

E-LEARNING AND UNIVERSITY EDUCATION IN NIGERIA: CHALLENGES AND PROSPECTS

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Abstract

All over the world, education is seen as the most important instrument of change, as any fundamental change in the intellectual and social outlook of any society has to be preceded by an educational revolution. In this era of information and communication technology (ICT), the integration of e-learning into the university curriculum in Nigeria has become a necessary proposition. This will no doubt improve the teaching – learning process and make our university graduates globally competitive as well as reduce the unemployment level in Nigeria. Observations have shown that Nigerian universities still operate the traditional classroom approach in which the teacher stands before his students to deliver his lecture. Currently, it is believed that e-learning is superior to the traditional method of teaching and learning in the sense that it combines both traditional and electronic means. However, e-learning is not a substitute but a supplement to the traditional classroom teaching and learning. This paper therefore looks at the concept of e-learning, university education and how to integrate e-learning into university education in Nigeria. The benefits, challenges and prospects of e-learning are identified. Suggestions are made on how to improve e-learning Nigerian universities.

Keywords: E-learning, University, Education, Challenges, Prospects.

The 21st century is an era of Information and Communication Technology (ICT) even though ICT is not completely absent in the previous centuries. This digital age therefore requires a paradigm shift from our traditional classroom practices in the universities to the use of e-learning approaches. The classroom is no longer limited to a four-walled building – a face-to-face mode but has been broken down into virtual (on-line) process, covering massive geographical areas, reaching the unreached through distance learning and driving educational institutions to move from single mode to the dual mode. Undoubtedly, the teacher is no more the custodian of all knowledge to be imparted on the learner because information is now at the door-step of everyone, making learning self-directed and lifelong. The teacher is no longer the sage on the stage but a facilitator on the side. Thus, the teacher's role now is that of a facilitator of the learning process.

The need for technological competence in our universities cannot be over emphasized. A good educational system is strong base for competence and technological development. The ability to effectively use e-learning facilities has become an essential part of our university education as a means to improve the teaching – learning process. According to World Council for Curriculum and Instruction (WCCI, 2012), since curriculum is a vehicle through which educational goals are attained and methods of delivery are a component of the curriculum, there is need for the employment of effective delivery systems through e-learning so as to produce functional citizens who are locally and globally competent, effective and relevant. E-learning which is electronic learning is one of such

effective curriculum delivery systems presently. E-learning is the adoption and use of information communication technologies (ICTs) to extend and enhance learning in and out of school. It is the digital new face of learning which Wikipedia (2011), described as the computer and network – enabled transfer of knowledge and skills. The e-learning processes and applications include web-based learning, computer based training, virtual classroom opportunities and digital collaborations. It can be self – paced or instructor led and includes media in the form of text, image, animation, streaming video and audio. Currently, it is believed that e-learning is superior to the traditional classroom method of teaching and learning in the sense that it combines both traditional and sophisticated means. However, it is not a substitute but a supplement to the traditional classroom teaching and learning.

Conceptual Clarification

For the purpose of clarification and better understanding, it is pertinent to explain the basic concepts underlying this paper. This is because the invention of technology has shifted the traditional method of teaching and learning from classroom to a free learning environment where students can learn without being confined to a particular environment. It is also believed that as time goes on, emphasis will be shifted from paper and pen as laptop and other educational electronic gadgets are taking over. The use of computer is becoming the order of the day and most examinations are now written online.

The Concept of E-Learning

The concept of electronic – learning (e-learning) has been subjected to a variety of definitions and meanings by different authors. It is important to note from the beginning that there are many terms used to describe learning that is delivered online, via the internet. Such terms include distance education, online learning, computerized electronic education, internet learning, virtual learning, distributed learning network and web-based learning. Fundamentally, all these refer to the educational processes that utilize information and communication technology (ICT) to mediate asynchronous as well as synchronous teaching and learning activities. Thus, an online definition of e-learning said it is learning that utilizes electronic technologies to access educational curriculum outside of a traditional classroom. It consists of courses that are specifically delivered via the internet, to somewhere other than the classroom where the professor (lecturer) is teaching. According to Okoh-Edemoh and Ogedebe (2014), e-learning is the online delivery of information and the integration of learning with technology or instruction delivered through purely digital technologies, such as CD-ROM, the internet and private networks.

In another development, e-learning could be described as all educational activities carried out by individuals or groups working online or offline and at the same time asynchronously or synchronously via network or stand alone computers and other electronic devices. Obtaining and delivering knowledge anytime and anywhere asynchronously or synchronously is the hallmark of e-learning. Asynchronous is pre-recorded and available to students anytime and anywhere. Asynchronous e-learning activities use technologies such as blogs, wikis, e-mails and discussion boards to exchange ideas and information (Nwagwu, 2011). A major advantage of asynchronous e-learning is that it allows for self-paced learning or individualized learning and flexible learning. Synchronous or “Live” e-learning requires that learners be with their computers at the same time or learners are available at a place at the same time for electronic mediated teaching. Both formats

present countless opportunities for effective education service delivery, especially in under-serviced countries such as Nigeria (Okigbo and Ndolo, 2011). Synchronous activities use online technologies such as chat, instant messenger/messaging, video conferencing and other forms of virtual meetings for real time live interactions. This implies that while the block wall classroom is situated at a place where teachers and students physically meet and interact, e-learning is diffused, capable of taking place anywhere and anytime, without face-to-face interaction between the teacher and students. Nwokike (2010) opines that e-learning is the use of computers as a key component of the education environment. In this case, the computer can be used for localized or distant or digital learning, which involves changing from analogue system of education delivery to a digital system of education delivery.

According to Homavazir (2015), e-learning covers a wide range of applications and processes including web-based learning systems, computer based learning systems, virtual classrooms, and digital collaborative learning group ware packages. Thus, all forms of learning utilizing electronic technologies to access educational curriculum outside of the traditional classroom come under e-learning. Falana (2015) argued that e-learning is a significant and compelling strategy that should be introduced into institutions' current learning styles and teaching methods for students. The use of e-learning strategy to execute educational contents and modules in Nigerian universities makes for educator – student dynamism in the ways of instructing and learning. Larsen (2016) asserts that the utilization of e-learning helps learners' willingness to learn to innovate, learners introduced atmosphere where interests are stirred, creative abilities invigorated, premiums produced, perspectives developed and states of mind changed along the lines of achieving the premise for instruction. E-learning is the use of electronic equipment/facilities in the learning process. These electronic facilities include; computers, smart phones, radio, e-board and multimedia projectors which facilitate teaching and learning by creating impressions that are so vivid and powerful that learners hardly forget. E-learning facilities can help individual learners to proceed at his own learning pace according to his needs, interests and abilities with or without the teachers. Looked at from whatever perspective, e-learning has to do with passing instructions to learners through technological means and devices either by a teacher or through the self-efforts of the learners, using internet facilities. Afolabi (2017:69) concluded that whenever and wherever e-learning is applied, teacher-student relationship and online social networking are variables that should be enhanced in facilitating students' academic achievements. This is because when a student enjoys a positive and strong relationship with his teacher, his involvement and activities in online social networking will be directed towards achievement of academic excellence. In the views of Okere and Ajoku (2011), e-learning is based on connectivity, the process by which computers are networking, share information and connect people to people to enhance learning. The university system in Nigeria needs this kind of connectivity to ensure easy access of information to both staff and students.

University of Education in Nigeria

University education occupies a prime place in the developmental efforts of nations all over the world. An efficient university educational system could be considered as one of the best assets a nation can have. It is by adequate university education that people get to know their basic rights and seek to get them enforced university education is expected to equip the individual with necessary knowledge and skills in order to be globally competitive.

The first higher educational institution in Nigeria, the Yaba Higher College, was established in 1932. The establishment of this college made Nigerians to agitate for a more comprehensive higher education provision which led to the constitution of the Elliot commission in 1943. The reports of this commission led to the establishment of the university college, Ibadan in 1948. This college was an affiliate of the University of London. It was not until 7th October, 1960 that the University of Nigeria, Nsukka was formally opened as the first independent university in Nigeria with the motto “To Restore the Dignity of Man”. Other universities that were established include University of Ife (now Obafemi Awolowo University, Ile-Ife), in 1962, Ahmadu Bello University, Zaria in 1962, University of Lagos in 1962. The University College Ibadan became a full-fledged university in 1962. In 1970, the University of Benin was established. Consequently, the six universities established between 1960 – 1970 became known as the first generation federal universities.

The Nigerian government established seven more universities between 1975 – 1980. They include the University of Calabar (1975), the University of Jos (1975), the University of Ilorin (1976), the University of Port Harcourt (1977), the University of Sokoto (1977), Bayero University, Kano (1977) and University of Maiduguri (1977). These are known as second generation universities. The third generation universities were established between 1980 and early 1990. They are the Federal Universities of Technology in Owerri, Makurdi, Yola, Akure and Bauchi while state Universities are found in Rivers, Imo, Ondo, Lagos, Akwa-Ibom, Oyo, Ogun, and Cross-River states. The fourth generation universities are those established between 1991 and the present date. They include more state and federal universities, Nigerian Open Universities and many private universities.

The above is an indication that Nigeria has many universities but they cannot admit all applicants for university education each year. Our concern is the quality of the products from Nigerian universities and how they can compete with others globally. We are in an era of information and communication technology (ICT) where e-learning and distance education are common features. Electronic learning (e-learning) is now employed in universities as a supplement to the traditional classroom teaching and learning process. This is aimed at making the quality of our graduates comparable to others all over the world. The world itself is now seen as a global village because of internet connectivity. The Nigerian nation must key into this new world order through our education system. There have been complaints by employers of labour within and outside the country that most graduates from Nigerian universities are not properly trained to fit into the world of work in terms of desirable knowledge and skill. In developed countries such as Europe and America, most Nigerian graduates are seen as half-baked due to such issues as constant strikes, conflicts, disruption of academic calendar, cultism and kidnapping which have destroyed the quality of education in Nigeria including the dearth of qualified and experienced lecturers. In this digital age, how many lecturers in Nigerian universities are computer literate enough as to integrate e-learning into the conventional classrooms. The politicization of education has compounded the problem as many lecturers hardly engage in professional developments on their own. The funding of the universities has always been a major challenge and so lecturers hardly get grants to enable them attend conferences and engage in other developmental programmes. Even the small amount of money budgeted to education usually end up in private pockets.

Undoubtedly, education is the engine that drives the growth and development of a nation. Some developing countries especially in Asia, have been able to transform their economies and their people. Countries such as Japan, Korea, India and China did not necessary wait for the transfer of technology as observed from most African countries like Nigeria but were committed to a system

where they copied, adapted and fabricated foreign technology through an inward-looking strategy to suit their own cultures, environment and needs. This is where Nigeria as a country failed to understand that education must be pragmatic in nature if it is to create any meaningful impact in the life and living conditions of the people. The implication here is that our educational system should be in consonance with the changes in the society. The paradigm shift from the traditional classroom practices to e-learning, m-learning and u-learning should be a welcome development in the Nigeria system of education. For the Nigerian universities to produce graduates that will compete with others globally, the university lecturers should as a matter of urgency move from analogue practices to digital practices which include the integration of e-learning approaches in the teaching-learning process. For this to happen successfully, the Nigerian government should increase the funding of the universities and the universities themselves should be granted autonomy so that they can compete within themselves. Also, the National Universities Commission (NUC) should be empowered to be able to monitor, the universities to ensure prudent management of resources and to curb corruption which has prevented the provision of quality education in Nigeria. According to Iruonagbe et al (2015), funding for education in Nigeria has not been commensurate with the demand of the education sector. Thus, the percentage of federal budgetary allocation to education has been dwindling. Nigeria is far from meeting the minimum benchmark of 26% of its annual budget to education as recommended by United Nations Educational Scientific and Cultural Organization (UNESCO). Matthew (2016) holds the view that over the years, financial allocation to the education sector in Nigeria leaves much to be desired. This is further illustrated in the table below.

Table 1: Federal Government Budgetary Allocation to Education in Nigeria: 2010 – 2015

Year	Allocation as % of total budget	
2010	6.40	
2011	1.69	
2012	10.0	
2013	8.70	
2014	10.6	
2015	9.5	

Source: Central Bank of Nigeria (2015)

Statistical bulletin and information, from www.nigeria.gov.com

The more unfortunate situation is that even the funds allocated to education are poorly accounted for hence Matthew (2016) further stated that money meant for education is viewed as national cake, where everybody wishes to cut his/her shares from. It is neither an exaggeration nor understatement to say that one of the major constraints to quality and relevant university education in Nigeria is poor funding with its associated flaws.

There is no doubt that good education is the best way to prepare a nation for excellence. Without good education and proper skill acquisition, how would the people grow, develop and compete effectively in the rapidly changing global economy? The failure of the Nigerian government to implement its agreement with university lecturers and other non-teaching staff, has always been the reason for strikes and the disruption of academic activities in the universities which is almost becoming an annual ritual. This situation has exacerbated the mass exodus ('brain - drain') of

professors and other lecturers to countries with better working conditions. Something is definitely wrong with any country that does not take its educational institutions seriously. Dike (2006) maintains that the neglect of the education sector has created many problems in the society, including cultism and cheating in examinations, poor quality graduates unemployment and poverty including rising moral laxity and gross indiscipline. So, the problems with university education in Nigeria are many. The lecturers cannot perform well without the necessary teaching tools. Schools need functional libraries, current books and modern laboratories. Also, classrooms need modern instructional technologies and computers connected to the internet, projectors, audio-visual and video conferencing equipment and others. Essentially, there are six major problems to be solved in order to achieve quality education in Nigerian universities. Three of the problems are primary in the sense that they are largely responsible for the other three. The primary problems are: funding shortages; the negative influence of a corruptive and valueless political system; and planning and implementation problems. These have led to the weakening of the university administration; poor teaching and learning outcomes; diminishing research and consultancy traditions; and questionable service to the community. In the mist of all these problems, new universities keep springing up. The future of the new universities and their graduates was never seriously considered. Given these circumstances, one wonders how practical it will be to integrate e-learning into Nigerian universities considering the cost of acquiring computers and other internet facilities as well as the epileptic power supply in the country.

Integration of E-Learning into University Education in Nigeria

It is necessary to note that the use of computers and internet facilities has become an essential tool for everyone to live a fulfilled life in the modern world. Without it, one is grossly limited in the essentials of communication. Based on this fact, it is very imperative to state that the future of education and training of our students especially at the tertiary level, has to undergo a radical infusion of ICT skills in all programmes. This is the only way to make the products of our tertiary institutions to remain relevant at this competitive information age. No wonder, Echikhamenor (2002) emphasized that the internet is indeed changing the ways in which academia seek information, communicate with each other, conduct research and distribute research results. The use of computers and internet facilities in classroom instruction helps to take care of learners' individual abilities to ensure that they move at their own pace. The reasons for advocating e-learning in Nigerian universities stems from the defects in the traditional brick wall classroom system. These defects include lack of adequate provision of visual and audio-visual materials, microphones that are most times epileptic, classrooms that are poorly ventilated and overcrowded lecture halls (Compass, 2011). The integration of e-learning into the Nigerian universities is necessary because of the benefits associated with it. Ejiofor, Nwankwo, Ihekoronye and Ibinabo (2018) have identified some of such benefits as follows;

- a) E-learning guarantees increase in accessibility to information, better content delivery, personalized instruction, content standardization and accountability. Other benefits include self-paced learning, interactivity, availability of information and convenience.
- b) E-learning makes the creation and delivery of knowledge processes easier and hassle-free.
- c) In e-learning, there are no locational and time restrictions because the crowd that can attend may do so at the same time.

- d) The use of multi-media or the more recently developed methods, such as gamification (e.g deliberately using slow and cooperative methods to gain more of a physical or abstract quality of anything), can enhance interactions and fun among learners and media operators.
- e) It is more cost effective for both learners and teachers because paying for updated text-books from time to time is removed. That is the need to constantly acquire new editions is not present in e-learning.
- f) Professors can host a guest lecture without having to spend money inviting the guest lecturer because this can be done online.
- g) E-learning offers ease, flexibility and the ability to remotely access a classroom by students in their own time and at their own pace.
- h) Schools that use e-learning technologies are clearly a step ahead of those schools that still have the traditional approach towards learning.
- i) As companies expand across the globe, the chances of working with people of other countries increase and training all the workers together is an issue that e-learning successfully addresses. Other benefits as highlighted by Alu (2011) are:
 - a) E-learning links distant learners and experts together to form an on-line collaborative learning community. There is also learner – learner uninhibited interaction.
 - b) E-learning provides unlimited access to electronic learning materials. Information and knowledge are available to learners 24 hours a day, for 7 days in the week. People can review current or past knowledge many times over while the quality of materials remains intact.
 - c) E-learning helped students to acquire technology skills and have increased familiarity with technology as a result of repetition in learning activities.

Challenges of E-Learning in Nigeria Universities

There is no doubt that the application of e-learning faces stiff challenges in many Nigerian universities. This according to Bhuasiri, et al (2011: 20) is because “in developing countries, e-learning is still at its infancy and early adoption stages”. Consequently, such countries experience unique challenges as against developed countries, which have adapted and practiced e-learning long before now. Global Information Technology Report (GITR) (2012) ranked Nigeria as the 112th country out of 142 countries in the application of ICT in the world. This, by all standards cannot be regarded as the best of positions, as far as the implementation of e-learning in Nigeria is concerned. Other researchers and authors such as Jegede and Owolabi (2008) and Nwana (2010) have also identified such challenges as:

- a) Serious shortage of e-learning materials, such as online/internet connected computers, scanners, email facilities, multi-media television, multi-media computers and digital libraries.
- b) The few available materials, such as offline/ordinary computers, scanners, printers and readymade course ware, are not even being utilized very well because the teachers (lecturers) lack knowledge and skills of computer application.
- c) There are infrastructural deficiencies and shortage of facilities, like computers, laboratories and online classrooms are not available for instructional delivery. Anene (2014) stated that lack of infrastructures such as computer hardware and software and bandwidth access necessary for deploying an effective ICT platform are very serious challenges. There are also acute shortage of trained personnel who can perform application of software, operating systems, internet access and network administration.

Some other challenges still include:

- d) The poor attitude of teachers and students towards the use of new technologies in teaching and learning. One of the greatest challenges for effective utilization of e-learning in universities is the unwillingness to change to the new method of computer literacy among lecturers and students.
- e) University teachers are usually unable to assist students to develop the ability and knowledge necessary to make them use e-learning effectively.
- f) General lack of vision and framework in implementing e-learning can lead to failure of e-learning projects. Lack of both technical and social skills required for the implementation of e-learning contributes to failure of e-learning projects.
- g) Lack of or limited connectivity of computers in Nigerian universities impedes access to e-learning.
- h) Many Nigerian universities lack requisite e-learning equipment, such as computers, digital technology and internet, which could have been utilized to facilitate e-learning and teaching programme.
- i) E-learning software's that normally enable educators to design and develop learning content are costly and not available for use in many universities.
- j) Many lecturers and students are not trained to make use of any available e-learning equipment.

The list of challenges of e-learning in Nigerian universities is not exhaustive but the above is a representative of the major challenges. In spite of all these, e-learning has great prospects in Nigerian universities.

Prospects of E-Learning in Nigerian Universities

There is an emerging evidence that e-learning can help in the improvement of the standard of education in Nigeria especially at the tertiary level. The prospects of higher education in the near future relies on educational technologies. Technology enhanced learning, including distance and online instruction, is being recognized as a viable tool necessary for preparing citizens to participate in the technologically driven global environment. Below are the major prospects of e-learning in Nigerian universities.

- **Creative and innovative teaching and learning:** With e-learning, teaching and learning of curriculum content could be more creative and innovative in preparation for the 21st century global knowledge society.
- **Empower learners:** As stated in the National Policy on Education, one of the primary aims of the Nigerian philosophy of education, is to produce self-reliant citizens that can be useful to themselves and the society at large. E-learning engage learners with more active learning process; people learn in groups or individually irrespective of their age and could take responsibility of what and how they learn, achieving their personal goals as self-directed lifelong learners.
- **E-learning offers flexibility:** A more responsive education system would adapt to the needs of all learners, wherever and however they need to learn. With e-learning, the philosophy of equal educational opportunities for all Nigerian citizens can be realized.
- **Globalization of instruction:** With e-learning system in Nigeria universities, instruction could be given by a teacher in his office and received by learners in different parts of the world simultaneously.

- **E-learning achieves better value:** Education leaders, evaluators including classroom teachers and lecturers could develop innovative ways of deploying their resources, exploiting e-learning alongside with other teaching methods to improve quality.
- E-learning is an efficient means of promoting self-study cum frequent testing in the form of formative evaluation which engenders proper monitoring of educational progress and periodical achievement.
- The use of e-learning makes learners to become motivated, eager to learn and creative. It helps learners to create a situation in which curiosity is aroused, imaginations stimulated, interests generated, viewpoints enlarged, and attitudes changed thereby attaining the basis for education.
- It promotes interest and vocabulary development in students and also provide experience not easily obtained through other learning strategies and contributes to the efficiency, depth and variety of learning.

Conclusion

This paper discusses e-learning in Nigerian universities, challenges and prospects. The level of e-learning adoption in our universities is low. Although, most universities have attempted to build ICT centres for e-learning adoption, most of these centres are web based centres without adequate e-learning facilities. Some of the reasons for low e-learning adoption include lack of adequate facilities, infrastructures, lack of training on the part of lecturers and students, poor funding and of course epileptic power supply. For e-learning to succeed in Nigerian universities, there is need to build infrastructures and provide adequate facilities with viable inter-connectivity of computers. Qualified, competent and experienced computer experts should be engaged, motivated and made to train and retrain lecturers and students with a view to enhancing their competencies and sustaining their interest in the programme.

Recommendations

In order to ensure that e-learning is effectively adopted in Nigerian universities, the following recommendations are made:

- i) Government policies and programmes of e-learning in Nigerian university education should be financially supported by substantial public funding. Also, the federal government should take a bold step to yield to the recommendation of the UNESCO which prescribed 26% of the annual budget for education.
- ii) University administrators should embark on awareness and training of staff on the use of ICT in teaching and learning. Lecturers should be trained in appropriate skills in e-learning. This implies that there should be massive computer literacy for university lecturers.
- iii) Government should invest more on the provision of infrastructure and facilities for e-learning in our universities.
- iv) University administrators should ensure adequate supply of electricity in their institutions.
- v) University classrooms and lecture auditoriums should be connected to the internet and provision should be made for courseware development.
- vi) Universities should employ capable computer experts to train Nigerian university lecturers on how to use e-learning technologies to deliver their lectures. Computer engineers should also be employed to help in the routine repairs and maintenance of e-learning facilities.

- vii) Private sector, non-governmental and voluntary organizations should be encouraged to assist in equipping and maintenance e-learning centres under the public-private-programme (PPP) arrangement.
- viii) Both the government and university administrators should provide enough security to e-learning centres in their institutions to prevent looting and destruction of the computers by thieves and robbers (Olutola & Olatoye, 2015).

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