

DETERMINANTS OF LIS LECTURERS' WILLINGNESS TO ADOPT EMERGENCY REMOTE TEACHING AMIDST COVID-19 CRISIS IN NIGERIA

OKUONGHAE OMORODION

Head, E-library services
Samuel Adegboyega University,
PMB 001, Ogwa, Edo State, Nigeria
Email: okuonghaeo@yahoo.com

EKHORUTOMWEN, MARIA-GORRETTI

Lecturer 1
Department of Educational Management
University of Benin, PMB 1090,
Ugbowo, Benin City, Nigeria
Email: gorretti.ekhorutomwen@uniben.edu

EWERE, IYOBOSA

Librarian 1
John Harris Library
University of Benin,
PMB 1090, Ugbowo, Benin City, Nigeria
Email: iyobosa.ewere@uniben.edu

ABSTRACT

The paper examined ICT competency and Perceive Ease of Use (PEOU) as determinants of LIS lecturers' willingness to adopt emergency remote teaching amidst COVID-19 crisis in Nigeria. The survey research design was used for the study and the population comprised of Library and Information Science (LIS) lecturers in Universities in Nigeria. Consequently, 126 LIS lecturers were randomly selected for this study. Data was collected through a self-designed questionnaire which was converted into online survey using Survey Monkey and was administered to respondents using the various faculty WhatsApp group. The findings from the study revealed that LIS lecturers have high level of ICT competencies and are highly willing to adopt emergency remote teaching amidst the COVID-19 crisis. The study also revealed that lecturers perceive that they will find remote teaching easy even though there is the problem of high cost of internet data, excessive power outage, poor internet services, students' digital and media literacy skills and inadequacy of ICT media facilities in institutions amongst others.

Keywords : *ICT, ICT Skills, Perceived Ease of Use, Remote Teaching, E-learning, Electronic Learning, Online Courses, Coronavirus, COVID-19, Lecturers, Faculty, Teacher Attitudes, Online Learning Adoption, Nigeria.*

1. Introduction

The 2019 coronavirus virus disease, otherwise known as COVID-19, which started in Wuhan, China, has since spread to over 110 countries in the world and infected millions of people according to the World Health Organization (WHO) statistics of 2020. As a result of the wide spread of the virus around the globe, social, economic, political, and educational activities have since been suspended in a bid to curtail the spread of the virus. Governments have ordered the closure of schools in virtually all countries

affected by the virus in a bid to reduce physical contact and control the spread of the virus. This directive has led to disruptions in the flow of teaching and learning activities in schools at all levels and in all countries. To this end, many institutions in the developed countries have embraced emergency remote teaching in order to provide temporary access to instructional materials remotely.

According to Hodges et al. (2020), emergency remote teaching (ERT) "is a temporary shift of instructional delivery to an alternate delivery mode due to crisis

circumstances". Hodges et.al further noted that it involves the usage of online teaching applications for interaction between the instructor and the students, thereby recreating the face-to-face teaching in a virtual environment for the time being. The ERT has an objective of only filling in for the period of pandemic will return to the regular format once the crisis or emergency is abated. Simply put, ERT is a shift in instructional delivery from the conventional face to face mode to a remote mode, thereby providing temporary access to educational materials in the midst of crisis. This mode of teaching ensures the continuity of academic activities in the face of crisis or disaster.

Moreover, the adoption of ERT in universities allows students to choose their learning environment and free them from being confined to the four walls of the classroom. In addition, students are sometimes allowed to join the class or read up what has been taught at their nearest convenient time. Also, this mode of teaching is sometimes considered convenient for tech savvy lecturers because of the flexibility of the time, work schedules and location for lectures. However, Hodges et al. (2020) noted that the goal of ERT is not to replace or re-create the usual educational teaching methods or ecosystem, but to provide tentative access to instruction and instructional supports in times of emergency or crisis.

Furthermore, advancement in information technology has enhanced the proliferation of sites used for ERT. Harrison and Thomas (2009) opined that open edx, zoom, Google classroom and social networking sites like Facebook amongst others are sites used for ERT. The choice of some of these sites often stem from the limited time given to school management prior to migration. Although, some of these platforms have content management systems (CMS) and learning management system which makes collaborative and situated teaching and learning more effective. However, despite the

importance of ERT as a temporary alternative method to face-to-face teaching in times of crisis, it is sad to note that majority of Nigerian universities are yet to migrate to ERT. Interactions with some Library and Information Science (LIS) lecturers in Nigerian universities have revealed that many of the lecturers are yet to migrate to ERT. This could be as a result of some factors such as the Information and Communication Technology (ICT) competency of the lecturers and the perceived ease of use (PEOU) of the various ERT site.

ICT competency refers to the ability to apply information and communication technologies to carry out a task. These technologies could include laptop computers, smartphones, E-mail, World Wide Web, intranets, online databases amongst others (Akpan, 2014). An ICT competent person is able to navigate through different information technologies to perform a task or achieve a goal. ICT could be in the form of hardware or software. Examples of ICT hardware include desktop computer, laptops, smartphones, tablets, printers, scanners, and photocopiers. MS Word, social media applications, internet facilities (e.g. E-mail), presentation tools such as PowerPoint and electronic databases are examples of ICT software. Furthermore, aside ICT competency, another factor that could influence lecturers' migration to ERT is the perceived ease of use of the various ERT site. Davis 1989 explained that Perceive Ease of Use (PEOU) is the extent to which someone believes that using a technological innovation will be free from effort. However, in the context of this study, perceive ease of use means the degree to which lecturers believe that ERT is easy to adopt and it is free of effort. The more lecturers perceive ease of use of ERT, the more willing they are to migrate to ERT. Thus, these factors (ICT competency and PEOU) could influence the willingness of lecturers to adopt ERT in universities in Nigeria. As a result, it is worthy of being investigated. It is on this note that this study is conducted to investigate ICT

competency and PEOU as determinants of Library and Information Science (LIS) lecturers' willingness to adopt emergency remote teaching amidst COVID-19 crisis in Nigeria.

2. Review of Literature

The widespread spread of COVID-19 and its high rate of infection have led to the closure of school buildings and as a result, school management has adopted ERT. James and Cruft (2013) observed that ERT is a form online teaching which allows instructors to pass information and information materials across to students remotely during a time of disaster. This form of teaching, though done remotely, is not exactly the same with distance learning due to the circumstances surrounding its adoption. Furthermore, University of the People (2020) explained that, ERT is meant to be a temporary shift from the normal modes of teaching, as it occurs when teaching becomes remote. ERT as noted by Edtech (2018), ERT is the form of blended learning, radio and television learning as well as online learning. However, to effectively participate and engage students in an ERT environment, lecturers must possess the needed competencies and drive to work remotely (Martin et al.).

Amidst the COVID-19 crisis, lecturers in universities are expected to migrate to remote teaching. In order to do so effectively, lecturers must have the requisite ICT competency. ICT is convergent of computer and telecommunication technologies. Johnson (2017) opined that ICT cut across different kinds of technologies such as computer systems, telecommunication systems and networking systems. These technologies could be used to enhance teaching and learning in times of pandemic. Milman (2020) explained that even though there are no playbooks for how to lead and teach remotely, some suggestions could however help lecturers adjust to ERT. Some of the suggestions

identified by Milman include communicating frequently and honestly, Prioritizing needs, flexibility, simplicity, collaboration, developing contingency plans amongst others. Allen and Seaman (2017) averred that the ICT competencies of lecturers could influence how well lecturers engage students in an online environment. This is because lecturers will need to navigate their way through the teaching module in order to get across to students.

Furthermore, Michika and Manabete (2019) conducted a study on Lecturers' ICT competency needs in the use of peripheral equipment for teaching in Polytechnics in Northeast zone of Nigeria. The study revealed that lecturers in Business Education are able to utilize familiar types of computer resources at high levels, although, they are not incorporating newer technologies in their instruction. Similarly, in a study conducted by Akpan (2014) on ICT Competence and Lecturers' Job Efficacy in Universities in Cross River State, Nigeria, it was gathered that male and female lecturers used in the study are familiar with the use of ICT tools on a regular basis for academic work. Beyond that, the study revealed that teachers' level of ICT competence significantly influence their efficacy in classroom instruction, research/publication, communication and record-keeping.

Moreover, Makokha and Mutisya pointed out that certain factors like computer anxiety, computer skills, environmental conditions among others hinders the smooth adoption of remote teaching among lecturers. Also, Ayodele (2013) explained that high cost of internet data, excessive power outage, ICT skills, availability of ICT tools and poor internet services are among the major challenges facing remote teaching in Nigeria. Olugbeko and Izu (2013) identified economic factor, government policy, location and parental background of learner as factors that affect E-learning education in Nigeria.

3. Objectives of the Study

The aim of this study is to investigate ICT competency and perceive ease of use as determinants of LIS lecturers' willingness to adopt emergency remote teaching amidst COVID-19 crisis in Nigeria. To achieve this, the specific objectives of the study are to:

1. Determine the level of ICT competencies of lecturers in universities in Nigeria;
2. Ascertain perceived ease of use of remote teaching site by lecturers;
3. Examine the level of lecturers' willingness to adopt ERT in universities amidst COVID-19 crisis in Nigeria;
4. Find out the perceived challenges facing ERT in universities in Nigeria

3.1. Research Questions

The following research questions guided the study:

1. What is the level of ICT competencies of lecturers in universities in Nigeria?
2. What is the lecturers' perception ease of use of remote teaching sites?
3. What is the level of lecturers' willingness to adopt ERT in universities amidst COVID-19 crisis in Nigeria?
4. What are the perceived challenges facing ERT in universities in Nigeria?

4. Methodology

Survey research design was adopted for the study to examine the determinants of LIS lecturers' willingness to adopt ERT amidst COVID-19 crisis in Nigeria. The population for this study comprised of university LIS lecturers

in Nigeria. Consequently, 126 randomly selected LIS lecturers in Nigeria formed the sample size for the study. Furthermore, a self-developed questionnaire was used as the instrument for data collection. The questionnaire had five sections from section A to E. Section A catered for the respondents' demographic data such as the sex and years of teaching experience. Section B addressed ICT competency of lecturers in Nigerian universities and it was measured using a four point scale of 'excellent', 'good', 'fair' and 'poor'. Section C focused on the perceived ease of use of remote teaching site for ERT by lecturers with a four point measuring scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). Furthermore, section D examined the level of lecturers' willingness to adopt ERT in universities amidst covid-19 crisis. It was measured using the four point scale of SA, A, D and SD. Section E was measured using the nominal scale of agree and disagree and it sought to identify the perceived challenges facing ERT in universities in Nigeria.

The instrument was validated by lecturers in the departments of Library and Information Science and measurement and evaluation, both of Nnamdi Azikiwe University, Awka, Nigeria. The suggestions and opinion of the lecturers were used for the final draft of the instrument. The Cronbach Alpha reliability method was used to determine the internal consistency of the instrument and a reliability coefficient of 0.85 was achieved and considered adequate for the study. The instrument was then converted into online survey using Survey Monkey and was administered to LIS lecturers in Nigerian universities using the various faculty WhatsApp group. The choice of this method of administration was necessitated by the lockdown in the country at the time the study was conducted. This method of administration is in line with Aiyebilehin (2018), who adopted the online survey in examining the factors affecting implementation of emerging

information communication technology skills in libraries in Sub-Saharan Africa. The data were collected for a period of four weeks with several reminder notices sent within the period to ensure high response rate. The data collected were subjected to analysis using descriptive statistics.

5. Analysis of Data

5.1. Response Rate

Ten universities in Nigeria participated in the study. A total of 156 questionnaires were distributed out of which 126 completely filled and received back. Response rate is 81%.

Table 1
Response Rate

Sl. No.	Institution	Questionnaire Administered	Questionnaire Retrieved	Response Rate in Percentage
1	University of Benin, Benin City	11	10	91
2	Ambrose Alli University, Ekpoma	16	12	75
3	Delta State University, Abraka	18	15	83
4	Benson Idahosa University, Benin	12	10	83
5	Niger Delta University, Yenagoa	14	12	86
6	Nnamdi Azikiwe University, Awka	21	18	86
7	University of Nigeria, Nsukka	25	19	76
8	University of Port Harcourt, Choba	11	9	82
9	Rivers State University, Port Harcourt	13	10	77
10	Ignatius Ajuru University of Education, Port Harcourt	15	11	73
	Total	156	126	81

5.2. Gender-wise Distribution

Gender-wise distribution in the sample showed that 52% of the respondents are male

while 48% are female. This implies that the male respondents participated more in the study than their female counterpart.

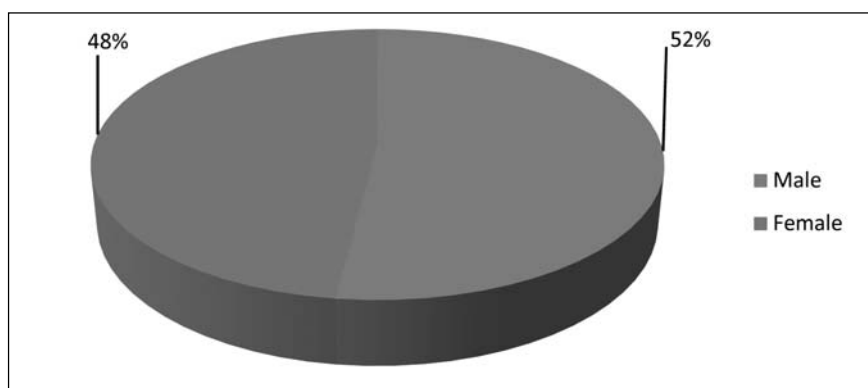


Fig. 1. Gender-wise Distribution

5.3. Teaching Experience

It was found that one third (33%) of the respondents have 6 to 10 years of teaching experience, 30% have taught for 11 to 15

years, 24% have spent 5 years or less teaching, while 13% have taught for 16 years and above. This implies that majority of the respondents have experience of not more than 15 years.

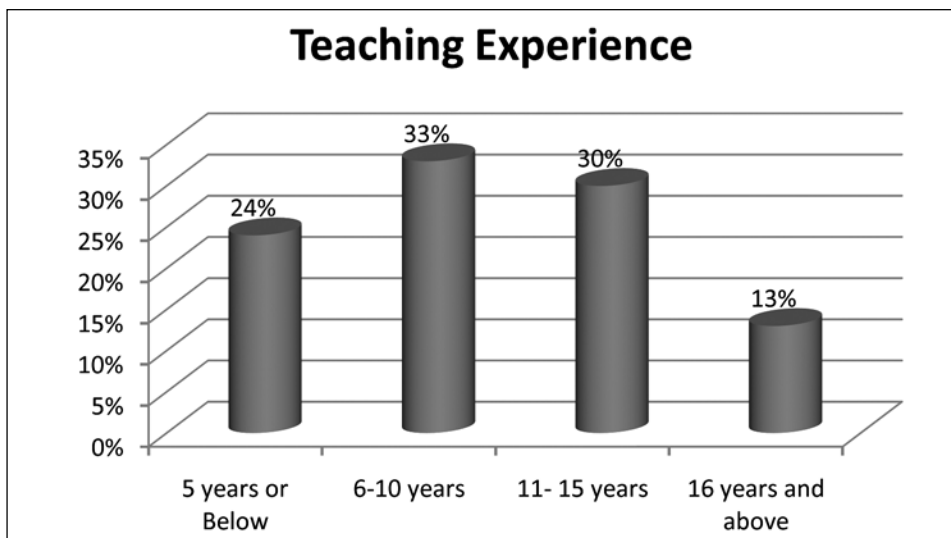


Fig.2. Teaching Experience

5.4. ICT Competency

The data in table 2 revealed that the lecturers are competent in the use of internet facilities (\bar{x} =3.54), desktop and laptop computers (=3.49), word processing tools (=3.43), presentation tools (=3.30), electronic

information resources (=3.16) and online group discussion platforms (=3.13). Furthermore, the result revealed a grand mean score of 3.34 as against the criterion means score of 2.50, thus, implying that lecturers in Nigerian universities have high level of ICT competencies.

Table 2
ICT Competency of Lecturers in Nigerian Universities

Statements	Excellent		Good		Fair		Poor		Mean (\bar{x})
	No.	%	No.	%	No.	%	No.	%	
Use of Word Processing tools (e.g MS Word)	66	52	50	40	8	6	2	2	3.43
Use of internet facilities (e.g E-mail)	74	58	48	38	2	2	2	2	3.54
Use of desktop or laptop computer	70	55	50	40	4	3	2	2	3.49
Use of online group discussion platforms	40	32	66	52	16	13	4	3	3.13
Use of presentation tools (e.g PowerPoint)	52	41	60	48	14	11	0	0	3.30
Use of electronic information resources (e.g Online library catalogue)	44	35	58	46	24	19	0	0	3.16
Grand Mean (\bar{x})									3.34
Criterion Mean									2.50

5.5. PEU of Remote Teaching

The analysis (table 3) revealed the perceived ease of use of remote teaching site for ERT by lecturers in universities in Nigeria. The revelation from the table shows that learning how to teach remotely will be quite easy for the lecturers (\bar{x} =3.25) as well as having an understandable interaction with

remote teaching sites (=3.17). Also, the table revealed that the lecturers will find it easy to engage students remotely (=3.13), easy file navigation during remote teaching (=3.11) and ease of evaluation of individual student remotely (=2.97). Furthermore, with a grand mean score of 3.13, it can be implied that LIS lecturers have a good perception of remote teaching sites for ERT.

Table 3

Perceived Ease of Use of Remote Teaching Site for ERT

Statements	Excellent		Good		Fair		Poor		Mean (\bar{x})
	No.	%	No.	%	No.	%	No.	%	
Learning how to teach remotely will be quite easy for me	46	37	66	52	14	11	0	0	3.25
My interaction with remote teaching site would be understandable	36	28	78	62	10	8	2	2	3.17
I would find file navigation during remote teaching easy	32	25	78	62	14	11	2	2	3.11
I would find it easy to evaluate individual student remotely	28	22	72	57	20	16	6	5	2.97
I would find it easy to engage students remotely	38	30	70	55	12	10	6	5	3.13
Grand Mean (\bar{x})									3.13

5.6. Willingness to Adopt Remote Teaching

The data in table 4 revealed that the lecturers will be willing to share educational materials with students remotely (\bar{x} =3.41), teach students remotely (=3.33), engage

students in class discussion remotely (=3.32) as well as assess students remotely (=3.27). In addition, the analysis revealed a grand mean of 3.33 as against a criterion score of 2.50, indicating that lecturers are highly willing to adopt ERT in universities amidst COVID-19 crisis.

Table 4

**Willingness to Adopt Emergency Remote Teaching in Universities
Amidst COVID-19 Crisis**

Statements	Excellent		Good		Fair		Poor		Mean (\bar{x})
	No.	%	No.	%	No.	%	No.	%	
I will be willing to teach students remotely	54	43	64	51	4	3	4	3	3.33
I will be willing to engage students in class discussion remotely	56	44	56	44	12	10	2	2	3.32
I will be willing to assess students remotely	50	39	62	49	12	10	2	2	3.27
I will be willing to share educational materials with students remotely	58	46	64	50	2	2	2	2	3.41
Grand Mean (\bar{x})									3.33

5.7. Challenges Facing Remote Teaching

As shown in the results given in table 5, high cost of internet data (91%), excessive power outage (89%) and poor internet services (83%) are the major perceived challenges facing ERT in universities in Nigeria. Conversely, 79% and 73% of the respondents disagreed respectively that privacy concern and minimal in-person contact are perceived challenges facing ERT in universities in

Nigeria. Furthermore, apart from the identified perceived challenges, some of the respondents indicated that students' digital and media literacy skills, inadequacy of ICT media facilities in institutions, students' economic solvency to cope with digital environments expectations and staff repugnance to ICT adoptions and adaptations are perceived challenges facing ERT in Nigerian universities. Also, other respondents noted that poor students' engagements, lack of proper planning, lack of training are perceived challenges facing ERT in Nigeria.

Table 5

**Perceived Challenges Facing Emergency Remote Teaching in
Universities in Nigeria**

Statements	Agree	Percentage	Disagree	Percentage
Excessive power outage	112	89	14	11
Union Industrial action	48	38	78	62
High cost of internet data	114	91	12	9
Poor students' engagement	62	49	64	51
Poor internet services	104	83	22	17
Privacy concern	26	21	100	79
Minimal in-person contact	34	27	92	73
Time management issues	58	46	68	54

6. Discussion of Findings

The study shows a high level of ICT competencies of LIS lecturers in Universities in Nigeria. This was mainly due to their ability to use word processing tools, internet facilities, online group discussion platforms, electronic information resources, desktop and laptop computers. This revelation is in tandem with Michika and Manabete (2019) that lecturers in Nigeria tertiary institutions have high ICT competency. This show that the lecturers are able to use basic ICT tools to achieve a task.

The study also revealed that lecturers will find remote teaching sites easy to use for ERT. The respondents indicated that they would find file navigation during remote teaching easy as well as easily engage students remotely. This finding is in conformity with Milman (2020) that lecturers will find it easy to teach remotely even though there are no playbooks for how to lead and teach remotely. However, to teach remotely, Milman suggested that lecturers must communicate frequently and honestly, Prioritize needs, flexibility, simplicity, collaboration, developing contingency plans amongst others. The revelation from the study also corroborates Michika and Manabete's (2019) assertion that migrating to ERT will be easy for lecturers as many lecturers are already familiar with online and remote environment.

The revelation from the study shows that there is a high level of lecturers' willingness to adopt ERT in universities amidst COVID-19 crisis. This finding is in agreement with Akpan (2014) that many lecturers embrace technological innovation and advancement in teaching profession. The finding also confirms Michika and Manabete (2019) assertion that lecturers are ready to embrace the application of technological innovations in teaching if there are adequate planning and training.

Furthermore, the finding from the study revealed that high cost of internet data, excessive power outage, poor internet services, students' digital and media literacy skills, inadequacy of ICT media facilities in institutions, students' economic solvency to cope with digital environments expectations and staff repugnance to ICT adoptions and adaptations are perceived challenges facing ERT in Nigerian universities. This finding is in conformity Ayodele (2013) that perennial challenges such as high cost of internet data, excessive power outage, ICT skills, availability of ICT tools and poor internet services are among the perceived challenges facing remote teaching in Nigeria. In addition, the finding is in tandem with Olugbeko and Izu (2013) that economic factor, location and parental background of learner as could pose challenge to ERT in Nigeria.

7. Practical Implications and Limitations of the Study

This study has practical implication in identifying determinants of LIS lecturers' willingness to adopt emergency remote teaching amidst COVID-19 crisis in Nigeria. It implied that ICT competency and perceived Ease of Use of ERT sites could determine the adoption of ERT in Nigeria while the country's lockdown continues as a result of the COVID-19 crisis. It is the position of this paper that improving the ICT competency of lecturers in Nigeria and choosing a module with simple user interface could aid the smooth transmission to a remote teaching environment.

The study, like most empirical studies, is not without limitations. Due to the total lockdown experienced in the country during the COVID-19 spread in the country, the researchers were unable to engage in physical data collection, as such surveyed a group of LIS lecturers online. Given the general apathy

of Nigerian lecturers to completing online surveys, this study could only elicit a limited response from lecturers within the data collection period.

8. Conclusion

The adoption of ERT amidst any crisis has been made possible by the revolution and advancement in ICT. While it has been established that ERT differs from online learning, E-learning and distance learning, it is important to note that they share similar challenges and benefits. ERT, like online and E-learning, offers innumerable benefits to higher education such as supplementing core physical interactions in a blended environment, saving instructional delivery time, giving access to teaching materials, as well as helping to close digital divide. However, for there to be smooth adoption of ERT in Nigeria, there must be improvements in the countries internet services and power supply.

References

1. **Aiyebilehin, J.A.** (2018). Factors affecting implementation of emerging ICT skills in libraries in sub-Saharan Africa: Survey of Carnegie CPD fellows. *International Information and Library Review*, 50, 4, 291-300.
2. **Akpan, C.P.** (2014). ICT Competence and Lecturers' Job Efficacy in Universities in Cross River State, Nigeria. *International Journal of Humanities and Social Science*, 4, 10, 259-266.
3. **Allen, I.E. and Seaman, J.** (2017). Digital learning compass: distance education enrollment report 2017, 1-36.
4. **Ayodele, C.** (2020). COVID-19 and online learning. *Journal of Information and Educational Technology*, 10, 2, 21-38.
5. **Davis, F. D.** (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13, 3, 319-340.
6. **Edtech** (2020). Edtech for Learning in Emergencies and Displaced Settings. Retrieved from <https://resourcecentre.savethechildren.net/node/13238/pdf/edtech-learning.pdf>
7. **Harrison, R. and Thomas, M.** (2009). Identity in online communities: social networking sites and language learning. *International Journal of Emerging Technologies and Society*, 7, 2, 109-124.
8. **Hodges, C. et al.** (2020). The Difference between Emergency Remote Teaching and Online Learning. *Educause Review*. Retrieved from <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>.
9. **James, M. and Cruft, L.** (2013). Measuring success: Evaluation strategies for distance education. *EDUCAUSE Quarterly*, 25, 1, 20-26.
10. **Makokha and Mutisya** (2016). Status of E-Learning in Public Universities in Kenya. *International Review of Research in Open and Distributed Learning*, 17, 3, 341-359. Retrieved from file:///C:/Users/Emmanuel%20Atalobhor/Downloads/2235-Article%20Text-20454-1-10-20160513.pdf.
11. **Martin, F. et al.** (2019). Examining faculty perception of their readiness to teach online. *Online Learning*, 23, 3, 97-119.
12. **Michika, M.U. and Manabete, S.S.** (2019). Lecturers' ICT competency needs in the use of peripheral equipment for teaching in north-east zone of Nigeria. *Scientific Research Journal*, 7, 2, Feb., 1-11.

13. **Milman, N.B.** (2020). This is Emergency Remote Teaching, Not just online teaching. education week. Retrieved from <https://www.edweek.org/ew/articles/2020/03/30/this-is-emergency-remote-teaching-not-just.html>
14. **Olugbeko, S.O. and Izu, G.O.** (2013). The reality and Challenges of E-learning Education in Africa: The Nigerian Experience. *International Journal of Humanities and Management Sciences*, 1,3, 205-209.
15. **University of the People** (2020). Emergency Remote Teaching Vs. Online Learning: A Comparison. Retrieved from <https://www.uopeople.edu/blog/emergency-remote-teaching-vs-online-learning/>