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## Enhancing students' learning and understanding of use of library in federal universities in Nigeria through the integration of e-learning in the teaching-learning process: A survey

EMMANUEL CHIDIADI ONWUBIKO

ALEX EKWUEME FEDERAL UNIVERSITY NDUFU - ALIKE, IKWO,, onwubikoemma@yahoo.com

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# **Enhancing students' learning and understanding of use of library in federal universities in Nigeria through the integration of e-learning in the teaching-learning process: A survey**

Onwubiko, Emmanuel Chidiadi. FCAI, CLN  
Acquisitions Librarian  
Alex Ekwueme Federal University, Ndufu-Alike, Ikwo, Nigeria  
[Onwubikoemma@yahoo.com](mailto:Onwubikoemma@yahoo.com) or [emmabikos@gmail.com](mailto:emmabikos@gmail.com)

## **Abstract**

This study examines the need of integrating e-learning in the teaching-learning process of the 'Use of Library' as a panacea to enhancing students' learning/understanding of the course in federal universities in Nigeria. The study was guided by four research questions while descriptive survey research design was employed as study methodology. A purposive random sampling method was applied to get sampled population of 748 comprising of 304 lecturers and 444 students of 200 levels. A questionnaire titled: 'e-learning in the teaching-learning process of use of library with 46 items designed on Likert 4-point scale was used in collecting data for the study. Prior to using the instrument for the study, a pilot-test was conducted and was found to have a reliability coefficient of 0.78 using a Cronbach alpha coefficient measurement to determine the reliability of the research instrument while data collected for the study analyzed using mean score at 2.50 rating and standard deviation. The only hypothesis formulated for the study was testing using the z-test at 0.05 level of significance. The outcome of the study indicate that e-learning is an indispensable tool for enhancing the teaching and learning as well as the understanding of 'Use of Library' by students in federal universities in Nigeria therefore permissible and pertinent to effectively integrate e-learning in the teaching-learning process of 'Use of Library'. The result of the study also shows that there is no statistically significant difference between the mean rating of lecturers and students' on the extent to which e-learning will enhance students understanding of 'Use of library' in federal universities in Nigeria,. Finally, recommendations were made based on identified challenges.

**Key words:** E-learning, integration, Teaching-learning process, Use of library, Students

## **1.0 Introduction**

### **1.1 Background of the study**

Nigerian university education system under the control of National University Commission (NUC) who under Section 10 (1) of the Education (National Minimum Standards and Establishment of Institutions) Act, Cap E3, Laws of the Federation of Nigeria 2004, has been empowered to lay down minimum standards for all programmes taught in Nigerian universities. (NUC, 2014). It is in line with above, that the Commission created a benchmark for all programmes run in Nigerian Universities. One of such standard that must be met is the passing of General Studies Courses (GST) which are offered at the University Level for students registered for in all the disciplines in the university. These Benchmark Minimum Academic Standards (BMAS) are designed for the education and training of undergraduate students wishing to obtain first degrees in the different areas of study in the Nigerian University System. The implication is that these courses must be registered and passed by every student in 100 levels before he/she is declared worthy in character and learning for the award of the degree of bachelor in any field and must be passed before the expiration of the duration of the programme.

This situation makes these courses the highest student number attendee and the most herculean lectures to be attended by students and taught by lecturers. The challenges associated with the teaching-learning of these courses are enormous and a bridge to students' understanding of the course. In the first instance, there is hardly enough lecture rooms to accommodate the students, thereby making imperatively difficult for any lecturer to attend to the students appropriately and for the students to pay the desired attention; the population ratio which better seen than said is abysmally against NUC benchmark of one lecturer to thirty students (1:30); considering the number of student involved, to make meaningful impact on the students, the lecturers need public address equipment and this we know are lacking in our federal universities and where they available, they are adequately enough, the population of the students makes it very hard if not impossible for any lecturer to effectively assess the students and the students hardly meet up with the lecture time as they are mostly fixed for 8am-10am at the detriment of majority of the students who are living distant away from the university etc.

One of these mandatory courses is the 'Use of Library' (GST102/103), which teaches students the basis of the use of library and other related information technologies needed for their studies and researches. As a participant, it has been observed that students offering this particular course

are also victims of the above challenges mentioned affecting the teaching-learning of GST courses and felt there is the need to have a re-think and a paradigm shift on the way the course content is being delivered. In fact the prevalent challenges calls for the integration of e-learning in the teaching-learning as it seems a way out of this morass.

E-Learning as revealed by ElearningNC (2020), has been proven to be a successful method of training and education is becoming a way of life for many citizens all over the world. Economic Times (2020) also affirm to the above assertion as it posits that with the rapid progress in technology and the advancement in learning systems, it is now embraced by the masses. The introduction of computers was the basis of this revolution and with the passage of time, as we get hooked to Smartphone, tablets, etc, these devices now have an importance place in the classrooms for learning. Books are gradually getting replaced by electronic educational materials like optical discs or pen drives. Knowledge can also be shared via the Internet, which is accessible 24/7, anywhere, anytime. It went further to define it as a learning system based on formalized teaching but with the help of electronic resources and teaching can be based in or out of the classrooms revealing that the use of computers and the Internet forms the major component of E-learning. E-learning can also be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times. It is in realization of this that Eke (2011) declares that higher education students need e-learning as a new way of acquiring knowledge based on its impact on teaching and learning. The Federal Government of Nigeria (2014), did also recognized the importance of e-learning in curriculum implementation as stated in the National Policy on Education that government shall provide facilities and necessary infrastructure for the promotion of ICT and e-learning.

## **1.2 Statement of Problem**

The importance of library to any academic institution cannot be overemphasized as the worth any such institution is being measured by the standard of the library. To this Onwubiko (2016) posits that the university library is a very important academic sector of the university and a university is as good as its library noting that the academic health, intellectual vitality and

effectiveness of any university depend largely upon the state of the health of excellence of its library which is its life-wire. The bottom-line is that in any institution of higher learning, the library plays a very prominent role in moulding the students intellectually as it is the pivot on which the realization of the tripartite functions of the university revolve.

The National University Commission (NUC), recognizes this great role of the library to education and the 'Use of Library' a mandatory course for every registered student in Nigerian university thus a must pass for every student for the award of the degree of bachelor in any field. The crux of the matter is that year-in, year-out, good number of students in Nigerian universities carry this course over as a result of their in-ability to pass in some cases after several attempts. The truth of the matter is that at the end of every academic year, the number of failures in this particular course keep increasing and this has left one to think that something is wrong with the way the course content is delivered (teaching-learning process) therefore there is a need for a paradigm shift as it is assumed that the method (face-to-face and lecture rooms) being used in delivering the course content must have been a contributing factor to series of mass failure and therefore not ideal.

It is in view of the above situation, that this study has become imperative as to establishing whether the integration of e-learning in the teaching-learning process of 'Use of library' as a course in federal universities and by extension all universities in Nigeria will be a way out of this morass.

### **1.3 Research Objectives**

The specific objective of this study is to establish if the integration of e-learning in the teaching-learning process of 'Use of Library' in federal universities in Nigeria can enhance students' understanding of the course. Other objectives are establish:

1. The extent the integration of e-learning in the teaching of 'Use of Library in federal universities in Nigeria will enhance students' learning of the course;
2. The extent the integration of e-learning will enhance lecturers' teaching of 'Use of Library in federal universities in Nigeria,
3. The availability and utilization of ICT kits/equipment/facilities and other related technologies that can promote e-learning process as to enhancing students learning and

4. Factors that can act as impediment in the effective application and utilization of e-learning in the teaching-learning process of 'Use of library in federal universities in Nigeria.

## **1.4 Research questions**

The study was guided by the following research questions:

1. To what extent can the integration of e-learning in the teaching of 'Use of Library in federal universities in Nigeria enhance students' learning of the course?
2. To what extent can the integration of e-learning enhance lecturers' teaching of 'Use of Library in federal universities in Nigeria?
3. Are they available ICT kits/equipment/facilities and other related technologies that can be used to promote e-learning process as to enhancing students learning?
4. What factors can act as impediment in the effective application and utilization of e-learning in the teaching-learning process of 'Use of library in federal universities in Nigeria?

## **1.5 Hypothesis**

The study also tested one null hypothesis which is:

1. There is no statistical significant ( $p < 0.05$ ) difference between the mean rating of lecturers and students' in the extent to which integrating e-learning in the teaching-learning process of 'Use of Library' enhanced students understanding in federal universities in Nigeria.

## **2.0 Literature review**

### **2.1 Conceptual overview**

#### **2.1.1 E-learning**

When it comes to online learning in education explains Talent LMS (2020), the model has been pretty straightforward noting that up until the early 2000s education was in a classroom of students with a teacher who led the process. Physical presence was a no-brainer, and any other type of learning was questionable at best. Then the internet happened, and the rest is history. Today, e-learning is a rapidly growing industry, the effects of which we can trace back to the

1980s and even well before that (in the form of distance learning and televised courses) and its reputation has gone from strength to strength, becoming the most popular way to deliver training today. As explained by Fresh New (2015), Technological development and the internet have changed people's lives on different scales including for instance teaching and learning. The web has become one of the channels of learning that opens the door for people around the world to access education for free, or for fewer costs. The IT booming and the internet have opened the door to largely access knowledge, high quality education and training. This easy access using information systems and the web can improve people's skills for fewer costs. Knowledge delivering to some people would have never been possible without the opportunities offered by technology and the web

The term "eLearning" was coined by [Elliott Maisie](#) in 1999, marking it the first time the phrase was used professionally. All the same, there are many terms used to describe learning that is delivered online, via the internet, ranging from Distance Education, to computerized electronic learning, online learning, internet learning and many others. Regardless of the nomenclature, the purpose remains the same.

According to Economic Times (2020), e-learning is a learning system based on formalized teaching but with the help of electronic resources is known as E-learning. While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of E-learning. E-learning can also be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different time. ElearningNC (2020), defines it as courses that are specifically delivered via the internet to somewhere other than the classroom and It is not a course delivered via a DVD or CD-ROM, video tape or over a television channel. It is interactive in that you can also communicate with your teachers, professors or other students in your class. Sometimes it is delivered live, where you can "electronically" raise your hand and interact in real time and sometimes it is a lecture that has been prerecorded. It went on to describe it as learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely online. Whereas, Lawless (2018) sees eLearning, or electronic learning, as the delivery of learning and training through digital resources though based on formalized learning, it is provided through electronic

devices such as computers, tablets and even cellular phones that are connected to the internet. This makes it easy for users to learn anytime, anywhere, with few, if any, restrictions she concluded. Basically, eLearning is training, learning, or education delivered online through a computer or any other digital device.

## **2.2 Importance of e-learning in education**

The birth of information and communication technology (ICT), as a global phenomenon, as a result of emerging technological advancement has led to the emergence of various forms/ways of communication as well as dissemination of information in every facet of life including in education. Obviously, the world has turned a global village courtesy of ICT and the information super highway-the internet which has captured the attention of both old and young and every aspect of human activity. In the education sector, it is like a wild wind that is blowing good leading to it being embraced by both teachers and students masterminding its inclusion as an effective means of teaching and learning

As noted by Eke (2011), ICT has imparted the ways learners and educators acquire and deliver information through such technologies like: electronic media; DVD, CD-ROM; video tapes; television, smart phone etc for teaching and learning in the classroom and at a distance and has been applied in so many other ways in learning pursuit and e-learning is one of them. According to Ofojebe et al (2015), e-learning which is the use of electronic media, educational technology and information and communication technologies in education can occur in or out of the classroom; be self spaced, (asynchronous learning) or may be instructor-lead (synchronous learning). They added that it be applied to both distance and flexible learning. Schofield (1995) adds that ICT gradually transform teaching practices while presenting enormous potential at the apprenticeship level. New relations are established between the teacher, his students and computers. Then, the teacher is not perceived as the one who does all the work, but the one who helps students to adopt the objectives of the training programs. The European Council published in 1998 a report using information technologies to improve the teaching of history

Writing on the importance of e-learning Talent LMS (2020), enumerated that the integration of e-learning in education will about the following:

- ❖ Now that affordable e-learning solutions exist for both computers and internet, it only takes a good e-learning tool for education to be facilitated from virtually anywhere. Technology has advanced so much that the geographical gap is bridged with the use of tools that make you feel as if you are inside the classroom. E-learning **offers the ability to share material in all kinds of formats** such as videos, slideshows, word documents, and PDFs. Conducting webinars (live online classes) and communicating with professors via chat and message forums is also an option available to users.
- ❖ There is a plethora of different e-learning systems (otherwise known as Learning Management Systems, or LMSs for short) and methods, which allow for courses to be delivered. With the right tool, various processes can be automated such as a course with set materials and automatically marked tests. E-learning is an affordable (and often free) solution which provides the learners with the ability to fit learning around their lifestyles, effectively allowing even the busiest person to further a career and gain new qualifications.
- ❖ Some of the most important developments in education have happened since the launch of the internet. These day learners are well versed in the use of smartphones, text messaging and using the internet so participating in and running an online course has become a simple affair. Message boards, social media and various other means of online communication allow learners to keep in touch and discuss course-related matters, whilst providing for a sense of community.

Other reasons include low costs and the ability for learners to study in their own time and place. In the overall she added, traditional learning is expensive, takes a long time and the results can vary. The importance of e-learning is now a given fact and it can offer an alternative that is much faster, cheaper and potentially better.

## **2.2 Importance of e-learning to students**

In the general view, the integration of e-learning is very essential for students' learning. To this end, Muncha (2011), highlighted some of them as: e-learning enables students to become thinkers/learners/risk takers in a sheltered environment; they learn not to rely on the lecturers, being accountable to themselves and becoming independent, teaches digital literacy; valuable

employable skills in a digital world are learnt; appropriate online behavior; good digital citizenship; cyber safety; working with virtual team; digital and global entrepreneurship; broadens the horizons of many students as it exposes them to the world outside their cities or countries; fits in with rural education where students in small rural schools need no longer be discouraged by distance and isolation as technology allows them to learn virtually and maintain their subject choices.

The experiments presented in the report following a conference held in Finland that wished to answer this question. Indeed, for a number of students, having recourse to ICT already constitutes, according to the report, a powerful motivation. Students use a computer at home and, therefore, can use the abilities and knowledge obtained at home when they are in class. ICT often oblige students to work in collaboration and to share their thoughts.

Madukoma, Omeluzor and Ogbuiyi (2013) believe that the integration of ICT into teaching and learning helps students' intellectual ability and skill for accessing and retrieving information as well as constructing a framework for learning. The above assertion was also corroborated by Lucas (2017) as he averred that the integration of ICT to library instruction teaches students how to electronically use the library resources and evaluate the research materials they find. Furthermore, Gupta (2017), listed 9-benefits-of-elearning-for-students as:

Online learning accommodates everyone's needs; Lectures can be taken any number of times; Offers access to updated content; E-learning allows for a quick delivery of **Lessons**; it is Scalability - eLearning helps in creating and communicating new training, policies, concepts, and ideas. Whether it is for formal education or entertainment, eLearning is very quick way of learning; It is Consistent as e-Learning enables educators to get a higher degree of coverage to communicate the message in a consistent way for their target audience. This ensures that all learners receive the same type of training with this learning mode; Reduced Costs; **It is very Effective as it** makes it easy to grasp the content and digest it thus it results in improved scores on certifications, tests, or other types of evaluation; higher number of students who achieve 'pass' or mastery' level, enhanced ability to learn and implement the new processes or knowledge at the classroom and helps in retaining information for a longer time and that e-learning has Less Impact On Environment; as eLearning is a paperless way of learning, it

protects the environment to a lot of extent. As per a study done on eLearning courses, it has been found that distance-based learning programs consumed around 90% less power and generated 85% less amount of CO2 emissions as compared to traditional campus-based educational courses. With eLearning, there is no need to cut trees for obtaining paper. Thus, eLearning is a highly eco-friendly way of learning. He noted that due to the wide set of benefits it gives to students; eLearning has become quite popular and appreciated among students all over the world. Furtherance, Apple Computer (2002) and reveal that integration of ICT with teaching helps students to recall information and use it to solve problems as well as enhancing students' knowledge of investigation and enquiry skills and creating curiosity. MERLOT (2017), stresses that students need a broad ICT literacy base and deeper knowledge in the discipline

According to Fresh Science News (2015). a [recently published study](#) has highlighted the importance and effectiveness of e-learning and how students are satisfied with web-enhanced teaching. For that purpose, researchers collected data through surveys “for a total of 45 undergraduate and 26 graduate students enrolled in landscape construction studio courses at Texas A&M University during 2011 and 2012.”

To understand the issue, researchers made comparison with another study that previously conducted in 2003–04. “They evaluated students’ learning satisfaction and the effectiveness of e-learning in landscape architecture construction studio courses, compared trends in learning vehicles preferred by graduate and undergraduate students, and examined preferred learning vehicles between students expecting an A grade and those expecting a B or C grade.”

This study which was published in the [Journal of e-Learning and Higher Education](#) found that “satisfaction level with web-enhanced teaching increased to 95% in the 2011–2012 investigation, compared to 73%-87% in the 2003–2004 one.” The study results indicated that “students were highly satisfied with web-enhanced teaching in both investigations. Particularly, students in recent years were more satisfied with web-enhanced teaching than those in the past. Undergraduate and graduate students preferred different types of learning vehicles, in which undergraduates preferred interactive types. In addition, students expecting an A grade were more likely to prefer individual or independent learning vehicles whereas students expecting a B or C grade relied on interactive learning methods.”

Contributing on the gains of integrating e-learning in the teaching and learning process of students, Onwubiko (2020) opine that the integration of ICT in instructions prepares the students for lifelong learning in an era of digitalization and information explosion that can only be meaningfully accessed electronically. So the inclusion of ICT in teaching-learning he concludes is a better way of making our students independent researchers as they are taught and made to acquire all the needed skills to handle and manage ICT tools and facilities and easily and efficiently access digitalized information sources.

### **2.3 Importance of e-learning to lecturers**

In this technological world that we live in, it is paramount for teachers to be in step with new technologies as this will allow them to better understand their students who are actively browsing the web. The implication is that by being in step with new technologies, lecturers will be able to adapt their teaching methods to their students' needs thereby improving their own IT abilities. E-learning therefore can help teachers improve their teaching style knowing full well that every teacher has his/her own style of teaching, but usually they try to adjust their approach depending on the learning needs of their students as effective teaching methods engage gifted students, as well as slower learners and those with attention deficit disorders. This is where differentiated instruction and a balanced mix of teaching styles can help reach all students in a given classroom, not just the few who respond well to one particular style of teaching. In this context e-learning is a channel and tool through which teachers can improve their teaching styles. It is in view of the above that Stoeva (2018), highlighted an all inclusive benefits of e-learning to teachers to include: E-learning platforms allow teachers to stay connected to their students outside of school hours in order to exchange resources, videos, ideas, methodologies, and pedagogical practices; provide for teachers is the large variety of different resources such as videos texts, presentations, and quizzes that they can use to adapt their tutoring methods to the learning styles of their students; the use of new technologies gives teachers the freedom to experiment in their teaching practice and the ability to make changes if something doesn't work; Online platforms that are now available 24/7 allow teachers to develop and create their materials according to their schedules and whenever they want to. It is also important to note that all teaching materials can be reviewed as many times as needed; Online platforms allow teachers to support their students outside the classroom where they don't spend much time together, and to

give them additional instructions on subjects like art, singing, chess, and cooking. It gives teachers the opportunity to lead students to success both during and after school; teachers have the ability to receive constant feedback from their students about whether they understand the material, if it is interesting to them, etc.; Online platforms provide a large variety of assessment tools; offers greater transparency to parents in terms of how their children are preparing for school. Overall, it contributes to better communication between teachers and parents. Time is one of the most precious commodities for educators. By eliminating the need to commute to school during evenings and weekends, educators can spend more time on learning concepts; reduces costs when it comes to classroom rentals, travel fees, and printing costs. Paper consumption is also significantly reduced because all of the information is in an electronic format. helps them save time and allow them to focus on their own self-development. Here are some of the areas in which online e-learning platforms including virtual classrooms support educators to improve: Using a variety of online resources for an online training provokes and develops the creative thinking processes of educators; E-learning platforms are one of the channels that educators can use to deepen their knowledge and increase their skills; Online platforms allow educators to stay connected with colleagues from all over the world, as well as to share ideas and gain inspiration; Modern platforms bring more benefits of e-learning to teachers, like the ability to make audio and video recordings of their lessons and then to watch, analyze, and reflect on the same recordings afterwards, Observing other educators in your school or via different online courses can be very beneficial. Teachers can compare different teaching styles, practices, etc. They can become more aware of what kind of teachers they are and gives teachers the opportunity to receive feedback on their teaching style from their students and colleagues. In this way they get a better perspective on their work and learn where they can tweak their habits and make improvements.

In addition, Eke (2011) and Nwana (2011), highlighted that e-learning aids teachers to achieve instructional objectives; helps teachers to achieve contents of the curriculum especially through research and private training; aids teachers in the presentation, demonstration and implementation of data using productivity; enables teachers use of information and resources on CD-Rom, online encyclopedia, electronic journals and other online resources and enhances teachers use of curriculum through specific applications such as educational games; drills and

practices, simulations tutorials, virtual laboratories, visualization and graphs, musical composition and expert system.

On the other hand, some authors have identified certain factors that are likely to militate against successful integration of e-learning in Nigerian's educational system. According to Laleye (2015), challenges likely to militate against successful integration of ICT with library instruction in Nigerian universities. According to him, successful integration of ICT the school system depends largely on the attitude of teachers towards the role played by modern technologies in teaching and learning. Insofar as the attitude of teachers remains sacrosanct, other factors according to Ololube et al. (2009) are: chronic absence of ICT instructional materials, ineffective policy implementation and lack of other infrastructure and equipment to aid teaching and learning. The above challenges have also been cited by the Commonwealth of Learning International (CLI) 2001 as serious challenges facing higher education in Nigeria on ICT literacy knowledge integration with academic courses and programs. Nwana (2012), further identified e-learning challenges in Nigeria to include: problem of inadequate material device such as computers, computer laboratories, poor internet services, videophone system, tele-conferencing devices, fax and wireless applications, digital libraries, digital classrooms, multimedia system, problem of multimedia courseware development and problem of both staff and students readiness.

### **3.0 Research Methodology**

#### **3.1 Research design**

The study employed the descriptive survey design which sought to collect data on the opinion of the respondents with a view to establishing how the integration e-learning in the teaching-learning process of use of library can enhance the learning and understanding of students of federal universities in Nigeria. The design was also used to conduct a field survey and gather data from both lecturers and students who form the subjects of the research as explained by Opute-Imala and Ezoem (2002), it is used in observing what is happening to sampled subjects or variables in order to generate necessary primary data for the study, while Nworgu (2015), defines a survey research as one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group.

### **3.2 Sampled Population**

The study consists of all academic librarians in 40 federal universities in Nigeria that are involved in the teaching of 'Use of Library' (GST 102/103) and all 200 levels students in the same universities. All the same, with the help of 2019 list of certified librarians in Nigeria, 304 lecturers were purposively selected and contacted and in return accepted to participate in the study. Whereas, four hundred and forty-four 200 levels students from Alex Ekwueme Federal University, Ikwo, Ebonyi State were randomly selected from 1780 students. This is based on the fact that the university is a microcosm of the macrocosm federal universities of Nigeria because they all have the same facilities, features and are financed equally by one body. The implication is that the total number of sampled population for this study stands at 748.

### **3.3 Instrument for data Collection**

The primary instrument used in collecting data for this study, is the questionnaire. The questionnaire titled: E-learning in the teaching-learning of Use of Library in Federal Universities in Nigeria questionnaire (ELTLUOLIFUN) developed by the researcher is of 46 items designed on a 4-point scale of 'Strongly Agree (4), Agree (3), Disagree (2), Strongly Disagree (1) likewise responses like: Highly Available (4), Available (3), Not Available (2), Strongly Not Available (1) designed for question 3. The instrument was validated by two experts- one from Computer science and the other from measurement and evaluation with the aim of establishing the face validity in line with the purpose of the study, while the reliability of the instrument was determined through a pilot-test conducted using 20 lecturers from two private universities in Enugu state, Nigeria and was found to have a reliability coefficient of 0.78 using Cronbach alpha coefficient measurement. This affirms that the instrument was reliable and suitable for the study. The researcher with the help of two course representatives administered and collected 100% all the students' questionnaires whereas, those of the lecturers were e-mailed and they all returned same through the same channel.

### **3.4 Method of data analysis**





	more experiences & knowledge	150	206	143	21	6	15	5	9	3.34	3.39	0.62	0.65	Agree
11	Aids students quick retention of information	202	226	99	173	3	28	0	17	3.65	3.37	0.50	0.77	Agree
12	Aids students commitment & active participation in learning having gained a matured level of understanding & knowledge	186	257	110	149	8	16	0	22	3.59	3.44	0.54	0.78	Agree
13	Supports students in a way that does not boost their academic performances & achievements	0	19	4	11	215	129	85	285	1.73	1.47	0.47	0.75	Disagree
14	E-learning is a waste of time & efforts for students learning as it does not improve their abilities	6	9	11	13	136	226	151	196	1.58	1.63	0.66	0.64	Disagree
	Grand mean & Standard Deviation									3.12	3.01	0.92	0.97	

**Key:** SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree, St. Dev=Standard Deviation, L=lecturers, S=students

The data in table 1 indicated that all the respondents (lecturers and students) which is 748 or 100% affirm with the statements in items 1 to 12 which were above the accepted benchmark of 2.50 while they all disagree with the statements in items 13 and 14 as they were below the acceptable mean score of 2,50. The mean scores of both lecturers and students which stand at 3.12 and 3.01 respectively, shows high level of acceptability of the need to integrate e-learning in the teaching-learning of ‘Use of Library’ in federal universities in Nigeria as to enhancing learning and understanding of the course.

**Research question 2;** To what extent can the integration of e-learning enhance lecturers’ teaching of ‘Use of Library in federal universities in Nigeria?’

**Table 2:** Mean scores and standard deviation of participants responses to research question 2

S/N	items	SA (4)	A (3)	D (2)	SD (1)	Mean	St. Dev	Decision
15	Enables academic staff develop new approaches & skills by accessing other resources	200	104	0	0	3.66	0.47	Agree
16	Boost lecturers morale & competence in the area of research & private training	183	112	6	3	3.56	0.59	Agree
17	Lecturers do not achieve instructional objectives through this channel	13	35	138	118	1.81	0.80	Disagree
18	Enhances lecturers’ ability in using electronic technologies, applications & develop computer skills	175	104	18	7	3.47	0.71	Agree

19	Enhances lectures use of curriculum through various applications	138	146	9	11	3.35	0.71	Agree
20	Assist lecturers develop new approaches & teaching methodology necessary for assessing students learning progress	124	177	3	0	3.40	0.51	Agree
21	Supports lecturers real life & other presentation in the classroom teaching	189	115	0	0	3.62	0.48	Agree
22	Improves lecturers' efficacy & productivity which aids achievements of educational goals	156	126	13	9	3.41	0.71	Agree
23	Enables them solve academic problems & challenges as they relate to their & profession by interacting with other lecturers elsewhere	191	113	0	0	3.63	0.48	Agree
24	Makes teaching more interactive, interesting & learner centered	171	121	8	4	3.51	0.62	Agree
25	Makes lecturers lazy to teach in the classroom thereby causing over dependence & reliance on electronic channels	27	19	144	114	1.87	0.88	Disagree
	Grand Mean and Standard deviation					3.21	0.92	

**Key:** SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree, St. Dev=Standard Deviation

The data in table 2 which was gather in respect of research question 2 reveal this positive and total acceptance by the 304 lecturers (100%) as they all strongly agree to the statements in items 15, 16, 18 to 24 at a grand mean of 3.21 that the integration of e-learning will enhance the teaching of “Use of Library” in federal universities in Nigeria. On the other hand, they responded negatively to items 17 and 25

**Research question 3:** Are they available ICT kits/equipment/facilities and other related technologies that can be used to promote e-learning process as to enhancing students learning?

**Table 3:** Mean scores and standard deviation of responses to research question 3

S/N	Items	HA (4)	M A(3)	SA(2)	NA(1)	Mean	St. Dev	Decision
26	Computers for classroom computer-based learning & instruction	0	23	134	147	1.59	0.63	Disagree
27	Projectors for virtual learning	0	0	43	270	1.11	0.32	Disagree
28	Video conferencing facilities	0	0	9	295	1.03	0.17	Disagree
29	Equipment for e-library	0	0	4	300	1.01	0.11	Disagree
30	Internet & web facilities for internet/web based learning & training	0	0	11	293	1.04	0.19	Disagree
31	Teleconferencing devices	0	0	0	304	1.00	0.00	Disagree
32	Video sets & tapes	0	0	14	290	1.05	0.21	Disagree
33	Public address systems	10	68	156	70	2.06	0.76	Disagree
34	Classrooms television sets	0	0	16	288	1.05	0.22	Disagree
35	Digital radio	0	5	18	281	1.09	0.34	Disagree
36	Satellite television	0	0	0	304	1.00	0.00	Disagree
	Grand Mean & Standard Deviation					1.18	0.48	

**Key:** HA=Highly Available, MA=Moderately Available, SA=Scarcely Available, NA=Not Available, St. Dev=Standard Deviation

Table 3 data show that all the 304 respondents who were also lecturers in these universities under study strongly disagree with the statements from items 26 to 36 at a grand mean of 1.81 far below the benchmark mean of 2.50. This is an indication that the participants rejected in its entirety a situation where there are lack and inadequate availability and use of e-learning facilities/kits/equipment in the enhancement of teaching-learning of use of library in their universities

**Research question 4:** What factors can act as impediment in the effective application and utilization of e-learning in the teaching-learning process of ‘Use of library in federal universities in Nigeria?’

**Table 4:** Mean scores and standard deviation of respondents on the above research question

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	Mean	St. Dev	Decision
37	Poor acquisition & procurement of technology infrastructure, equipment & facilities due to high cost	200	104	0	0	3.66	0.47	Agree
38	Inadequate funding of e-learning in the university	246	58	0	0	3.82	0.39	Agree
39	Epileptic public power supply	270	34	0	0	3.89	0.32	Agree
40	Over-head cost of using and maintaining generating set	186	113	3	2	3.59	0.55	Agree
41	Inadequate trained staff in e-learning applications and usage	213	81	7	3	3.56	0.57	Agree
42	Lack of readiness by both lecturers and students	11	19	134	140	1.67	0.78	Disagree
43	Unsuccessful implementation on							

	the use of ICT/e-learning policy in education	123	165	10	6	3.33	0.64	Agree
44	Poor maintenance culture on the existing technological kits	158	132	14	0	3.47	0.58	Agree
	Grand Mean & Standard deviation					3.39	0.86	

**Key:** SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree, St. Dev=Standard Deviation

As shown in table 4, all the 304 lecturer respondents affirm to all the statements from 36 to 41, 43 and 44 items which were above 2.50 benchmark, while they rejected item 42 which falls below the acceptable mean score of 2.50. The grand mean of 3.39 is an indication that all the respondents accepted all the factors enumerated that are likely to hinder the integration and utilization of e-learning in the enhancement of teaching-learning process of ‘Use of Library’ in federal universities in Nigeria.

**Table 5;** Z-test analysis for the testing of the null hypothesis which states that ‘there is no statistical significant ( $p < 0.05$ ) difference between the mean rating of lecturers and students’ in the extent to which integrating e-learning in the teaching-learning process of ‘Use of Library’ enhanced students understanding in federal universities in Nigeria.’

Subjects	N	Mean	SD	a	DF	Z-cal	Z-crit	Decision
Lecturers	304	3.12	0.64	0.05	746	0.0497	1.960	NS
students	444	3.01	0.97	0.05	746			H01 accepted

The analysis in table 5 above shows that the z-calculated value at 0.0497 was lesser than  $\leq$  z-critical value of 1.960. This means that the null hypothesis is affirmed and accepted. This therefore implies that ‘there is no statistical significant ( $p < 0.05$ ) difference between the mean rating of lecturers and students’ in the extent to which integrating e-learning in

the teaching-learning process of 'Use of Library' enhanced students understanding in federal universities in Nigeria.

## **5.0 Discussions of results**

The totality of the findings of this study show the need to integrate e-learning in the teaching and learning process of 'Use of Library' and by extension the entire Nigerian university educational system as a way of enhancing students learning and understanding the course(s). Analyzed data in table 1, reveal the desire of both the lecturers and students having e-learning integrated in the teaching and learning of 'Use of Library' in federal universities in Nigeria. They agree among other benefits that the integration of e-learning in the teaching and learning process of 'Use of Library' will help expose students to digital literacy & learning; students will become good thinkers, innovative & creative in mind/action; Students will be exposed to electronic technology & applications; It will assist students to learn & research on their own; students will be placed to acquire information related to their learning; broadens students' horizons in varying context; exposes students to the happenings outside their jurisdiction; enables students solve both academic & personal difficulties independently; increases students enthusiasm & moral to learn; Enables students view the real thing outside the classroom in order to gain more experiences & knowledge, Aids students quick retention of information and Aids students commitment & active participation in learning having gained a matured level of understanding & knowledge. The above findings corroborate that of Muncha (2011) and Nwana (2012) which reveal that e-learning enables students to become thinkers /learners/risk takers in a sheltered environment; they learn not to rely on the lecturers, being accountable to themselves and becoming independent, teaches digital literacy; valuable employable skills in a digital world are learnt; appropriate online behavior; good digital citizenship; cyber safety; working with virtual team; digital and global entrepreneurship; broadens the horizons of many students as it exposes them to the world outside their cities.

Gupta (2017), also affirm to the above finding as he posits that Online learning accommodates everyone's needs; Lectures can be taken any number of times; Offers access to updated content; E-learning allows for a quick delivery of Lessons; it is Scalability - eLearning helps in creating and communicating new training, policies, concepts, and ideas. Whether it is for formal

education or entertainment, eLearning is very quick way of learning; It is Consistent as e-Learning enables educators to get a higher degree of coverage to communicate the message in a consistent way for their target audience. This ensures that all learners receive the same type of training with this learning mode. The stand of Mt. Albert Grammar School (2007), also conform to this finding as she states that e-learning enjoins students to multiplicity and multi-faceted benefits as it enhances learning which leads to higher academic achievements, increases students participation in learning; enables students access to resources outside the immediate classroom among others. Onwubiko (2020) further supports the finding as he opines that the integration of ICT in library instructions prepares the students for lifelong learning in an era of digitalization and information explosion that can only be meaningfully accessed electronically. So the inclusion of ICT in teaching-learning he concludes is a better way of making our students independent researchers as they are taught and made to acquire all the needed skills to handle and manage ICT tools and facilities and easily and efficiently access digitalized information sources.

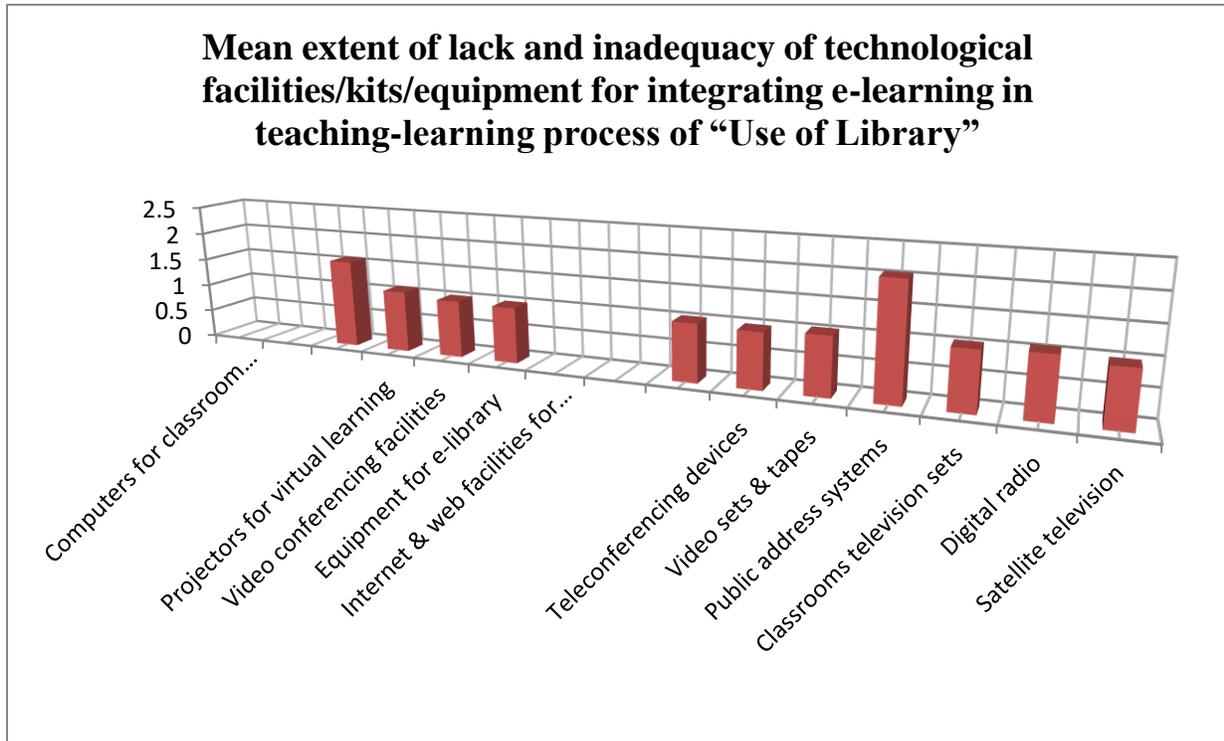
In view of research question 2, table 2 was explicit in revealing how the integration of e-learning will enhance lecturers' teaching of 'Use of Library' in these universities. They include that e-learning will enables academic staff develop new approaches & skills by accessing other resources; boost lecturers' morale & competence in the area of research & private training; enhance lecturers' ability in using electronic technologies, applications & develop computer skills; enhance lecturers use of curriculum through various applications; Assist lecturers develop new approaches & teaching methodology necessary for assessing students learning progress; support lecturers real life & other presentation in the classroom teaching; improve lecturers' efficacy & productivity which aids achievements of educational goals, enable lecturers solve academic problems & challenges as they relate to their & profession by interacting with other lecturers elsewhere and will make teaching more interactive, interesting & learner centered. This is in conformity with the finding of Eke (2011) and Nwana (2012), which highlighted that for teachers, e-learning aids them to achieve instructional objectives; helps teachers to achieve contents of the curriculum especially through research and private training; aids teachers in the presentation, demonstration and implementation of data using productivity; enables teachers use of information and resources on CD-Rom, online encyclopedia, electronic journals and other

online resources and enhances teachers use of curriculum through specific applications such as educational games; drills and practices, simulations tutorials, virtual laboratories, visualization and graphs, musical composition and expert system.

Stoeva (2018), further corroborated this finding as noted in her listed importance of e-learning to lecturers which states that e-learning platforms allow teachers to stay connected to their students outside of school hours in order to exchange resources, videos, ideas, methodologies, and pedagogical practices; the large variety of different resources such as videos texts, presentations, and quizzes that they can use to adapt their tutoring methods to the learning styles of their students; The use of new technologies gives teachers the freedom to experiment in their teaching practice and the ability to make changes if something doesn't work; Online platforms that are now available 24/7 allow teachers to develop and create their materials according to their schedules and whenever they want to; Online platforms allow teachers to support their students outside the classroom where they don't spend much time together, and to give them additional instructions on subjects like art, singing, chess, and cooking. It gives teachers the opportunity to lead students to success both during and after school; the ability to receive constant feedback from their students about whether they understand the material, if it is interesting to them, etc. Online platforms provide a large variety of assessment tools; can help them save time and allow them to focus on their own self-development; e-learning platforms including virtual classrooms support educators to improve: Online platforms allow educators to stay connected with colleagues from all over the world, as well as to share ideas and gain inspiration, Modern platforms bring more benefits of e-learning to teachers, like the ability to make audio and video recordings of their lessons and then to watch, analyze, and reflect on the same recordings afterwards and Observing other educators in your school or via different online courses can be very beneficial. Teachers can compare different teaching styles, practices, etc. They can become more aware of what kind of teachers they are.

The lack and inadequacy of e-learning facilities/kits/equipment where they exist as presented in table 3 shows the actual state of federal universities in Nigeria when it comes to acquisition of technological equipment and facilities in an era of emerging technology and information explosion that has made the world a global village. Looking at the data collected, there were virtually no Computers for classroom computer-based learning & instruction; Projectors for

virtual learning; Video conferencing facilities; Equipment for e-library; Internet & web facilities for internet/web based learning & training; Teleconferencing devices; Video sets & tapes; Public address systems; Classrooms television sets, Digital radio and Satellite television.

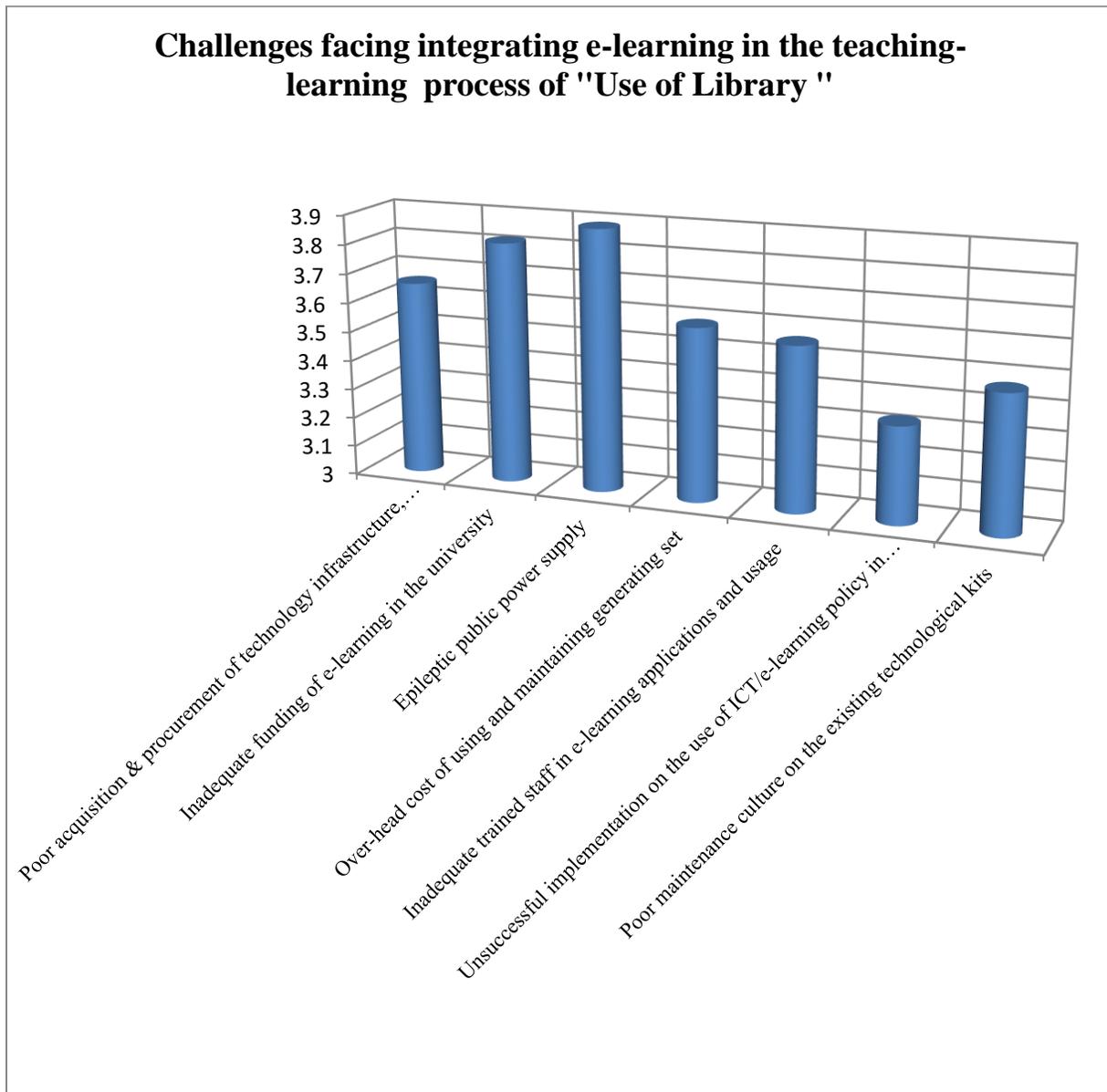


**Figure 1:** Extent of lack and inadequacy of technological facilities/kits/equipment for integrating e-learning in teaching-learning process of “Use of Library”

Figure 1 above explains better the state and extent at which the federal universities in Nigeria operate when it comes to technological facilities which by every standard are suppose to be prelude to integrating e-learning in the teaching-learning process of ‘Use of Library’ in these universities under study. There is no gain stating the fact, that the situation is a sorry one that calls for serious attention. As noticed, even those facilities and equipment that were available were also grossly inadequate. For instance, computer sets, public address equipment, projectors and digital radio sets.

The result of the findings in table 5 exposes the principal factors will militate against integrating e-learning in the enhancement of students’ learning and understanding teaching and learning process of ‘Use of Library’ include: Poor acquisition & procurement of technology

infrastructure, equipment & facilities due to high cost; Inadequate funding of e-learning in the university; Epileptic public power supply; Over-head cost of using and maintaining generating set; Inadequate trained staff in e-learning applications and usage, Unsuccessful implementation on the use of ICT/e-learning policy in education and Poor maintenance culture on the existing technological kits. All the factors were indicated at a mean average of 3.39 (see figure 2 below)



**Figure 2: Challenges facing integrating e-learning in the teaching-learning of Use of Library**

The above factors have also been highlighted by Laleye (2015) when he averred that successful integration of ICT in the school system depends largely on the attitude of teachers towards the

role played by modern technologies in teaching and learning. Insofar as the attitude of teachers remains sacrosanct, other factors according to Ololube (2009) are: chronic absence of ICT instructional materials, ineffective policy implementation and lack of other infrastructure and equipment to aid teaching and learning. The above challenges have also been cited by the Commonwealth of Learning International (CLI) 2001 as serious challenges facing higher education in Nigeria on ICT literacy knowledge integration with academic courses and programs as well as Onwubiko (2020) who states that the principal factors militating against the integration of ICT with library instruction include: inadequate ICT tools like laptops for students' learning ; inadequate ICT facilities in the library; poor and inefficient internet and poor ICT skills of some library staff.

However, the null hypothesis tested as summarized in table 5 shows that 'there is no statistical significant ( $p < 0.05$ ) difference between the mean rating of lecturers and students' in the extent to which integrating e-learning in the teaching-learning process of 'Use of Library' enhanced students understanding in federal universities in Nigeria.' The affirmation of the hypothesis is an indication that both lecturers and students are in dire need of the integration of e-learning in the teaching and learning process of "Use of Library" as they see it as a tool that will benefit all (lecturers and students) in that it will enhance the teaching and learning of the course which will in turn enhance the understanding of the course by students. This is in line with the finding of a study carried out in 2015 that evaluated students' learning satisfaction and the effectiveness of e-learning in landscape architecture construction studio courses but reported by Fresh Science News (2015), which indicates that "students were highly satisfied with web-enhanced teaching". The fact is that both lecturers and students have shown positive attitude towards the integrating of e-learning in the teaching and learning of Use of Library in these universities, the bulk now fall on government and policy-makers in Nigerian educational system. It is on the above basis that conclusion is drawn.

## **5.1 Conclusion and recommendations**

The outcome of this study shows that e-learning is an indispensable tool for enhancing teaching and learning of 'Use of Library' in federal universities in Nigeria. The integration of e-learning in the teaching-learning process of Use of Library therefore should be seen as a necessity and not a luxury that should be blanketed with lip service as it has been established that its integration

will bring about excellence instructional delivery that will enhance students' learning and understanding of the course and by extension other courses. Furthermore with corona virus ravaging, e-learning remains a major tool to maintaining the needed social distancing as students will be privileged to study privately, obtain better assessment and still remain in touch with their lecturers. One can then understand why President Donald Trump at the wake of Covid-19, indicated his intention to ban the continue stay of foreign students in the US suggesting the use of e-learning to stop the spread of the virus. So integrating e-learning into our educational system will go a long way in decongesting our lecture halls and also help reduce the spread dreaded covid-19 which no doubt we are going to live with until such a time. It is in due consideration of the above facts that the following suggestions are proffered:

- It is true that the Federal government of Nigeria has recognized the importance of e-learning thereby enshrining it in her National Policy in Education, but the question is: how many of our universities have been provided and equipped with e-learning facilities/kits/equipment? The whole issue has remained on paper and one of political campaign. It is high time the government told herself the truth and face reality by genuinely integrating e-learning into Nigerian's educational system through adequate funding and allocation of funds to our universities; If allocated, must be followed with close monitoring so as to ensure that it executed to the because of Nigerian factor.
- The university library on whose shoulder rest the provision of lecturers for the teaching of "Use of library" in these universities should partner ICT unit of the university to develop a roadmap for the creation of an e-learning platform which will with the collaboration of the university librarian and the Director, ICT unit be presented to the university senate and council for approval and implementation under the Tertiary Educational Trust Fund (TETFUND). The truth is that this body releases enough fund to these federal universities that are not judiciously accounted for, so it behooves TETFund as a major financier of university projects in Nigeria to see as a mandate the integrating of e-learning in the teaching-learning of 'Use of Library' and by extension other courses by financing the building of an e-learning platform and monitor as well as ensure that every fund released for this type of projects is fully utilized for that purpose until

completion. The Nigerian factor in which projects are completed only on pages of papers that has left Nigerian universities in the present decayed state should be discouraged.

- The federal government of Nigeria should come up with an effective implementation of e-learning policy. Enshrining it in the educational policy of the country is not enough but enforcing and supporting the implementation in every aspect of the nation's educational system should be her main concern. This is to say, that adequate provision of e-learning technological facilities/kits/equipment should be deployed to these universities by the Federal Ministry of Education for the teaching and learning of 'Use of Library' knowing its importance in the lives of students' education as it concerns carrying out successful researches.
- Federal universities management on their part should spear-head and accommodate e-learning in the teaching and learning process in the universities as a global practice for transformation.
- While there is the need to create e-learning platform for the teaching of the course, let it also be known that there is the need to train the lecturers and other sundry on how these things work for effective operates and utilization. In other words, there is need for both government and university management to come up with program for training and retraining of staff in this areas
- A major challenge with Nigerians is that maintenance culture does not exist in their vocabulary when it comes to public property and the universities are not in any way exception. To this end, operators and handlers of these facilities/kits/equipment when provided should be made to take responsibilities and this has to be done by highly boosting their maintenance culture in relation to this practice.
- For lecturers, they can learn from this study that the web-enhanced teaching "is no longer an add-on feature in teaching but a necessity". Today, the use of web to teach and learn is inevitable for both teachers and students. Online courses are becoming more and more

necessary for education to and for knowledge spread. Thus, teachers should consider this trend in education and get prepared technically and pedagogically to take online teaching in consideration. In turn, students need to get enough skills that will help them effectively benefit from the advantages e-learning is providing.

The inference is that e-learning as a tool and process has become a global educational phenomenon that has been embraced by almost all the nations of the world and entrenched in their educational system. Apart from the fact that it is in line with emerging technologies, it is time saving for both the educator and the learner; it makes resources readily available to both the tutor and the tutored; it allows learners and educators to operate at their own pace thereby saving space, manpower and cost and it enhances both students and lecturers teaching/learning methodologies and styles as they are exposed to many contents which allow for comparison of ideas which in-turn, improves both lecturers and students' skills. Above all, e-learning is simply education made easy which has broken the barrier of creed; race, sex and status.

Nigerian government, her federal ministry of education and other related agencies like National University Commission (NUC) therefore, have no option than to embrace and accommodate in practice e-learning in her educational system or be left behind in the comity of nations when modern educational system is being discussed. The government should understand that turning a deaf ear to this global change in education is like preparing for the doom day. In fact a nation that refuses to train her young today in line with global best practices in education can only succeed in making her tomorrow stagnant and a slave to other nations that toed the line of change.

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