STUDENTS' ACCESS TO E-LEARNING RESOURCES AND THEIR ACADEMIC PERFORMANCE IN TERTIARY INSTITUTIONS IN ABEOKUTA, OGUN STATE

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Abstract

This study investigates the level of student's access to e-learning resources and their academic performance in tertiary institutions. In an attempt to achieve the purpose of this study, six (6) research questions were formulated for the study. The study adopted survey research design with the population which covers three sampled tertiary institutions in Abeokuta, Ogun state. One hundred (100) students were sampled from each school for the study. The population of this study consists of three hundred (300) students. Twenty items self-structured questionnaire was used to elicit information from the respondents during lecture hours. The data collected were analyzed using frequency counts and mean with the likert scale value distribution. It was discovered from the study that that e-learning facility is available in their institutions and that e-learning facility is accessible by all the students in the institutions, but agreed that lack of adequate computers, lack of constant electricity supply disturb the use of e-learning, lack of other resources like routers and inadequate internet connectivity do not encourage the use of e-learning resources in the institution.

Keywords: *Access, E-learning, Resources, Academic Performance and Tertiary Institutions*

Introduction

Before the advent of e-learning, many people who wanted to obtain a tertiary degree had to compete for learning resources but the access to knowledge is not available to all, students with economic constraints can't purchase printed versions of books, students with geographical boundaries or physical disabilities had scarce opportunities in the academic province (Shukla and Chavan, 2019).

The word e-learning is used synonymously with virtual knowledge, online education, computer-based training, web based knowledge, and networked education. Education is a key factor for sustainable development (Chimombo, 2005). (Bermejo, 2005) defined E-learning as education that uses computerized communication systems as an environment for communication, the exchange of information and interaction between student and instructors. Bates and Poole (2003), one of the major challenges of teaching with technology is that you cannot possibly keep up with the technology. The paradox of technology enhanced education is that technology changes very rapidly and human beings change very slowly.

The importance of education is increasing because of increasing pressure to catch up with the developed world regarding, for example, global competitiveness (Hawkins 2002). In education, computer has made tremendous impact in enhancing learning. Information and communication technology and its use have impacted on the way learners and educators acquire and deliver information (Eke, 2009). The teaching and learning practices is undergoing a shift from the old methods to extensive usage of e-learning resources (Manimegalai and Kumar, 2017).

ICT, E-Learning and Education Process

The usage of ICT encourages the effective engagement of learners, enhancement of instruction, the easier use of teaching

methods and resources in order to adapt to the interests and necessities of students, enabling students to monitor the timetable for learning and pace of execution of the learning plan (Qaznavi, 2010). ICT is a holistic approach that improves the potential to perform activities with pace and precision, with the usage of desktop, personal computers (PCs), smartphones, internet and multi-media. These characteristics shift the position of instructor and pupil, promote learning and contribute to immersive learning, autonomy for learners and self-reliability (Zameni, 2011).

Education channels may be numerous, but colleges of higher education deliver education services that utilize the Internet or the Network to enhance the academic success of students (Lorrain, 2010). E-learning is essentially a form of guidance and learning through the internet, the device or the standalone personal computer (Oye, 2010). Given that the effectiveness of e-learning in increasing the academic output of students depends on the consistency of ICT, it is difficult to separate e-learning from ICT's nature infrastructure in relation to academic performance (Niyazazari, 2012).

Employment of information and communication technologies in education has created a new mode of learning which does not require physical attendance; hence, learning has been made possible in environments other than classrooms (Gholamhosseini, 2008). In today's increasingly globalized environment, utilizing and implementing ICT in learning has achieved tremendous success in enhancing academic performance between students in several academic disciplines and faculties (Zameni, 2011).

(Keshavarz, Rahimi, & Esmaili. 2013) opined that e-learning has a positive impact on academic achievements of students. Zavaraki & Rezaei (2011) found that the use of e-portfolio significantly improved students' attitude, motivation and academic achievement. Development and evolution of new communication devices has enabled modern man to use modern methods of teaching and learning and get free from time and space barriers and keep on learning in any time and place according to his needs and demands. (Hosseini, Seyed-Saeed, Nasram, Esmailpour & Ashoori 2015).

E-learning can have a profound and positive impact on learners' involvement, positive attitudes of teachers, personalized learning, and learners' creativity. (Magnoson, Dall, Chiland . 2010).

Effects of Access to ICT and E-Learning Facilities

Access to technology is not the same in all countries. Mahdinejad & Amoii (2011) found that schools lack well-equipped computer labs. As a result, several colleges were unable to have the requisite ICT facility for the successful distribution of curricula. This will inevitably contribute to poor academic achievements for pupils. Therefore, the adequacy, usage and upgrade of ICT facilities requires to be evaluated further in order to provide advice to higher education stakeholders for better provision, optimization of capacities and maintenance of ICT facilities in schools (Mahdinejad et al, 2011).

Shekari (2020) also considers comparatively low use in higher education institutions of the ICT facilities owing to the fact that teachers and students are limited by the shortage of teaching and learning facilities. This means that teachers and students have restricted resources and capacity to use ICT facility to improve their curriculum teaching awareness and skills. The standard of the preparation that is offered to the students will then be insufficient and represent a low performance.

On the other hand, with sufficient access to ICT, e-learning can serve as an effective means of knowledge transfer. According to Liu (2020), online forums are among the most effective and convenient tools for online learning; effective transfer of scientific knowledge and other information in context of the digital economy.

Advantages of E-Learning

The adoption of e-learning in education, especially for tertiary educational institutions has several benefits, and given its several advantages and benefits, e-learning is considered among the best methods of education. Marc (2000) noted that one of the advantages of e-learning in education is its focus on the needs of individual learners as an important factor in the process of education (rather than on the instructors' or educational institutions' needs).

Smedley (2010), the adoption of e-learning provides the institutions as well as their students or learners the much flexibility of time and place of delivery or receipt of according to learning information. Wagner, N., Hassanein, K. & Head, M. (2008) note that e-Learning makes available extra prospects for interactivity between students and teachers during content delivery.

The use of e-Learning allows self-pacing, its therefore increases satisfaction and decreases stress (Algahtani, 2011). According to Rabah (2005), objectives can be accomplished in the shortest time with least amount of effort. According to Khan (2005), the impacts of e-learning on educational ethics are ensured. This is because environments for e-learning are tolerant, with good ways of offering equal access to information irrespective of the locations of the users, their ages, ethnic origins, and races.

Drawbacks of using of E-Learning

E-learning, in spite of advantages it has when adopted in education, also has some disadvantages. Dowling, Godfrey & Gyles (2003) argue that making learning materials available online improves learning only for specific forms of collective assessment. The most frequent condemnation of e-learning is the complete absence of vital personal interactions, not only between learners and instructors, but also among colleague learners (Young, 1997).

E-learning may also lead to congestion or heavy use of some websites. This may bring about unanticipated costs both in time and money (Hameed, Badii, & Cullen, 2008). With respect to clarifications, explanations, and interpretations, the e-learning method may be less effective that traditional methods of learning. The learning process is much easier face-to-face with instructors or teachers (Almosa, 2002). Almosa, (2002) forther stressed that since tests and assessments in e-learning are frequently supervised by proxy, it may be difficult, if not impossible, to control or regulate activities such as cheating. E-learning may also lead to congestion or heavy use of some websites. This may bring about unanticipated costs both in time and money (Akkoyuklu & Soylu, 2006).

Statement of the Problem

According to Manimegalai and Kumar (2017), before the development of computer and internet technology, printed version of resources like books, journals, dictionaries, work books, etc played a significant role in learning process. Usually, printed versions are not easily accessible to all and are also expensive in nature. For example, if two students want to use a particular book simultaneously, two separate copies of that same book will be needed in the library. Instead of having the printed version of the book, if there is e-version of that book, it can be easily accessed simultaneously by many and from their various locations.

Student's performance in the schools will be different which may or may not be due to the effectiveness of accessibility of e-learning in these schools. Before the advent of e-learning, many people who wanted to obtain a tertiary degree had to compete for learning resources but the access to knowledge is not available to all, students with economic constraints can't purchase printed versions of books, students with geographical boundaries or physical disabilities had scarce opportunities in the academic province (Shukla and Chavan, 2019).

Most libraries in Nigerian higher institutions have audio-visual learning materials that are rarely utilized as a result of incessant power outages and sometimes lack of awareness on the part of the students. (Oye, 2011). The level of student's access to e-learning may correlate with their academic achievement. Certainly, that is what this study will focus on using students of higher institutions in Abeokuta, Ogun state.

Research Questions

1. Is E-learning facility is available in your institution?
2. Is the E-learning is accessible by all the students in your institution?
3. Are the E-learning resources are unlimited in your institution?
4. Do some departments use e-learning facilities more than other department?
5. Are the E-learning resources available to students outside the institution?
6. Are there any factor militating against the use of e-learning in your institution?

Scope of the Study

This study will cover undergraduate students of the Federal University of Agriculture, Alabata, Moshood Abiola Polytechnic, Ojere and Federal College of Education, Osiele, all in Abeokuta, Ogun State.

Population of the Study

The population for the study consisted of three (3) tertiary institutions in Abeokuta, Ogun State, with an estimated figure of ten thousand. The target population was restricted to all 200Level students in the FCE, HND 1 and above in the Polytechnic and 300Level and above in the University.

Sample and Sampling Techniques

Three (3) tertiary institutions were randomly selected as sample for the study from which one hundred (100) respondents per school were selected. On the whole a total of 300 students were selected using simple random sampling technique.

Research Design

This research study made use of descriptive research design. This is important because it involves a systematic collection of facts and accurate information or data about a given population or areas of interest, object or class of events in other to analyze, describe, compare and contrast and to interpret the facts without manipulating any variable.

Significance of the Study

The study would provide knowledge and guidelines that may be of help to policy makers. The research is therefore of importance for planners, and other educational scientists. And lastly, this study provides an input to the students, teachers and researchers in the areas of e-learning.

Research Instrument

The research instrument for this study was a self-structured questionnaires. The questionnaires consisted of sections A and section B. Section A was designed to seek information about respondents' personal data while section B consist of items designed to seek for the responses of correlate issue on students' access to e-learning resources and their academic performance in tertiary institutions in Abeokuta, Ogun State. The items on the questionnaire investigated negative and positive responses based on the subject matter.

Validation and Reliability of the Research Instrument

The questionnaire constructed was tested during the pilot survey conducted with the target sample. Possible problems that were likely to be encountered during the research were noted and rectified.

Data Analysis

The data collected were analyzed using frequency counts and mean with the likert scale value distribution.

	Code	Range
SA	4	3.26-4.00
A	3	2.51-3.25
D	2	1.76-2.50
SD	1	1.00-1.75

Likert scale table

Table for RQ 1: E-learning facility is available in your institution

FUNAAB	*x*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*fx*
SA	4	36	144	**SA**	4	65	260	**SA**	4	45	180
A	3	61	183	**A**	3	28	84	**A**	3	47	141
D	2	2	4	**D**	2	4	8	**D**	2	6	12
SD	1	1	1	**SD**	1	3	3	**SD**	1	2	2
Total		**100**	**332**	**Total**		**100**	**355**	**Total**		**100**	**335**
Mean		**3.32**		**Mean**		**3.55**		**Mean**		**3.35**	

All the mean values of respondents to research questions fall between 3.32 and 3.55. This shows that most of the respondents strongly agreed that e-learning facility is available in their institution.

Table 2: E-learning is accessible by all the students in your institution

FUNAAB	*x*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*fx*
SA	4	15	60	**SA**	4	35	140	**SA**	4	41	164
A	3	26	78	**A**	3	50	150	**A**	3	38	114
D	2	57	114	**D**	2	10	20	**D**	2	17	34
SD	1	2	2	**SD**	1	5	5	**SD**	1	4	4
Total		**100**	**254**	**Total**		**100**	**315**	**Total**		**100**	**316**
Mean		**2.54**		**Mean**		**3.15**		**Mean**		**3.16**	

All the mean values of respondents to research questions fall between 2.54 and 3.16. This implies that most of the respondents strongly agreed that e-learning facility is accessible by all the students in their institution.

Table for RQ3: E-learning resources are unlimited in your institution

FUNAAB	*x*	*F*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*fx*
SA	4	12	48	**SA**	4	38	152	**SA**	4	39	156
A	3	36	108	**A**	3	33	99	**A**	3	47	141
D	2	48	96	**D**	2	19	38	**D**	2	9	18
SD	1	4	4	**SD**	1	10	10	**SD**	1	5	5
Total		**100**	**256**	**Total**		**100**	**299**	**Total**		**100**	**320**
Mean		**2.56**		**Mean**		**2.99**		**Mean**		**3.20**	

All the mean values of respondents to research questions fall between 2.56 and 3.20. This reveals that most of the respondents agreed that e-learning resources are unlimited in their institution.

Table for RQ 4: Some departments use e-learning facilities more than other departments

FUNAAB	*x*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*fx*
SA	4	22	88	**SA**	4	39	156	**SA**	4	30	120
A	3	24	72	**A**	3	47	141	**A**	3	50	150
D	2	48	96	**D**	2	12	24	**D**	2	19	38
SD	1	6	6	**SD**	1	2	2	**SD**	1	1	1
Total		**100**	**262**	**Total**		**100**	**323**	**Total**		**100**	**309**
Mean		**2.62**		**Mean**		**3.23**		**Mean**		**3.09**	

All the mean values of respondents to research questions fall between 2.62 and 3.23. This suggests that most of the respondents agreed that some departments use e-learning facilities more than other departments.

Table for RQ 5: E-learning resource is available to students outside the institution

FUNAAB	*x*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*fx*
SA	4	18	72	**SA**	4	38	152	**SA**	4	41	164
A	3	28	84	**A**	3	35	105	**A**	3	38	114
D	2	42	84	**D**	2	15	30	**D**	2	18	36
SD	1	12	12	**SD**	1	12	12	**SD**	1	3	3
Total		**100**	**252**	**Total**		**100**	**299**	**Total**		**100**	**317**
Mean		**2.52**		**Mean**		**2.99**		**Mean**		**3.17**	

All the mean values of respondents to research questions fall between 2.52 and 3.17. This means most of the respondents agreed that e-learning resource is available to students outside the institution.

Table for RQ 6: Lack of adequate computers affects the use of e-learning in the institution

FUNAAB	*x*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*fx*
SA	4	57	228	**SA**	4	52	208	**SA**	4	12	48
A	3	33	99	**A**	3	44	132	**A**	3	67	201
D	2	7	14	**D**	2	3	6	**D**	2	19	38
SD	1	3	3	**SD**	1	1	1	**SD**	1	2	2
Total		**100**	**344**	**Total**		**100**	**347**	**Total**		**100**	**289**
Mean		**3.44**		**Mean**		**3.47**		**Mean**		**2.89**	

All the mean values of respondents to research questions fall between 2.52 and 3.17. This indicates that most of the respondents agreed that lack of adequate computers affects the use of e-learning in the institution.

Table for RQ 7: Lack of constant electricity supply disturb the use of e-learning in the institution.

FUNAAB	*x*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*fx*
SA	4	63	252	**SA**	4	41	164	**SA**	4	40	160
A	3	29	87	**A**	3	55	165	**A**	3	44	132
D	2	8	16	**D**	2	4	8	**D**	2	13	26
SD	1	0	0	**SD**	1	0	0	**SD**	1	3	3
Total		**100**	**355**	**Total**		**100**	**337**	**Total**		**100**	**321**
Mean		**3.55**		**Mean**		**3.37**		**Mean**		**3.21**	

All the mean values of respondents to research questions fall between 3.21 and 3.55. This states that most of the respondents agreed that lack of constant electricity supply disturb the use of e-learning in the institution.

Table for RQ 8: Lack of computer proficient lecturers prevent the use of e-learning resources.

FUNAAB	*x*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*X*	*f*	*fx*
SA	4	10	40	**SA**	4	45	180	**SA**	4	24	96
A	3	74	222	**A**	3	50	150	**A**	3	60	180
D	2	15	30	**D**	2	4	8	**D**	2	13	26
SD	1	1	1	**SD**	1	1	1	**SD**	1	3	3
Total		**100**	**293**	**Total**		**100**	**339**	**Total**		**100**	**305**
Mean		**2.93**		**Mean**		**3.39**		**Mean**		**3.05**	

All the mean values of respondents to research questions fall between 2.93 and 3.39. This infers that most of the respondents agreed that lack of constant electricity supply disturb the use of e-learning in the institution.

Table for RQ 9: Inadequacy of other resources like routers is limiting the use of e-learning

FUNAAB	*x*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*fx*
SA	4	12	48	**SA**	4	36	144	**SA**	4	48	192
A	3	37	111	**A**	3	52	156	**A**	3	37	111
D	2	51	102	**D**	2	12	24	**D**	2	14	28
SD	1	0	0	**SD**	1	0	0	**SD**	1	1	1
Total		**100**	**261**	**Total**		**100**	**324**	**Total**		**100**	**332**
Mean		**2.61**		**Mean**		**3.24**		**Mean**		**3.32**	

All the mean values of respondents to research questions fall between 2.61 and 3.32. This concludes that most of the respondents strongly agreed that inadequacy of other resources like routers is limiting the use of e-learning.

Table for RQ 10: Inadequate internet connectivity does not encourage the use of e-learning.

FUNAAB	*X*	*f*	*fx*	MAPOLY	*x*	*f*	*fx*	FCE	*x*	*f*	*Fx*
SA	4	9	36	**SA**	4	43	172	**SA**	4	33	132
A	3	40	120	**A**	3	44	132	**A**	3	54	162
D	2	36	72	**D**	2	6	12	**D**	2	9	18
SD	1	15	15	**SD**	1	7	7	**SD**	1	4	4
Total		**100**	**243**	**Total**		**100**	**323**	**Total**		**100**	**316**
Mean		**2.43**		**Mean**		**3.23**		**Mean**		**3.16**	

All the mean values of respondents to research questions fall between 2.43 and 3.23. This revealed that most of the respondents agreed that inadequate internet connectivity does not encourage the use of e-learning.

Summary of Findings

Based on the research study, e-learning is available in the institutions and can be said that it is not limited to these tertiary institutions in Ogun state and is accessible by all the students in the institutions. It is also evidenced that the usage of e-learning also varies from department to department. As stated by the respondents, e-learning is also available to students outside the institution.

However, some factors are also affecting the use of e-learning resources among the students. These include inadequate computers, inconstant electricity also depletes the usage of e-learning among the students, Congestion of heavy use of some websites limits the use of e-learning, inadequacy of other e-learning resources like routers and poor internet connectivity also affects the use of e-learning resources in education also limits the effective use of e-learning by for the academic pursuit.

Conclusions

It can therefore be concluded that the level of access to e-learning resources in Ogun state is adequately acceptable. E-learning resources are available and readily accessible to all the students in and outside of the institutions.

The factors limiting the use of e-learning among the students are inadequate computers, inconstant electricity, few amount of computer proficient lecturers, inadequate resources like routers, poor internet connectivity and Congestion of heavy use of some websites.

Recommendations

- Potential research can also be directed at lecturers and teachers to know their own view about how e-learning resources affect students' performances.
- The institutions should also be focused on one by more to see if there is more to it than meets the eye.
- Some specific subjects or courses could be considered relative to students' access to e-learning resources be given a compulsory status.
- More emphasis should be laid on e-learning compared to traditional learning

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