



# University students' perspectives on the benefits and challenges of emergency remote teaching during the Covid-19 pandemic in Ghana

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## Abstract

The advent of Covid-19 changed how education is carried out at the tertiary level in Ghana. Despite the launch of emergency remote teaching at the University of Ghana in 2020, little research has been done on students' experiences. Using a qualitative descriptive design, this study explored students' experiences regarding the benefits, challenges, and the influence of emergency remote teaching on their self-esteem, academic confidence, and performance. 20 students were interviewed, and their responses were analyzed using thematic analysis. Results showed students had both positive and negative experiences which had diverse impacts on their self-esteem, academic confidence, and performance. Positive experiences resulted from the confidence to participate in class without intimidation, improved IT literacy, self-esteem and academic performance, less distraction and leniency from lecturers. Negative experiences bothered on problems with the learning management system, internet challenges, laziness on the part of students, high cost of internet data, unconducive learning environment, comprehension difficulties, increased workload and cheating by students. The findings underscore the need for university management to consider students' psychological wellbeing and needs when implementing new educational systems and further put measures in place to improve emergency remote teaching and curb academic dishonesty in order to improve tertiary education in Ghana amidst Covid-19.

**Keywords** Tertiary education in Ghana · Positive and negative experiences · Self-esteem · Academic confidence · Academic performance

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## 1 Introduction

The history of teaching and learning in Ghana dates back to the pre-colonial times, when knowledge was passed on to younger generations orally by older persons. This form of teaching and learning was informal and indigenous, and was void of reading, writing, and arithmetic (Adu-Agyem & Osei-Poku, 2012). The western form of education was introduced in the Gold Coast, present day Ghana, in the 16th and 19th century by European merchants and Christian missionaries respectively (Debrunner, 1967; McWilliam & Kwamena-Poh, 1967). This type of education was totally different from the indigenous education in that it involved reading, writing, and arithmetic aimed at producing educated locals to work as storekeepers and clerks in commerce, industry, and government. This came at a time when there wasn't much advancement in technology, so teaching and learning was basically delivered in the traditional face-face mode (Graham, 1971). The indigenous government that took office after independence introduced several educational programmes in the quest to extend education to every part of the country and to improve the quality of education in the country. Since then, the educational system in Ghana has seen many reformations by different government all aimed at making education accessible to all.

For a long time, teaching and learning remained the traditional face-to-face mode until the advancement in technology which included the introduction of the internet in 1983 (Siemens et al., 2015). Additionally, with the rising number of students who seek admission and were turned away due to lack of classroom and accommodation, remote and virtual distance education was gradually implemented in the Ghanaian educational system (Marfo & Okine, 2010). Despite the emergence of the internet, greater part of teaching and learning in the Ghanaian context continued to be administered in the traditional face-to-face model.

The year 2020 forced many educational institutions to find alternative means of teaching and learning with the advent of Covid-19. This was necessitated because of the implementation of safety protocol to reduce the spread of the virus. Given the large number of students at tertiary institutions, teaching and learning methods that do not involve physical meeting of students and teachers became the most viable form. Although education by distance via the internet was already in existence, different forms of it were implemented in tertiary institutions to complete the academic year which was brought to a halt by the outbreak of Covid-19 in the world. Given the abrupt shift to emergency remote teaching, most students and faculty were not well positioned to receive this change.

While the terms 'emergency remote teaching' and 'online teaching and learning' have both been used in the context of the Covid-19 pandemic (Erlam et al., 2021), the two terms are not the same. Online teaching and learning result from careful instructional design and planning, using a systematic model for designing and developing the content. Effective online programs aim to be a learning community that supports learners not just instructionally but also with co-curricular engagement and other social supports. Typical planning, preparation and development time for a fully online university course takes about six to nine months before the course is delivered and there are available resources to which faculty can turn for assistance (Hodges et al., 2020). Thus, virtual teaching and learning is planned from the beginning and

designed to be delivered online. As a result, careful planning for online learning does not only include the process of identifying the content to cover but also the consideration of how different types of interactions will be supported and prioritized (Erlam et al., 2021; Means et al., 2014).

On the other hand, emergency remote teaching and learning is a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances (Hodges et al., 2020; Iglesias-Pradas et al., 2021). It involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to the face-to-face format once the crisis or emergency has abated (Hodges et al., 2020). The goal of emergency remote learning is to provide temporary access to instruction and instructional supports in a way that is quick to set up and reliably available during an emergency or crisis but not to recreate a robust educational ecosystem. Emergency remote teaching requires creative problem-solving and could involve models such as mobile learning, radio, blended learning etc. (Hodges et al., 2020). This form of teaching and learning is usually meant to be temporal and does not leave students and faculty much of a choice to choose to join or not.

The setting in which the current study was carried out, the University of Ghana, had an existing virtual teaching and learning in place for their distance education programmes, but due to the closure of schools caused by the corona virus pandemic, the institution activated an emergency remote teaching which included all other programmes at all levels. This came at a time when most students and faculty were not properly positioned to change from the traditional face-to-face teaching and learning to virtual mode, and when most students and faculty lacked the technical knowhow to function adequately in the new system (Owusu-Fordjour et al., 2020).

Although the implementation of emergency remote teaching was necessary, the cost of participating is very high (Kluge & Riley, 2008). Students spend much money to buy internet data just to have a class and have to deal with poor internet connectivity sometimes (Demuyakor, 2020). Unpreparedness and lack of formal orientation are among some of the challenges faced by students (Agormedah et al., 2020). Another notable challenge is that, students are often reluctant or relaxed to spend time or put in effort to academically-related work that will not be assessed (Ang et al., 2009). Further studies have revealed that when virtual teaching and learning is discussed, individuals usually focus on young students and mainstream users, ignoring or overlooking users with disability and older people (Ang et al., 2009). Another pressing challenge highlighted is the issue of time (Barker, 2009). The duration of time spent on studies has been found to be directly linked to learning outcome and academic productivity (Serdyukov & Serdyukova, 2012). The duration of the course of study, quality of teaching and learning time and scheduling study time by instructors have the tendency to affect students learning outcome (Serdyukov & Serdyukova, 2012). It has also been argued that the failure of technology in permeating many higher learning institutions in most developing countries is due to socio-economic and technological factors (Sife et al., 2007). Given the distress associated with remote learning, it is not surprising that students preferred face-to-face learning over online learning due to the advantages that it brought to them (Aguilera-Hermida, 2020). On the other hand, some studies have reported positive experiences. One study reported an improvement

in students' academic performance in emergency remote teaching (Iglesias-Pradas et al., 2021) and another study showed that emergency remote teaching can be an effective model that can be used to teach entrepreneurial education programme (Secundo et al., 2021). The inconsistent report on the influence of emergency remote teaching has necessitated research on the topic in a developing country.

Studies in Ghana revealed that most students raised an objection to the role-out of the emergency remote teaching due to the countless challenges they projected to face such as financial difficulty, high cost of internet bundle, challenges with devices and gadget and inattentiveness resulting from the need to assist in household chores when taking classes at home (Henaku, 2020). Most students showed a negative attitude towards the use of some e-learning tools such as Zoom, and perceived them to have a negative influence on their learning endeavor and motivation to learn (Serhan, 2020). Researchers have also shown that the pandemic has the possibility of affecting the mental health of university students with and without preexisting mental health concerns (Hamza, et al., 2021). It has further been found that the sudden use of the emergency remote teaching system by educational institutions has the possibility of affecting the self-esteem (Van Gundy et al., 2006; Pellas, 2014), academic confidence (Alshahrani et al., 2016; Harrison et al., 2017) and academic performance of students (Holley, 2012; Mothibi, 2015).

Most studies carried out in this area have been done in developed countries, therefore the level to which they apply to low- or middle-income countries is blurry. The outbreak of Covid-19 warrants the use of emergency remote teaching system which was unfamiliar to many students in the Ghanaian context. Despite the roll-out of emergency remote teaching in 2020 little studies have been dedicated to highlighting students' experiences and the impact on their learning and wellbeing. In light of the highlighted gaps in research, this exploratory study was conducted to ascertain students' experiences following the roll-out of emergency remote teaching in the Ghanaian context. The following research questions were explored: (1) What are the benefits and challenges of emergency remote teaching for students? (2) What is the influence of emergency remote teaching on students' self-esteem, academic performance and confidence?

This research was guided by approach-avoidance motivation (Elliot, 2006; Elliot & Covington, 2001). Approach motivation is defined as the process of energizing or redirecting one's actions or behaviours towards positive stimuli. Stimuli in this sense regard events, objects or possibilities which could lead to positive outcomes. On the other hand, avoidance motivation regards the process of an organism redirecting or energizing their behaviour away from events, objects or possibilities that could lead to negative outcomes. Elliot (2006) suggests five characteristics of approach-avoidance motivation process. First, organisms are active in the process of instigation of actions that either bring positive experiences or remove negative ones. Second, stimuli that are evaluated as positive are associated with approach orientation which the individual use to keep/bring such events to themselves either literally or figuratively. However, negative stimuli are associated with avoidance orientation and are thus pushed away literally or figuratively. Third, approach motivation encompasses both promoting new situations and maintaining existing ones and avoidance motivation encompasses preventing new negative situation and rectifying existing

negative ones. Fourth, positive/negative valence is conceived as key in the evaluation of approach-avoidance motivation. Fifth, the term stimuli represent both concrete and abstract objects, events or possibilities that is “limitless, idiographic array of focal endpoints” (p. 113). Approach-avoidance motivation process is used by different organisms including human beings, is considered basic to understanding human behaviour (Elliot & Covington, 2001) and is vital to successful adaptation to the environment (Elliot, 2006).

With the advent of Covid-19, the educational calendar of many institutions were brought to a halt. To manage the problem, tertiary institutions in the Ghanaian context introduced emergency remote learning together with other strategies as avoidance strategies to help move away from the Covid-19 menace. Additionally, students were provided with SIM cards and internet bundles to reduce cost, increase student participation, and energizes them to move towards embracing emergency remote teaching. Management also enhanced learning management software to make it easier for online teaching and learning, organised training for staff and students, although were inadequate, among other strategies to enhance positive experiences of students. These were approach strategies. Therefore, we believe that the university’s approach to managing Covid-19 fit approach-avoidance motivation, hence it is important for us to explore how their approach impacted on students’ learning experiences and wellbeing.

## 2 Methods

### 2.1 Research design and setting

The current study is an exploratory research that employed the qualitative descriptive research design to explore students’ experiences of emergency remote teaching. The qualitative descriptive research design is commonly used to discover or understand a phenomenon, a process or the perspectives and worldviews of the people involved in the phenomenon and particularly relevant when the researcher requires information directly from the individuals experiencing the phenomenon under investigation, and when time and resources are limited (Bradshaw et al., 2017). As a qualitative approach, it is used to collect non-numeric data to answer a particular research question (Punch, 2013). In the present study, the phenomenon under exploration is emergency remote teaching.

Semi-structured interviews were used to collect detailed information from students. The semi-structured interviewing method is noted to be an effective method when researchers aim to obtain the perspectives of interviewees by soliciting the meaning they ascribe to a phenomenon (Kvale, 1996). This method is also flexible as it allows the researcher to give interviewees the chance to elaborate on the topic under discussion in greater detail (Alamri, 2019). Since the goals of the research was to solicit participants’ views on their experiences of emergency remote teaching, the researchers chose interviews over other methods of data collection such as brainstorm, focus group, word cloud, observation, diary among others.

Given the exploratory nature of the study, the interview guide was tailored to the objectives of the study and questions were developed from the objectives. Hence, interviews were partially structured and opened which gave participants the opportunity to express their thoughts and the researchers the opportunity to ask further questions based on participants' responses. The first part of the interview guide focused on the participants' demographic characteristics such as gender, age, religious affiliation, level at the tertiary institution and hall of residence. The second part explored information about students' experience of emergency remote teaching. Sample questions included (1) *Can you describe your experiences with emergency remote teaching?* (2) *Can you describe some of the challenges you have had since the introduction of emergency remote teaching?* (3) *Can you describe some of the positive experiences you have had since the introduction of emergency remote teaching?* The third part focused on the impact of emergency remote teaching on students' academic performance, self-esteem, and academic confidence. Sample questions included (1) *Can you describe how emergency remote teaching has influenced your self-esteem?* (2) *In what ways has the emergency remote teaching influenced your academic performance?* The study was carried out on the main campus of University of Ghana and interviews were conducted at places where students felt comfortable to speak such as libraries, IT centers, around lecture theaters, hostels, and halls of residence.

### 3 Participants

The sample used for the study comprised 20 undergraduate students, pulled purposefully and conveniently from various locations on the University of Ghana campus. This sample size was chosen because of the attainment of data saturation. Data saturation is said to be attained when the addition of more participants does not yield new information as the researcher begins to hear the same comment repeatedly. At this point, it is recommended that data collection must stop for data analysis to begin (Saunders et al., 2018). In our study, the interview of the 18th participant signaled data saturation as it became apparent that similar experiences were being reported by the participants. However, to be certain that saturation had been attained, two more participants were included at which point we were certain that we were not getting new information. In addition, our sample size corresponds with recommendations by qualitative researchers for an exploratory study (Sim et al., 2018).

Participants for this study were recruited based on their unique characteristics of them being students at the University of Ghana, experiencing emergency remote teaching due to the Covid-19 pandemic and their willingness to participate in the study. Hence, convenient sampling, snowball sampling and purposive sampling methods, which are non-probability sampling techniques, were used in recruiting respondents for the study. Potential participants were identified in and around libraries, IT centers, lecture theaters, hostels and halls of residence. Those who agreed to participate in the study were included. The sample was made up of 11 females and 9 males, aged between 19 and 24 years, with 3 participants declining to mention their age. 18 participants were Christian and two were Muslim. Other demographic information can be found in the Table 1 below.

**Table 1** Demographic information of participants

Participant number	Gender	Religion	Residential status	Level	Age
1	Male	Christian	Resident	400	23
2	Female	Muslim	Resident	200	19
3	Female	Christian	Resident	400	22
4	Female	Christian	Resident	200	20
5	Female	Christian	Resident	200	20
6	Female	Christian	Resident	300	22
7	Female	Christian	Resident	400	21
8	Male	Christian	Resident	300	22
9	Male	Christian	Resident	200	20
10	Male	Christian	Resident	200	22
11	Male	Christian	Non-resident	200	24
12	Male	Christian	Resident	400	24
13	Female	Muslim	Resident	400	
14	Female	Christian	Resident	200	
15	Female	Christian	Resident	300	20
16	Female	Christian	Resident	300	19
17	Male	Christian	Resident	400	23
18	Female	Christian	Resident	200	19
19	Male	Christian	Resident	300	22
20	Male	Christian	Resident	300	-

## 4 Procedure and ethics

The study objectives and methods were adequately explained to potential participants who were subsequently invited to participate in the study. Those who agreed to participate were included. Interview times and venues were scheduled at the convenience of the participants. The responses of respondents were recorded using an audio recorder with manual recoding done for those who were not comfortable or unwilling to be recorded using the audio device. Interviews lasted between 20 and 30 min.

The study protocol was approved by the Departmental Research and Ethics Committee (DREC) of the Department of Psychology, University of Ghana. During the study, we strictly adhered to ethical considerations proposed by American Psychological Association (APA, 2002). Informed consent was obtained from respondents prior to the start of the interviews. Respondents were thoroughly briefed on the study and were allowed to withdraw from the study when they wished without suffering any consequences. Confidentiality and anonymity were adhered to by protecting the identity of the participants using identifiers.

### 4.1 Data analysis

The data collected was analyzed using Braun and Clarke's (2006) thematic analytic approach. This analytic approach was deemed appropriate as it helps to identify, analyze and report patterns within data collected to help make meaning out of it (Braun & Clarke, 2006; Lapadat, 2009). The steps outlined by Braun and Clarke



(2006) involved familiarization with the data, generating codes from data, identifying themes, reviewing the themes, defining and assigning names to themes, and finally writing a report. The data analysis process begun with the first author listening to the recorded interviews several times before proceeding to transcribe them verbatim into a written document. After the initial transcription, the audio-tapes were listened to and cross-checked with the transcripts by the first and second authors to ensure that all the narratives of the participants were captured verbatim. This process of reading through the transcript also helped the researchers to familiarize themselves with the narratives of the participants. Afterwards, the 20 transcripts were read line-line by the first two authors to aid in the detection of meaningful segments. In other to generate codes from the transcripts, the identified meaningful segments were labeled and were organized with the help of Microsoft Excel sheet. Meaningful segments of the transcripts were labeled as codes. After all the meaningful segments have been labelled, the process of theme identification began. To identify themes, all the codes generated were reviewed for similarities and differences and those with similar focus were grouped into broader categories. These categories were further reviewed to ensure that only codes with similar focus were placed in the same categories. At this stage, any sub-themes, which comprised of lesser categories but aligned with the main focus of the theme were also developed. After all the necessary checks were made for overlapping themes, any code that was wrongly placed by the researchers were reassigned. The broader categories were labeled in line with the study's objectives and based on the focus of the constituent codes. Finally, the clearly identified themes were discussed in a report with reference to the study objectives and existing literature. The steps used to analyze the data can be found in Fig. 1 below.

## 5 Findings

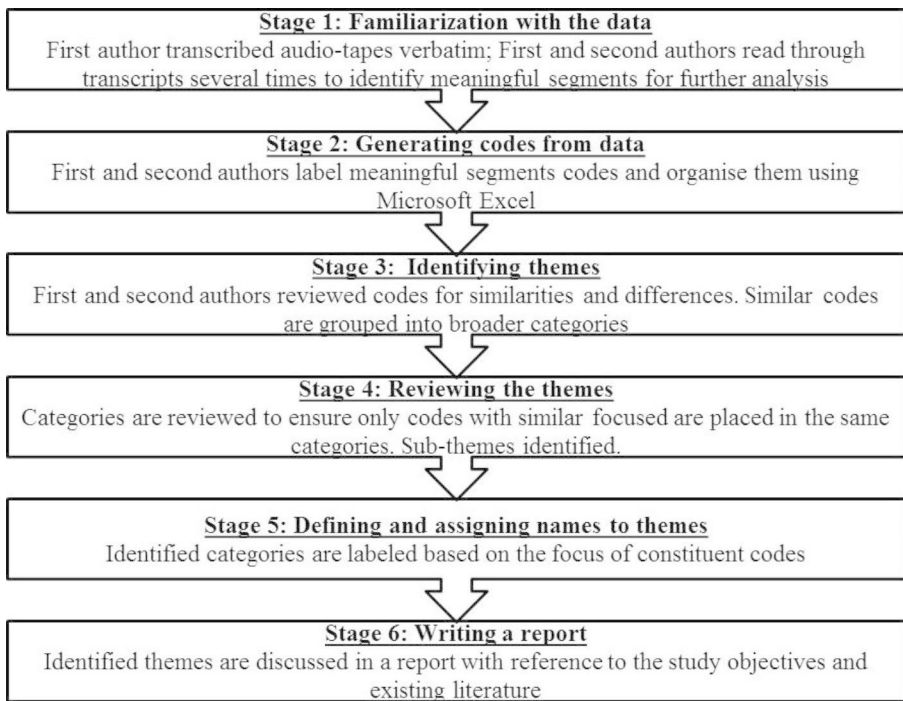
Three main themes were generated from participants' narratives. Broadly, on the nature of experiences, six participants reported that their experiences of emergency remote teaching were good, nine mentioned that theirs were negative whereas five reported that they had both positive and negative experiences. These participants narrated several factors that determined the nature of the experiences they had with emergency remote teaching. Themes included factors influencing negative experiences, factors leading to positive experiences, and the influence of virtual teaching and learning. The summary of themes and sub-themes are presented in Table 2 below.

## 6 Factors leading to negative experiences

Seven factors that led to negative experiences were identified from the narratives of participants. These included problems with the learning management system, internet challenges, laziness on the part of students, high cost of internet data, unconducive learning environment, comprehension difficulties and increased workload.

A significant number of participants reported having a negative experience with the emergency remote teaching system due to the constant failure of the learning





**Fig. 1** Flow chart of thematic analysis

management system used to implement the program. Participants reported that Sakai froze during classes and assessments, and sometimes it was not accessible to students who lived in areas with poor internet connection. Sakai was generally unpredictable:

*...brilliant and you're very confident of yourself of passing exam but you go and Sakai won't work or sometimes Sakai will prevent [you] from partaking in exams and the internet too ...a lot of challenges from Sakai to internet connection and a lot. (P11, male, 24 years)*

Almost all the participants, regardless of their experiences, reported internet challenges, ranging from poor Wi-Fi connectivity to campus internet to their own mobile network failure. Poor internet connectivity meant that participants were logged out of virtual classes, were unable to reconnect and this was extremely frustrating and distressing to participants. Participants who were slow learners were more disadvantaged during classes. Also, internet problems negatively affected participants' performance on assessment as it caused them to answer questions in a haste in an attempt to complete the test before they experience internet interruptions. Some also complained of stress and depression resulting from internet challenges:

*When it started, I wasn't at an advantage because I was at home and to get a secure network was hard. Sometimes you'll log into the class and then they'll*

**Table 2** Summary of themes and sub-themes

Theme	Sub-theme
Factors leading to negative experiences	Problems with the learning management system
	Internet challenges
	Laziness on the part of students
	High cost of internet data
	Unconducive learning environment
	Comprehension difficulties
	Increased workload
	Easy expression
	Less distraction
	Improved academic performance
Factors leading to positive experiences	IT literacy
	Lenient lecturers
	Benefits for future endeavors
	Impact on self-esteem
	Impact on academic confidence
Influence of emergency remote teaching and learning	Impact on academic performance
	Impact on academic performance

*be like your internet is unstable and then automatically you're logged out and you're frustrated...* (P2, female, 19 years)

*...if the Wi-Fi is not working and if you don't have money to buy data, that means you're going to miss your class and even if you have data and your network is not stable you might end up being kicked out of the class or you won't get the chance to get everything the lecturer is talking about... [during exams] if you don't have a strong connection you realize that you become so stranded, you might end up answering the questions in a haste, and answering the wrong questions instead of choosing the right ones. ...* (P3, female, 22 years)

Some participants also reported that their negative experience resulted from emergency remote teaching system making them lazy. Some reported that the library was mostly full which meant that they had to take their classes in the room. The presence of a bed influenced them to lie down which in turn caused them to fall asleep during lectures. This practice caused them to miss portions of classes. Additionally, lecturers who were considered boring were perceived to have sleeper-effect on students thereby causing them to fall asleep during the lectures:

*... you will feel lazy because you're at the comfort of your room and you're studying, most of the time the library is packed with a lot of people and you can't really express yourself when you're having a class there, so you would want to be in your room, ... bed is there, there's chair and everything so you might fall at sleep and miss a lot of things that the lecturer is saying, maybe important things that the lecturer is saying...* (P3, female, 22 years)

*Sometimes you sleep in the online class ... when the internet is not that strong and sometimes the lecturers themselves [some are] boring (P16, female, 19 years)*

Some participants also expressed dissatisfaction with the program due to the cost they incurred from having to buy their own mobile data due to failure of the university's Wi-Fi. Participants further complained about the amount of data they had to buy just to have a short class and the increased cost by the telecommunication providers. Participants mentioned that 4.6 gigabytes of data used to last for 5 to 7 days but now it hardly crosses 2 days:

*... we are supposed to buy data like more than 10 cedis or 15 cedis to have a class of 30 minutes so yeah that one too is part of the reason, so it's been tiring and costly... (P4, female, 20 years)*

*... they are taking our bundle too much, now they've increase the price, I use to buy 4.6gig, it would last for about one week ... but now it does not last even up to 3 days. So, they should take this virtual system away, at least it will save us some money. (P9, male, 20 years)*

Distraction from the environment was also among the factors that contributed to negative experiences for some participants. Disturbance from younger siblings during a class and being sent on an errand whilst a class was ongoing were among some of the challenges pointed out by participants in relation to their environment. Also, poor internet connection due to one's environment or location meant missing notification when assignments were posted online:

*Sometimes our parents at home, we are being disturbed by our siblings whilst we are doing the lectures. Our parents send us on errands, and we miss the lecture and all that (P 17, male, 23 years)*

*... my house I have Internet connection problems... So, when there's any assignment sometimes you wouldn't get notification ...So you have assignment, and you realize the deadline has passed (P18, female, 19 years)*

Participants also mentioned that they were burdened with too many assignments in addition to the lectures they had to attend and project work the final year students had to embark on. This added up to their workload which was difficult for them to manage:

*... We have too much workload, too many assignments to do plus classes ... we have level 400 students who are doing project. (P3, female, 22 years)*

*...though it was virtual the lecturer sort of put all the workload on us indirectly... (P12, male, 24 years)*

## 7 Factors leading to positive experiences

For participants who reported positive experiences of emergency remote teaching, six factors contributed to their positive experiences which included easy expression, less distraction, improved academic performance, IT literacy, lenient lecturers and benefits for future endeavours.

Some participants, especially timid students, reported an improvement in their expression abilities during the online classes. Participants reported that questions they might not have asked during face-to-face classes due to the presence of others, became easier to ask them without feeling shy or intimidated during virtual classes:

*you aren't shy to talk, like you're hiding, [as if] there's something covering your face ... you can ask a question and feel free, that's the good aspect. (P8, male, 22 years)*

*...as student sometimes we are not able to answer questions in class, because of the pressure ... of students in the class and then standing to answer questions in class ... its quite difficult but this virtual learning has really helped us, those of us whose self-esteem is quite low, we are able to ask questions because nobody is seeing us so we can ask our questions and then we are good to go, so in some way it is actually helping us (P19, male, 22 years)*

It was made known by one participant that due to emergency remote teaching system, distractions that otherwise would have caused him to loss attention in class was minimal. Distractions such as those caused by girls in miniskirts who came to class late, those caused by the urge to look outside in the middle of a class and colleagues conversing whilst lectures were ongoing were among those reported:

*because when you're in the class you'll be distracted ... looking outside will even distract you but in this case you're just in front of your computer and then you're listening to the lecturer and then he is presenting. So, I find that to be more comfortable and that has really improved my academic confidence. (P1, male, 23 years)*

Other participants also reported having good grades when emergency remote teaching program was introduced. Whereas some were not certain of the cause of the improved grade, others plainly stated that they got the chance to cheat and received help from their colleagues during exams:

*... personally last semester was a good semester for me because I had some best grades... I don't know if it is the exam that went well or the teaching that went well: that one I don't know but what I know is that when this online thing was introduced my grades have really improved. (P1, male, 23 years)*

*... my results during the virtual was better than the ones that I use to go and sit and write ... you see with virtual exams you get people to help you because you don't have any supervisor, nobody is looking after you whiles writing the exams, you and yours friends are doing the same thing so definitely they will help you*

*if you're getting an answer wrong ...so with the virtual period I did better; that was because people helped me... (P3, female, 22 years)*

Some participants also reported that the emergency remote teaching helped them to improve on their IT skills due to the opportunity it offered them through typing of assignments and manipulation of the learning management system. Also, they mentioned that emergency remote teaching helped them to stay abreast with the ever-changing world of technology:

*... one thing I would like to say is this virtual thing is ... creating the avenue for us to be able to know computer and to be IT literate... (P1, male, 23 years)*  
*...I really wish and hope that this online thing is going to continue because you know a lot of people are not even abreast with some technology stuffs, they don't know how to operate zoom, even the lecturers so this is an opportunity for us to learn a whole lot... (P7, female, 21 years)*

Interestingly, one participant reported that positive experience emanated from the leniency of lecturers in carrying out their duties. She asserted that the lecturers empathized with them given that emergency remote teaching program was novel and impromptu, there were some requirements that students could not meet at the time. Due to this, students were sure of passing their exams prior to taking it:

*...I just knew that I was going to make the Bs and As because I feel the lecturers were also quite lenient, I'll applaud them for that, most of my lecturers were lenient, because they knew that because we were doing online there were some things that were required that we couldn't have done... (P7, female, 21 years)*

Whilst some participants' positive experiences were based on having good grades, others were interested in the future benefits they will reap from their participation in the emergency remote teaching program. Some participants made it known that the emergency remote teaching program served as a form training for individuals who wants to study abroad. They mentioned that due to the experience gathered, one can enroll in a master's program abroad and engage in a distance program without having to travel out of Ghana:

*.... the virtual is cool, I heard like a lot of Ghanaians want to go abroad and learn ...this could be a starting point because I heard they sometimes do it out there so if you're comfortable with this one and you go out there it's definitely going to be like the same thing you did here, it wouldn't be difficult. (P8, male, 22 years)*  
*... I really wish that this online thing continues because personally I see that the world is growing, the world is evolving and a lot of things are happening and I know people who are doing their masters in schools in Canada but they're in Ghana and you know and everything is still going on well (P7, female, 21 years)*

## 8 Influence of emergency remote teaching and learning

It emerged that the emergency remote teaching had diverse influence on participants' self-esteem. Some participants indicated that it raised their self-esteem, particularly, they stated that their ability to ask questions in class improved. Some participants asserted that due to the emergency remote teaching program, some of their courses became easier to comprehend, which in turn raised their self-esteem:

*... it has really raised my self-esteem in the sense that ... there are some questions, I wouldn't bother to ask in class but during this virtual learning I was able to ask these questions and get a better result ... (P1, male, 23 years)*  
*... my French ... I've really improved in the language ...my self-esteem towards that course has really improved because I am able to answer questions, I'm able to explain things, am I able to read in French ... (P5, female, 20 years)*

On the other hand, a small number of participants reported that emergency remote teaching negatively influenced their self-esteem, because it made them laid back and lazy with their academics. Sleeping in the middle of a class was also among some of the reasons cited:

*...it has influenced [my self-esteem negatively] because it's a lazy method, sometimes I can be on my bed and log in into zoom and join lectures then I will fall asleep so it has influenced me negatively. (P10, male, 22 years)*  
*...I think it has influenced my self-esteem negatively. (P9, male, 20 years)*

Some participants made it clear that their academic confidence improved with emergency remote teaching program, due to factors ranging from better grades to enhanced ability to answer questions in class:

*...you see my confidence level has really upgraded based on how I am now able to ask questions in class ... so my confidence level has raised. (P19, female, 22 years)*

Whilst others reported an improvement in their academic confidence within the emergency remote teaching system, others felt that their confidence reduced drastically due to the weight of workload that students had to bear, laziness on their part and the opportunity to cheat during exams:

*... now the laziness has become too much because I really procrastinate a lot when it comes to my personal studies, ... at first I know I am going to sit down and write exams. So if I go and sit there and I don't have anyone to help me, it's me, my paper, and my God so I have to put in much effort so that when I go and sit behind my paper I can write something. But now that it's virtual, even if I don't learn I have friends who will help me so that I can pass (P3, female, 22 years)*

Almost all participants reported improvement in their academic performance during emergency remote teaching period. This was due to a number of factors including receiving help from friends when taking examinations, having the same questions repeating themselves when taking an exam on the second attempt, the opportunity to cheat and the increased timeframe given to students to take an exam:

*My academic performance has really really really really improved because sometimes the questions are the same and you know we are doing it on Sakia. My friends and I we will learn and before we start [a test] we will contact each other on phone and we will start answering the questions. ... (P6, female, 22 years)*

*My academic performance improved because whenever I have a test, because its online they normally give us more time. [For example] if I am supposed to do it today, they give us about two days. So for the first day I revise then I do it at dawn because at dawn the connection is good so it actually helped me... (P5, female, 20 years)*

## 9 Summary of findings

Results of the study revealed that overall, students had both positive and negative experiences in relation to emergency remote teaching which impacted their self-esteem, academic confidence and performance likewise. Myriad factors contributed to the kind of experience students reported. Factors leading to negative experiences included problems with the learning management system, internet challenges, laziness on the part of students, high cost of internet data, unconducive learning environment, comprehension difficulties and increased workload. Factors leading to positive experiences included easy expression, less distraction, improved academic performance, IT literacy, lenient lecturers, and benefits for future endeavors. These experiences influenced participants in diverse ways. On one hand, some participants experienced elevated self-esteem due to confidence to ask question and improved comprehension of course contents, whereas others experienced reduced self-esteem due to laziness and sleeping during lectures. Whereas some experienced improved academic confidence due to better grades and confidence to ask questions, others' academic confidence reduced due to heavy workload, laziness and cheating in exams. All participants reported improved academic performance due to several opportunities that emergency remote teaching provided to the participants.

## 10 Discussion

In this exploratory study, we explored the benefits and challenges that University of Ghana students experienced with emergency remote teaching system and the influence it had on their self-esteem and academic work. Negative experiences bothered on learning management system (LMS) failure, internet challenges, laziness on the



part of students, high cost of internet, unconducive environment and comprehension difficulty. Positive experiences pertained to opportunities to express oneself in class, less distraction, improved grades, and benefits of virtual learning experiences for future endeavors emerged from the study. These experiences had significant influences on students' self-esteem, academic confidence and performance of students. Notwithstanding the approach-avoidance motivation framework, findings of the present study showed that although the University of Ghana introduced emergency remote teaching to enhance students' experiences of learning, reduce the impact of Covid-19 and to shorten the delays in the education of tertiary students, the impact of their approach were both positive and negative on students' wellbeing and academic confidence.

Some participants reported negative experiences resulting from emergency remote teaching. These negative experiences surrounded LMS failure, internet challenges, laziness on the part of students, expensive internet charges, comprehension difficulty and unconducive learning environment. These findings are consistent with results reported by previous studies on the effects of emergency remote teaching (Demuyakor, 2020; Henaku, 2020; Hussein et al., 2020; Serhan, 2020). These challenges are expected because the introduction of the emergency remote teaching system was implemented without adequate prior training of students who were not familiar with remote teaching and learning. Thus, students were not psychologically prepared for the change. Also, studies have revealed that challenges with devices and gadgets used to undertake emergency remote teaching program, financial difficulty due to high cost of internet data and disruption resulting from the need to assist with house chore as being the cause negative experiences of students experiencing emergency remote teaching (Henaku, 2020). The unpreparedness for the change from the traditional face-to-face mode of teaching and learning may have prevented students from applying the right coping strategies to manage the distress. This corresponds with the cognitive adaptation theory (Taylor, 1983) which states that human beings cope or deal with novel situations or events that threaten their lives or psychological wellbeing by creating a set of positive illusions, which help to protect their psychological health and to help create space for hope, personal growth, and flexibility in adjusting to the changing situation (Taylor, 1983; Taylor & Brown, 1994).

Findings further revealed that because emergency remote teaching made students lazy and laid back in their academic, it negatively affected their academic performance and further worsened their academic confidence. This finding is in sharp contrast to previous research (Harrison et al., 2017; Hussein et al., 2020) which shows improved confidence on the part of students in using virtual learning management systems. The finding supports the cognitive adaptation theory (Taylor, 1983) which posits that failure to adapt to changing environment has the tendency to result in psychological disturbances such as worsen confidence in one's academics capabilities.

Positive experiences emerged from the eradication of distraction that comes with the traditional face-to-face form of teaching and learning, enhanced students' ability to express themselves, improved IT literacy and improved grades. These findings are consistent with previous research (Hidalgo et al., 2021; Kliziene et al., 2021). These positive experiences resulted from the fact that some students are stimulated to learn due to the integration of ICT in emergency remote teaching and learning.

The results also indicate that with the introduction of emergency remote teaching, participants were able to participate in class confidently, which in turn raised their self-esteem. With emergency remote learning, students do not have to physically face the entire class to be intimidated, therefore feeling confident in class (Alden & Regambal, 2010). The findings support previous research (Van Gundy et al., 2006; Hussein et al., 2020) that show that online discussion forums enhance the self-esteem of undergraduate students. The findings also show that emergency remote teaching improved students' academic confidence. This is so because in the emergency remote teaching system, students carry out their study at their own pace and choose their own time in relation to writing exams, which gave them enough time to revise. These findings are consistent with results of previous research (Hayley, 2019; Hussein et al., 2020) that found a significant positive correlation between online learning and academic confidence.

Some of the participants maintained that their academic performance was impacted positively when emergency remote teaching was introduced. For some participants, receiving recorded lectures from lecturers afforded them the opportunity to revise their lecture notes effectively before exams. Also, adequate time given to students to take exams helped to improve their performance which led some to prefer online teaching and learning to the traditional face-to-face model. These findings are in line with previous studies (Aguilera-Hermida, 2020; Iglesias-Pradas et al., 2021). Nonetheless, a disturbing finding that emerged pertained to the fact that some participants reported having performed better due to cheating whereby they gained support from their colleagues while taking an exam online. Cheating on the part of students when emergency remote teaching was implemented explains why some faculty members are not enthused by the introduction of the virtual teaching and learning system (Simon, 2012). This unintended consequence of emergency remote teaching system, which affords students the opportunity to cheat in their assessments, shadows their actual performance. This finding is worth taken seriously by management of educational institutions employing the emergency remote teaching as a means of dispensing knowledge.

## 11 Recommendations

The results of this study have highlighted some challenges faced by students since the roll-out of emergency remote teaching system. To curb these problems, university management must take steps to improve on access to internet and computers in order to enhance the benefits associated with online teaching and learning for students. Also, the results of this study have revealed that students cheat their way to pass their exams when they take test online. Therefore, to help assess the actual performance of students, students should be made to take sit-in exams where they will be monitored so as to eradicate any form of examination mal-practices. Additionally, given that online teaching and learning has come to stay, university management should consider incorporating measures to prevent cheating by students during online examinations. Furthermore, given the findings of the present research, it would be beneficial for university management to involve the services of educational and school psy-

chologists when rolling out new teaching and learning programs due to the potential effects on students' self-esteem and academic confidence. Educational psychologists can assist institutions to successfully roll out new programs whereas school psychologists can help students to make informed decisions about their education and can help them to adapt to changes better as well as equip them with skills to structure and manage their learning appropriately.

## 12 Limitations

The present study was limited to only University of Ghana students which narrows the findings. This leaves out experiences from students in other educational institutions that also employed emergency remote teaching in dispensing knowledge. Future studies should consider involving students from other educational institutions in order to ascertain varying experiences from students. Also, the qualitative nature of the research afforded the participants the opportunity to share rich experiences but did not allow the inclusion of a larger sample size. Therefore, future studies should consider employing a broader sample and use a longitudinal design to track the long-term effects of emergency remote teaching on students' academic performance and wellbeing. Furthermore, this study focused on only students at the expense of faculty members who also deliver lectures and assessments via online. Future studies should incorporate faculty members to broaden our understanding of the influence of emergency remote teaching in the Ghanaian context.

## 13 Data Availability

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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