

E-LEARNING IN DISTANCE EDUCATION: AN INNOVATIVE STRATEGY FOR PROMOTING HIGHER EDUCATION IN GHANA

Felicia S. Odame: University for Development Studies (UDS)

Faculty of Integrated Development Studies (FIDS), Department of Social Political and Historical Studies (SPHS), P. O. Box 520, Wa Campus. feliasiedu@yahoo.com

Stephen Ameyaw: University for Development Studies (UDS)

Faculty of Integrated Development Studies (FIDS), Department of Social Political and Historical Studies (SPHS), P. O. Box 520, Wa Campus. sameyaw@gmail.com

Abstract

Current trends in the field of distance education has necessitated a paradigm shift from pedagogical to andragogical ways of learning where new skills are learnt through electronic means (e-learning). The success of e-learning depends on improvement in communicational technology which is often lacking among countries in the Global South, Ghana inclusive. Although emerging literature posits that e-learning as part of a broader programme, offers a vast range of opportunities for promoting collaboration in both synchronous and asynchronous learning environments, distance education programs face challenges that may limit the implementation of e-learning technologies. This paper explores the prospects and challenges of e-learning in distance education in Ghana drawing on the experiences of two public universities. Qualitative methods were used to collect data from students and lecturers involved in and/or connected to distance education in these universities. Though the findings revealed some prospects such as the increase in capacity building and reduction in time on contact, there were challenges such as the change of learning practice from print to electronic based learning through the use of ICT, unreliable power supply and telecommunication network services leading to difficulty in accessing computers to facilitate learning. The paper argues that: making efficient power supply/ telecommunication services and teaching and learning of ICT from the basic level of education will curtail the challenges of e-learning today. The paper concludes on the notion that e-learning in distance education can be a real innovative tool for the promotion of higher education in Ghana.

Key: ICT, e-learning, distance education, pedagogy, innovative, Ghana

1. 0 Introduction

E-learning, an added methodology in distance education in higher institution creates educational products and services that can be marketed internationally (Bates, 2005). This means that university graduates with e-learning education background, especially those in

the distance education can compete with other highly trained working force within the economic world. Today, e-learning in distance education has been very useful in every regard, for instance, in medical education, e-learning strategy delivers a broad array of solutions that enhance knowledge and performance that offer learners control over content, learning sequence, pace of learning, time, and often media, allowing them to tailor their experiences to meet their personal learning objectives (Ruiz, Mintzer and Leipzig, 2006). Educational innovation response to the educational needs of a rapidly changing world where powerful forces such as economics, politics, demographics, religion and technology place enormous learning demands on citizens and education systems.

According to Ellsworth (2000), the changing needs of society compel educators to be creative and constantly develop innovative strategies to teach students so that they can respond to changes in society. The World Summit on Sustainable Development held in Johannesburg in 2002, also recognised that much of education at that time was far short of what was required for sustainable development and therefore recommended a new and more ambitious way of thinking about education. A 2006 UNESCO Report also states that the use of Information and Communication Technologies (ICTs) in education can have huge potential for governments struggling to meet the growing demand for education (UNESCO, 2006). This corroborates with George-Walker and Keefe (2010) findings that e-learning in distance education has helped working students to catch up with class modules provided by the lecturers or tutors.

This call was an awakening of governments to revisit their educational policies to see where changes would be necessary. Developing nations, Ghana inclusive, started making conscious efforts to diversify their higher educational programmes to make them relevant to the demands of changing global context (Keamey, 2009). The introduction of e-learning in distance education was as a result of the problems higher education is facing, for example high student-lecturer ratio, inadequate infrastructure, inadequate and low technical expertise and the high numbers of potential students turned down every year due to inadequate resources, among others (Kwofie and Henten, 2011). In 1986 there was a discussion on tertiary reforms which recommended increase access to university education and student study while working and living at home among others (Kwapong, 2007). These universities' distance education used printed materials as a methodology until recently where e-learning was introduced as an additional methodology, especially in the distance education arena. This was informed by the Ghana government through the Ministry of Education (MoE) drafted policy to make ICT teaching compulsory at the primary secondary and tertiary levels of education in 2006. Besides, private organizations, foreign and local, have partnered with the MoE to initiate programmes aimed at introducing and inculcating e-learning into educational institutions at all levels (Kwofie and Henten, 2011). Efforts made by the public

universities in Ghana by installing net-working infrastructure and acquiring computers and the ICT training for students.

While technology has enabled e-learning in many developed countries, the same cannot be said in developing countries of which Ghana is not an exemption. In these countries many companies and organisations have integrated e-learning into their infrastructure by deploying departmental intranets to increase communication and productivity. Professional development directors easily integrate learning modules into staff communications, while human resource directors add similar tools to web-based benefits and payroll systems. The modular nature of e-learning content in distance education allows employees to learn at their desks thereby encouraging them to upgrade themselves often.

However, the success of e-learning in distance education depends on improvement in communication technology infrastructure which is often lacking among countries in the Global South, including Ghana. Although emerging literature posits that, e-learning is part of a broader programme that offers a vast range of opportunities for promoting collaboration in both synchronous and asynchronous learning environments, inadequate and low efficient communication technology infrastructure limits these opportunities. In Ghana for instance, distance education programs face challenges that may limit or deter implementation of e-learning technologies. The question is: what can be done to make e-learning act as an innovative strategy for promoting higher education in Ghana?

The purpose of this article is to explore the prospects and challenges of e-learning in distance education in Ghana drawing on the experiences from two public universities (University College of Winneba and University of Ghana, Legon). The study uses their distance education centres in Wa in the Upper West Region of Ghana as a case study.

2.1 Concept of e-Learning and Distance Education

Perraton (1993) views Distance Education (DE) as an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner. This means that this type of education learning can be done without the face to face interaction between the teacher and the learner. The learner needs not be in a specific classroom and at a specific time to learn but can be in any geographical area and study at his own time and pace. Kahiigi, Ekenberg, and Hansson (2007) explain that e-learning is the use of electronic media, educational technology, Information and Communication Technologies (ICT) in education. They said e-learning includes numerous types of media that deliver text, audio, images, animation, and streaming video, and includes

technological applications and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning, as well as local intranet/extranet and web-based learning.

According to Bates (2005), in recent times the widespread use of computers and the Internet have made distance learning easier and faster, and many universities deliver full curricula online. Johnson (2006) explains that human interaction in e-learning is important, he emphasised that the interaction is in two ways and these are: asynchronous and synchronous. Johnson explains asynchronous learning as a way where learners access course materials flexibly on their own schedules. He said students are not required to be together at the same time. The synchronous learning on the other hand is the system where all learners are "present" at the same time. To him, it resembles traditional classroom teaching methods despite the fact that the learners are not at the same place. This requires a timetable to be organized. Sanam (2009) alludes that e-learning can be individual self-study computer-based instruction/learning/training. He explains that the individual can access information or learn through the use of the Internet. It can also be a group, using chat rooms with/without video, electronic whiteboard and audio/video-conferencing. In sub-Saharan Africa the primary delivery for distance education is only through print system. However, technological advancement is also very necessary hence the need for increase access to information communication technologies (ICT's). Therefore e-learning projects in Sub-Saharan Africa have grown significantly since 2001, largely with the help of international development organizations (Adomi, 2005). Nearly all countries in Africa are rapidly increasing the adoption and utilization rates of computers and the Internet. The study looks at the prospects and challenges of e-learning in distance education in Ghana. This take into cognizance the selected universities indicated in the study.

The implementation of ICT-policies and practices are different in developing and developed countries and this is due to the contextual disparities (Bate, 2001; Rowell, 2010 and Nawaz, 2012). Nawaz noted also that it might depend on government structure and the level of determination to incorporate ICT into the curriculum. Nawaz further remarked that, countries where education is handled by state it is more difficult to provide a coherent national e-learning policy that could cover all public institutions.

The research findings of Rowel (2010) on 'how Government Policy drives e-Learning', discovered that in the United Kingdom (UK), there is no separate legislation for e-learning but as part of teaching and learning. Rowel further said ICT use in higher education in the UK is overseen by the publicly funded Joint Information Systems Committee (JISC), which acts as an advisory committee to funding councils. However in Malaysia, Rowel discovered that it was the government's goal to establish a scientific and progressive society that is not only a consumer of technology but also a contributor to the scientific and technological civilization of the future. Therefore technology in general and e-learning in particular

became part of their Vision 2020 Development Plan proposed in 1991 (Rowel, 2010). While in New Zealand e-learning was mandated in their curriculum used by the country's schools. Therefore, schools were able to innovate in any way that supports raising student achievement in their communities across the entire range of e-learning possibilities.

In African, Nawaz (2012) noted that the emergence of digital telecommunications, expansion of the Internet, and global economy in the 1990's, created an impetus for a wider variety of ICT initiatives, therefore the governments adopted national ICT policy models (Mujahid, 2002). E-Learning at the University of Botswana, for instance, is a blended approach to teaching and learning that integrates various modes, methods, and media (Thurab Nkhosi, Lee and Giannini-Gachago, 2005). In Ghana, the Ghana Education Strategic Plan 2003 to 2015 has in it a policy for ICT promotion. It is stated in the plan that there should be a promotion of ICT in schools and institutions of higher learning. The National policy on ICT in Education (ICTE) finalised and published by 2003. The provision of infrastructure for ICTE provided to first phase of Senior Secondary Schools by 2005. Provide sufficient staff trained in ICT delivery by 2005 and relevant basic and advanced level ICT training programmes in place by 2005. In addition there should be a development of a cadre of trained persons to support the delivery of ICT in schools and institutions (pre-service and in-service). Also to provide access to the Internet and establish a networking system as a basic part of the instructional environment in selected primary, secondary and tertiary institutions. Finally to construct/rehabilitate computer laboratories in schools and institutions.

2.2 Theoretical Basis

The meaning one attaches to education is dependent on the type of pedagogy used in teaching. For example, the positivists use teacher-centered approaches while the constructivists use learner-centered approach to learning. Given the nature and purposes of e-learning in distance education, it leans on constructivist pedagogy. Constructivist Learning Theory is a theory of knowledge that argues that humans generate knowledge and meaning from an interaction between their experiences and their ideas. Constructivist learning approach has a notion that learners build up knowledge both individually and socially. Many researches attest to this fact (Harman and Koohang, 2005; Hung, 2001; Hung and Nichani, 2001; Koohang and Harman, 2005).

Constructivism is also a theory that guides learners and instructors in conducting, managing and encouraging personalized learning activities through collaborative learning (Jonassen and Davidson, 1995). It facilitates critical thinking and problem solving. Learner actively constructs or builds new ideas using previous knowledge and experience attained. In this

learning, the teacher is a facilitator during the learning process. Learner takes on responsibility of learning actively participating in the learning activities placed at the center of the learning process. Research suggested that constructivist strategy exploit technology to enhance the learning process (Cunnugham and Duffy, 1996 cited in Felix, 2005). According to Credaro (2001), the need to move from teacher-centred to student-centred approach to create and modify teaching practices, policies and procedures to support more meaningful educational experiences should be of concern to educators. Credaro's argument means that educators should be sensitive to change; they should think of what will benefit the learner, so as to bring about positive change.

This argument appears to inform the distance education drive in Ghana to even make a paradigm shift from pedagogical to andragogical ways of learning where new skills are learnt through electronic means (e-learning). The andragogical model offers educators a new paradigm based on adult learning theory, which states that adults learn by relating new learning to past experiences. They also learn by linking learning to specific needs, and by practically applying learning, resulting in more effective and efficient learning experiences (Gibbons and Fairweather, 2000). E-Learning is mostly suited for higher education and therefore most learners are adults.

Amenyah (2009) makes the case for the use of ICT to deliver courses to students in higher education. His reason is that it has the potential for providing training and education at a much cheaper cost than on-ground colleges. He further stated that it reduces the pressure on facilities at higher education school centres. E-learning offers great flexibility in distance learning where adults access electronic learning materials freely on their computer, phones and tablets (Kocur & Kosc, 2009). This flexibility is provided by the various forms in which the learning material can be presented and allow the students a variety of options to learn at their own pace and time. Applying this technique in higher education in Ghana will go a long way to help relieve the pressures on main campuses of the various universities in the country since most students can access education anywhere, anytime irrespective of their geographical location.

3. Methodology

3.1 Study Area — the Upper West Region (UWR)

The study was conducted in the Upper West Region (UWR) of Ghana. The UWR is located in the North-western part of Ghana. It is one of the three regions that make up Northern Ghana. The UWR is one of the least developed regions in Ghana, with only 17.5% of its total population being characterized as urban and only 5% of residents having attained any form of post-secondary education (Adjasi and Osei, 2007). It is estimated that 69.8% of residents aged six years or older have never attended school, compared with the national

average of 38.8%. This has a cascading effect on the rate of unemployment in the region. Many decades of policy neglect partly explains why the region's literacy rates continue to be dramatically lower than the national rate (Konadu-Agyemang 2000). The region is endowed with one public University (University for Development Studies' Wa campus), one Polytechnic (Wa Poly) one Teacher Training College (Jahan) and three Government University and other private Distance Education Institutions running. The three public Universities are: University of Cape Coast, University College of Education, Winneba and University of Ghana. University of Ghana and University College of Winneba were purposively sampled for the study.

3.2 Methods

This paper uses case study design to elicit impregnable information from the respondents of the selected institutions in the region. This helped the study to embrace narratives from the respondents, enriched with illustrative descriptions highlighting themes considered to be well suited for investigating the experiences drawn from a programme in the selected universities in the region as asserted by Yin (2015). The design allowed the use of qualitative method which helped the study to explore prospects and challenges of e-learning in distance education in the selected universities. This was where in-depth interviews were used with the help of interview guides as indicated by Creswell (2014). This was helpful to investigate the prospects and challenges of e-learning in the universities that organize Distance Education programmes in the region. This pinched on the experiences of the respondents. Subsequently, 21 respondents comprising directors, facilitators and students of the programmes were sampled. This was adequate to attain the standards of thematic saturation in qualitative research, after which themes generally become repetitive (Baxter & Eyles, 1997). Purposive sampling was used to enlist respondents relevant to the study. Also, the universities were sampled via purposive criteria. The data were analysed qualitatively where printed copies of transcripts were thoroughly audited. Open-coding was also performed by which ideas were assigned to text of the sentences (Crang, 2005). In addition, codes and transcripts were constantly refined through the merging of similar themes into various branch nodes. Themes of salience were determined by the prominence of various issues within the coded texts. Ethical issues were considered.

4. Findings and Discussions

The findings of this study are presented in five (5) broad themes; background, methodology, prospects as well as challenges of e-learning and conclusion and recommendations. Translated quotes are used as illustrations and also to help contextualize the findings from the interviews.

4.1 Background of the Studied Universities

4.1.1 The University of Education, Winneba

University of Education, Winneba (UEW), was the pioneer University in Ghana that rolled out Distance Education programmes. It started in 1996 with assistance from the British Overseas Development Administration (ODA) now Department for International Development (DFID). The Institute for Educational Development and Extension (IEDE) was given the mandate to run the programme. The programme took off by admitting a first batch of 196 students to pursue Post-Diploma Bachelor of Education (BEd) degree in four subject areas namely: English Education, Life Skills Education, Mathematics Education and Science Education. The mission of the Institute for Educational Development and Extension (IEDE) is to provide leadership in the development, provision and maintenance of effective extension services in education to prepare teachers, educational professionals and people from other professions and industries for service to the nation. It seeks to provide greater access to higher education in a much more efficient manner with the application of better equipment and human resources. The University of Education's main campus is in Winneba with the Study Centres located in the ten Regional capitals of the country. From the findings, the centre in Wa was started in 2001. It is located at the premises of the Nustrat Jahan Ahmadiyya College of Education. The findings revealed that, the aim of the centre is to bring university education to the door steps of teachers who are within the UWR who hitherto would have left the classroom for school on study leave by trekking to go to the main Campus for further studies.

4.1.2 University of Ghana

The distance learning programme of the University of Ghana was started in July 2007 and launched in November the same year. The Institute was charged to manage the implementation of its programme in the Institute of Continuing and Distance Education (ICDE). It started with undergraduate courses in the Faculties of Arts, Social Studies and the Business School. The Institute was supported by Distance Education Committee and Heads of the Departments in the three faculties for its implementation. The first batch of over 800 students was admitted to commence courses in Sociology, Philosophy, Linguistics, Geography and Resource Development and Economics in January 2008. It expanded tremendously to all the ten regions with many students reading various courses in undergraduate and graduate levels. The main objective is to educate the youth, train new candidates into the work force, and continuously educate and re-train those already in the work force for the acquisition of new knowledge and appropriate skills. The Wa Learning Centre was started in 2009 /2010 academic year. According to the respondents, the aim was

to increase qualified students who could not get admission to the university's regular programmes due to lack of accommodation, and other factors.

4.2 Methodology used by IEDE and ICDE in the Universities

Both the IEDE and ICDE use the modular system where students are given a printed module which they study on their own for one month and then once a month come for face-to-face lectures with the tutors to discuss areas of their modules that they do not understand. The modules provided guide students to understand the course very well. It helps equip students with learning skills since everything is stipulated in the modules. Students at the end of the semester join their counterparts on the main campus to write the same examination. It was revealed by an ICDE student that two weeks to the examination face to face encounters are held with lecturers on the field campuses for further tutoring and clarifications of the modules. From the discussion, it was deduced that the programme implementation takes the form of the blended system involving the combination of traditional face to face learning and the distance learning. The organisers admitted that students enjoying the two systems have advantage over their counterparts, the regular students of the main campuses.

The IEDE introduced e-learning in 2013/14 academic year to supplement the printed module, this they said was to enhance opportunities for learning. The e-learning for them is not seen as a separate learning methodology but as a way of making the distance learning very easy and effective and motivating. The IEDE centre in Wa has put up a satellite disc which will provide Internet services in the centre environs. The study found that all the students have been given electronic tablets to enable them to search for information from the Internet. When study enquired about how they use the tablets this was what the coordinator said:

“Each student gets a tablet and a chip with some amount of credit to use within a month, *the index number of the student is his/her code to the University's subscribed scholarly pages* where they can access scholarly materials to supplement the information in the modules. At the moment the Wa satellite disc is not complete for use. It is our hope that when ready student will enjoy live lectures from the main campus” (interview, UEW centre coordinator, 3/08/17).

The above statement of the respondent indicates that the introduction of the e-learning in distance education was an effort to improve upon the already existing printed modules of distance education. The coordinator's assumption was confirmed by a student during an interview when he remarked that:

“We are given hardcopies of the module, and we are yet to be given the soft copies. In addition, taped lectures will be distributed to us so we could play and listen and make our own notes. However, though we do not have access to lecture notes from the Internets, we are given reference materials on the Internet which we download and are helpful. We are

also told that when the satellite disc is ready we will be given time to meet at the centre to listen to live lectures happening at the main campus. With this we were told this will be enjoyed by other students on the same programme at the same time irrespective of your geographical area ” (interview, UEW student, 5/08/14).

It can be deduced from the statement that the introduction of the e-learning into distance education has stimulated students’ interests in accessing information from the internet. This will lessen much load on lecturers to always deliver a lecture at all times which goes to the detriment of the students. The study revealed that facilitators use ICT in their facilitation. It was observed that apart from the ICT instructors that use projectors in teaching the rest do not use any ICT since they are not to teach but to facilitate.

The ICDE methodology is not different from that of the IEDE’s, although the latter has gone further with the e-learning than the former. The ICDE is yet to introduce e-learning fully into their methodology, thus preparation is on-going to make the centre ready for Internet service and then to give students the electronic tablets. They admitted that e-learning is being used partially. When asked when it will start fully, the director affirmed that it would start during the 2014/2015 academic year. The programme director said “students will be provided with electronic tablets and chips with credits to access information from the Internet as indicated earlier in this study with the IEDE. Again, students will watch video lectures live from the University of Ghana, Legon.

From the findings the model of both programmes of ICDE and IEDE use constructivist approach due to awareness of the weakness in the traditional pedagogies. Traditional pedagogy finds its root in positivism where learning and teaching strategies are founded on the empirical cycle where contents and the learning are based on established facts (Van-Aalsvoort, 2004). Traditional pedagogy is the teacher guided instruction, teacher centred, that is what to be taught in terms of content method of delivery, sequence of presentation are all determine by the instructor. Both institutions have discovered the challenges of the traditional pedagogy such as students’ receptive role rather than active learner role, assumption that the teacher knows best what the student should know which in turn promotes dependency on the instructor. To address these problem e-learning which is rooted in constructivism was introduced as an innovative strategy to promote higher education in Ghana. Using this model gives students partial control over their learning instructions while the instructors act as facilitators. As Andersson and Grönlund (2009) argue that the appropriateness of pedagogical models favour a move from a more instructor-centred approach to a learner oriented approach where the students take ownership of their learning (Karim & Hashim, 2004). Constructivism is flexible, student centred and favour adult learners. This flexible scheduling structure lessens the effects of the many time-constraints imposed by personal responsibilities and commitments.

With the full introduction of the e-learning technologies the learners will have control over the content, learning sequence, pace of learning, time, and, media, which will allow them to tailor their experience to meet personal learning objectives. From the findings, it was also deduced that both institutions will be using both synchronous and asynchronous methods. Synchronous, since they intend that all the students will come together to enjoy lectures from the main campus and asynchronous because each student can access information on the Internet at their own free time.

4.3 Prospects of E-learning as an Innovative Strategy

Respondents gave positive remarks about the introduction of e-learning, they said it would give an added advantage. The indicated prospects mentioned ranged from its flexibility to its accessibility to many learners. Respondents acknowledge that this type of learning enhances and permits greater learner interactivity and promotes learners' efficiency, motivation, cognitive effectiveness, and flexibility of learning style. To them when e-learning is introduced it will enable learners to be more active participants and can motivate them to become more engaged with the content. Interactive learning shifts the focus from a passive, teacher-centered model to one that is active and learner-centered, offering a stronger learning stimulus. It also says interactivity helps to maintain the learner's interest and provides a means for individual practice and reinforcement.

Evidence also suggests that e-learning is more efficient because learners gain knowledge, skills, and attitudes faster than through traditional instructor-led methods. This efficiency is likely to translate into improved motivation and performance. According to the respondents, with the introduction of e-learners they would be able to learn better since more information can be accessed from the Internet. This they said could lead to acquisition of knowledge, skills, and attitudes. This argument affirms what Kwofie and Hentene (2004) emphasized about e-learning that it offers the opportunity for information to be presented in various forms – text, sound, pictures among others. The study further support that e-learning in distance education in the selected universities has the potential to absorb the increasing number of students that characterize the Ghanaian educational system particularly at the tertiary level.

On its accessibility, respondents admitted that e-learning expands access to education and training for the general populace especially the working class. Furthermore, they mentioned that apart from that it increases access to other students from diverse geographical, social, cultural, economic, and experiential backgrounds. Geographically, this means that since it is

not limited to only the campus but also in all the regional capitals, many who cannot go to the main campus can still have access to education. Socio-culturally, people are enjoying higher education in their social and cultural environment, thus, learning becomes easier due to absence of psychological pressure of now trying to fit in a different culture and social life if they have travel to the main campuses. Financially, both the institutional heads and students admitted that the programme compared to the main campus programme is cost effective. Though students pay higher fees as compared to their counterparts on campus, they are relieved of hostel and transportation costs. The study discovered e-learning in distance education has helped to increase the students' enrollment thereby generating lots of income for the institution.

Another potential of e-learning in distance education mentioned by respondents was its nature to admit many people who hitherto could not have gotten admission to main stream of higher institutions. Its involvement in lifelong learning beyond the normal schooling age. Both the ICDE and IEDE admit students irrespective of their ages and also encourages long-life. This encouraged workers to upgrade themselves whilst working. It was observed that most of the IEDE students are teachers who are still teaching in the various schools in the region. The ICDE has workers from many businesses - private and public sectors.

The students and organisers admit that this innovation education has helped many adults and continue to help others. With even the partial usage, student respondents still admit they have enjoyed much from e-learning and it has more prospects than the traditional education. However they did not spare mentioning its numerous challenges which they said when addressed will help improve the programme. This should be considered with all seriousness due to the serious challenges of the traditional pedagogies such as the increasing demand and dwindling university revenues. The next section discusses the challenges mentioned by respondents.

4.4 Challenges of e-learning

The challenges of e-learning in distance education varied from one institution to the other. The study indicated that financial constraints, erratic power supply, poor network connectivity/service delivery, time constraint, computer phobias; that is; seeing the computer alone intimidates people and prevents them from pursuing the course and lack of quality time for individual learning. On financial constraints, the UEW Programme Director has this to say;

“The cost of services for the e-learning is high; we have to provide Internet facility in the center for students to be able to use the Internet services and also to enjoy the lectures

concurrently with other students on campus. This means students in the centre have to pay for these services” (interview, August 4th, 2017).

This challenge deters those students who are not financially sound to pursue higher education. It was the same financial constraint that has delayed the University of Ghana’s e-learning programme. Funding is a major problem for both the institution and most students in Ghana due to the prevalence of poverty especially in the north and for that matter the Upper West Region of Ghana. The cost at the starting is high due to the Internet services even though it is subsidized by the government.

Erratic power supply was mentioned as a challenge to the programme. It was revealed that E-learning depends mainly on electricity and Ghana like many developing countries does not have stable supply of power. The frequent black-out becomes a hindrance to this programme. Though the synchronous method has not started the organisers were afraid of the unreliable power supply of the nation. This means that in case students are scheduled for a particular lecture and there is power outage, they are going to miss that lecture. The students also complained that most of the individual learning times are disrupted by the frequent black out and so they could not finish most assignments they have to do before the next tutorials.

The study found that poor Internet connectivity or service delivery was a challenge to the programme in the universities. In fact, most areas in the Upper West Region do not have Internet coverage. Even those that have complained that it is not stable. Just like electric power it keeps on cutting off most of the time. This, the organisers, facilitators and students confess internet service fluctuating makes the using of Internet for learning difficult and frustrating. The worst part is that, the areas where some of the students are teaching or working have no Internet services so working on their own, which is the primary aim of the e-learning, is uneasy. As indicated by one student when she said:

“I don’t have Internet service in my village so anytime I have to browse for information I have to travel to Wa thereby impeding my progress since I am a teacher and my free time to learn is in the evening” (interview, 5/08/17).

The study identified computer illiteracy as a challenge to the programme. Most Ghanaians did not learn ICT at basic school through to secondary school, therefore starting to learn it at the University level is a problem and a horrified experience to some of them. Such students have tuned their minds that they would not be able to learn it so will not even dare give it a trial. Even though one of their courses is ICT training grasping the concept is difficult for the adult students, no matter how hard they try. The ICT tutor in the ICDE disclosed that:

“In fact, some of the students, especially the adult students, do not have any knowledge about computers so no matter how hard I try they come back the next time forgetting the previous one learnt so we are always marking time” (Interview, 8/8/14).

This is in conformity of assertion by a student when expressed the view that:

“BBC.’ When I asked of the meaning, he said he was “born before computer ” so he does not think he can use it on his own no matter how hard he tries” (Interview, ICDE student, 8/8/17).

Time is an essential element in learning especially in e-learning. The e-learning is all about an individual learner spending quality time on his/her own to learn. That amount of quality time students spend or commit to the course plays an important role in the success of e-learning. However, 10 out of the 12 students interviewed representing 83% admitted that they are often tired after work and have little time to learn. Also 66% of the students also said during the weekends they spend their time engaging in social activities such as funerals and family commitments which makes them stressed up during weekends. As confirmed the findings of Kwofie and Henten (2011) that when several activities compete for the attention of the student, without prioritization and discipline, very little can be realized from an e-learning programme. It can be concluded that even though the programme has many challenges, its prospects quite outweigh the challenges. The study disclosed from the organisers of the programmes in the conducted interviews that these challenges are not peculiar to Wa centres but other centres in Ghana as well. This agrees with Kwofie and Henten (2011) findings when they noted that some challenges found in Ghana are infrastructural, technological, funding and institutional support.

5.0 Conclusion and Recommendations

The study unveiled the prospects and challenges of e-learning programme in distance education as an innovative strategy for higher institutions in the Upper West Region and Ghana at large. The discussion of this strategy has brought to bear the serious limitations of the programmes that are hindering the progress of the programme. Though e-learning has high capacity building on the part of both students and lecturers, the programme has also reduced the contact hours.

Therefore, the following are recommended:

- Distance education students should be encouraged and made to realize that ICT skills development is a necessary step for the success of the programme as such they should take the learning of ICT serious so they can access information from the Internet and other electronic gadgets on their own.

- The universities should make the installation of the satellite disc for all the centres in Ghana a serious agenda.
- More loans should be assessed in addition to the current Chinese loan to embark on computer based project to improve on e-learning (ICT distance learning).
- Both the facilitators and students need to have the necessary computer skills and feel confident in the use of computers. The lack of these skills can be a hindrance to learning, especially for students who are entirely new to computers as computer confidence accounts for much of the predictive power of good achievements.
- Improving power supply in Ghana will help e-learning which will in turn promote higher education.
- Improvement of the country's Telecommunication services by the government should be the government's top most priority.
- E-learning student should be educated on time management.

6.0 Reference

- Adjasi, C. K., & Osei, K. A. (2007). Poverty profile and correlates of poverty in Ghana. International Journal of Social Economics, 34(7), 449-471.
- Adomi, E. E. (2005). Internet development and connectivity in Nigeria. Department of Library and Information Science, Delta State University, Abraka, Nigeria. Retrieved on April 12, 2012
- Amenyah, A.M., (2009). Higher Education in Ghana. Retrieved on 26 July from: 2013. <http://www.ghanaweb.com/GhanaHomePage/features/artikel.php?ID=160902>.
- Andersson, A. S., & Grönlund, Å. (2009). A conceptual framework for e-learning in developing countries: A critical review of research challenges. The Electronic Journal of Information Systems in Developing Countries, 38.
- Bates, A. T. (2005). Technology, e-learning and distance education. New York: Routledge.
- Bates, T., & International Institute for Educational Planning. (2001). National strategies for e-learning in post-secondary education and training (Vol. 70). Paris: Unesco.
- Baxter, J., & Eyles, J. (1997). Evaluating qualitative research in social geography: establishing 'rigour' in interview analysis. Transactions of the Institute of British Geographers, 22(4), 505-525.
- Crang, M. (2005). Qualitative methods (part 3): there is nothing outside the text?. Progress in human geography. 29(2), 225-233.

- Credaro, A. (2001). Innovation and change in education. Change in Education. Retrieved on 20/5/13 from: <http://www.geocities.com/koalakid>
- Creswell, J. W. (2014). A concise introduction to mixed methods research. Sage Publications.
- Ellsworth, J. B. (2000). Surviving Change: A Survey of Educational Change Models. ERIC Clearinghouse on Information and Technology, Syracuse University, Syracuse, NY.
- Felix, U. (2005). E-learning pedagogy in the third millennium: the need for combining social and cognitive constructivist approaches. ReCALL, 17(1), 85-100.
- George-Walker, L. D., & Keeffe, M. (2010). Self-determined blended learning: a case study of blended learning design. Higher Education Research & Development, 29(1), 1-13.
- Ghana Statistical Service [GSS] (2012). 2010 Population and Housing Census: Summary Report and Final Results. Accra: Sankofa Press.
- Government of Ghana/Ministry of Education (2000). National Functional Literacy Program (Phase II) Program Implementation Plan (2000-2005). Accra: Ministry of Education
- Gibbons A, Fairweather P. Computer-based instruction. In: Tobias S, Fletcher J (eds). Training & Retraining: A Handbook for Business, Industry, Government, and the Military. New York: Macmillan Reference USA, 2000:410–42.
- Harman, K., & Koohang, A. (2005). Discussion board: A learning object Interdisciplinary Journal of Knowledge & Learning Objects, 1, 67-77. Retrieved on 18/08/14 from: <http://ijello.org/Volume1/v1p067-077Harman.pdf>.
- Hung, D. (2001). Design principles for web-based learning, implication for Vygotskian thought. Educational Technology, 4(3), 33-41.
- Hung, D. and Nichani M. (2001). Constructivism and e-learning courseware usability, International Journal on E-Learning, 3(2), 10-17.
- Jonassen, D., Davidson, M., Collins, M., Campbell, J., & Haag, B. B. (1995). Constructivism and computer-mediated communication in distance education. American journal of distance education, 9(2), 7-26.
- Johnson, G. M. (2006). Synchronous and asynchronous text-based CMC in educational contexts: A review of recent research. TechTrends, 50(4), 46-53. Learning, Academic Conferences Limited (pp. 349-368).
- Karim, M.R.A, & Hashim, Y, (2004), “The Experience of e-learning Implementation at the Universiti Pendidikan Sultan Idris, Malaysia”, Malasian Online Journal of Instructional Technology, Vol 1, No. 1, pp 50-59
- Kahiigi, E., Ekenberg, L., & Hansson, M. (2007). Exploring the e-learning state of art. In Conference on E-Learning, Academic Conferences Limited (pp. 349-368)

- Kearney, M. L. (2009). Higher education, research and innovation: Charting the course of the changing dynamics of the knowledge society. Higher education, research and innovation: Changing dynamics, 7.
- Koohang, A., Riley, L., Smith, T., & Schreurs, J. (2009). E-learning and constructivism: From theory to application. Interdisciplinary Journal of E-Learning and Learning Objects, 5(1), 91-109.
- Konadu-Agyemang, K. (2000). The best of times and the worst of times: structural adjustment programs and uneven development in Africa: the case of Ghana. The Professional Geographer, 52(3), 469-483.
- Kocur, D., & Kosc, P., (2009).“E-learning Implementation in Higher Education”, Acta Electrotechnica et Informatica, Vol. 9, No. 1, pp20-26
- Koohang, A., & Harman, K. (2005). Open source: A metaphor for e-learning. Informing Science: The International Journal of an Emerging Transdiscipline, 8, 75-86. Retrieved on 18/0814 from <http://inform.nu/Articles/Vol8/v8p075-086Kooh.pdf>
- Kwapong, O. A. T. F. (2007). Widening access to tertiary education for women in Ghana through distance education. Turkish Online Journal of Distance Education, 8(4).
- Ministry of Education (May 2003). EDUCATION STRATEGIC PLAN 2003 - 2015
Volume 1: Policy, Targets and Strategies.
- Nawaz, A. (2012). E-Learning experiences of HEIs in advanced states, developing countries and Pakistan. Universal Journal of Education and General Studies, 1(3), 72-83.
- Mujahid YH (2002). Digital opportunity initiative: for Pakistan. A paper evaluating Pakistani eReadiness Initiatives. National Post Graduate Institute of Telecommunications and Informatics, PTCL. IT and Telecom Division, Ministry of Science and Technology, Government of Pakistan.
- Perraton, H. (1993). Distance Education for Teacher Training. London: Routledge.
- Rowell, L. (2010). How Government Policy Drives e-Learning. eLearn, 2010(10), 3.
- Ruiz, J. G., Mintzer, M. J., & Leipzig, R. M. (2006). The impact of e-learning in medical education. Academic medicine, 81(3), 207-212.
- Sanam, A. (2009). Learner´ s intention to continue use of e-learning technologies: case of Iranian universities.
- Tabor, Sharon W (Spring 2007). "Narrowing the Distance: Implementing a Hybrid Learning Model". Quarterly Review of Distance Education (IAP) 8 (1): 48–49. [ISSN 1528-3518](https://doi.org/10.1177/152835180730518). Retrieved on 23 July 2014.

Thurab-Nkhosi, D., Lee, M. & Giannini-Gachago, D. (2005). Preparing Academic Staff for e-Learning at the University of Botswana. *Innovate Journal of Online Education*, 2(1), Oct/Nov. Retrieved March 12, 2013, from <http://Innovateonline.info>.

UNESCO (2005). Education For All Global Monitoring Report. The Quality Imperative retrieved on 16/02/13 from: <http://www.unesco.org/new/en/education/themeleading-the-international-agenda/efareport/reports/2005-quality/>

UNESCO, (2006), Teachers and Educational Quality: Monitoring Global Needs for 2015

University News (2013). UG Chinese Phase 2 ICT Project Steering Committee Inaugurated. Retrieved on 06/08/14 from: <http://www.ug.edu.gh/index1.php?linkid=212&archiveid=1486&page=1>

Wofie, B., & Henten, A. In WCES-2011 3rd World Conference on Education Sciences, Bahcesehir University, Istanbul, The advantages and challenges of e-learning implementation: The story of a developing nation. Turkey.

Yee, J. A. (1998). Forces motivating institutional reform. ERIC Digest ED 421179. Retrieved on 17/06/13 from: <http://www.eric.ed.gov:80/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED421179>

Yin, R. K. (2015). Qualitative research from start to finish. Guilford Publications.