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Effects of E-Learning on Colleges of Education Tutors: A Case Study on Nusrat Jahan Ahmadiyya College of Education and Mccoy College of Education

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ABSTRACT

E-Learning is an electronic technology to access any educational format curriculum in Ghana or any part of the world outside of a physical or traditional classroom. Official Public Service Announcement on Coronavirus from the World Health Organization (WHO) has led to the improvement of our educational system in the whole wide world and Ghana as a country. In an attempt to contain and control the spread of the virus, the President instituted social distancing protocols and directed the closure of schools on the 16th of March 2020. To ensure the continuity of teaching and learning, the president of the Republic of Ghana directed the Ministry of Education and the Ministry of Communication to ensure that they roll out distance and remote learning programmes for all students. The aim of the study was to assess the effects of e-learning on the Colleges of Education Tutors using the Nusrat Jahan Ahmadiyya and Mccoy College of Education as case studies. A total of 100 tutors were recruited for the study. The study found that the time allocated for eLearning is not enough, the nature of accessible programming for students' learning is not effective and there is no enough demonstration during e-lessons. Also, the study revealed that the course contents are based on the outline provided. The study also revealed that, to solve the challenges, ensuring a friendly user interface will help solve the challenges in e-learning, and tutors may start using e-learning with the assistance of their associates. Also, ICT courses should be made compulsory for tutors to undertake them. The study concludes among others that the time allocated for eLearning is not enough due to the demand of the course outline. The study therefore recommends among others that there is the need for innovative teaching strategies, course design specific to online education, and the development of good online teaching skills by tutors and these are significant components of quality and effective online education.

INTRODUCTION

Official Public Service Announcement on Coronavirus from the World Health Organization (WHO) has led to the improvement of our educational system in the whole wide world and Ghana as a country. Today, one of the main global challenges facing the education system in the world and Ghana as a whole is e-learning. The Coronavirus (COVID-19) is occurring to have a consequential adverse impact on the global education system. Education directorates around the world are carrying out various pecuniary measures to lighten the adverse effect and provide relief for schools, colleges, and universities across the globe. As of the first week of May 2020, UNESCO estimated that 177 countries have closed schools nationwide, impacting over 1.2 billion learners globally, are classified under children and youth. Closures of Schools in the milieu of COVID 19 have been important across the globe to slow the spread of the disease and its effects on health systems (UNESCO, 2020). The main educational methodology employed in Ghana is face-to-face classroom teaching for almost all basic schools and second cycle institutions and some tertiary institutions such as the colleges of education. However, the universities combine both face to face and online learning. The outbreak of the COVID-19

pandemic has led to the adoption of online learning at all levels of education in the country.

Colleges of Education formally known as training college been on existence since affecting the 20th century. The colonial government first established teacher education when it opened Accra Teacher Training College on 8th September 1909 which is one of the oldest training colleges. Teacher Training colleges have upgraded from Cert "A" into diplomas and now degree-awarding institutions to improve upon the quality of teachers they turn out. There are forty-six (46) training colleges of education in Ghana. Now all the colleges have been affiliated to all the public universities across Ghana to mentor them.

The main role of the colleges is to be the center to produce meek, disciplined, and intellectual students to meet the requirement of mankind and the educational structure in Ghana and also requires that his/her educational background must be of the highest quality towards achieving the national educational goal. It was, therefore, a commendation that the government has decided to implement all Colleges of Education in Ghana Act, Act 847, which was established to enforce a strong ruling to the new status of the colleges in 2012. By that Act, All public Colleges of Education in Ghana have been ordered

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to be supervised by the National Council for Tertiary Education (NTE), which is the government of Ghana agency responsible for the regulation and transformation of tertiary education institutions in Ghana. Over the past forty years, teacher education in Ghana has seen many upgrading. These upgrading results of policy changes are supposedly aimed at delivering well-trained teachers to meet the educational needs of the country at various times. As to whether these modifications have produced the needed results is another question we need to answer. These changes though have led to the production of a different cohort of teachers with different types of kinds of certificates in Ghana.

Statement of the Problem

The first cases of COVID-19 in Ghana were recorded on March 15th, 2020 (Ghana Health Service [GHS], 2020). In an attempt to contain and control the spread of the virus, the President instituted social distancing protocols and directed the closure of schools on the 16th of March 2020. Initially, the closure excluded both final year Junior High School (JHS) and Senior High School (SHS) students. This was to enable these final year students to prepare for their final examination. However, following the indefinite postponement of the West African Senior School Certificate Examination by the West African Examination Council (WAEC) the final year students were asked to go home (Ministry of Education MoE, 2020). About 9.2 million and 500,000 learners from the basic and tertiary levels have been affected respectively (MoE, 2020). To ensure the continuity of teaching and learning, the president of the Republic of Ghana directed the Ministry of Education and the Ministry of Communication to ensure that they rollout distance and remote learning programmes for all students (Abdul-Salam, 2020). On the 15th of March, President of Ghana Nana Akufo-Addo ordered the closure of all educational institutions in Ghana, affecting some 8.2 million basic school students (kindergarten, primary and junior high schools, senior high school, colleges of education, polytechnics and universities) and if affected 0.5 million tertiary education students. By the 10th of May, Ghana had recorded about 4,710 confirmed cases of COVID-19. Health experts in the country predicted that there will be an increase in the number of confirmed cases in the coming weeks due its increased testing of occupants in the country. This indicates that the closure of all schools, colleges, and universities might extend to a longer period than expected. This occurrence raised a lot of questions more than answers.

Tertiary institutions have started engaging students using online platforms for teaching and learning (Anaba, 2020; Ashesi University, 2020). At the college level, the NCTE with support from Transforming Teacher Education and Learning (T-TEL), has established a Virtual Learning Taskforce for Teacher Education. The Taskforce together with five mentoring universities have created an online B.Ed curriculum for teachers and students and has enrolled about 85%-90% student teachers on

their affiliated universities virtual learning platforms (T-TEL, 2020). On the 27th of April 2020, the colleges of education officially started the second semester on their affiliated universities' online learning platforms. This paper, therefore, explores the challenges of college tutors' online learning experience and their perception of online learning.

Purpose of the Study

The aim of the study was to assess the effects of e-learning on the Colleges of Education tutors' using the Nusrat Jahan Ahmadiyya and McCoy College of Education as case studies. The study tried to ; 1. Assess the effectiveness of e-learning in the Colleges of Education, and 2. Assess the challenges faced by tutors in delivering e-lessons.

LITERATURE REVIEW

The Concepts of Learning

As per (Atkinson *et al.*, 1993), learning is a generally perpetual change in behavior that comes from education. It can likewise be said that learning is an individual process of changing personal conduct standards, and expanding or adjusting mental models and processes (Tusting, 2003). It is a complex process of gaining information or abilities including the biological characteristics or senses (physiological dimension) of a student; character qualities, for example, consideration, feeling, inspiration, and interest (cognitive dimension); styles of information processing, for example, coherent examination or hunches (cognitive dimension); and individual differences or psychological (psychological dimension) (Dunn, *et al.*, 1989). To get adroit at learning, one must be capable not only to change an institution, because of changing circumstances and necessities; however design and creating establishments which are 'learning frameworks', that is, frameworks fit for achieving their own proceeding with change.

The Internet and its applications in schooling and industry have essentially impacted how we educate and learn. This has all happened as an outcome of arising technologies and the requests for online guidance by purchasers. Amidst this environment of quick development, another type of instructional method has arisen called e-learning. The expression "e" is an abbreviation includes to electronic. Electronic is any hardware or interconnected system or subsystem of equipment that is utilised in the creation, transformation, or duplication of information or information. That is, any hardware or interconnected framework or subsystem of gear that is utilised in the programmed obtaining, capacity, control, management, development, control, exchanging, trade, transmission, or gathering of information or information. The term electronic incorporates, however, is not restricted to, computer equipment and programming, working frameworks, online information and applications, phones and different broadcast communications items, video equipment and mixed media items, information booths, World Wide Internet destinations, sight and sound, and so forth.

Sun, Tsai, Finger, Chen, and Yeh (2008) characterize e-learning as the utilisation of media transmission technology to convey information for instruction and education". Wan, Wang, and Haggerty (2008) likewise characterize it in a more detailed way as 'a virtual learning environment where a student's collaborations with materials, companions and teachers are intervened through information and communication technologies. The two definitions cover significant parts of e-learning, similar to "delivery of information for education" and "collaborations through technology". As indicated by Hrastinski, (2008) e-learning ought to be characterized basically as learning and showing encouraged online through organization advancements. Lockee, Moore, and Burton (2001) accept that there is no huge distinction that exists between conventional learning and distant technology learning that does not warrant them as similarly good or bad. The incredible bit of leeway of using technology in educating and learning is that it expands adaptability where both instructing and learning can happen whenever and anyplace (Liaw, 2008). Jaspersen, Carter, and Zmud (2005) guarantee that the use of another technology is fundamental to implementation achievement and its long-term use will yield a long-term advantage from interest in e-learning technology.

The Utilization of Technology in Education

The internet is presently pervasive and with internet entrance rates going between as low as 5.6% in Africa and up to 74.4% in North America (Internet World Stats, 2009). Any organization that does not grasp this technology will be truly disadvantaged. Truly, not just the internet that is picking up fame in instruction around the world, a wide range of ICTs, for example, versatile advancements are likewise setting up vigorous momentum in a similar field.

Technology is making a society progressively interconnected in what many have come to call the "connected Age". About 10 years back, access to technology was restricted and wiring schools was one of the most noteworthy education needs (Hitlin & Rainie, 2005) For an age of youngsters, technology, especially the internet, has expected a significant stake in their social and academic lives (Lenhart, Rainie & Lewis 2002).

Casonato and Morello, (2002) and Morello (2010) asserted that people seek after their own task and should join specialized abilities with a scholarly tool kit enhanced with costly jobs, group building, and information. ICT proficiency reflects the requirement for the students to create learning aptitudes and empower them to think basically, communicate, analyse information, work together, and solve problems, and the basic job that technology plays in understanding these learning abilities in the present information-based society (Kay & Honey, 2005).

E-Learning in Ghana

In spite of the fact that technology has empowered online education in numerous nations, the circumstance is

virtually not equivalent in Ghana. The Ghanaian tertiary instruction area is the most exceptional in the organisation and utilisation of ICT in the nation. Colleges in Ghana have gained some ground in building net-working system with securing of computers, however the integration of the technology into the educating and learning measure has been a test. This has made the instructional delivery being teacher driven with a restricted or nonattendance of electronic collaboration among students and instructors. All the nation's significant state funded colleges have their own different ICT strategy, which incorporates an ICT demand for students. This could empower students to approach 24-hour computer labs with broadband connection.

Anyway, not all tertiary institutions in the nation are similarly supplied and there are cases where the computer offices are run absolutely by the private sector as cyber cafes nearby. Colleges in Ghana think that it is extremely hard to keep up their ICT foundation because of the quantum of assets (human and money related) needed for the upkeep of the offices. Localised trials and pilot tasks to abuse Information and Communication Technologies (ICTs) for instructive purposes in Ghana have been occurring for a long time, especially at tertiary level. In any case, there has been a long growth period for the advancement of a public approach in this field. In spite of being distinguished as a critical objective in the Ghana Poverty Reduction Strategy Paper, in the Education Sector Strategic Plan for 2003-2015 (Ministry of Education, Youth and Sports, 2003) and in the ICTs for Accelerated Development Policy Ministry of Education, Youth and Sports, 2003, pp. 24 and 37-39), an arrangement record on ICTs in Education was in the end settled in November 2008 and distributed the next January. The arrangement distinguishes seven key topical territories that must be tended to using the accessible technologies throughout the education system.

Effectiveness of E-Learning in the Colleges of Education

A few efficient surveys and meta-studies on the effectiveness of e-Learning are considered inside the setting of medical care or language learning. These surveys essentially incorporate quantitative examinations dependent on specific standards, for example, sample size (Veneri, 2011), statistical information transparency (Grgurovic, Chapelle & Shelley, 2013; Means *et al*, 2013) or homogeneity of the respondents and predefined result measures (Rosenberg, Grad and Matear, 2003). Just a single significant meta-review, which included both qualitative and quantitative investigations for an integrative review, assessing the result of distance learning for nursing instruction, was discovered (Patterson, Krouse & Roy, 2012).

Inspiration to learn and draw in with the e-Learning arrangement is critical to effectiveness, particularly when effectiveness is characterized as the time spent using the item. 'Results suggest the importance of motivation to learn and workload in determining aggregate time spent in e-learning courses' (Brown, 2005, p. 465). In any case,

when tasks are characterized as ‘blended e-Learning’, time spent may not generally be a decent pointer of whether learning occurred: “beyond the impact of extrinsic-related perceptions, social and personal motivations are important drivers of discussion forum usage in an e-learning context. It is concluded that even for adult learners, social interaction with instructors and collaborative interaction with peer students are important in enhancing learning and active participation in online discussion” (Jung *et al.*, 2002: 153). Accordingly, as in conventional learning, inspiration is not just founded on singular variables.

Challenges Faced by Tutors in Delivering E-Lessons

Salmon (2000) demonstrates that the impact and function of an e-educator is one of the vital segments required for the e-learning experience to occur. Along these lines one may advocate that the expanding prominence of e-learning has directed the re-appraisal of the part of the instructor inside e-learning environment (Walters-Coppola *et al.*, 2002). Wallhaus (2000) set forward that one of the most remarkable distinction between e-learning and the traditional method of learning is that physical attendance is not fundamental. Williams (2002) goes further to clarify that while traditional method of learning is predetermined by the time constraints inside the institution, e-students settles on their choice with respect to a time to study dependent on their timetable and necessities. Likewise, Walters-Coppola *et al.*, (2002) gives more consideration to the way that the conventional educator can practice both verbal and non-verbal methods for communication while e-learning depends on the composed verbal type of communication. In these circumstances, the function of e-learning educator turns out to be exceptionally basic to the achievement of any type of computer interceded communication (Williams, 2002).

Technological Challenges

Technological challenges are issues concerning development, for example, the speed, the bugs, the mistakes, features and functions not accurately working or do not work as per what tutors require. In e-learning literature review, there are different reactions to the nature of the e-learning systems now being used. Issues have been raised that include: convenience issues, poor performance, organizations being not able to customize

as per their prerequisites and in some cases reprimanded for having an instructor-focused system as opposed to student focused system (Chua & Dyson, 2004).

A study done in Australia discovered Blackboard to be mainstream among educational establishments (Paulson, 2002). However, Blackboard “is limited to its environment” (Farmer, 2004, p. 5), this is alluding to the features of Blackboard limited to its own environment. It does not permit conversation, notices, updates and different other information within blogs and topics from various sellers, and it does not permit discussion forums to be directed to the personal e-mail of the students which is a weakness to learners engagement. This restricts the tutors and students to a specific environment regardless of whether they are inexperienced with it or do not care for it.

METHODOLOGY

In this study, a descriptive survey design was the most appropriate strategy. Due to the purpose of the study and formulation of research questions, the descriptive survey was adopted. This provided the opportunity of gaining in-depth information from a wider number of respondents having to do with e-learning. The study was conducted at the Nusrat Jahan Ahmadiyya and the McCoy Colleges of Education in Wa in the Upper West Region of Ghana. The research population was tutors of the two colleges of education. These participants were selected using the snowball sampling procedure. This procedure is appropriate because due to the COVID-19 pandemic, participants are in their various homes and the only means of contacting them is through other research participants’ assistance. Upon reaching a participant via phone, the participants were briefed about the purpose of the study and his or her consent was sought before he or she is interviewed.

The research study used a structured questionnaire and interview guide as its main tools for data gathering. The questionnaire consisted of both open-ended and close-ended questions. The open-ended questions gave respondents the choice to determine the level of detail and length of some accounts to enable the researcher to understand their point of view.

RESULTS AND DISCUSSIONS

Effectiveness of E-Learning in Colleges of Education

This sub-section presents the results on the effectiveness of e-learning in the colleges of education.

Table 1: Descriptive Statistics on the effectiveness of e-learning

	N	Minimum	Maximum	Mean	Std. Deviation
The time allocated for eLearning is enough	100	1.00	5.00	2.4200	1.38666
The nature of accessible programming for students’ learning is effective.	100	1.00	5.00	2.8600	1.55713
There is enough demonstration during e-lessons.	100	1.00	5.00	2.9100	1.53145
The learning that occurs during the e-learning session meets the objective of the lessons.	100	1.00	5.00	2.1000	1.56024

There is usually social interaction with instructors and collaborative interaction with peers during e-learning.	100	1.00	5.00	3.2300	1.57541
The time spent using e-learning system is effective.	100	1.00	5.00	2.0500	1.68400
There is self-motivation to learn during e-learning.	100	1.00	5.00	3.1900	1.61867
Valid N (listwise)	100				

Source: Field Survey, 2020

The respondents disagreed that the time allocated for eLearning is enough (mean = 2.42). Also, the respondents disagreed that the nature of accessible programming for students' learning is effective (mean = 2.86). The respondents further disagreed that there is enough demonstration during e-lessons (mean = 2.91). Most of the respondents disagreed that the learning that occurs during the e-learning session meets the objective of the lessons (mean = 2.10). Most of the respondents further agreed that there is usually social interaction with instructors

and collaborative interaction with peers during e-learning (3.23). Not the least, the respondents agreed that the time spent using e-learning system is effective (mean = 3.05). Finally, the respondents agreed that there is self-motivation to learn during e-learning (mean = 3.19).

Course Outline/Content/Mode of Delivery

This sub-section presents the results on the course outline, content and the mode of delivery of e-learning lessons in the two colleges of education.

Table 2: Descriptive Statistics on Course outline/content/mode of delivery

	N	Minimum	Maximum	Mean	Std. Deviation
The course contents are based on the outline provided	100	1.00	5.00	3.8800	1.02770
The course content is covered by the end of the teaching period	100	1.00	5.00	2.9300	1.65910
The Tutors demonstrate knowledge of the subject matter	100	1.00	5.00	4.1000	.79772
The Tutors' delivery are organized and systematic	100	1.00	5.00	3.2800	1.49801
The Tutors are able to communicate what he/she is teaching	100	1.00	5.00	3.2100	1.52617
The Tutors always encourage students to read materials beyond the suggested reading and teaching notes	100	1.00	5.00	4.0600	1.11754
The Tutors always encourage students to read materials beyond the suggested reading and teaching notes	100	1.00	5.00	3.2700	1.55606
Valid N (listwise)	100				

Source: Field Survey, 2020

Most of the respondents agreed that the course contents are based on the outline provided (mean = 3.88). Also, majority of the respondents disagreed that the course content is covered by the end of the teaching period (mean = 2.93). Majority of the respondents agreed that the tutors demonstrate knowledge of the subject matter (mean = 4.10). Most of the respondents agreed that the Tutors' delivery are organized and systematic (mean = 3.28). Again, most of the respondents agreed that tutors are able to communicate what he/she is teaching (3.21). Not the least, majority of the respondents were agreed that

Tutors always encourage students to read materials beyond the suggested reading and teaching notes (mean = 4.06). Finally, most of the respondents agreed that the Tutors always encourage students to read materials beyond the suggested reading and teaching notes (mean = 3.27).

Challenges Faced by Tutors During E-Learning Lessons

This sub-section presents the findings on the challenges faced by tutors in e-learning lesson in the two colleges of education.

Table 8: Descriptive Statistics on challenges faced by tutors during e-learning lessons

	N	Min.	Max.	Mean	Std. Deviation
I have enough computers in my college to support e-learning.	101	1.00	5.00	2.8416	1.05577
My college has free internet wifi for e-learning	101	1.00	5.00	3.7228	1.22571
I have a smartphone that supports e-learning	101	1.00	5.00	4.1188	1.01279
I am aware of free e-learning platforms (such as Moodle, Wimba, Adobe Connect, Coursera, Zoom, WhatsApp) that I can use to engage students in learning	101	1.00	5.00	4.1980	1.06789

I use only verbal communication in e-learning and it makes lesson delivery difficult.	101	1.00	5.00	4.3366	.94103
I have technical skills and knowledge such as typing, downloading, uploading, connecting technology tools to the internet needed to use for e- classroom learning.	101	1.00	5.00	3.9505	1.24400
Cheating prevention during an online assessment is complicated	101	1.00	5.00	4.3267	.89564
I always share educational resources with my students through e-learning systems.	101	1.00	5.00	4.1485	.94219
I sometimes feel distanced from the students	101	1.00	5.00	4.2376	1.03100
I sometimes do not have enough data to access the e-learning	101	1.00	5.00	4.3069	.92458
I sometimes find it difficult to see how students learn during e-lessons.	101	1.00	5.00	4.1683	1.08692
I lack the ICT skills needed for e-learning.	101	1.00	5.00	4.0594	1.05662
I can use virtual learning to effectively organize group discussions among students.	101	1.00	5.00	4.1584	1.08381
I lack face-to-face communication	101	1.00	5.00	4.1485	1.01377
I can use e-learning systems to give effective and quick feedback to students	101	1.00	5.00	4.1386	.94900
I can effectively deliver learning materials to my students at anytime and anywhere on the e-learning system.	101	1.00	5.00	4.2079	1.03264
I tend to focus on theory rather than practicals	101	1.00	5.00	4.0693	1.07942
I lack accreditation and quality assurance in online education	101	1.00	5.00	4.2178	.97575
I require strong self-motivation and time management skills for e-learning	101	1.00	5.00	3.9901	1.09083
I use an e-learning system to instantly grade students to encourage them to learn.	101	1.00	5.00	4.1089	1.08537
Valid N (listwise)	101				

Source: Field Survey, 2020

Majority of the tutors disagreed that they have enough computers in their college to support e-learning (mean = 2.841). Also, most of the tutors agreed that their colleges college have free internet wifi for e-learning (mean = 3.723). Majority of the tutors agreed that they have a smartphone that supports e-learning (mean = 4.119). Again, majority of the tutors agreed that they are aware of free e-learning platforms (such as Moodle, Wimba, Adobe Connect, Coursera, Zoom, WhatsApp) that I can use to engage students in learning (mean = 4.198). Again, majority of the tutors agreed that they use only verbal communication in e-learning and it makes lesson delivery difficult (mean = 4.337). Most of the tutors agreed that they have technical skills and knowledge such as typing, downloading, uploading, connecting technology tools to the internet needed to use for e- classroom learning (mean = 3.951). Majority of the tutors agreed that cheating prevention during an online assessment is complicated (4.327). Not the least, most of the tutors agreed that they always share educational resources with their students through e-learning systems (mean = 4.149). Majority of the tutors again agreed that they sometimes feel distanced from the students (mean = 4.238). Majority of the tutors further agreed that they sometimes do not have enough

data to access the e-learning (mean = 4.307).

Majority of the tutors agreed that sometimes find it difficult to see how students learn during e-lessons (mean = 4.168). Also, majority of the tutors agreed that they lack the ICT skills needed for e-learning (mean = 4.059). Majority of the tutors agreed that they can use virtual learning to effectively organize group discussions among students (mean = 4.158). Again, the majority of the tutors agreed that they lack face-to-face communication (mean = 4.146). Again, the majority of the tutors agreed that they can use e-learning systems to give effective and quick feedback to students (mean = 4.139). The majority of the tutors agreed that they can effectively deliver learning materials to my students at any time and anywhere on the e-learning system (mean = 4.208). The majority of the tutors agreed that they tend to focus on theory rather than practicals (4.069). Not the least, majority of the tutors agreed that they lack accreditation and quality assurance in online education (mean = 4.218). Most of the tutors again agreed that they require strong self-motivation and time management skills for e-learning (mean = 4.3.990). The majority of the tutors further agreed that they use an e-learning system to instantly grade students to encourage them to learn (mean = 4.307).

RESULTS AND DISCUSSION

Effectiveness of E-Learning in Colleges of Education

The study found that the time allocated for eLearning is not enough (mean = 2.42). Time is very precious for undertaking work in lessons, especially assignments. With the introduction of e-learning, most students struggle to complete the assignment given due to limited time given. This agrees with Noesgaard (2014).

Also, the study found that the nature of accessible programming for students' learning is not effective (mean = 2.86). The common program that received the light of the day in the e-learning era is Zoom. This agrees with the result from a study by Rother (2004) who also concluded that just 15% of the respondents nonetheless, demonstrated that the nature of accessible programming for students' learning is "superb", and 52% of them stated, is "poor" or just "OK"

The study further found that there is no enough demonstration during e-lessons (mean = 2.91). In the conventional classroom environment, many demonstrations are made to enable students better understand the lesson being delivered. This agrees with the result from a study by Jiang *et al.* (2006) who also concluded that matured students need demonstrating and framework to be effective in an online environment but this is usually not enough in e-learning class.

The study further revealed that there is usually social interaction with instructors and collaborative interaction with peers during e-learning (3.23). Social interaction with instructors and collaborative interaction with peer students are important in enhancing learning and active participation in online discussion. This also agrees with Jung *et al.* (2002) who concluded that collaboration is commonly viewed as basic to the effectiveness of e-Learning.

Not the least, the study also found that the learning that occurs during the e-learning session did not meets the objective of the lessons (mean = 2.10). There are set objectives for every lesson and e-learning is not different. Time constrain may be an obstacle to the achievement of learning objectives during e-learning. It was therefore confirmed by the study that the time spent using e-learning system is not effective (mean = 2.05). This again agrees with Jung *et al.* (2002) who further concluded that when tasks are characterized as 'blended e-Learning', time spent may not generally be a decent pointer of whether learning occurred.

Major Findings

On the effectiveness of e-learning, the study found that the time allocated for eLearning is not enough, the nature of accessible programming for students' learning is not effective, and there is not enough demonstration during e-lessons. The study further revealed that there is usually social interaction with instructors and collaborative interaction with peers during e-learning, the learning that occurs during the e-learning session did not meet the objective of the lessons, and there is self-motivation to learn during e-learning.

Assessing the course outline/content and delivery, the study revealed that the course contents are based on the outline provided, the tutors demonstrate knowledge of the subject matter, the tutors' delivery are organized and systematic, tutors always encourage students to read materials beyond the suggested reading and teaching notes, and the tutors always encourage students to read materials beyond the suggested reading and teaching notes.

The study also revealed that tutors on the other hand do not have enough computers and even if they do, they do not have enough data for internet access, only verbal communication in e-learning and it makes lesson delivery difficult, tutors sometimes feel distanced from the students, most tutors lack the ICT skills needed for e-learning, that tutors lack face-to-face communication with students, tutors tend to focus on theory rather than practicals, and that tutors require strong self-motivation and time management skills for e-learning.

The study also revealed that ensuring a friendly user interface will help solve the challenges in e-learning, tutors may start using e-learning with the assistance of their associates, computer games can be used adequately as a learning resource by the educators, refresher programs should be coordinated occasionally for tutors so they become familiar with using technology, educator discussion forums can be made for discussing the use of ICT in their separate classes by tutors, ICT courses should be made compulsory for tutors to undertake them, starting e-learning with mixed of both online and offline learning will help eliminate the e-learning challenges, and that giving learning to the students by their own particular manner with help them understand better to enhance e-learning.

CONCLUSION

The study concludes that the time allocated for eLearning is not enough due to the demand of the course outline. This makes it difficult for the tutors to take their time and explain issues to the understanding of the students. Also, the nature of accessible programming for students' learning is not effective. This might be as a result of the lack of an internet data bundle to access the high-quality graphics of the common e-learning platform (Zoom) which is widely used by most schools. There is not enough demonstration during e-lessons due to time constraints. The study further concludes that there is usually social interaction with instructors and collaborative interaction with peers during e-learning. The learning that occurs during the e-learning session did not meet the objective of the lessons because of the lack of time, and there is self-motivation to learn during e-learning. Also, the study concludes that the course contents for e-lessons are based on the outline provided and the tutors demonstrate knowledge of the subject matter. It is the same course content for the conventional class that is used for the e-learning class and the tutors are expected to demonstrate a similar knowledge as it is in the conventional class. The tutors' delivery is organized and systematic and the tutors always encourage students

to read materials beyond the suggested reading and teaching notes, and the tutors always encourage students to read materials beyond the suggested reading and teaching notes. Not the least, the study concludes that tutors on the other hand do not have enough computers and even if they do, they do not have enough data for internet access. Only verbal communication in e-learning and it makes lesson delivery difficult. Tutors, just as the students, sometimes feel distanced from the students. Due to this, the tutors lack face-to-face communication with students and tend to focus on theory rather than the practical aspect of the lessons. It is difficult for most of the tutors to do effective demonstrations to the students during the lessons. Most tutors in the colleges lack the ICT skills needed for e-learning and they therefore require strong self-motivation and time management skills for e-learning.

Finally, the study concludes that in solving the challenges that comes with e-learning, there is the need to ensure a friendly user interface, tutors may start using e-learning with the assistance of their associates, computer games can be used adequately as a learning resource by the educators, refresher programs should be coordinated occasionally for tutors so they become familiar with using technology, educator discussion forums can be made for discussing the use of ICT in their separate classes by tutors, ICT courses should be made compulsory for tutors to undertake them, starting e-learning with mixed of both online and offline learning, and giving learning to the students by their own particular manner with help them understand better to enhance e-learning. When these are provided and appropriately done, e-learning in the colleges of education will improve.

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