 1.57 billion learners and claim that they constitute a little over 91% of learners globally. As indicated by Mackey et al. (2012), such situations call for creative and innovative solutions. The WEF (2020) thus stated:

Every kind of organization, whether small or large, public or private, is finding new ways to operate effectively and to meet the needs of their customers and employees as social distancing and quarantine measures remain in place. Machine learning technology is playing an important role in enabling that shift by providing the tools to support remote communication, enable telemedicine, and protect food security. (p. 2)

Given the foregoing, Marcus (2020) downplayed the prediction that the situation will cause a permanent exodus of traditional forms of delivery to virtual classrooms. He was, however, quick to add that online education has come to stay. He further stated that online education uses digital technologies to transform learning experiences. Similarly, Smith (2020) shared the view that digital education has the propensity of helping people to work from home in the face of the lockdowns and social distancing protocols. He, however, issued a caveat that meeting particular learning objectives is the ultimate responsibility of faculty and students.

From many indications, the benefits of digital education cannot be overemphasized, especially under the current circumstances. It is in this vein that the WEF (2020) noted that a new hybrid model of education, with significant benefits, will eventually emerge. The organization further argued that the deployment of digital technologies for education results in students learning faster as 40–60% less time is spent learning compared to what happens in the traditional mode. They also adduced that students engaged in digital education retain between 26% and 60% of what they learn as against 8% to 10% of those in traditional classrooms. Despite the benefits inherent in digital education, one should not lose sight of the contention that appropriate technical environment and support are prerequisites for successful digital education (Basilaia & Kvavadze, 2020; Sintema, 2020). In essence, not all contexts may benefit from digital education equally.

Various studies have documented the downside of digital education even amid the COVID-19 pandemic where one would see it as a panacea to restore and sustain engagements in education. A notable argument is the speed with which the shift transpired. For instance, Marcus (2020) cited a respondent in his study who indicated that their school had only eight days to move all their teaching and learning activities to the Zoom video conferencing facility. Similarly, the WEF (2020) touched on the unplanned and rapid move from traditional settings to the online environment. Additionally, they mentioned the lack of training, insufficient bandwidth and little preparation as recipes for poor learning experiences within the digital space.

As would have been noted, the COVID-19 pandemic has further exposed the cracks in the digital divide which makes the reality of digital education more distant than anticipated. In this light, the OECD (2020) established that students without the right technology or internet access would struggle to partake in the digital space. They highlighted that whereas 95% of learners in Europe have computers to engage in studies, it was only 34% for Indonesian students. The WEF (2020) also found that almost all 15-year-olds from privileged backgrounds in the U.S. have computers for studies but only 25% of those from disadvantaged backgrounds could boast of same.

The situation could be worse in the African context as Ngware (2020) averred that “given that school closures were abrupt, about 75% of learners have limited or no access to interactive and internet-based learning materials” (p. 1). He recommended that Open Educational Resources (OERs) should be subscribed to under the circumstances but indicated that the majority of these OERs require internet connectivity which is not accessible to many in Africa. Ngware (2020) further noted that internet penetration in Africa was 39% in March 2020 as compared to 62.9% for the rest of the world. Consequently, he questioned whether digital technologies deployed under COVID-19 are bespoke for Africa as 95% of such technologies were innovated outside the continent. Red flags may also be raised as to how all students can engage in digital education in Ghana as Aljazeera featured a documentary showing that even electricity and android phones remained a luxury for some students (Mohammed, 2020).

Attempts to answer whether or not digital education is the panacea for sustaining learning engagements will remain a conundrum. However, one needs to be cognizant of ways of accommodating learners especially given the prevailing circumstances. Consequently, Smith (2020) emphasized the need to remain empathic in the digital space as many students may come into the digital space with divergent challenges. He admonished teachers to prioritize elements of human interaction to make learning experiences meaningful and valuable. Similarly, the Commonwealth of Learning [COL] (2020) rehashed the element of empathy with particular reference to care for students, helping them adapt to new [digital] environments, integrate OERs in teaching and learning, give due consideration to workload and assignments, create online communities of practice and assign staff to offer support to students in the digital space.

Finally, we concur with Williamson (2020) that COVID-19 has necessitated a shift in global education policy with respect to how schooling will continue without schools and degrees without campuses. In agreement, Beer (2020) noted thus, “we find ourselves thrust into a period of fast-moving digital reform of public education, and we need to work hard to respond accordingly” (p. 4). Williamson, as a result, considered digitally-mediated education a plausible solution to mitigate the challenges that have bedeviled the education sector due to the effects of the COVID-19 pandemic. Despite the benefits of digital technologies in such times, Hartzog (2020) argued that in the rush to deploy digital technologies to salvage the situation, there could still be an inevitable inertia to roll it back in the face of poor planning and implementation.

Methodology

Approach and design

The study adopted a qualitative research approach using an interpretive inquiry to explore the experiences of students in a two-year college in Ghana about their experiences with the COVID-19 motivated shift to online learning. The appropriateness of the qualitative research approach for this study is due to the belief that qualitative research helps researchers to understand how the experiences of people are interpreted and what meanings have been generated from those experiences (Merriam, 2009). The essence of interpretivism in this present study was to understand and describe how the students make meaning of their experiences during the transition from the traditional face-to-face teaching mode to digital learning (Creswell, 2014).

Participants

The participants for this study ($N = 15$) were chosen from the Diploma II level. The Diploma programme comprises of two levels – Diploma I (first year) and Diploma II (second year) with a total of 450 students. The Diploma II group comprises 210 students with 140 females and 70 males. The participants were conveniently selected because:

- (1) they had transitioned to the use of digital learning tools (the students were hitherto taught through the traditional face-to-face lectures) as a result of the imposed COVID-19 stay-at-home protocols;
- (2) they were accessible; and
- (3) they were willing to participate in the study.

Data collection

A semi-structured interview guide was designed using Google Forms for the purpose of data collection. Due to the ongoing government-imposed lockdown in the country, it was impossible for us to meet the participants face-to-face for interviews. Instead, a link to the instrument (https://docs.google.com/forms/d/e.1FAIpQLSdfyiVR40PHgF0SwDg7c4_m1D2yO9nbc-7WBeFh0IFYt9C1bw) was sent to the participants after they had indicated their availability to participate in the study. The instrument was made up of seven questions under three main sections. The first section sought the participants' experiences regarding the digital learning tools used by the students during the stay-at-home period. The second section explored the students' views on ways of enhancing their digital learning experiences. The third and final section was devoted to identifying the challenges confronting the students in their transition to learning on the digital platforms. Where necessary, probing questions were posed to the participants to seek more clarity on their responses provided.

Data analysis

The analysis of data represented an important stage in this study. As has been noted by Speziale and Carpenter (2007):

Regardless of the methodological approach used, the goal of data analysis is to illuminate the experiences of those who lived them by sharing the richness of lived experiences and cultures. The researcher has the responsibility of describing and analysing what is present in the raw data to bring to life particular phenomena. (p. 48)

To get the best out of the data, the thematic analysis method was employed using the iterative approach – that is where the researcher moves back and forth over the data, rather than in linear steps (Harding & Whitehead, 2013). Harding and Whitehead maintained that thematic analysis requires “circling around the data set,” getting to know it well, and at times “parking close to some data for close scrutiny” (p. 151). Accordingly, a 5-step approach suggested by Graneheim and Lundman (2004) was applied in conducting the thematic analysis for this study. First, we had to read and re-read the transcribed interview to get the full picture of the data recognizing the various patterns in the dataset. Second, we divided the text into smaller parts referred to as meaning units. A meaning unit according to Erlingsson and Brysiewicz (2012), “contains aspects related to each other through their content or context and always conveys one central meaning. Meaning units can be as small as a few words or as large as several sentences or even paragraphs” (p. 96). Third, we condensed the various units while preserving the essence of the meaning unit (Bolmsjö et al., 2015). We ensured that we retained the true meaning embedded in the units. Fourth, we coded the condensed units. After this, the codes were grouped into categories based on how the different codes are related (Erlingsson &

Brysiewicz, 2012). Fifth, various themes and their corresponding sub-themes were developed and presented supported by specific and related verbatim accounts from the participants. This was done in order not to dilute the original accounts from the participants.

Discussion of results

Discussions of the results from this study were done with the three objectives in focus while bringing together what pertains in the extant literature and the theory that undergirded the study to help understand the transition experiences of the study participants.

Technologies and digital access

Objective one sought to identify the digital learning tools used by the students during the lockdown and their efficacy. Since students somewhat remain at the receiving end during the COVID-19 lockdown in terms of tools deployed to deliver courses to them, they were asked to identify the tools their instructors used in this process. As explained by Mackey et al. (2012), creative and innovative solutions are required to maintain sound academic programmes during interrupted schedules and extended periods of civil emergencies as has been necessitated by the COVID-19 pandemic. In this regard, the responses showed a strong social media presence for content delivery. Their responses were indicative that their instructors had deployed the WhatsApp and Telegram platforms to deliver content to them via chats, videos and audios. For instance, a respondent shared this:

Our Lecturers share recorded explanations in audio format through WhatsApp. They also create interactive games and quizzes through telegram.

Hitherto the pandemic, this rural college had been using conventional approaches in its content delivery without any plan to shift to the hybrid or fully online mode in the foreseeable future. Hence, there was no learning management system in place to be deployed in the emergency but in line with Paul and Lal's (2018) assertion that digital technologies in higher education are ubiquitous and can be applied in academic institutions for dissemination of knowledge among the students, they were quick to adapt to the situation. This is evidenced in the deployment of social media tools that needed little to no training and almost available to all instructors and some students. It is in this light that a participant shared that, *Lectures delivered lectures to us through audio-visual and uploading of materials to the [social media] tools.* Another indicated, *They record the lecture and send it to us through WhatsApp chats, videos and audios.* This epitomizes the important role of technology in enabling the shift to online learning especially in the pandemic era (WEF, 2020).

In the face of social distancing protocols, there was the need to keep human interactions active and this is of utmost importance in educational circles as the COL (2020) encouraged all countries and institutions to find bespoke tools to keep connections with people. This also finds roots in the Theory of Connectivism (ToC) wherein it is held that connectivism as an epistemological approach is grounded in interactions both within and outside of the individual's mind (Downes, 2012; Spitzer, 1999). The researchers thus sought to gauge how interactions between instructors and students and among peers had taken place during the lockdown. All the participants agreed that interactions had taken place mainly asynchronously. A participant recorded, *Audio and video recordings and tutorial sessions are recorded and sent to us by our Lectures.* On how the students contribute to the interactions, one participant reflected, *Audio notes are recorded and delivered to us to listen and ask questions by typing or recording voice notes.*

One wonders how effective the asynchronous mode had been given that both instructors and students had experienced a sharp learning curve from their comfort zones (conventional classrooms) to being fully online. This means there was the need for an online platform that had a close representation of their former learning space, but that could not be the case as the platforms deployed allow up to four for WhatsApp and two for Telegram when having live sessions termed videoconferencing. Despite the limitations, one can agree with Smith (2020) that digital tools have helped people

work from home during the lockdown period. This is expressed when the students' satisfaction in being able to continue with their academic work. A participant stated, *I listen to my Lecturers recorded lectures and also record my questions and send to them.* Another said, *I watch the videos and send my Lecturers audio answers to the questions they ask.*

The participants' responses revealed that two of their instructors had gone out of their way to provide them with synchronous sessions during weekends. This they did by creating groups on the platforms where they engaged in real-time at giving times during weekends. It is in this light that one participant revealed, *On weekends we participate in curated quizzes pertaining to concepts discussed during the week.*

Similarly, another participant added:

After watching the lectures videos and listening to the audio messages on a WhatsApp platform during the week we meet our Lecturers and we are allowed to type our questions via the platform and responses are given same. After explanations have been given, the Lecturers give as assignments which we submit later on the platform.

Indications from the discussion thus far revealed that the instructors have been able to use the digital resources available to them to perpetuate engagements that would have been curtailed by the pandemic and that they have brought the issue of connectivism as an epistemological approach to life (Downes, 2012; Paul & Lal, 2018).

As researchers, we are of the view that interactions or engagements in such pandemic and emergency times are beneficial, we also believe in the sustenance of the interactions. Consequently, we probed into how the interactions have been sustained. The responses gleaned were akin to Spitzer's (1999) description of the ToC in that the engagements transcend cognitivism (the thinking of the students in this study) to capture important aspects of behaviorism (what they do in the learning process) and constructivism (the meanings they make of their learning engagements).

Key activities that ensured the sustenance of the engagements include informal introductions, continuous assessments, awarding points for each assignment and announcing one's presence during the synchronous sessions. The views of two participants sum up what the others shared. The first noted, *Our Lecturers use informal approaches by encouraging us to announce our presence with memes and other funny social media artifacts.* Another participant shared a more informative view on the issue of sustenance of engagements in what follows;

We understand we have to submit assignments frequently. This has kept us engaged throughout the semester despite the [COVID-19 inspired] lockdown. Our teachers also award marks for every assignment we submit.

The strategies adopted to ensure a sustained online engagement do not only reflect the importance of connectivism in such difficult times, but it has also emphasized the need to leverage non-human appliances to nurture and maintain connections as a way of facilitating continual learning (Downes, 2005, 2012).

Students' views on ways to enhance their digital learning experiences

The second objective sought to explore the students' views on ways of enhancing their digital learning experiences. Their views were captured mainly in their strategies to work around the challenges they have faced learning online. Their key strategies were reducing network downtime and empathic relationships with their instructors.

With regard to the first strategy, a student shared this statement, *I bundle [data] in bulk and move to a less noisy place so I don't repeat the videos or voice notes.* Another student shared, *I go to campus to take advantage of the Wi-Fi that has been provided for our Lecturers.* The statement that insufficient bandwidth or no Internet access impinges students' efforts to participate in online learning (OECD, 2020; WEF, 2020) is brought to light here. Appropriate technical environment and support are regarded as prerequisites for students to succeed in online learning (Basilaiia & Kvavadze, 2020). Though the kind of environment and support espoused in the literature seems to be missing in the context of this study, the students seem to be going all out to ensure their own success in learning

online. Other students also shared that they had to wake up at night to get online to access information. One participant shared, *I wake up at midnight to download materials and lectures at a reduced cost since it's cheaper at that time and the Internet is very stable.*

More so, Mackey et al. (2012) argued for creative and innovative solutions to sound academic programmes during interrupted schedules. In line with this, the Administration of the College has provided a Wi-Fi facility for the instructors. Though this was not for the students, it was revealed that students who could afford to get to campus during the lockdown took advantage of it to enhance their digital learning experiences.

Given the empathic relationships built with Instructors, it was apparent that the Instructors understand the situation of their students. They also appreciated the gravity of the toll of the COVID-19 pandemic and the need to sustain educational engagements to help their students navigate their way through their challenges. Such empathic care is supported by Smith (2020) as he emphasized that such care is helpful to students who may come to the digital space with divergent challenges. Such challenges have been brought to bear in the next section of this paper.

The students expressed how their instructors show empathy in the extended time their lecturers spend on them and the encouragement they receive from them. It has reflected earlier in this study that some lecturers use their weekends to engage students in synchronous sections. In a similar vein, one participant reflected, *Some lecturers take the pain of doing overtime and repeating some lectures that are difficult for us to understand.* Another participant shared what follows, *I reach to my Lecturers on normal calls whenever I don't understand certain things and they help me out.* As noted by Smith (2020), the lecturers in this study have prioritized human interaction and are finding ways of making learning experiences meaningful and valuable to their students.

Lastly, the COL (2020) has laid strong emphasis on empathy as a way of showing care and support for students to adapt to new [digital] environments. This, the instructors have done to a large extent. Aside from those already shared above, a student had this to say,

Some of the lecturers call or send text messages to encourage us. That really encourages me to continue participating in lectures. Though data cost is a challenge, I appreciate the care the lecturers have for us so I still participate.

What didn't work for the students (Challenges of the Students in Digital Learning)

The third objective of the study focused on the challenges confronting the students in their transition to learning on the digital platforms. It was important to get to the bottom of their challenges as the interruption of the COVID-19 pandemic to education remains a relatively new phenomenon. It is also important to state that literature on the phenomenon has been largely from the North so findings from the context of this study will add to the growing literature.

The WEF (2020) found that almost all 15-year-olds from privileged backgrounds in the U.S. have computers for studies but only 25% of those from disadvantaged backgrounds could boast of same. In terms of Internet usage, the International Telecommunication Union (2019) estimated that whereas over 82.5% and 77.2% of people residing in Europe and the Americas respectively have access, it is 28.2% for those in Africa. These statistics set the tone for the challenges the study participants might have encountered in their online engagements. Among their key challenges are network downtime, high cost of data and delayed feedback from some of their Instructors. The most compelling of the challenges was that some of the students did not own nor have access to smartphones to engage in the online learning sessions. In such instances, the benefits that come with the deployment of digital technology in education (WEF, 2020) remain a far-fetched dream for students such as those in this study. This has been established by the OECD (2020) that students without the right technology or access to Internet would struggle to or may not be able to participate in digital learning.

A typical case of a challenged student is shared,

My phone is not good so sometimes I find it very difficult to send my assignments on time. I can't also go to the Internet café because of the lockdown. But I am even lucky, some of my classmates don't have phones at all so I don't know how they are having their classes now.

This is an unfortunate situation but the reality for many rural dwellers in Ghana. It is believed that it is the situation for most students who could not respond to our instrument since it was on Google Forms. Such a situation is supported by the assertion that appropriate technical environment and support are prerequisites for successful digital education (Basilaia & Kvavadze, 2020; Sintema, 2020). Besides, a participant also shared, *It is difficult getting money to buy data so we can be part of learning.* This situation is also supported by the WEF (2020) in a statement that insufficient bandwidth is a recipe for poor learning experiences in the digital space.

Almost all the participants lamented what they termed, *Lack of immediate feedback.* This situation is seen as an amalgamation of all the challenges they have identified. It is, therefore, anticipated that if synchronous sessions are activated, bandwidth is strengthened and made accessible, and the right digital tools are made accessible, communication would be improved and receiving feedback will be seamless.

Lessons learned and recommendations

Noticeably, an enduring shift in instructional design and implementation is occurring in many colleges worldwide resulting from the exigencies of our time. In Ghana, the closure of colleges as a result of the pandemic impelled a renewed thought of the value of traditional face-to-face classroom teaching and learning. In many colleges in the country emergency online learning was adopted and normalized as the panacea to the inevitable disruption to the academic calendar. The findings from this interpretive inquiry sheds light on the unique experiences of students in a 2-year college in Ghana with regard to their sudden transition from the traditional face-to-face instructional mode to the digital teaching and learning space. The findings are both promising and ominous.

Promises

First, there was a strong social media use among students for the purposes of learning. WhatsApp and Telegram tools such as chat, live video, and audio were amply used to stimulate learners' interest in lessons. In this precarious era, the use of such tools brought the classroom not only at the doorstep but also at the "fingertips" of students. It also afforded students the largess of convenience in space and time in their learning. Since emergency situations call for emergency measures, colleges all over the world and Africa in particular were compelled to explore the value of social media platforms in promoting learning amongst students.

Pitfalls

While, the study's findings hold significant promise in enhancing access to and flexibility in learning in higher education, the study also unearthed some troubling findings. Although the various challenges mentioned by the students may not originate from the institution, it gives an indication of the pervasive inequalities in our educational systems. The high cost of data and instability of the internet as reported by some of the students points to a prevalent issue on the African continent. The inability of some students to afford the high cost of data is a threat to their participation in the "new agenda" in higher education provision. This also reveals the entrenched inequalities in the education system where the "haves" have an edge over the "have-nots" in access to education. Students living in rural areas often had to contend with unstable network due to lack of adequate ICT infrastructure in those areas. This also exposes the uneven allocation of resources to and the lopsided nature of development in rural and urban communities in Ghana.

Way forward

The students also gave some suggestions to improve their digital learning experiences going forward. Their suggestions reveal an all-encompassing action plan at the personal, institutional and national levels to engender the success of future emergency digital learning programmes. The study recommends that adequate financial support should be provided by the government to colleges in the country to facilitate the provision of free internet services to the lecturers and students. Likewise, colleges should ensure that necessary digital learning platforms are available for use by both lecturers and students. This could facilitate a more regulated learning platform and consequently enhance the monitoring of teaching and learning on digital learning platforms.

Closing commentary and summary

This article sought to demonstrate using a case study from Ghana; how students at a community college managed the shift from traditional classroom face-to-face teaching and learning to e-learning during their stay at home as a result of the COVID-19 pandemic stay-at-home protocols. The study has highlighted the actions taken with particular emphasis on technologies used by faculty to stimulate learning and learners' digital access; what worked and what didn't work for the students; the students' views on ways to enhance their digital learning experiences; and the various lessons learned. This study was conducted in a lower middle income country where digital infrastructural development is still at its infancy and the COVID-19 pandemic and its effects on teaching and learning in the study area have further accentuated the need to enhance digital infrastructure in the country and many other parts of Africa. Given that students have to engage in learning from home during the pandemic, it is desirable that all students would have access to digital devices with internet access. However, the study revealed that some of the students did not own digital devices nor did they have stable internet connectivity to engage in learning. The study also highlighted the uncoordinated efforts of faculty in their quest to promote online student engagement during the lockdown. It further exposes lecturers' commitment to promote students' online learning engagement despite the challenges with access to digital devices and internet for learning.

Limitations and future research

Conducting the study in these peculiar times where social distancing is being practiced in Ghana was not an easy task. For the sake of convenience and practicality, we had to make use of an online instrument with a unique link for the purpose of data collection. Given this situation, we only included students with access to smartphones or computers. This was to afford them the freedom to respond to the issues in the instrument at their own expediency. In addition to this we only selected 15 participants due to the difficulty in reaching a larger number of the students who were in different locations as a result of the closure of schools in the country. These issues affected the size of the sample and the subsequent generalizability of the findings. Nonetheless, our study explored a very contemporary global educational issue with far reaching implications for the design, delivery and evaluation of teaching and learning. Future scholarship could explore students' digital learning preparedness in the context of Africa since knowledge of such could facilitate success in future pandemic-inspired emergency learning initiatives.

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