An Assessment on the Utilization of E-Learning System in Teaching and Learning

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Abstract
Despite Women for Health, an NGO was committed to implementing E-learning in some Health Tertiary Institutions in Nigeria to strengthen their Education; the process seemed to be hindered by a number of barriers. Hence, this work aimed to assess the utilization of e – learning system in teaching and learning in order to determine the level of Teacher's and Learners' interest in utilizing E-learning system, the level of Teachers' and Students' competency in using E-learning system, and to find out the extent of e-learning system utilization. The sample size of the population was made up of 175 academic staff and students which were randomly selected in the Shehu Sule College of Nursing and Midwifery Damaturu. Data obtained was analyzed quantitatively. The instrument that was used in gathering data was questionnaire. Some of the findings showed that the teachers and the students had interest in utilizing E-learning as the mean was above 2.5; they had competency using the e-learning materials as their mean was also above 2.5 except item 12 which was rejected because it was below 2.5; but their extent towards utilization of the platform was not that good. Based on the findings of the study, recommendations were made to encourage the use of e – learning infrastructures to foster teaching and learning in the college. The college should as matter of its significance be organizing in house training for lecturers and students. Government should provide other necessary equipments for e-learning to colleges to enable them put in place necessary ICT infrastructures that will facilitate teaching and learning.

Keywords: *e – learning, utilization, teaching, learning and ICT*

1. Introduction

E-learning is among the most educational challenges of nowadays in Africa. To be able to tackle the challenges, teachers and students need not just to be computer literate, but also to develop skills in manipulating computer and other Information and Communication Technologies (ICTs) into their teaching and learning programs. E-learning as part of Student Centered Learning as opposed to Traditional Method of Teaching has become a wide range of applications in terms of content, technology and services in other to enhance individual and organizational performance in educational line globally. According to Commission on Technology and Adult Learning (2001), e-learning refers to the use of ICTs to enhance and support teaching and learning processes. It is the instructional content or learning experiences delivered or enabled by electronic technologies and it incorporates a wide variety of learning strategies and technologies. E-learning ranges from the way students use e-mail and accessing course work online while following a course on campus to program offered entirely online.

Erah (2006) stated that e- learning refers to computer – enhanced training as opposed to the computer – based training of the 1980s. It is usually delivered in a personal computer and includes learning delivered by other communication technologies. To him, e – learning is an approach to facilitate and enhance learning through both computer and communication technologies.

Ogbu&Onele 2016 assessed the level of usage of Information and Communication Technologies (ICT), in teaching and learning of electrical and electronic subjects in Ebonyi State technical colleges. Specifically, the awareness of ICT components among teachers and students, the availability of ICT resources to the technical colleges, the extent of usage of ICT among teachers and students and the application of ICT to school teaching and learning were studied. Four research questions and two null hypotheses guided the study. Population of the study was 437 comprising of 48 teachers and 389 electrical and electronics students of the four technical colleges in Ebonyi state. Due to population size, all the teachers were sampled while simple random sampling technique was used to select a total of 130 students from the three senior classes of the four technical colleges. A five-point Likert type questionnaire was used for data collection. Mean statistic and standard deviation were used to answer the research questions while t-test and analysis of variance were used to test the null hypothesis at a 0.05 level of significance. Results showed that ICT were not fully utilized in the teaching and learning of electrical and electronic subjects in Ebonyi state.

Gabadeen, Alabi&Akinnubi, (2015) examined the adequacy of the available e-learning technological tools, their accessibility and utilisation at the Nigerian public senior secondary schools. The study adopted a descriptive survey method to collect data on available, accessible and utilised e-learning technology tools for secondary schools, using a questionnaire entitled "E-Learning Technologies Questionnaire" ELTQ. The findings of the study revealed that e-learning technologies were relatively available to the teachers and students, reasonably accessible and adequately accessible to students and teachers, respectively, and fairly utilized by both. There was no significant difference in the accessibility and utilization of the e-learning technologies between the teachers and the students.

Bupo&Ndinech, (2015) investigated the utilization of e-learning among business education students in Anambra State tertiary institutions. Two research questions were posed and two hypotheses formulated. A total of 1603 business education students in four tertiary institutions in Anambra State made up the population of the study, out of which 320 students were used as sample. Mean rating and z-test were used for data analysis. The results showed that students often searched for educational materials online and checked results online; they fairly often read e-books and e-journals, teleconferenced with classmates during group work, send feedbacks to lecturers via emails and undertake courses on the internet. It was recommended, among others, that learning management systems should be introduced in the tertiary institutions and business education lecturers should make their books in the e-book format so as to encourage students' utilization.

Split Ginger Bread (Hyphaene Thebiaca) Truck as a Reinforcement Member in Concrete short Beams

Abbas, Alhassan& Hamza, (2015) addressed the issue of utilization of the available e-learning technologies by the academics of the college and provided answers to the following "To what extent do Academics find it easy to learn how to use e-learning technologies for teaching? To what extent do the Academics understand how the e-learning technologies work? To what extent do the Academics use e-learning technologies in the college? Survey research method was used for the study. The population of study comprises of 200 Academics across the Federal college of Education Zaria. The study discovered that there were availability of some of the e-learning technologies in the college, and most of the academics do not know how to use the e-learning technology for teaching, and learning: Only few of the academics use the e-learning technologies for teaching, they mostly use the technologies for entertainment.

Osuafor&Emeji, (2015) investigated the availability and utilization of e-learning facilities by science teacher educators in teaching pre-service teachers in South-East Nigerian Colleges of Education. One hundred and sixty-seven (167) science teacher educators participated in the study. A researcher developed fifty five-item questionnaire with reliability co-efficient of 0.87 was used to collect data. Four research questions guided the conduct of the study. Data were analyzed using mean and standard deviation. Results show that some of the listed e-learning facilities were available for teaching science in Nigerian Colleges of Education to a high extent. On the average however, most e-learning facilities were available to a moderate extent. Results also revealed that science teacher educators use e-learning facilities to a moderate extent. High cost of computer units, lack of prior knowledge on the part of the students on usage of computers, low browsing speed resulting to wastage of payer's money and unavailability of some e-learning facilities due to poor funding are some of the factors that contribute to poor usage of e-learning facilities.

Atsumbe, Raymond, Enoch &Duhu, (2012) investigated the availability and utilization of e – learning infrastructures in Federal University of Technology, Minna, and determined the level of ICT implementation. The population of the study was made up of 382 students and 182 lecturers randomly selected from the four schools of the institution. Data obtained was analyzed using mean and t-test. Some of the findings revealed that e- learning infrastructures are not adequate in the university for teaching and learning and management's efforts towards the development of Information and Communication Technology (ICT) is mainly for administrative purposes. In addition, lecturers and students both have computers and laptops and can access the internet but, they do not use them for teaching and learning.

Nwana, (2012) revealed that e-learning in education is the wholesome integration of modern telecommunication equipment, particularly the internet into the education system. Furthermore, the main purpose of e-learning is to transform the old methods and approaches of curriculum implementation in order to bring about certain changes in the behaviour of the learners and the extent to which the changes take place.

2. 0 Research Objectives

This study aimed at assessing the Utilization of E-Learning System in Teaching and Learning in order:

i) To know the level of Teacher's and Learners' interest in utilizing E-learning system?

ii) To find out the level of Teachers' and Students' competency in using E-learning system?

iii) To determine the extent of e-learning system utilization

2.1 Research Questions

i. What is the level of Teacher's and Learners' interest in utilizing E-learning system?

ii. What is the level of Teachers' and Students' competency in using E-learning system?

iii. What is the extent of e-learning system utilization

3.0 Methodology

The design adopted in this study was descriptive survey research design. A sample size of 175 lecturers and students were sampled randomly and used as respondents for the study. A structured questionnaire was used to obtain data from respondents for the study. The instrument was

submitted to the experts for both face and content validation, and ethical clearance was obtained from the research and ethics committee.

4.0 Result

Table 1: Distribution of Respondents Based on Gender

Gender	Frequency	Percentage (%)
Male	11	28.94
Female	27	71.05
Total	38	

Table 1indicated that the percentage for male and female were 28.92% and 71.05% respectively.

Research Question 1: What is the level of Teacher's and Learners' interest in utilizing E-learning system?

Key: Strongly Disagree (SD), Disagree (D), Agree (A), Strongly Agree (SA)

Table 2: The level of Teacher's and Learners' interest in utilizing E-learning system?

S/N	Items	SA	A	D	SD	X	Remark
1.	I need to be knowledgeable in using E-learning system to simplify my academic activities that are appropriate for teaching and learning.	27	9	2	0	3.66	Accepted
2.	Selecting information resources that are well-organized for use is needed for E-learning system.	15	23	0	0	3.39	Accepted
3.	I need to be e-learning system literate to search for information relevant for learning in multiple sources in a directed and reflective manner	21	15	1	1	6.32	Accepted
4.	Becoming literate in using E-LEARNING SYSTEM to select information classification scheme that allows efficient storage is needed.	13	23	1	1	3.26	Accepted
5.	I need be E-LEARNING SYSTEM literate to recognize and treat confidential or sensitive information appropriately	22	15	0	1	3.53	Accepted
6.	I need to be E-LEARNING SYSTEM literate to customize the presentation of information needed.	17	19	2	0	3.40	Accepted

7.	Citing appropriate sources is one of the fundamental parts of E-learning system	17	14	6	1	3.23	Accepted

In table 2 above, the objective one indicated that all the items were accepted because their mean are above 2.5. This shows that teachers and students were having interest in utilizing e-learning.

Research Question 2: What is the level of Teachers' and Students' competency in using E-learning system?

Key: Highly Competent (HC), Competent (C), Basic Knowledge (BK), and Not Competent (NC)

Table 3

S/N	Items	HC	C	BK	NC	X
8	I am capable of connecting the computer system and its peripherals.	9	12	14	3	2.7
9	I am capable of booting the computer.	15	13	6	3	3.1
10	I have adequate keyboard skills.	11	10	12	4	2.8
11	I can use Microsoft Office Suite Application i.e. MS Word, Ms Excel, Ms PowerPoint, Ms Excel etc.	16	11	8	3	3.1
12	I can set up a printer and print document.	8	12	3	15	2.3
13	I can use internet and Email Services.	15	14	9	0	3.2

In table 3 above, the objective two indicated that all the items were accepted because their mean are above 2.5 except item 12 in which it was rejected because it was below the mean 2.5. This shows that teachers and students were competent in manipulating computer as well as using internet and email services; but they did not have competency in setting up a printer.

Research Question 3: What is the extent of e-learning system utilization?

Table 4

S/N	Items	Always	Usually	Rarely	Never
14	I use computer and its peripherals for Teaching and learning	6	14	16	2
15	I use E-LEARNING SYSTEM for Teaching and learning	3	14	17	4
16	I use E-LEARNING SYSTEM for Finding and accessing information and educational materials	6	16	11	5
17	I use E-LEARNING SYSTEM for Making presentation	5	9	15	8
18	I use E-LEARNING SYSTEM for Preparing lessons/notes.	6	6	14	12
19	I use E-LEARNING SYSTEM for Communicating with teachers/students in assessment.	4	5	15	15
20	I use E-LEARNING SYSTEM for Communicating with other teachers/students for academic discussion.	2	8	11	18
	Total	32	72	99	64

Table 4 indicated that the extent of utilization of e-learning was the respondents that were rarely utilizing the plat form had the highest number followed by those that were usually utilizing having 72 responses, then, 62 respondents said that they never utilize the system. Only few respondents as compared to the remaining that were always utilizing the plat form.

In addition, the table above was analyzed using its item each as follow:

Item 14: I use computer and its peripherals for Teaching and learning

Table 5

Responses	Frequency	Percentage (%)
Always	6	15.79
Usually	14	36.84
Rarely	16	42.11
Never	2	5.26
Total	38	

Table 5 showed that 15.79% of teachers and students always used computer and its peripherals for teaching and learning, 36.84% usually used, 42.11% rarely used while 5.26% never used computer and its peripherals in teaching and learning.

Item 15: I use E-LEARNING SYSTEM for Teaching and learning

Table 6

Responses	Frequency	Percentage (%)
Always	3	7.89
Usually	14	36.84
Rarely	17	44.74
Never	4	10.53
Total	38	

Table 6 indicated that 7.89% of teachers and students always used e-learning system for teaching and learning, 36.84% usually used, 44.74% rarely used while 10.53% never used the platform.

Item 16: I use e-learning system for finding and accessing information and educational materials

Table 7

Responses	Frequency	Percentage (%)
Always	6	15.79
Usually	16	42.11
Rarely	11	28.96
Never	5	13.16
Total	18	

Table 7 showed that 15.79% of teachers and students always used e-learning for finding and accessing information and educational materials in teaching and learning, 42.11% usually used,

28.96% rarely used while 13.16% never used it for finding and accessing information and educational materials in teaching and learning.

Item 17: I use E-LEARNING SYSTEM in making presentation.

Table 8

Responses	Frequency	Percentage (%)
Always	5	13.51
Usually	9	23.68
Rarely	15	40.54
Never	8	21.62
Total	37	

Table 8 showed that 13.51% of teachers and students always used E-learning for making presentation for teaching and learning, 23.68% usually used, 40.54% rarely used while 21.62% never used it for making presentation.

Item 18: I use e-learning system in preparing lessons/notes.

Table 9

Responses	Frequency	Percentage (%)
Always	6	15.79
Usually	6	15.79
Rarely	14	36.84
Never	12	31.58
Total	38	

Table 9 showed that 15.79% of teachers and students always used E-learning platform for preparing lessons/notes in teaching/learning, 15.79% usually used, 36.84% rarely used while 31.58% never used it for preparing lessons/notes in teaching/learning.

Item 19: I use e-learning system for Communicating with teachers/students for assessment.

Table 10

Responses	Frequency	Percentage (%)
Always	6	15.79
Usually	6	15.79
Rarely	14	36.84
Never	12	31.58
Total	38	

Table 9 showed that 15.79% of teachers and students always used E-learning platform for preparing lessons/notes in teaching/learning, 15.79% usually used, 36.84% rarely used while 31.58% never used it for preparing lessons/notes in teaching/learning.

Item 19: I use e-learning system for Communicating with teachers/students for assessment.

Table 10

Responses	Frequency	Percentage (%)
Always	4	10.26
Usually	5	12.82
Rarely	15	38.46
Never	15	38.46
Total	39	

Table 10 showed that 10.26% of teachers and students always used E-learning platform in communicating with teachers/students for assessment in teaching and learning, 12.28% usually used, 38.46% rarely used while 38.46% never.

Item 20: I use E-LEARNING SYSTEM for Communicating with other teachers/students for

Responses	Frequency	Percentage (%)
Always	2	5.13
Usually	8	20.51
Rarely	11	28.21
Never	18	46.15
Total	39	

Table 11 indicated that 5.13% of teachers and students always used E-learning platform in communicating with teachers/students for academic discussion, 20.51% usually used, 28.21% rarely used while 46.15%.

Conclusion

In summary, the researcher aimed in assessing the utilization of e-learning among Academics and students, and the outcome of the research showed that the teachers and the students had interest in utilizing e-learning as the mean was above 2.5; they had competency using the e-learning materials as their mean was also above 2.5 except item 12 which was rejected because it was below 2.5; but their extent towards utilization of the platform was not that good. It was shown that the teachers and the students were eager to utilize the platform despite they were lacking some materials/equipments by their side, and they had e-learning materials belong to them or owned by the management of the college like computer, scanner, printing materials and internet accessories etc. And it also showed that they were competent in manipulating the e-learning materials except the use of printing materials. Recommendations were made to encourage the use of e – learning infrastructures to foster teaching and learning in the college. The college should as matter of its significance be organizing in house training for lecturers and students on the use of ICT for teaching and learning especially the new ones. Government should provide laptops and other necessary equipments to colleges to enable them put in

place necessary ICT infrastructures that will facilitate teaching and learning. Lastly, the future research in the aspect of this work that has not been covered needs to be done.

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