

AVAILABILITY AND EFFECTIVENESS OF E-LEARNING FACILITIES FOR TEACHING AND LEARNING DURING COVID-19 PANDEMIC IN EKITI STATE UNIVERSITY

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Abstract

This study examines the availability and effectiveness of e-Learning facilities for teaching and learning during the emergent covid-19 era in Ekiti State University. Specifically, the study determined the available e-learning facilities and its effectiveness in Ekiti State University. Four research questions were raised to guide the study. The study adopted survey design as the mode of enquiry. The population comprises of twelve thousand and eight hundred (12,800) students from two faculties in Ekiti State University. A total number of one hundred and sixty (160) students were randomly selected from the two faculties using stratified random sampling procedure. The data collected were analyzed using Mean, Standard Deviation (SD) and Ranking. The findings revealed that limited e-learning facilities are available and effective for teaching and learning in Ekiti State University. It was therefore suggested that educational institutions in Ekiti State should be adequately equipped with e-learning facilities for effective delivery of teaching and learning during emergency situation and for 21st century compliance.

Keyword: E-learning; teaching and learning; covid-19; University education; availability; effectiveness.

Introduction

The term "e-learning" has only been in existence since 1999 when the word was first utilized at a Computer Based Test (CBT) systems seminar. Other words also began to spring up in search of an accurate description such as "online learning" and "virtual learning". However, the principles behind e-learning have been well documented throughout history, and

there is even evidence which suggests that early forms of e-learning existed as far back as the 19th century.

In some definitions e-Learning encompasses more than just the offering of wholly on-line courses. For instance, Oblinger and Hawkins (2005) noted that e-Learning has transformed from a fully-online course to using technology to deliver part or all of a course independent

of permanent time and place. E-learning also refers to the use of information and communication technologies to enable the access to online learning and teaching resources. In its broadest sense, Abbad, Morris and de Nahlik (2009), defined E-learning to mean any learning that is enabled electronically. They however narrowed this definition down to mean learning that is empowered by the use of digital technologies. Long before the internet was launched, distance courses were being offered to provide students with education on particular course or skills. In the 1840's Isaac Pitman taught his pupils shorthand via correspondence. This form of symbolic writing was designed to improve writing speed and was popular amongst secretaries, journalists, and other individuals who did a great deal of note taking or writing. Pitman, who was a qualified teacher, was sent completed assignments by mail and he would then send his students more work to be finished using the same system. Technology has broadly improved E-learning facilities in the present 21st century and can be classified into two categories, including the hardware and the software. The hardware facilities include PCs, tablets, digital camera, printer, digital videos, scanner, overhead projector, OHP, and OHP screen, USB drive and CD-ROM, while the software among others include operating systems, cloud technologies, applications, writing, editing, MS office and CD textbooks that fall in the category of courseware, OERS and e-contents.

These facilities has helped to move teaching and learning from the traditional

chalk and board method to ICT-based customized, adaptable and synergistic learning that involves learners, instructors, facilitators and specialist (Eze, Chinedu-Eze, & Bello, 2018)

Types of E-Learning

There are diverse ways of classifying the types of e-learning. Zeitoun (2008) classified this by the extent of such features use in education, mixed or blended mode, assistant mode, and completely online mode. The assistant mode supplements the traditional method as needed. Mixed or blended mode offers a short-term degree for a partly traditional method. The completely online mode, which is the most complete improvement, involves the exclusive use of the network for learning (Zeitoun, 2008).

Algahtani (2011) described the completely online mode as "synchronous" or "asynchronous" by the application of applying optional timing of interaction. The synchronous timing comprises alternate on-line access between teachers or instructors and learners, or between learners, and the asynchronous, to him allows all participants to post communications to any other participant over the internet (Algahtani, 2011; Almosa and Almubarak, 2005). The synchronous type allows learners to discuss with the instructors and also among themselves via the internet at the same time with the use of tools such as the videoconference and chat rooms. This type according to Almosa and Almubarak (2005) offers the advantage of instantaneous feedback. The asynchronous mode also allows learners to

discuss with the instructors or teachers as well as among themselves over the internet at different times. It is therefore not interaction at the same moment but later, with the use of tools such as thread discussion and emails (Almosa and Almubarak, 2005; Algahtani, 2011), with an advantage that learners are able to learn at a time that suits them whilst a disadvantage is that the learners will not be able to receive instant feedback from instructors as well as their colleague learners (Almosa and Almubarak, 2005).

The Use of E-Learning in Education

The development of multimedia and information technologies, as well as the use internet as a new technique of teaching, has made radical changes in the traditional process of teaching (Wang 2007). Development in information technology, According to Yang and Arjomand (1999), has generated more choices for today's education. Agendas of schools and educational institutions have recognized e-Learning as having the prospect to transform people, knowledge, skills and performance (Henry, 2001).

Also according to Love and Fry (2006), colleges, universities, and other institutions of higher learning race to advance online course capability in a speedily developing cyber education market. E-learning, has come to be more and more important in institutions of higher education. Just as there are different types of e- Learning, there are also different ways of employing the technique in education. Algahtani, (2011), in his evaluation of E-learning effectiveness and experience in Saudi

Arabia, discovered three distinct models of using e-learning in education including the "adjunct, blended e-Learning and online". The three ways of using e-Learning technologies as discovered by Algahtani (2011) are described below.

The "adjunct e-Learning is the situation which e-Learning is employed as an assistant in the traditional classroom providing relative independence to the learners or students (Algahtani, 2011). In the blended e-Learning, Algahtani (2011) and Zeitoun (2008) explained that, in this way of using e-Learning, the delivery of course materials and explanations is shared between traditional learning method and e-learning method in the classroom setting. The third one which is the online is devoid of the traditional learning participation or classroom participation. In this form of usage, the e-Learning is total so that there is maximum independence of the learners or students (Algahtani, 2011; Zeitoun, 2008).

Benefits of E-learning

The adoption of E-learning in education, especially for higher educational institutions has several benefits, and given its several advantages and benefits, e-learning is considered among the best methods of education. Several studies and authors have provided benefits and advantages derived from the adoption of e-learning technologies into schools (Klein and Ware, 2003; Algahtani, 2011).

Some of the advantages that the adoption of e-learning in education, obtained from review of literature is that it is flexible when

issues of time and place are taken into consideration. Every student has the luxury of choosing the place and time that suits him/her. According to 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.

E-learning enhances the efficacy of knowledge and qualifications via ease of access to a huge amount of information; it is able to provide opportunities for relations between learners by the use of discussion forums. Through this, e-learning helps eliminate barriers that have the potential of hindering participation including the fear of talking to other learners.

E-learning motivates students to interact with other, as well as exchange and respect different point of views. E-learning eases communication and also improves the relationships that sustain learning. Wagner et al (2008) note that e-Learning makes available extra prospects for interactivity between students and teachers during content delivery.

E-learning is cost effective in the sense that there is no need for the students or learners to travel. It is also cost effective in the sense that it offers opportunities for learning for maximum number of learners with no need for many buildings.

E-learning always takes into consideration the individual learners differences. Some learners, for instance prefer to concentrate on certain parts of the course, while others

are prepared to review the entire course. E-learning helps compensate for scarcities of academic staff, including instructors or teachers as well as facilitators, lab technicians etc. The use of e-Learning allows self-pacing. For instance, the asynchronous way permits each student to study at his or her own pace and speed whether slow or quick. It therefore increases satisfaction and decreases stress (Codone, 2001; Algahtani, 2011).

Disadvantages of E-learning

E-learning, in spite of the advantages that it has when adopted in education, also has some disadvantages. Studies support that e-learning possesses some disadvantages (Klein and Ware, 2003; Akkoyuklu and Soyulu, 2006). For example, despite the claims that e-Learning can improve the education quality, Dowling, Godfrey, and Gyles (2003) argue that making learning materials available online results in improved learning results only for specific forms of collective assessment. The most noticeable condemnation of e-Learning is the complete absence of vital personal interactions, not only between learners and instructors, but also among colleague learners. According to Almosa (2002), regardless of all the disadvantages of e-learning, there are a lot of benefits which inspire its use and community education, cultural diversity and globalization, and eradicating boundaries of place and time.

The disadvantages of e-learning are that, E-learning as a method of education makes the learners undergo contemplation, remoteness, as well as lack of interaction or relation. It therefore

requires a very strong inspiration as well as skills with to the management of time in order to reduce such effects, with respect to clarifications, offer of explanations, as well as interpretations, the e-learning method might be less effective than the traditional method of learning.

The learning process is much easier with the use of the face to face encounter with the instructors or teachers, when it comes to improvement in communication skills of learners, e-learning as a method might have a negative effect. The learners might have an excellent knowledge in academics, they may not possess the needed skills to deliver their acquired knowledge to others, since tests for assessments in e-learning are possibly done with the use of proxy, it will be difficult, if not impossible to control or regulate bad activities like cheating.

E-learning may also probably be misled to piracy and plagiarism, predisposed by inadequate selection skills, as well as the ease of copy and paste. E-learning may also deteriorate institutions' role, socialization role and also the role of instructors as the directors of the process of education, also not all fields or discipline can employ the e-learning technique in education. For instance, the purely scientific, engineering and technical fields that include practical cannot be properly studies through e-learning. Researchers have argued that e-learning is more appropriate in social science and humanities than the fields such as medical science and pharmacy, engineering and technology department where there is the need to develop practical skills.

The emergent of Covid-19

COVID-19 pandemic as a global disruption has affected people regardless of nationality, level of education, income or gender. Education is no exception. Students from privileged backgrounds, supported by their parents that are eager and able to learn, could find their ways behind closed school doors to alternative learning opportunities. The less privileged has no opportunity for alternative learning when their schools were shut down.

This crisis has exposed the lack of competence or ability and the lack of justice in our education systems from access to telecommunications networks and computers needed for online education, and the supportive environments needed to focus on learning, up to the instances between resources and needs. Covid-19 pandemic has forced schools and universities to close and send students home. This really has given room for online learning plans and technology for students and lecturers. In many respect, the education industry's move to instruction rhymes with the work-from-home method. Covid-19 has really pushed remote learning to be broadly accepted and some institutions were caught unprepared. As learning goes digital, budget will be raised, and the administrators will have to plan. Higher institutions administrators have a lot to do to cope with the change that the pandemic has caused in the delivery of teaching and learning in their respective institutions.

Statement of the problem

It has been discovered in recent years that ICT is being canvassed by several people as being effective in improving teaching and learning. In the present information age, the issue of students' use of internet is of crucial importance. This is so because the use of internet by students might enhance competence and confidence in them. However, many students still patronize traditional book materials as a source of information in our universities rather than e-learning. During the covid-19 era, many institutions in Nigeria that were already equipped switched to the alternative mode of teaching and learning via e-learning that is more efficient and reliable for that period. The success of e-learning in any educational institution could be acclaimed to depend on the availability and effectiveness of facilities.

This study intends to investigate on the readiness of Ekiti State University to provide uninterrupted teaching and learning during the globally disrupted era in educational system caused by Covid-19 pandemic. This study sought to find out how available and effective the use of alternative e-learning facilities in the Ekiti State University during the covid-19 era.

Purpose of the Study

The main purpose of this study is to find out the availability and effectiveness of e-learning facilities for teaching and learning in Ekiti State University Specifically, the study seeks to;

- i. Determine whether e-learning facilities are available for teaching and learning in Ekiti State University
- ii. Find out whether the available e-learning facilities are effective for teaching and learning in Ekiti State University
- iii. Determine the influence of e-learning on teaching and learning in Ekiti State University.

Research Questions

In order to carry out this study, the following research questions were generated:

1. What are the e-learning facilities available for teaching and learning in Ekiti State University?
2. How effective are the available e-learning facilities for teaching and learning in Ekiti State University?
3. How do the available e-learning facilities influence teaching and learning in Ekiti State University?

Methodology

A survey research design was used for the study. The population of the study comprise of all the undergraduate students in two faculties in Ekiti State University. The sample for the study consisted of one hundred and sixty [160] respondents. The face and content validity of the instrument was established by experts from the department of Test and measurement and Vocational and Technical Education. The reliability of the instrument was ensured by using the Cronbach Alpha reliability method,

thereafter Alpha value of 0.62 was obtained as the reliability coefficient. Data collected were analyzed using Mean and Standard Deviation and Ranking which means the degree of the acceptability of each research question items.

Results

Research Question 1: What are the e-learning facilities available for teaching and learning in Ekiti State University?

Table 1: E-learning Facilities available for Teaching and Learning in Ekiti State University

S/N	Items	Mean	SD	Ranking
1	Laptop are available for e-learning teaching and learning in EKSU	1.92	1.104	8 th
2	Smart school network is available for e-learning teaching and learning in EKSU	2.76	1.174	7 th
3	Projectors and available for e-learning teaching and learning in EKSU	2.81	1.017	6 th
4	Computers are available for e-learning teaching and learning in EKSU	3.20	.970	4 th
5	Good internet facilities are available for e-learning teaching and learning in EKSU	3.21	1.018	3 rd
6	Social internet networks are available for e-learning teaching and learning	3.29	.850	2 nd
7	Email messages are available for e-learning teaching and learning	3.00	1.028	5 th
8	Mobile phones are available for e-learning teaching and learning in EKSU	3.63	.742	1 st

From the above table, the available facilities are in a ranking position. The table therefore, reported that mobile phones has the highest mean score of (3.63), mobile phones were ranked as the first facilities that are mostly available for teaching and learning through e-learning perhaps because it is the most common devices that can be found with majority of students. This is followed by social networking with the mean score of (3.00). The third available facilities are email messages with the mean score of (3.00). projectors and smart school network are ranked in 6th and 7th position which is

closing to the least facilities that is available. Projector has the mean score of (2.81) while smart school has mean score of (2.76). Laptop has the least mean score of (1.92), this indicate that laptop are not common among the students and lecturers for teaching and learning through e-learning. Probably, they are more familiar with the use of mobile phone is was ranked highest among all other facilities with the mean score of 3.63.

Research Question 2: How effective are the available e-learning facilities for teaching and learning in Ekiti State University?

Table 2: Effectiveness of Available e-learning facilities for teaching and learning in Ekiti State University.

S/N	Items	Mean	SD	Ranking
1.	Available Laptops are effective for e-learning teaching and learning in EKSU	1.86	1.184	8 th
2.	Available smart school network is effective for e-learning teaching and learning in EKSU	3.44	.957	1 st
3.	Available projectors are effective for e-learning teaching and learning in EKSU	3.42	.879	2 nd
4.	Available computers are effective for e-learning teaching and learning in EKSU	3.16	1.063	5 th
5.	Available internet network are effective for e-learning teaching and learning in EKSU	3.25	.832	4 th
6.	Social networks handles are effective for e-learning teaching and learning	3.29	.961	3 rd
7.	Electronic mails are effective for e-learning	3.10	1.041	6 th
8.	Mobile phones are effective for e-learning teaching and learning in EKSU	2.42	1.221	7 th

Source: Field Survey, 2021

From the above table, the effectiveness of the available facilities is in a ranking position. The table therefore, reported that smart school has the highest mean score of (3.44), smart school were ranked as the first facilities that are mostly available for teaching and learning through e-learning perhaps because it is the most common devices that can be found with majority of students. This is followed by projectors with the mean score of (3.42).

The third effective available facilities are social networks with the mean score of (3.29). Computers and E-mail are ranked in 6th and 7th position which is closing to the

least facilities that is available. Computer has the mean score of (3.16) while E-mail has mean score of (3.10). Mobile phones have the least mean score of (2.42), this indicate that mobile phones are not common among the students and lecturers for teaching and learning through e-learning. Probably, they are more familiar with the use of smart school was ranked highest among all other facilities with the mean score of 3.44.

Research Question 3: How does the available of e-learning facilities influence teaching and learning in Ekiti State University?

Table 3: Influence of Available E-learning facilities in teaching and learning in EKSU.

S/N	Items	Mean	SD	Ranking
1.	Available laptops influences e-learning teaching and learning in EKSU	3.16	.603	3rd
2.	Available smart school network is influences e-learning teaching and learning in EKSU	3.22	.782	2nd
3.	Available projectors influences e-learning teaching and learning in EKSU	2.68	1.151	5th
4.	Available computers are effective for influences e-learning teaching and learning in EKSU	2.92	.876	4th
5.	Available internet network influences e-learning teaching and learning in EKSU	3.44	.679	1st

Source: Field Survey, 2021

From the above table, the influence of the available facilities is in a ranking position. The table therefore, reported that network internet has the highest mean score of (3.44), smart school were ranked as the first facilities that influence teaching and learning through e-learning perhaps because it is the most common devices that can be found with majority of students. This is followed by smart school with the mean score of (3.2). The third available facilities that influences teaching and learning in EKSU is laptops with the mean score of (3.16). The fourth available facilities that influences teaching and learning in EKSU are computers with the mean score of (2.92). The fifth available facilities that influences teaching and learning in EKSU are projectors with the mean score of (2.68).

Discussion

The finding of the study in the first research question revealed that mobile phone was ranked highest among all other devices available for learning in the University. This is followed by social network which is also activated with the use of mobile phone. Without mobile phone, social network cannot function effectively. The study corroborates the finding of Mehdi, Maryam and Sahar (2020) that mobile phone was the common devices that are available for e-learning. The study further supported by the finding of Ilci (2014) that mobile learning has also emerged as a new technological achievement and educational trend that provides both educators and learners with ample opportunities

The findings in research question two revealed that smart school network is effective among all other facilities available

and this is followed by the effectiveness of the available projector in the school. The study of Dowling, Godfrey, and Gyles (2003) confirmed that making learning materials available online results in improved learning results only for specific forms of collective assessment. The findings further revealed that projector was ranked second among the effective facilities that was used for e-learning for teaching delivery in Ekiti State University.

More so, the findings of the study in research question three shows that the availability of internet network was ranked highest among all the available facilities influencing e-learning for learning and teaching in Ekiti State University followed by smart school network, this could be because third generation wireless networks provide unfettered broadband internet access and wire-line broadband DSL access through local exchanges. This study was supported by Gotschall (2000), that e-learning has a strategy for executing educational and corporate training.

Conclusion

Despite considerable and rich advances in the availability and effectiveness of e-learning facilities for teaching and learning in Ekiti State University, there is still a void with respect to the utilization of the available facilities. Specifically, the available mobile phones are less effective due to lack of knowledge on how to use it for e-learning by some lecturers or students, this may also happen if either the students or lecturers are short of data subscription. Through the findings made,

it was concluded that some of the e-learning facilities were available but less effective, more so, some were less available but are effective. These facilities are limited compared with global requirements for effective teaching and learning delivery in the 21st century.

Recommendations

Based on this study, the following recommendations were made:

1. The University should provide enough and adequate facilities that will be more effective for teaching and learning.
2. Both lecturers and students should be trained on how to use e-learning to deliver and receive lectures by e-learning expert.
3. The school management should make sure that the available e-learning facilities are effective for use.

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