Assessment Of The Use Of E-Learning Resources By Lecturers In Colleges Of Education In Anambra State, Nigeria

Nwana S. E., Ph.D
Faculty of Education,
Nnamdi Azikiwe University, Awka, Nigeria

Ofoegbu, T. O., Ph.D
Faculty Of Education
University Of Nigeria, Nsukka

Egbe Cajetan Ikechukwu, Ph.D
Faculty Of Education
University Of Nigeria, Nsukka

ABSTRACT
The study examined the use of e-learning resources by lecturers in colleges of education, Anambra State, Nigeria. The study is an empirical one. Four research questions guided the study. The population was made up of 340 lecturers out of which 200 were sampled and used for the study. The instrument for data collection was a 20 – item self-constructed questionnaire. It was validated by experts and has reliability co-efficient of 0.83. Data were analysed using the mean. The findings indicated that the lecturers are using e-learning facilities e.g. digital library to a high extent. Again they are using e-learning hardware e.g. computer to a high extent. Also they are using e-learning courseware e.g. CD-ROM and slides to a high extent. On the other hand, it was found that they are using e-learning packages to a low extent. Based on the findings, recommendations were made.

INTRODUCTION

The emergent of Information and Communication Technology (ICT) gave rise to the use of World Wide Web (www) which has brought the world into a global village. The use of the web led to surge of interest in electronic learning (e-learning). Nigerian is in dire need of e-learning at all levels of its educational system so as to meet with international standards. It is worthy of note that in 1988, the Nigerian government enacted a policy on e-learning by introducing computer education in schools and colleges. Over years, the government has recognized the relevance of e-learning as an aspect of ICT in the educational system. This is informed by the National Policy on Education (Federal Republic of Nigeria, FRN 2014) which stated that, the government shall provide facilities and necessary infrastructures for the promotion of ICT and e-learning.

E-learning means electronic learning. It is the use of electronic applications, the web and digital devices in teaching – learning process. The American society for training and Development (ASTD 2008) defined e-learning as a broad set of web-based applications and digital technologies for curriculum delivery. These authors (Matogo, 2009; Mayer, 2003; & Nwana, Ugwoegbu & Oraegbunam, 2011) stated that e-learning is the delivery of curriculum or education programme by electronic means especially the computer. Also, Nwana (2009 & 2012) pointed out that, e-learning stands for electronic learning. It is computerized system of

learning or online learning in which the curriculum can be implemented both in the classroom and in various geographical distances. It is used both in formal and non-formal education systems for curriculum delivery. It is a form of ICT that facilitates online delivery. It is a technology based instructional system which uses the computer, videophone system, teleconferencing devices, internet and intranet, audio and audio-visual systems, fiber optic cables, microwaves, satellite systems, packet-switching and multimedia system for curriculum implementation.

In e-learning, the curriculum can be presented online inform of texts, visuals, sound, multicolour images, maps and graphics simultaneously. Software packages e.g Ready – made instructional Packages (RMIP), Teacher – Developed Instructional Packaged (TDIP), Learning Activity Packages (LAP) are used in e-learning. Other software are CD-Rom, slides, flash drive, diskettes, audio discs and video disc. In e-learning, the students can have all their textbooks and reading materials in a CD-Rom which can be opened and displayed on computer built-in screens. These are technically called High – teach reading materials or E-books.

The two major types of e-learning are the synchronous and asynchronous e-learning. The asynchronous e-learning requires both the teacher and the learners to be physically present in one classroom, one lecture hall or one lecture location using media technologies during lectures (Nwana, 2009). This type of learning emphasises that both the teacher and the learners should be seeing themselves face-to-face and eyeball-to-eyeball during lectures. The synchronous e-learning is the type in which the teacher teaches online and the learners learn online. Lectures are online in real-time. This is to say that both the teacher and the learners are separated by geographical distances. In this type of teaching – learning, the teacher uses the internet – connected computer, videophone systems, teleconferencing devices and direct broadcast satellite television (DBST) among others (Nwana, 2009).

From the foregoing, e-learning resources such as digital library, computer hardware, software and packages are needed both in the classroom and distance learning programmes in the colleges of education. Their integration and use seem to be a challenge. It is against this background that the present study wants to find out the extent to which the e-learning resources are being used by lecturers in colleges of education in Anambra State.

METHOD
The study is a descriptive survey which seeks to obtain information from lecturers in colleges of education on their use of e-learning resources namely: e-learning facilities, hardware, courseware and packages. The population was 340 lecturers in colleges of education (Nsugbe and Umunze) in Anambra State. 200 lecturers were sampled and used for the study.

The instrument for data collection was a researcher – developed questionnaire titled "Use of E-Learning Resources by Lecturers in Colleges of Education (UELRLCE)". It was validated by experts and the reliability co-efficient stood at 0.83. The instrument contained 20 items arranged in four sections of A-D. The items were weighted on a four – point Likert type scale. The response options ranged from Very High Extent (VHE) to very Low Extent (VLE). It was weighted 4, 3, 2, and 1. Each respondent was required to indicate the extent to which he/she rates each item. The mean was used in answering the research questions.

RESULTS
Research Question 1
To what extent have you been using these e-learning facilities?

Table 1: Mean Ratings of the Respondents on the extent to which they are using e-learning facilities

S/N	ITEMS	$\overline{X}$	REMARKS
1	Digital Library	2.83	High Extent
2	Lecturer halls with Multimedia projector (MMP)	2.71	High Extent
3	Internet facilities	2.79	High Extent
4	Digital Laboratory	1.90	Low Extent
5	ICT parks/Cyber cafes	2.68	High Extent

The data on table I reveals that the mean scores of 2.83, 2.71, 2.79 and 2.68 confirms that the respondents are using the e-learning facilities namely: digital library, lecture halls with multimedia projectors, internet facilities and ICT parks/cyber cafés to a high extent. On the other hand, the mean score of 1.90 indicates that the respondents are using the digital laboratory to a low extent.

Research Question 2
To what extent have you been using these e-learning hardware/

Table 2: Mean Ratings of the Respondents on the extent to which they are using e-learning hardware

S/N	ITEMS	$\overline{X}$	REMARKS
6	Computer for lecture delivery	3.06	High Extent
7	Printer for printing out lecture materials, assignment, quizzes and tests	2.85	High Extent
8	Multimedia Project (MMP) for multimediated learning	2.70	High Extent
9	E-whiteboard for writing and illustrations	3.10	High Extent
10	E-graphics board for graphs, sketches and diagrams.	1.95	Low Extent

Table 2 shows that means scores of 3.06, 2.85, 2.70 and 3.10 indicated that the respondents are using the e-learning hardware namely computer, printer, multimedia projector and e-whiteboard to a high extent. On the other hand, the means score of 1.95 indicted that the respondents are using e-graphic board to a low extent.

Research Question 3
To what extent have you been using these e-learning courseware?

Table 3: Mean Ratings of the Respondents on the extent to which they are using e-learning courseware

S/N	ITEMS	$\overline{X}$	REMARKS
11	CD-ROM for storing and retrieving lecture materials	3.15	High Extent
12	Slides for power-point presentations	2.72	High Extent
13	Video tapes/videos discs for audio-visual presentations	2.80	High Extent
14	E-books as high-tech materials in lecture delivery	1.93	Low extent
15	Courseware template which provides a general format for lecture delivery, drill and practice	2.77	High Extent

Table 3 reveals that the means scores of 3.15, 2.72, 2.80 and 2.77 indicated that the respondents are using e-learning courseware namely: CD-ROM, slides, video disc and courseware templates to a high extent while the mean score of 1.93 indicated that the respondents are using e-books to a low extent.

Research Question 4
To what extent have you been using these e-learning hardware?

Table 4: Mean Ratings of the Respondents on the extent to which they are using e-learning packages

S/N	ITEMS	$\overline{X}$	REMARKS
16	Compute Graphic Packages (CGP)	1.73	Low Extent
17	Computer Spreadsheet Packages (CSP)	1.85	Low Extent
18	Audio-Tutorial Packages (ATP)	1.71	Low Extent
19	Data Processing Package (DPP) e.g Statistical packages	2.89	High Extent
20	Learning Activity Packages (LAP) for drill and practice in lecture delivery	2.11	Low Extent

DISCUSSION

The findings of the study revealed that the respondents use e-learning facilities to a high extent. These are digital library, lecturer halls with multimedia projector (MMP), internet facilities and ICT parks/cyber cafés. This means that the lecturers understand the benefits and uses of e-learning facilities in this ICT age. This finding is consistent with Matogo (2009) that the teachers' understanding of the benefits and usage of ICT facilities will continue to enhance curriculum delivery. On the other hand, this finding is not consistent with Jegede and Owolabi (2008) who found that e-learning facilities are not available and not in use in many schools in Nigeria.

On the use of e-learning hardware by the respondents, the findings revealed that they use them to a high extent. These are computers, printers, multimedia projectors and e-whiteboard. This finding agrees with Salim (2009) that after exposure to basic computer skills, the secondary school teachers in Rampal, Bangladesh improved their teaching to a great extent. This finding is consistent with Hamilton (2009) that the teachers in US use computers to a high extent in the teaching of English language and mathematics. The finding is also in tandem with Aburime (2009) that the teachers use computer as an e-learning device in the teaching of home economics to a high extent and in collaborative research activities.

The findings on the use of courseware by the respondents revealed that they use the courseware to a high extent. These are CD-Rom, slides, video discs and courseware templates. This finding is in consonance with Ajita and Kumares (2010) who exposed University Lecturers in Mumbai to the teaching of Mathematics with Maths courseware namely mathematics for general maths, winplot for graph plotting and MUPAD for general calculations and found that, they effectively used the courseware to solve problems in mathematics. Again, the findings of this study resonates with Brody (2005) that the use of video games as courseware by teachers improved teaching.

Finally, the findings on the use of e-learning packages revealed that the respondents used e-learning packages to a low extent. These are Computers Graphic Packages (CGP), Computer Spreadsheet Packages (CSP), Audio-Tutorial Packages (ATP) and Learning Activity Packages (LAP). This finding matches that of Nwagbo and Okoli (2008) who found that more than 70% of science and technology teacher educators in Universities in South East states of Nigeria are unable to apply ICT resources in science laboratory exercises. Also, the finding matches that of Kwache (2007) who reported that most of the institutions lacked computer literate experts for application of computer devices in the educational system.

CONCLUSION

From the findings of the study, the respondents were using E-learning facilities namely digital library, lecture halls with multimedia projector (MMP), internet facilities and ICT parks/cyber cafés to a high extent. Again the use e-learning hardware namely computer, printer,

multimedia projector (mmp) and e-whiteboard recorded a high extent. Also, the use of e-learning courseware namely CD – Rom, slides, video discs and courseware templates by the respondents recorded a high extent. The respondents recorded a low extent in the use of digital laboratory and e-books as high-tech reading, materials. Further, the respondents indicated low extent in the use of e-learning packages namely: Computer Graphic Packages (CGP), computer spreadsheet packages (CSP) and Audio-Tutorial Package (ATP) among others.

RECOMMENDATIONS

Based on the findings of the study, it is recommended as follows:

1. That the government should encourage the lecturers to continue to use e-learning facilities, e-learning hardware and e-learning courseware through the aware of honours to best users of e-learning resources among lecturers.
2. Digital laboratories should be well-equipped and the lecturers should be trained through short-term services, conferences, seminars and workshops on the use of digital equipment in the laboratories.
3. E-graphics board should be adequately mounted and the lecturers should be trained on the use of it for graphs, sketches and diagrams.
4. E-books which are high-tech reading materials should be adequately provided and the lectures should be exposed or trained on the techniques of using e-books.
5. The government should train the lecturers on the use e-learning packages. This is very important as there is need for the teacher to also develop teacher-made – instructional packages.

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