

THE PLACE OF E-LEARNING IN NIGERIA EDUCATION SYSTEM: CHALLENGES AND PROSPECTS

AMADI, F. N. C.

**School of Early Childhood Care And Primary Education
Federal College Of Education (Technical), Umuze
Anambra State**

Abstract

The emergence of the ICT has meant the expansion in modes of teaching and learning. Technology now plays enormous role in the teaching and learning process under what has come to be known as e-learning or electronic learning. This paper explored the e-learning in Nigeria. It identified the challenges as well as the prospects of e-learning in Nigeria. The paper concluded that if e-learning must take root in Nigeria, the environment should be made conducive for the new learning platform.

Key words. E-learning, Challenges, Prospects

Introduction

The emergence of the information and communication technology (ICT) has brought about tremendous changes in the ways of doing things. This technology has since permeated into the education sector, not just in education administration, but in teaching and learning. Garrison and Anderson (2003) identified five generations of learning technology. The first generation was characterized by the use of printed textbooks and accompanying course guide. This era was referred to as correspondence learning. Many people then acquired degrees through correspondence courses some of which were run in faraway Europe and America. The second generation up to the fifth generations were characterized by progressively advanced technological tools notably the Web and other computer mediated facilities. In fact, the present generation which is the fifth, is being engineered by developments in information and communication technologies (ICTs). These technologies which facilitate the process of production, documentation, retrieval and dissemination of information have revolutionized learning. E-learning (short for electronic-learning) is one of the products of the fifth generation of learning technology.

Thus, the e-learning emerged as an ICT tool for instructional delivery. Okoli (2020) rightly observed that e-learning has the capacity of exposing learners to more diverse learning resources while at the same time connecting them to learners in other parts of the world. It provides lifelong learning opportunities by making formal learning available at home, workplace and in the community. E-learning refers to learning that takes place through electronic media such as radio, telephone, television, and computer in order to facilitate learning. While the use of the radio to deliver instruction belongs to the earlier generation, the modern ICT facilities have redefined the technology-driven learning through the diversification of the ICT potentials in the area of instruction, resource accessibility, self-regulated learning as well as assessment of learning outcomes. As the ICT has removed the land as a factor of production, so has the e-learning removed space as a constraint to learning. People now have wider opportunities to access education from the comfort of their homes.

This study addresses e-learning in Nigeria. It explored the concept of e-learning and synthesizes various definitions in line with emerging understanding to provide a workable concept. Finally it identified some challenges and prospects of e-learning in Nigeria: as well suggests the way out.

E-learning Conceptualized

E-learning as an emerging phenomenon has attracted divergent definitions from authors. Amadi (2014) defined e-learning as electronic mode of knowledge sharing and transmission, which may not necessarily involve physical contact between the teacher and students. In other words, the physical contact that characterizes the traditional teaching and learning in the classroom is not necessary in e-learning. According to Olubadewo (2020), e-learning is the use of information and communication technologies (ICT) such as internet, digital technologies and others to create and deliver learning experiences in order to educate human beings. E-learning makes use of digital technologies to deliver contents to learners. It also has the capacity to assess the learner and provide instant feedback. Thus, e-learning has advantage of speed in instructional delivery process. E-learning basically, is the use of some devices like computers, CD-ROMS, television, mobile phones to facilitate the transfer of skills and knowledge (Education Trust Fund, 2006). Similarly, Chokri (2015) defined e-learning as a concept that covers a variety of applications, process and learning methods. E-learning is also referred to the use of information and communication technologies to facilitate the access to online learning/teaching resources and to provide students with collaborative environments and tools through the Web 2.0 applications. Web 2.0 offers a set of tools and utilities that affect communication and its social impact (Rossi, 2009).

E-learning is described by most scholars as access to learning experiences via the use of some technology (Hamid & Kangani, 2018). It refers to instructional environments supported by the Internet which comprises a wide variety of programmes that use the Internet within and beyond school walls to provide access to materials as well as facilitate interaction among teachers and students (Egah, 2020).

National ICT Policy in Education

The Federal Ministry of Education (2019) provides in the ICT policy for education that Government shall:

- (i) Build and encourage the development, utilization and sustenance of the ICT manpower required to achieve an ICT-enhanced Education;
- (ii) Establish and sustain a common ICT infrastructure platform for education, at all levels;
- (iii) Insure and encourage Research and Development (R&D) in ICT and ICT in Education;
- (iv) Engage in and encourage regular stakeholder consultations (including the Private Sector). sensitization of the learning community, public awareness and inter-governmental relations to achieve a broad-based consensus on ICT in education;
- (v) Provide appropriate legal, regulatory and security framework to ensure that ICT in Education and the conduct of related activities are focused on achieving ICT-enhanced Education;
- (vi) Adopt innovative and creative financing models for ICT in Education; and
- (vii) Use Monitoring and Evaluation as a veritable tool in ICT in Education for tracking policy implementation, efficient service delivery and compliance.

Issues on E-Learning in Nigeria

Although e-learning is accepted globally as the latest trend in education delivery, there are

some issues that need considering in order to make the most of e-learning in Nigeria. Uzo-Okonkwo and Okeke (2020) have identified some challenges militating against e-learning in Nigeria. These are Poor internet broadband infrastructure; Poor funding from government; Non-availability of information and communication technology tools; Poor knowledge of the use of ICT tools for teaching; High cost of internet data services; High cost of ICT gadgets; Erratic power supply; and Poor government commitment towards the implementation of the national ICT framework in institutions. Other challenges include Inability of students to understand the use of online technologies for learning and Lack of experts to solve the technical difficulties arising from e-learning platforms.

Poor internet broadband infrastructure

Broadband Internet refers to high-speed Internet access that is always on and faster than the traditional dial-up access. Bandwidth is the amount of information that can be sent or received at a point on a computer network. The greater the bandwidth, the greater the carrying capacity and speed of transmission. The higher the quality and quantity of audio, video, interaction and processing tasks, the more sophisticated the communications technology required. Broadband includes several high-speed transmission technologies such as Digital Subscriber Line (DSL), Cable Modem, Fiber, Wireless, Satellite, and Broadband over Powerlines (BPL). The choice of broadband technology depends on a number of factors. These may include location, i.e. urban or rural area, how broadband Internet access is packaged with other services (such as voice telephone and home entertainment), price, and availability (American Federal Communication Commission). According to Cable (2018) the global ranking report for worldwide broadband speed, Nigeria is currently ranked 152nd among 200 countries. The rankings are based on about 163 million broadband speed tests conducted in 200 countries over a 12-month period (May 30, 2017 to May 29, 2018). It examined the mean average download speed of the countries by taking note of how long it would take to download a 5GB HD movie, and thus placed them on a league based on the results (Akinloye, 2018). Nigeria dropped 57 places from its previous 95th position in 2017. With an average download speed of 1.86Mbps, it took an average of six hours, seven minutes and 38 seconds to complete the download of a 5GB file compared to the 3.15Mbps recorded in 2017. At such slow speed, Nigeria's Internet broadband is one of the poorest. Thus, relying on such poor infrastructure can be frustrating for teachers and students who employ e-learning platform.

Nigeria is lagging behind other countries with similar income levels i.e. Egypt, India and Ghana in terms of Internet penetration rates, and also lags behind these countries and Kenya in terms of the relative proportion of mobile broadband connections. In particular 4G coverage is only available in major cities and state capitals with less than 40% coverage of the population as at Q4, 2019 (National Communications Commission,). In addition, download speeds for Nigeria rank behind other countries in Africa with average mobile download speeds of 2.7Mbps as measured by Measurement-Lab (M-Lab) versus Kenya at 5 Mbps and South Africa at 4.1 Mbps respectively.

Poor funding from government

Telecommunication facilities are cost-intensive. It requires huge capital investment. For e-learning to succeed in Nigeria there is the need for adequate investment in telecommunication facilities. Government needs to invest more in infrastructural facilities to make this happen. Unfortunately, as many sectors compete for limited resources, government often does not consider this sector a priority in allocation of resources. Poor funding on the part of government therefore, has remained a big challenge to the development of that sector, and by implication, the development of e-learning in Nigeria.

Poor knowledge of the use of ICT tools for teaching and learning

While poor infrastructural facilities negate the development of e-learning in Nigeria, there is huge knowledge gap especially among teachers who should steer this innovation at institutional level. ICT in education is a relatively new phenomenon in Nigeria. Most Nigerian teachers belong to the traditional generation and have to learn the innovation. In the absence of necessary skills for the application of ICT facilities in the new learning platform, it becomes a real challenge to e-learning in Nigeria.

Teachers may lack the basic skills of hardware to fully participate in e-learning. The advent of computers, telecommunications, and the World Wide Web provides an unprecedented opportunity for teachers and students to learn in a cooperative environment. It is interesting to note, however, that students respond to this changing environment more easily than teachers do. At California State University, for example, more than 50% of the student body own home computers while less than 50% of the teachers own same (Syllabus Magazine, 1996). Reporting on Nigeria, Oguche (2017) concluded that the level of ICT literacy competence among the library staff in the Nigerian federal university libraries studied is on the average. If library staff should have such average level of competence, one could imagine the situation with other staff. Obtaining proper equipment and training is critical in teacher acceptance adoption of e-learning.

High cost of internet data services

The cost of accessing the internet in Nigeria is still on the high side. Hence, some students find it a challenge to afford. Internet connectivity should be a priority for e-learning to thrive and to be able to leverage on the promises and opportunities ICTs present. The National Communication Commission (NCC) in the recent time provided open internet access to tertiary institutions, but it appears that the inability of the institutions to renew subscription led to the untimely death of that experiment. Teachers and students need to have access to free internet services as an important foundation for e-learning.

High cost of ICT gadgets

Computer systems are seen as luxury and also the cost of acquiring one is almost out of the reach of the middle class talk less of the lower class of the economy. This has created a divide which also reduces accessibility of internet by most people who do not have even when the internet facility is made available. Mobile phones can be used as alternatives to personal computers. But, nowadays the cost of smart phones that could provide an alternative has gone high thereby limiting the number of students who could have access to e-learning platform. Like most African countries basic ICT infrastructures are inadequate. A study by Nigerian Information Technology Professionals in America in 2002 indicated that given current ICT penetration it may take Nigeria 50 years to catch up with America on the aspect of Personal computer count per households (Iromanto, 2004). The most significant problem is the cost of Personal computer. The 2011 Annual Socio-Economic Report Access to ICT shows that the most widely used ICT devices are radios and mobile phones, while internet usage and PC access remained considerably low. More than 95 per cent of the population does not have access to either the PC or the internet (National Bureau of Statistics, 2011). According to the report, a person is deemed to have access to a particular ICT if she/he has an opportunity to utilize or derive benefits from the particular ICT. Such slow pace penetration of internet facilities has been observed by Adepotun (2014) and hinged the likelihood of Nigeria not attaining the MDGs to this alone.

Erratic power supply

Nigerians have continued to lament about the poor state of power supply and the negative impact it is having in their businesses and living. Power supply affects every sphere of living of which installation and management of telecommunication infrastructures are inclusive. The cost used in powering telecommunication equipment (Base stations, radios etc.) increases the overhead cost thereby affecting productivity. Teachers and students who engage in e-learning mode have to contend with erratic power as ICT-enabling tools such as laptops, smartphones and son on have to be powered. Irregular and frequent interrupted power supply in Nigeria is a perennial problem affecting almost every aspect of the economy, including education. This is a major setback for technological advancement in the country. Most rural areas in Nigeria are not even connected to the national grid. The consequence of this is that students residing in such areas may find it difficult to use ICT effectively.

Most of the challenges highlighted above have been captured in the National Policy on ICT in Education (2019). According to the policy document, implementation of ICT in education is plagued with many challenges. These include the following: (i) Policy: Inadequate policy implementation.

(ii) Institutional and Administrative Capacity: Although, capacity- building of teachers in ICT is being done, a good percentage of teachers are still not proficient in ICT. There is also, an insufficient pool of ICT professionals in the sector. These weaknesses are compounded by inadequate ICT infrastructure for teaching, learning, research and educational administration in some institutions.

(iii) Regulation: IT Education, especially at the non-formal education sub-sector is still largely non-standardized, uncoordinated and unsupervised. This has resulted in the proliferation of computer training outfits which offer all sorts of certificates and programmes based on curricula that are undefined.

(iv) Curriculum: There is generally lack of regular review and updating of existing IT curricula, especially at the tertiary level, to meet changing societal needs. There is also low capacity of curriculum developers and implementers. The challenge of outdated curriculum is even more pronounced in view of the dynamic nature of IT.

(v) Efficiency and Effectiveness in the Use of IT: Teacher educators and teachers are concerned more with efficiency rather than effectiveness when they adopt ICT in education. Thus, ICT is used to make their jobs easier instead of making learning more effective. As a result, the teaching/learning process has not embraced current educational-paradigm which emphasizes student-centred instruction with the teacher as the facilitator rather than teacher as the source of knowledge.

(vi) Equity issues: There is a great dichotomy between urban and rural schools and between public and private schools with regards to availability of ICT personnel and resources. Urban schools and private schools tend to have more ICT personnel and resources as well as power supply.

(vii) Research: There is low research on ICT in education. Thus, policy-makers are- not able to assess the impact of ICT on the education system.

(viii) Funding: Although, funds are being provided for ICT in education, they are largely inadequate to provide the drive necessary to position the sector for the attainment of the national goals.

The foregoing reveals that the state of ICT in education and e-learning in particular in Nigeria falls below global standards. This reinforces the need for focused intervention to improve the prospect of e-learning in education.

Prospects of E-Learning in Nigeria

All things being equal, the plan for the establishment of an effective environment for ICT in Nigeria could metamorphose to improvement of e-learning in Nigeria. In 2019, through the presidential directive, the Federal Ministry of Communication and Digital Economy launched a National Broadband Plan 2020-2025. The new Broadband Plan is designed to deliver data download speeds across Nigeria of a minimum 25Mbps in urban areas, and 10Mbps in rural areas, with effective coverage available to at least 90% of the population by 2025 at a price not more than N390 per 1GB of data (i.e. 2% of median income or 1% of minimum wage). This is critical for the development of e-learning in Nigeria because the internet speed and high cost are two major challenges of the developing and adoption of e-learning in Nigeria and most developing countries.

Nigeria is the largest mobile telecommunications market in Africa, largely based on rapid development following the successful auction of Digital Mobile Licenses (DML) in 2001. As at December 2019, the market served over 184 Million Mobile lines, with 126 Million of those lines connected to Internet services (). According to the NCC, telecommunication services in the country have grown from a tele-density of lower than 1% on fixed wireline and wireless networks before the DML auctions, to reach approximately 89% population coverage for voice services in 2019 primarily based on 2G/2G+ networks.

Conclusion

E-learning offers an alternative platform for educational delivery. Nigeria cannot stand aloof to this trend which has caught the world like a revolution. What is needed is to improve the infrastructural deficit currently constituting an albatross to the development of e-learning and provide an enabling policy for the effective adoption of the new paradigm. It is remarkable that Government has provided an ICT. policy that provides a leeway to eventual institutionalization of e-learning. A lot more, however needs to be done to sustain the tempo of development in that sub-sector

REFERENCES

- Amadi, M, N. (2014). The role and impact of e-learning in open and distance learning institutions in Nigeria, In A. O. U. Onuka (Ed). *Analyzing educational issues: Essays in honour of Emeritus Professor Pal Obanya*, Society for the Promotion of Academic and Research Excellence (SPARE).
- Chokri, B. (2015). Factors influencing the adoption of the e-learning technology in teaching and learning by students of a university class. *European Scientific Journal*, S(28), 165-190.
- Egah, M. G. (2020). *Meeting the needs and challenges of e-learning for improving junior secondary school students' writing skills via concept mapping strategy in Nigeria*, A paper presented at the (14th) national e-conference of the Association for Encouraging Quality and Functional Education in Nigeria.
- Garrison, D. R. & Anderson, T. (2003). *E-learning in the 21st century: A framework for research and practice*. London: Routledgefaimer.
- Oguche. D. (2017). Assessment of staff ICT literacy competence in Nigerian federal university libraries. *Journal of Information and Knowledge Management*, 8(2}, 77 -89.
- Rossi. P. G. (2009). Learning environment with artificial intelligence elements. *Journal of e-learning and knowledge society*, 5(1), 67-75.