



## Research Article

# Transitioning from Face-to-Face to Online Instruction in the COVID-19 Era: Challenges of Tutors at Colleges of Education in Ghana

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**Received:** 21 July 2020; **Revised:** 22 August 2020; **Accepted:** 24 August 2020

**Abstract:** Online learning (e-learning) has emerged as one of the most effective pedagogical approaches in recent years. Despite numerous studies addressing its significance and limitations, little research has focused on the challenges involved in transitioning from face-to-face teaching without a blended approach to a complete online teaching mode during emergency situations. This study examined the challenges faced by tutors at colleges of education in Ghana in transitioning from face-to-face (conventional) teaching to a complete online teaching mode during the COVID-19 era. A mixed-methods design was employed, using questionnaires and semi-structured interviews to collect data. The data were analysed separately, and the results showed that network issues, pedagogical approaches, Learning Management Systems, and student-related factors hindered tutors from successfully delivering online instruction. The study further highlighted the blended approach as an effective strategy to facilitate a smoother and more effective transition. Based on the findings, it is recommended that educational institutions using conventional methods adopt a blended approach to support the transition to complete online teaching during emergencies. However, the study also revealed that developing online teaching and learning is costly and requires stakeholder support for successful implementation.

**Keywords:** conventional learning, blended, online learning, pedagogies, transition, approach

## 1. Introduction

The growth in online learning has been important in transforming post-secondary education (Huett et al., 2008). The tremendous growth has been necessitated due to an increase in budgets and a decrease in local students' enrolment at universities (Desai et al., 2008). According to history, E-learning was originated from distance education which dates back to 100 years of the early correspondence courses (Means et al., 2009). Through the advent of the internet and the World Wide Web, the mode for reaching learners worldwide has increased greatly, and online learning today provides important educational resources using different media while having the ability to support both synchronous and asynchronous communication between learners and instructors (Means et al., 2009). Considering this, the E-learning has transformed the face of education mostly at the tertiary level, and the field of education is regarded as the most functional in the transition from conventional to the online method of delivery (Bell et al., 2002). While this sounds good by the rule of thumb, there has been a debate about the change from already existing pedagogical approach (conventional) to a complete online method among teachers and students.

In Ghana, most of the educational institutions use the face-to-face pedagogical approach. However, due to the Covid-19 pandemic which requires social distancing and temporary closure of schools, an emergency remote teaching system was created requiring the adoption of fully online lesson delivery. Despite the online teaching ensuring that teachers and students are not idle in the pandemic era, many tutors and students have expressed dissatisfaction in adopting this approach. Aboagye et al. (2020) identified that learners were not prepared to study online after they examined the challenges of students in tertiary institutions. The researchers identified problems associated with accessibility, social, lecturer and generic issues and proposed that a blended approach should have ushered the learners to a complete online. Considering this, it is likely that tutors of colleges of education who used purely conventional approaches are going to encounter challenges in transitioning from a face-to-face method of delivery to an exclusively online.

## **1.1 Literature review**

In literature, the combination of conventional and online learning is considered the most effective approach in normal situations recently. Graham (2006) propounded that the blended approach is the combination of face-to-face with computer moderated instruction. While different percentages have been apportioned for conventional and online education in a blended approach, Allen et al. (2007) asserted that a blended course should have about 30 to 79% online with the remainder done through face-to-face. Improvement in pedagogy, better accessibility to flexible study environments and enhancement of cost-effectiveness with refined pedagogical practices were the main aims identified (Allen et al., 2007; Graham, 2006; Reynard, 2007). Similarly, Patel and Patel (2006) explored the joint model of conventional and online educational systems. Using several prepositions established on theoretical frameworks, the study compared the components of online systems with the components of the face-to-face approach in relation with quality learning among students. From the findings, the researchers postulated that universities using a conventional approach should create a blended approach for the students while universities using a complete online approach should create offline learning centres at designated locations for the learners in distance education.

Hoic-Bozic et al. (2009) supported this claim when they examined both the technology for and the methodological approach to design and develop a course to support the transition from traditional teaching to active learning with an interest in the topics of e-learning and Web courseware development among students. At the end of the course, students contended with the pedagogical approach used as the academic achievements were better than anticipated. The researchers adopted a model that combined a face-to-face and online environment with a Learning Management system (LMS). Most significantly, the dropout rate was low which could be linked to student satisfaction based on the support received from the instructor and the system. The research supports the use of a blended learning approach to facilitate students' understanding.

Previous studies have found that developing and teaching online demands adaptation in teaching practices and methods (Desai et al., 2008; Fetherston, 2001; Mishra & Koehler, 2006). Researchers argue that the use of technology in education requires a shift from a teaching to a learning paradigm (Hardy & Bower, 2004; Smolin & Lawless, 2003). The new task requires online instructors to assume roles like mentors, coordinators and facilitators of the learning rather than carriers of information (Hardy & Bower, 2004; Smolin & Lawless, 2003). Therefore, online educators are expected to provide students with the required experience that demands higher cognitive skills (Gillespie, 1998). These challenges require the instructor to acquire additional skills and knowledge that can help to achieve the above objectives and to satisfy the learners' needs.

Currently, many educational institutions in Ghana shifted the mode of delivery from a face-to-face pedagogical approach to online learning. The change from conventional to online approach due to COVID-19 to ensure that educational institutions do not incur academic and financial losses have been termed as emergency remote teaching (Hodges et al., 2020). Although tutors at colleges of education accepted the shift in pedagogy, many of them were not prepared for the new experience. In their study involving 24 tutors of colleges of education in Ghana, Gyampo et al. (2020) hypothesised that only a handful of the tutors can confidently teach online while the majority of them would have preferred additional training. The study examined tutor perception on personal and institutional preparedness for online teaching and learning among tutors of colleges of education in Ghana. Despite the revelations in this study, little attention was given to the perception of the tutors on the use of a blended approach as an alternative way for the transition to the online teaching. Besides, the participants were selected from a few colleges of education which

limited other tutors from sharing their views. Therefore, the current study topped up literature by using mixed methods to examine the challenges of tutors at colleges of education in transitioning from face-to-face to an exclusive online teaching approach and to analyse the tutors' perceptions on using the blended approach as an effective means for a less painful transition.

Regarding this, the following research questions were drawn: -Which challenges do tutors at colleges of education encounter in transitioning from face-to-face to online teaching environment? What are the tutors' perceptions on the use of the blended approach before the transition to the online learning environment? It is hoped that the current study will not only add to the literature but it will propose suggestions the educational planners need in order to incorporate online and face-to-face teaching pedagogies at all levels so that educators and learners may not encounter difficulties transitioning from one of the methods to the other in the case of an emergency.

## 2. Method

Mixed methods which combined the use of questionnaire and semi-structured interviews were used to gather data on challenges tutors face in online teaching experience and their perception on the use of the blended approach (Creswell, 2012). The convergent parallel mixed method design was employed where the researcher collected a questionnaire data with Google Form and conducted a semi-structured interview for some of the tutors to identify the challenges encountered in online delivery and the perception of the use of the blended approach as an effective means to transition online. The concept of the challenges and the perception of the use of a blended approach that was gathered quantitatively were asked in the qualitative data using a semi-structured interview. Creswell (2017) maintained that the small sample size used in the qualitative study assists to gather extensive information on the research topic whereas the quantitative data assists to gather a large number of responses for statistical tests. In the current study, the quantitative method was used to generalise the information while the qualitative data were to gain in-depth information on the research topic. Patton (1987) further argued that in educational settings it is relevant for the researcher to gather a lot of information from diversified sources to give the findings a strong foundation.

### 2.1 Sample and sampling procedure

The sample consisted of tutors of colleges of education in Ghana irrespective of where they teach. However, data from 63 tutors were collected online from a questionnaire developed and administered by using Google form. Various groups of tutors are on social media pages like WhatsApp. The link to the form was shared on WhatsApp and was available from 20<sup>th</sup> May to 21<sup>st</sup> June 2020. Then, 10 tutors were interviewed on the phone to examine the challenges encountered in teaching online and to find out if a blended approach is the best option to assist them to transition online. The phone numbers of the participants interviewed were retrieved from the WhatsApp page of the tutors.

A Purposive sampling technique was employed to select the tutors as they were mandated to transition from conventional teaching to online-teaching because of the COVID-19 pandemic. Initially, all tutors at colleges of education use the traditional face-to-face pedagogical approach without any online experience. Therefore, they were recruited from the colleges of education to provide information on the challenges they were facing with an online teaching approach. This sampling technique was considered appropriate since the researcher wanted painstaking information about the research questions (Stake, 2000). Again, in purposive sampling, personal judgement is relevant to select cases that assist answer the research question or achieve the intended research objectives (Dudovskiy, 2018). Based on the purpose of the study, a homogeneous sampling technique was chosen because the tutors belong to a subgroup within the teaching occupation with similar characteristics (Thornhill et al., 2009). Despite this type of sampling technique low in reliability and high in bias (Dudovskiy, 2018), the present study requires a limited number of people (tutors) who can share experiences on the challenges facing them in an online teaching situation. Most of the respondents were males (69.4%), with 58.1% of them taught for 12 years and above while 43.5% teach more than one level. The participants for the interview comprised 6 males and 4 females with the number of years as a tutor ranging from 18 to 2 years with an average age of 41.7 years.

## 2.2 Questionnaire

The questionnaires were developed by the researcher based on past studies that have dwell on challenges associated with online learning (Muilenburg & Berge, 2005) and the rest from the review of the literature. Google form was used to develop the questionnaire titled “Challenges from Conventional to E-Learning Without Blended Approach” and the link posted on the WhatsApp page of the tutor unions. The Google form as a Web-based survey was used to administer the questionnaire because of its ability to reach a large population of the participants at different locations and to save costs (Vasanth & Harinarayana, 2016). Responses were limited to one per participant to avoid multiple responses. Information about the privacy and protection of the data was included in the online form. All the ethical information about research involving human participants was explained before the main questions. An electronic consent was generated where participants were asked to print an electronic copy for their records and by clicking next, they have read the information and have agreed to voluntarily participate in the research. The seven-point Likert scale of 19 items with four factors was made up of pedagogical challenges, network challenges, learning management system challenges, blended approach and demographic information of the participants. All the factors were measured with the seven-point Likert scale except the demographic information. The overall Cronbach Alpha for the scale was .889 with .66 for pedagogical challenges, .76 for network challenges, .80 for LMS and .88 for blended approach. A Cronbach Alpha range of 0.65-0.80 is acceptable for researches involving human participants, therefore, justifying the reliability of the scales in the present study (Spector, 1992; Vaske, 2008).

## 2.3 Interview

Semi-structured interviews involving 10 tutors were conducted to examine the challenges tutors encounter in an online environment and their perception on the effectiveness of using a blended approach before a transition to an online method. The semi-structured interview is effective to investigate and to attain the best results while enabling the participants to express and address the topic in detail (Kvale, 1996). The standardised nature of the research question assisted to ground the interview on individual needs (Patton, 2002) although they were centred on pre-determined questions. The pre-determined questions focused on tutors’ challenges and their perception of the use of the blended approach before the transition to the online learning environment. The interviews were conducted on the phone to follow the COVID-19 protocols and lasted for 10-15 minutes. Before an interview began, permissions were sought from the participants to record them and issues of confidentiality and anonymity were explained in detail. They were also informed that their participation in the study was voluntary and they can decide to stop in the middle of the interview or refuse to answer some of the interview questions. The transcripts were sent back to the participants for confirmation after the transcription.

## 2.4 Data analysis

Side by side comparisons was used to analyse the data. The quantitative statistical results were reported while the qualitative findings were grouped into themes and they were discussed (Creswell & Creswell, 2017). During the discussion section, the comparisons within the findings were discussed in detail.

In the quantitative analysis, the results from the questionnaire were entered into Statistical Package for the Social Sciences (SPSS version 23). In all, 63 out of 256 representing 24.6% of the respondents were returned but due to a lot of unanswered items, one of the responses was rejected for further analysis. A Principal Component Factor Analysis (PCFA) with a direct oblimin rotation was used to determine whether the items shared a common variance. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.780 above the accepted 0.600. Bartlett’s Test of Sphericity reported ( $\chi^2(171) = 652.785, p < 0.001$  with communalities above .500 confirming that the items share a common variance. The overall variance explained by the five items was 71.2%. Statistical operations were carried out with means and standard deviations.

For the interviewed data, the responses from the 10 tutors were transcribed verbatim. The data were analysed using deductive thematic analysis propounded by Braun and Clarke (2006). They were based on pre-determined themes which were identified as challenges with online teaching and the use of the blended approach.

### 3. Results from the questionnaire

This section reported the challenges tutors encounter in transitioning from the face-to-face to an online environment and also examine the perception of the tutors on the use of the blended approach. The mean, standard deviation and Cronbach alpha of all the items were calculated. A categorical variable was created where factors with means of 5-7 were considered as tutors agreed that the factor is a challenge and 1-3 were considered as not a challenge to the tutors. The results are presented in Tables 1, 2 and 3.

In Table 1, the means, standard deviation and Cronbach's alpha of all the items were measured. Tutors rated all the challenges above 5 from a 7-point Likert scale confirming that they agreed to the challenges associated with pedagogical, network and LMS challenges. The higher means reported for the items under the blended approach also indicates that tutors perceived this method to be the best option to transition to a complete online. The Cronbach alpha for all the factors also reported reliable scales.

In Table 2, the means and standard deviations of the three challenges were compared and based on the results tutors consider all of them to be important to affect the transition from face-to-face to a complete online. However, tutors rated network challenges as the most important challenge followed by pedagogical challenges and issues with the use of the LMS.

Similarly, with Table 3, all the means of the individual items justified that tutors would have preferred the use of the blended approach before progressing to a complete online environment. All the individual items were rated above 5 with a grand mean of 6.16.

**Table 1.** Factors, Means(M), Standard Deviation (SD) and Alpha ( $\alpha$ ) of the factors

Factors	Items	M	S. D	$\alpha$
Pedagogies				0.666
	Pedagogies have changed in an online situation	6.18	1.06	
	Pedagogies for e-learning and face to face are not the same	6.19	1.1	
	Using pedagogical tools for e-learning is difficult	5.54	1.27	
	Preparing pedagogical materials for e-learning is difficult	6.00	1.01	
Grand mean		5.98		
Network				0.764
	Cost of data is high	6.35	1.09	
	Internet connectivity is unstable	5.94	1.2	
	Uploading large files is difficult	5.68	1.13	
	Students contributions to discussions come in late	6.31	1.03	
Grand mean		6.07		
Learning M.S.				0.806
	The learning management system is difficult to operate	5.11	1.46	
	Assessing Courses on the Learning management system is difficult	4.79	1.53	
	Meeting all students for a discussion on the L.M.S. is difficult	5.98	1.18	
	Tracking students learning progress on the L.M.S. is difficult	5.85	1.44	
Grand mean		5.43		
Blended app				0.880
	A blended approach is a better option now	5.65	1.52	
	A blended approach assists to transition online	6.18	1.27	
	The blended approach should be used in all tertiary institutions	6.45	1.1	
	The blended approach familiarises tutors and students to online	6.37	1.22	
Grand mean		6.16		

**Table 2.** Challenges facing tutors at colleges of education to transition from face-to-face to online instruction

Factors	Mean	Standard deviation
Pedagogical challenges	5.98	0.79
Network challenges	6.07	0.85
LMS challenges	5.44	1.12
Grand mean	5.83	

**Table 3.** Perceptions of the tutors on the use of the blended approach

Item	Mean	Standard deviation
A blended approach is a better option now	5.65	1.52
A blended approach assisted to transition to a complete online	6.18	1.27
I consider the blended approach to be used in all tertiary institutions	6.45	1.1
The blended approach familiarises tutors and students with e-learning	6.37	1.22
Grand mean	6.16	

### 3.1 Results from the interview

The purpose of the study was to examine the challenges tutors at colleges of education face in a transition from the face-to-face approach to a complete online and to analyse if the blended approach should have aided in the transition. Below are the themes and codes generated from the interview (Table 4).

**Table 4.** Themes and code from analysing the data

Themes	Codes
Challenges with online teaching	
Students factors	Students out of the network covered area Complains of not having money to buy data No smartphones to join online learning A few students are always present online Online teaching and learning and costly
Tutors challenges	Slow network connectivity Technological challenges No effective mode of assessment
Need for blended approach	To be resourceful for future challenges To be familiar with online learning To make teaching and learning effective Institutions should adopt a blended approach now

### 3.2 Challenges with online teaching

Based on the results from the analysis it emerged that challenges encountered by the tutors were mainly students' factors and tutors' challenges.

### 3.2.1 Students' factors

This type of challenge emerged from almost all the responses from the participants. About eighty percent of the codes that emerged under this type of challenge was related to students staying in out of network covered areas. Another code that emerged was the students' complaints of not having enough money to buy data and no smartphones to join online lectures. The interviewees stated that only few of the students were always present online. A tutor mentioned *"Some of the challenges are some of the students will be telling you they are out of the covered area, they don't have money to buy data, they don't have smartphones, these are some of the challenges that go on because you have the whole class, you have about 5% of them just coming to the online, for you to teach"*. Tutors continued that online teaching and learning is expensive for the students. It is making progression difficult in lesson delivery.

### 3.2.2 Tutors' challenges

About hundred percent of the codes that emerged attest to the fact that tutors are confronted with slow internet connectivity during online lesson deliveries. Another higher-order code that tutors complained about was issues related to technology. From the responses, it was identified that the learning management system is at times difficult to operate and connect. Tutors were not impressed with the way assignments are conducted online. This statement was taken from a participant to support the assertion *"With assessment there are challenges as most of the students submit them late and others do not do them at all. This makes it difficult to get a fair assessment of all the learners. The network too becomes slow at times especially when one is using the learning management system and it is difficult to operate them too"*.

### 3.3 The need for the blended approach

Tutors were asked to state reasons why the blended approach is a good option to assist a successful online transition. A higher code emerging from this theme was that it will assist both tutors and learners to be resourceful for future challenges. Again, it emerged that the blended approach can assist tutors to be familiar with online teaching and learning to make lesson delivery effective. A tutor argued, *"yeah I will really consider it because since the COVID-19 has given us an exposure of problems that may come, we need to be resourced with online maybe smartphones, and the network should be well because if you blend it, because this is not the last time we are going to get this pandemic so, there can be another problem where you need to stay home and interact with students so, I recommend that the blended approach should be encouraged"*. This statement also supports the need for the adoption of the blended approach *"You see it is also, a way of making teaching and learning to be more effective. If you have your notes online, for instance, you can even access it when your books are unavailable. It can also assist to mark assignments without carrying books and kinds of stuff, so, although the interaction should be face-to-face I think accessing course materials and doing assignments can be done online to prepare learners for emergencies like the COVID-19 pandemic"*. Additionally, the tutors had the opinion that institutions should adopt the blended approach now. This was mentioned by all the participants as they postulated that they are not aware of when the next pandemic will strike.

## 4. Discussion

The results obtained from the current study which was conducted to examine the challenges tutors face in transitioning from face-to-face to a complete online environment and the need for the use of the blended approach before the transition revealed the following conclusions. On challenges, it emerged that tutors encounter network challenges, pedagogical challenges issues with Learning Management Systems (LMS), no effective mode of assessment and students' factors. Considering the need for the blended approach, tutors posited that it can assist them to become familiar with the online approach, enhance effective teaching and learning and prepare tutors for future challenges. Tutors further maintained that colleges of education should adopt the blended approach now. These findings are discussed in line with previous works of literature that identified the same or similar results in the preceded paragraphs in this section.

Network challenges measured with high cost of data, unstable internet connectivity, difficulty in uploading large

files and late arrivals of students' contributions during discussions were the highest challenges tutors reported facing to adopt online learning. Similar challenges were identified by Aboagye et al. (2020), who hypothesised accessibility issues measured with items like the high cost of internet bundle, lack of adequate internet access among others as difficulties students encounter in an online learning environment in Ghana. In contrast, Muilenberg and Berge (2005) considered cost and access to the internet as less relevant barriers to online learning. Notwithstanding, the different geographical locations these studies were conducted are expressive facts that developing countries need to improve telecommunications, ICT policies and human resource development as maintained by Ahmed and Nwagu (2006). The qualitative interview revealed that students' challenges with network issues affect tutors' online lesson deliveries as the turnouts are always low.

Based on the results, pedagogical issues are confronting tutors to adopt online teaching. Conventional pedagogies and online pedagogies are not the same. In a purely conventional approach, tutors usually search for the teaching and learning materials and present them to the students. All the discussions are done through face-to-face before the lesson ends. However, an online approach demands a further posting of the learning materials using one of the communication tools. The challenges involved in acquiring apps like zoom for online lesson delivery in developing countries make the role of the lecturer or the instructor completely different. Lecturers are more likely to assume roles like mentors, coordinators and facilitators of the learning rather than carriers of information (Hardy & Bower, 2004; Smolin & Lawless, 2003). Therefore, online lecturers are supposed to support both synchronous and asynchronous learning which implies that teaching never ends in an online situation. Institutions should, therefore, provide financial support through grants and incentives to the tutors so that they can continuously stay online to assist students.

Arguably, student's factors identified as learners staying in areas with no network, no money to buy data, no smartphones, only a few students are always present online and complains about online learning being expensive support pedagogical challenges. This challenge has resulted in only a small number of students always available online to take part in synchronous lessons. The remaining students instead of joining the lesson asynchronously may decide to forego the materials posted online. This has resulted in the inability of some tutors to complete the syllabus on time. Even if tutors complete the syllabus, the perception that many of the students have not taken part in the lessons and therefore, could not comprehend the concepts is great. It is significant to note that the ultimate satisfaction of every instructor is to deliver instructions that many learners will understand. Learners may lack some of the key areas of online learning environment such as peer interaction, tutor support, online task and technology support (Singh, 2005). Tutors are, therefore, challenged to adjust the teaching methods frequently.

The use of the LMS which is mainly connected with the technologies used for interactions between the tutors and the students also revealed some of the reasons why adopting an online learning environment was difficult. This could be attributed partly to institutional support for online learning. Kim and Bonk (2006) asserted that faculty training is important to quality online education. From the introduction, tutors were compelled to transition from face-to-face to online because of the COVID-19 pandemic. Therefore, most of the tutors were not familiar with using online technologies like LMS. This claim had been supported by Dukes et al. (2006) who postulated that not every faculty member has the required knowledge, skills and attitude to deliver a technology-based learning course. Tutors mentioned technological challenges in the interview which are partly related to issues with the LMS.

Assessments used for online learning are mostly given to the learners to work on and submit them at a later date. If learners are unable to join online discussions, it will become difficult for them to understand the questions. Either they will end up not doing the assignment or can give the work to others to do it on their behalves. This poses a problem to the teacher as assessment may not reflect the true performance of the learners. This challenge was revealed during the interview but was not asked in the questionnaire. Despite this, the online mode of assessment poses a serious credibility issue as many institutions disregard certificates issued from online assessments. Brink and Lautenbach (2011) suggested that an important requirement for lecturers in an online assessment is to have control of the system so that they can monitor and take control of whatever goes on. Again, as the tutors always use the conventional method to assess the students, it is difficult for them to examine learners using the online approach which demands a lot of application questions.

The current study has revealed the need for the tutors at colleges of education to have adopted a blended approach before moving to a complete online. Similar findings were identified in the two approaches used to gather the data as support to this finding. For instance, findings from the questionnaire which revealed that a blended approach is the best

option now is similar to institutions should adopt a blended approach as reported by the interviewees. Again, the blended approach familiarises tutors and students with e-learning are the same as to familiarise themselves with online learning. Other findings such as to make teaching and learning effective, to be resourceful for future challenges all justified the need for the use of a blended approach. This supports McQuiggan's (2007) assertion that many renowned teachers who employed the face-to-face approach encounter challenges when transitioned to a complete online. Therefore, it is relevant for higher institutions to adopt a blended approach before moving to an online environment to make the transition a gradual process.

The findings from the need for the use of the blended approach is consistent with studies by Patel and Patel (2006) who identified that universities using a conventional approach should create a combined learning approach for the students while universities using a completely online approach should create offline learning centres at designated locations for the learners in distance education. Kiviniemi (2014) examined the impact of the effect of the blended learning approach on students learning in a graduate-level public health course and found a statistically significant increase in the performance of the learners. He concluded that the majority of the learners were complacent with the use of the blended approach and preferred this method. Hoic-Bozic et al. (2009), developed a blended pedagogy and maintained that students were satisfied with the pedagogical approach used and the academic achievements were better than anticipated. The current study has supported these findings and it proposes the use of a blended approach as the best option to transition online. However, organisational readiness is an important factor to be considered when implementing blended learning as institutions must show the willingness to support online teaching (Kim & Bonk, 2006; Dukes et al., 2006; Brink et al., 2011; McQuiggan, 2007; Kiviniemi, 2014; Vaughan, 2007).

The present study recommends the use of the blended learning method as an effective strategy to prepare teachers and students for a more effective and less painful transition. Institutions should at least focus on content delivery via face-to-face while assessment and access to learning materials should be done online. This is important to make instructors and learners familiar with both pedagogical models. Again, the government should assist students in colleges of education to acquire laptops and smartphones and ensure that tertiary institutions are well furnished with technological gadgets such as LMS and wireless networks to make internet accessibility easier on campus. Regularly, the government should organise courses and workshops for both tutors and students on how to communicate effectively on e-learning platforms. The curriculum should be designed to incorporate both online and conventional learning approaches at secondary and tertiary institutions so that a change in pedagogy in case of a pandemic should not be a problem to educational institutions.

## 5. Conclusion

The current study has reported challenges facing tutors in the quest to transition to a complete online from face-to-face. The study justifies the need for the use of the blended approach which requires instructions to be conducted using the conventional and online approach in all institutions. This should have given instructors and students ample time to become familiar with the online technological tools to facilitate an effective change. Similarly, the governments in developing countries where network challenges are barriers to online learning should liaise with internet providers to combat issues with poor internet connectivity for use by educational institutions. The government should likewise provide enough and relevant training for teachers and students in all educational institutions on how to use the e-learning.

The current study presents a serious limitation on the geographical location of the participants used as this might have affected challenges with network and the use of the LMS. For instance, people residing in remote areas may encounter difficulties with internet accessibilities compared to those in urban areas. Besides, since the number of people interviewed for the qualitative data were less than the respondents for the quantitative data, the opinions of all the participants were not heard. Despite these limitations, the participants expressed the challenges tutors encounter in an online learning situation which applies to teachers and students in developing countries irrespective of whether one resides in a rural or an urban setting. Again, since the interview guide was structured based on the same content as the questionnaire used, the same responses should have been reported if all the 63 participants were interviewed.

The present study provides bedrock for further studies among colleges of education in Ghana. While the challenges facing students at tertiary institutions have been examined by Aboagye et al. (2020), the current study reported the

challenges facing tutors at colleges of education in Ghana. A study to investigate the tutors and the students in a single comparative analysis should assist to identify and address the challenges among the two groups in future.

## Conflict of interest

The author declares no conflict of interest.

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