An analysis of e-learning in Nigerian and the United Kingdom Universities

ISA ALI IBRAHIM*, SANI SAIDU* and ADAMU MUHAMMAD SANI**

*Robert Gordon University, Aberdeen, United Kingdom
Email: isaaliibrahim@hotmail.com, isapantami@yahoo.com,
Tel: +447407321123, +2348034264909,
**Information Technology Programme,
Abubakar Tafawa-Balewa University, Bauchi (NIGERIA)

Abstract

Day by day, e-learning is becoming popular in university education, due to its applicability and recognized as a suitable mode of education. The need for learning in Nigeria is increasing in respect to the increase of her population which made the universities' campuses to be congested, and most of the universities also depend on governments for financial support. The study is a survey research that uses questionnaire and observation for Nigerian and the United Kingdom universities respectively. A total of one hundred (100) questionnaires were administered to twenty (20) lecturers and eighty (80) students in four selected Nigerian universities, and all the questionnaires were successfully completed and returned. The research findings reveal the current e-learning development in Nigeria and United Kingdom universities, its importance to the Nigerian universities' learning process, the ways in which it can overcome campus congestion in those universities, and the challenges facing its implementation and the ways to overcome them.

Key words: e-learning, University, United Kingdom, Nigeria.

1.0 Introduction

E-learning as an advanced[2] system for learning through Information Communication Technologies (ICTs) is becoming an engine of innovation in education. The e-learning is not a new phenomenon in promoting education in some parts of the world. Presently some institutions in Nigeria are using it to promote distance education (DE) and lifelong learning.

In today's knowledge economy, learning is needed to survive and to thrive. In this sense, knowledge is power and proliferation of

2

knowledge through E-learning is not a luxury but a necessity for current and future generations. The need is constant while the nature of our society and economy drives the need for learning. The demand and use of alternatives to the typical classroom setting has been ongoing for more than 100 years from correspondence courses in paper form through video and computer access[15].

In the 21st century, people have to learn more than ever before, especially for global organizations, live classroom-based training is becoming too costly and cumbersome, the need for learning in Nigeria is increasing and their campuses are congested, their universities also depend on government for financial support. It is to this end that this study finds out:

1. The current development of e-learning in United Kingdom universities and that of Nigeria, giving the implications of e-learning in those two nations.
2. How e-learning overcomes campus congestion in Nigerian universities.
3. The challenges to e-learning in Nigerian universities and how to solve them.

This study addresses the following questions:

1. What are the current developments of e-learning in Nigerian Universities and that of the United Kingdom?
2. How e-learning can overcome campus congestion in Nigerian universities?
3. What are the challenges to e-learning in Nigerian universities and how can it be solved?

A good knowledge of e-learning and how best to implement[2,3] it will help universities' management to earn more income which will reduce their dependency on government[22].

According to Codone[9] e-learning can best be understood as any type of learning delivered electronically[3-11]. Defined broadly, this can encompass learning products delivered by computer, intranet, internet, satellite, or other remote technologies. Brandon Hall, a noted e-learning researcher, defines e-learning as "instruction delivered electronically wholly by a web browser, through the Internet or an intranet, or through CD-ROM or DVD multimedia platforms." Increasingly, the common understanding of e-learning relates exclusively to *web-based training* — or learning products delivered via a web browser over a network. Morgan Keegan's investment analysis team[12-18] deems e-learning as a technology that fully leverages the distributive power of the Internet and encourages investors to consider the "e" in e-learning to represent "effective".

1.1 E-learning types :

According to WorldWideLearn[38] e-learning comes in many variations and often a combination of the following: Purely online - no face-to-face meetings, Blended Learning - combination of online and face-to-face, Synchronous, Asynchronous, Instructor-led group, Self-study, Self-study with subject matter expert, Web-based, Computer-based (CD-ROM) and Video/audio tape.

But according to Australian flexible[5] learning framework e-learning can be presented and delivered to the learner in many different ways and for a range of purposes.

Important in any e-learning is the degree of interactivity for the learner, and whether the learner is able to study at any time, or whether there is a need for the learner to be online or in a classroom with other learners at the same time (synchronous learning).

Below is the summary of the different types of e-learning based on the degree of interactivity required.

1.1.1 Low interactivity: is mainly multi-media[19-21] or graphic one-way communication

1.1.2 Moderate to high interactivity: has some degree of learner to computer interaction

1.1.3 High interactivity: includes learner to learner and learner to trainer interaction

1.2 Development of e-learning in Nigerian schools :

According to Ajadi, Salawu and Adeoye[1] in Nigerian schools, the commonest type of e-learning adopted is in form of lectures note on CD-ROM which can be played as at when the learners desires. The challenge of this method is that the number of students per computer in which these facilities are available are un-interactive as compared to when lectures are been received in the classroom. Some institutions adopted the use of intranet facilities; however, this is not well maintained because of incessant power problem and high cost of running generating set. Most students in Nigeria go to the cyber café but because there are people of diverse intension on the net at the same time, and the bandwidth problem, a multimedia interactive cannot be done. Despite all these and other challenges facing e-learning in Nigerian educational institution, institutions such as University of Ibadan, Obafemi Awolowo University, University of Benin, University of Abuja, University of Lagos, National Open University of Nigeria among others has the facilities for e-learning. The number seems very low (compared to other parts of the world and the usefulness of the e-learning in the economy development) because of location of most institutions, bandwidth issue and mostly the challenge of electricity. The major challenges to e-learning in Nigeria are: Digital divide; technophobia; internet connectivity; school curriculum; attitude of the students; software and licence cost; maintenance and technical support; and electricity[1].

1.3 Development of e-learning in The United Kingdom universities :

In the United Kingdom, the Joint Information System Committee (JISC) is a sector-funded body that provides network infrastructure and institutional consultancy, and funds a number of e-learning projects[24].

In the United Kingdom, e-learning (*i.e.*, ICTs used in teaching or learning) are extensively used by professors in virtually all universities,[34]. UK universities are becoming the world leaders in online higher education. For instance, York University has a range of distance learning courses that offer an innovative and flexible approach to study. These courses deliver all the hallmarks of a York education to students who need to study at a distance because of geographical location, work or personal commitments. These courses reflect York's commitment to quality, relevance and student support and enable you to be a full member of the York community (University of York, 2009).

Sheffield University offers a number of distance and e-learning options. In addition, it works in conjunction with the Worldwide University Network, an international alliance of prominent higher-education institutions that also provides distance learning opportunities[25-32] (Worldwide University Network, 2005).

In London university, in the majority of post graduate diplomas and degrees students receive everything they need in order to complete their study as a package or online. This may include text books, study guides or units, readers, audio/video tapes and the relevant Regulations and past examination papers. However, for the LLM and the MA Geography degrees students receive only an introductory pack of study material and limited direct academic guidance and are required to purchase their own text books.

The University of Portsmouth[34-37] offers distance/online learning in a flexible learning environment to students that are learning at work, online or with the international partners. The latter entails enabling students "to attend collaborative institutions in Singapore, Malaysia and London to achieve degrees accredited by the University of Portsmouth." Extra information regarding materials for distance learners is located in a website. UoP's Virtual Learning Environment (VLE) is called Victory, is based on WebCT and can be accessed through a website. The student portal that is targeted at all students can also be found at through a website. UoP makes use of the Google Apps Package which give all students access to Google's Calendar, Documents, Sites and Talk within the "University of Portsmouth" Google environment[33].

2.0 Methodology :

The study is a survey research that uses questionnaire and observation for Nigerian and United Kingdom universities respectively. Hand to hand and research assistant (for questionnaires) and consultation of secondary sources were used as methods in collecting the data, where simple percentage and arithmetic mean were used in analysing the data. The weighted average used for the study is 3.0. A total of one hundred (100) questionnaires were administered to twenty (20) lecturers and eighty (80) students in four selected Nigerian universities, and all the questionnaires were successfully completed and returned. While observation on the secondary data were been made based on four universities in United Kingdom which include: York University, London University, Sheffield University, and the University of Portsmouth.

3.0 Result

Table 1. The current developments of e-learning in Nigerian Universities

S N	Questionnaire Items	Options/No. of Respondents			Percentage		
		Yes	No	Total	Yes	No	Total
I	Is there any development with regard to e-learning in your institution?	20	-	20	100%	0%	100%
II	Is there any e-learning programme leading to the award of BSc, MSc, MBA, or PhD in your institution?	5	15	20	25%	75%	100%

Table 2. The facilities and ways of promoting e-learning in the institutions

Variables	Options	No. of Responds	% of respondents
Ways in which institutions choose to promote e-learning	Registration	11	30.56
	Lectures	2	5.56
	Library	8	22.22
	Admission	6	16.67
	All of the above	7	19.44
	Seminar presentation	2	5.56
Total		**36**	**100**
The facilities used for e-learning in the institutions	Internet	17	60.71
	Television	1	3.57
	CD-ROM	6	21.43
	All of the above	3	10.71
	Power point projector	1	3.57
Total		**28**	**100**

Source: Field Survey Data (2010)

Table 3. The implications of e-learning

S/N	Question items	Mean (X)	REMARK
I	E-learning provide convenience and portability in teaching	3.22	Agree
II	It changes teachers' role from delivers of information to facilitation of learning process.	3.18	Agree
III	With e-learning getting help and ideas from colleagues is easy and possible.	3.75	Agree
IV	Student performance can be gauged either on- or off-line, through objective or subjective tests, or through development of product or portfolios.	3.55	Agree
V	E-learning increases awareness of new techniques to lecturers	3.67	Agree
	GRAND MEAN	3.47	

Source: Field Survey Data (2010)

Table 4. Ways in which e-learning can overcome campus congestion

S/N	Question items	Mean (X)	REMARK
I	Delivering lectures online will reduce congestion	3.53	Agree
II	Lectures time variation will reduce congestion	4.45	Agree
III	Receiving lectures at any place of wish will reduce congestion	3.33	Agree
IV	Meeting/lectures through video/audio conferencing will reduce congestion	3.55	Agree
V	E-registration will eliminate the nightmare of long queues	3.48	Agree
	GRAND MEAN	3.70	

Source: Field Survey Data (2010)

Table 5. Ways to overcome e-learning challenges

S/N	Question items	Mean (X)	REMARK
I	Cost reduction for internet connectivity	3.54	Agree
II	A reasonable number of technical staff and cost reduction for maintenance and technical support	3.70	Agree
III	Stability in electricity supply will encourage e-learning	3.95	Agree
IV	Technology/computer education knowledge for lecturers will reduce time consuming when preparing lecture materials.	3.55	Agree
V	Creating a site/lecture materials with motivating features will encourage learners to learn through e-learning	3.80	Agree
	GRAND MEAN	3.71	

Source: Field Survey Data (2010)

3.1 The current developments of e-learning in the United Kingdom Universities :

Based on the secondary data been observed by the researchers in the four universities of United Kingdom, it clearly shows that almost all the universities in united kingdom embarked on e-learning implementation where they offer BSc, PGD, MBA, MSc.

Question 1: What are the current developments of e-learning in Nigerian Universities and that of United Kingdom?

Based on the above table 1, 2 and 3, it shows that there is a little development with regards to e-learning in Nigerian universities, considering the degree programmes, facilities in use, and the ways of promoting it. But in

UK universities they have gone far in e-learning based on the secondary data consulted in respect to the four universities chosen.

Question 2: How e-learning can overcome campus congestion in Nigerian universities?

Based on the table 4 above, all the items show a positive result those are greater than the weighted average. All of these imply that the respondents accept it with no doubt that these ways if strictly followed e-learning can overcome campus congestion in Nigerian universities.

Question 3: What are the challenges to e-learning in Nigerian universities and how can it be solved?

Based on questionnaire analysed and secondary data consulted, e-learning has some challenges in Nigerian universities which include: Digital divide; technophobia; internet connectivity; school curriculum; attitude of the students; software and licence cost; maintenance and technical support; and electricity[1].

4.0 Findings :

There is a little development with regards to e-learning in Nigerian universities

1. The UK universities are becoming the world best in terms of e-learning.
2. E-learning can have positive implications to the learning process of our universities' students and also to the process of delivering knowledge.
3. E-learning can overcome campus congestion in Nigerian universities.

4. Challenges to e-learning in Nigerian universities which include the following: Digital divide, technophobia, internet connectivity, school curriculum, attitude of students, software and license cost, maintenance and technical support, and electricity. And those challenges can be overcome by the following ways: Cost reduction for internet connectivity, site maintenance by schools' administration, a reasonable number of technical staff and cost reduction for maintenance and technical support, Stability in electricity supply, Technology/computer education knowledge for lecturers and students, Creating site/lecture materials with motivating features.

5.0 Conclusion

Based on the findings, the researchers concluded by saying that e-learning in Nigerian universities is developing considering the internet usage, though there is still a long way since most of them are not awarding any certificate done through e-learning. So also e-learning will have so many positive implications if it is to be fully implemented, such as convenience and portability in teaching and learning, getting help from colleagues irrespective of their location, gauging students' performance on or off-line, and increasing awareness of new techniques to lecturers among others. But the United Kingdom universities have gone far in the implementation of e-learning with awarding various degrees through e-learning and having almost all the necessary facilities needed for e-learning implementation.

The researchers found that proper implementation of e-learning can overcome campus congestion in Nigerian universities since learners can receive lectures from

distance place at either the same or different time.

In view of the research findings and conclusions drawn from the study, the researcher recommends that Computer education should be introduced at all levels of education in Nigeria, also electricity supply should be given due consideration being the power source of the technologies used in e-learning, Government should not only initiate but implemented any good policy at national level that will support the institutions to properly implement e-learning, then a reasonable number of technical staff and cost reduction for maintenance and technical support should be encouraged to support the learners, lecturers, and institutions in e-learning process.

References

1. Ajadi T.O., Salawu I.O., Adeoye F.A., e-learning and distance education in Nigeria, The Turkish Online Journal of educational Technology- TOJET volume 7 issue 4 Article 7 Retrieved on 29/01/2010. From http://www.tojet.net/articles/747.pdf (2008).

2. Alina Andreica, Implementing Advanced E-learning Facilities. Case Study for Babes-Bolyai University, Cluj-Napoca, Romania. Retrieved on 26/03/2010. From http://www.ineer.org/Events/ICEE2007/papers/362.pdf (2007).

3. Anderson, D.M. and Haddad, C.J., Gender, voice, and learning in online course environments. *Journal of asynchronous learning Networks,* Volume 9 Article 1 (2005).

4. Anderson, T., Revealing the Hidden Curriculum of E-Learning. *Retrieved on 29/01/2010.* From http://www.brandon-hall.com/publications/ppt/ppt.pdf (2002).

5. Australian flexible learning framework Types of e-learning Retrieved on 23/06/2010. From http://industry.flexiblelearning.net.au/guide/1-5_Types_of_e-learning.htm (2007).

6. Chakkrit S. and Micheal B., Ontology-Driven e-learning system based on roles and activities for Thai learning environment. Interdisplinary journal of knowledge and learning objectss Volume 3 (2007).

7. Gabrielli S., Mirabella V., Kimani S. and Caterci, T., A boosting approach to a content development for learners with special needs. Education technology and society volume 9 Article 4 (2006).

8. Garrison G.R. and Anderson T., E-learning in the 21st century: A framework for research and practice. Routledge, Taylor & Francis group (2003).

9. Codone S., an e-learning primer Retrieved on february 09, 2010. From http://faculty.mercer.edu/codone_s/elearningprimer.pdf (2001).

10. Ekundayo, T. A., university education in transition: Emergence and development of private universities in Nigeria. International journal of research in education, volume 5, No. 1&2 (2008).

11. Fitchen, C.S., Asuncion, J., Barile, M., Fossey, M., and De Simone, C., Access to educational and instructional computer technologies for post secondary students with disabilities: Lessons from three empirical studies. *Journal of Educational media,* Volume *25 (3)* (2000).

12. Hedge, N. and Hayward, L., Redefining roles. University e-learning contributing to Life-long learning in a networked world. E-Learning, 1:128 – 145 (2004). http://www.nationmaster.com/country/ni/

Internet

13. Higton, M., E-learning at Oxford Retrieved on 29/01/2010. From http://www.oucs.ox.ac.uk/ltg/teachingwithtechnology/elearningbriefing.pdf (2009).

14. Indiabizclub, levels of e-learning Retrieved on 29/02/2010. From http://engineering.indiabizclub.com/info/e-learning/levels_of_e-learning (2009).

15. ITEC, E-Learning Importance and Design. Retrieved on 29/01/2010. From http://itec.sfsu.edu/wp/860wp/F04_860_zu_elearning.pdf (2002).

16. Jegede, O., Taking the distance out of higher education in 21st century Nigeria. Paper Presented at the Federal Polytechnic, Oko, Anambra state on the occasion of the Convocation ceremony and 10th anniversary celebration held on Friday, 28 (2003).

17. Joanne Capper, E-learning Growth and Promise for the developing world. Retrieved on 29/01/2010. From www.TechKnowLogia.org (2001).

18. Jones, K. L., the advantages of elearning. Retrieved on January 29, 2010. From http://ezinearticles.com/?The-Advantages-of-elearning&id=603386 (2007).

19. Kayte O'Neill, Gurmak Singh, and John O'Donoghue, Implimenting elearning programmes for Higher education: A review of the literature. Journal of Information Technology Education Volume 3 (2004).

20. Kevin Kruse, The benefits and Drawbacks of e-learning Retrieved on January 29, 2010. From http://www.e-learningguru.com/articles/art1_3.htm (2002).

21. Knapper, C. and Cropley, A. J., *Lifelong learning in higher education.* London : Kogan Page (2000).

22. Lee Ann Obringer, Benefits of e-learning Retrieved on February 9, 2010. From http://communication.howstuffworks.com/elearning1.htm (2008).

23. Manir A. K., Problems, Challenges and Benefits of Implementing E-learning in Nigerian Universities: An Empirical Study *International journal of Emerging Technologies in learning.* Retrieved on February 9, 2010. From http://www.britannica.com/bps/additionalcontent/18/36907125/) Problems-Challenges-and-Benefits-of-Implementing-Elearning-in-Nigerian-Universities-An-Empirical-Study (2009).

24. Mark Nichols, E-primer series– e-learning in context Retrieved on January 29, 2010. From http://akoaotearoa.ac.nz/sites/default/files/ng/group-661/n877-1—e-learning-in-context.pdf (2008).

25. Mason, R., Review of e-learning for education and training. *In networked learning 2002: Proceedings of the third International Conference on Networked Learning 2002,* Sheffield, UK. 26-28 March, 19-26 (2002).

26. OECD, The impact of ICT on tertiary education: advances and promises-OECD/NSF/U. Michigan conference. Washington DC (2005).

27. Ogechukwu Iloanusi N., and Charles Osuagwu C., ICT in Education: Achievements so far in Nigeria Retrieved on 29/01/2010. From http://www.formatex.org/micte2009/book/1331-1335.pdf (2009).

28. Okojie, J. A., Licensing, accreditation and quality assurance in Nigerian universities: Achievements and challenges. Paper presented at a session of the 2008 CHEA

10

summer workshop (2008).

29. Shiful Islam, Salma Chowdhury, Anwarul Islam, LIS education in e-learning environment: problems and proposal for bangladesh. Retrieved on 29/01/2010. From http://a-liep.kc.tsukuba.ac.jp/proceedings/papers/a27.pdf (2009).

30. Slideshare Inc., department-of-education-sargodha University – Presentation. Retrieved on March 17, 2010. From http://www.slideshare.net/edustudent3/e-learning-department-of-education-sargodha-university (2009).

31. Smith, M. S., the importance of elearning. Retrieved on January 29, 2010. From http://ezinearticles.com/?The-Importance-of-elearning&id=1674325 (2008).

32. University of Abuja, welcome to the official website of the University of Abuja. Retrieved on July 19 2010, from http://www.uniabujalibrary.net/ (2005).

33. University of Portsmouth, From Re.ViCa. Retrieved on July 19 2010, from "http://www.virtualcampuses.eu/index.php/University_of_Portsmouth (2009).

34. Weller, M., Pegler, C., and Mason R., Students' experience of component versus integrated virtual learning environments. Journal of Computer-Assisted learning, volume 21 (2005).

35. Wikipedia, Computer-supported collaborative learning. Retrieved on 13/07/2010 from http://en.wikipedia.org/wiki/Computer-supported_collaborative_learning (2010).

36. Wikipedia, Universities in the United Kingdom. Retrieved on 29/06/2010 from http://en.en.wikipedia.org/wiki/Universities_in_the_United_Kingdom (2010).

37. WorldWideLearn, Benefits of ELearning. Retrieved on 09/02/2010, from http://www.worldwidelearn.com/elearning-essentials/elearning-benefits.htm (2009).

38. WorldWideLearn, Types of e-learning Retrieved on 23/06/2010. From http://www.worldwidelearn.com/elearning-essentials/elearning-types.htm (2010).