Education students' Access to E-learning Facilities in Universities South-East of Nigeria

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Abstract:

E-learning is becoming the world's most effective way of sharing knowledge. Consequently, many universities in Nigeria are seriously planning to commence e-learning service delivery. The extent of their readiness in terms of students' access to e-learning facilities becomes imperative. This study investigated education students' access to e-learning facilities in universities South-East of Nigeria. Using a description survey research design and a multistage sampling approach, a sample of 376 final year education students from five universities were selected for the study. A structured questionnaire and interview were used for data collection. Four research questions and two null hypotheses guided the study. Frequency counts, percentages, means and t-test statistics were used for data analysis. Results show that; only 42.9% of the students have access to e-learning facilities; students have access to only e-mail accounts; factors hindering access to e-learning facilities include irregular electric power supply among others. There were no significant differences in gender & federal and state universities with regards to students' access to e-learning facilities. It was concluded that the universities were not yet ready for e-learning service delivery. Recommendations include stepping down the take-off of e-learning in the universities.

Key words: E-learning, Access, facilities and hindering factors.

1. Introduction:

The past few decades have witnessed lots of developments globally, in computer applications that have contributed largely in transforming ways information is currently gathered, stored, organized, accessed, retrieved and consumed. This has ushered in several products and services in communication especially in classroom interactions. The internet and web are constantly influencing developments in new modes of learning and classroom instructions while their potentials for service delivery in universities are quiet vast. Consequently, it becomes imperatives for Nigerian universities to introduce e-learning service delivery, since it is found to be good in many ramifications, provided that students and lecturers have adequate access to the facilities. (Anyira, 2011) remarked that, to students and lecturers with very large and or distant class of learners, e- learning is inevitable.

E-learning, often referred to as web-based or online learning, is currently a fast growing educational paradigm in higher institutions in Nigeria. It involves all teaching and assessment approaches that use technology such as Wikis, Blogs, Podcasts and learning management systems such as computers, internet and web connectivity to enhance learning experience and research works (Mahahusudhan, 2008; Nadiu, 2006). This new teaching and learning approach offers potential values to traditional teaching and learning approach due to its flexibility and accessibility of information to a great number of students at a time (Naqvi, 2007). E-learning also provides easy access to any type of information required for academic purpose through the use of internet facilities such as World Wide Web (www) based technologies and other softwares. Nkanga (2007) indicated that e-learning is a computer supported collaborative learning process that deploys the technology of computer as its main platform for Information and Communication Technology (ICT) and enables both students and teachers to generate, advance and share knowledge in a more common form. Apparently, e-learning is the only promising

option for effective dissemination and collection of information which can successfully accommodate the ever-growing need for access to knowledge, equity and quality in higher education in Nigeria.

The demand for university education in Nigeria has been on the increase for many years now. Out of the large number of candidates seeking for admission into universities in Nigerian over 80% of them fail to gain entrance due to limited access to the university education. (Onwurah & Chiaha, 2007). It is therefore, worrisome to Educationists, Planners, Guidance Counselors and Psychologists that Nigeria may not after all actualize the targeted Millennium Development Goals (MDGs) and Education for All (EFA) by the year 2015 or become one of the expected 20 leading world economics by the year 2020. The reason being that teacher education like other programmes in Nigerian universities, is affected by lack of access to university education due to the limiting impact of the prevailing traditional face-to-face mode of teaching and learning currently predominant in Nigerian universities with its inherent disadvantage of not accommodating very large numbers of students at a time. Although e-learning seems to be a novel approach in service delivery, interestingly its concept is gradually becoming eminent in Nigerian universities. This is because it appears to be more flexible and more cost effective to both teachers and students due to the possibility of accessing unlimited information in all areas of learning. Learners at different places can access information individually and at their own pace by asynchronous learning or learn the same thing at the same time from different places by synchronous learning (Naidu, 2006). Synchronous learning allows working with other students in a distant class which takes place when two or more people are communicating in real time, sitting in a classroom, talking on the telephone, chatting via instant messaging in a classroom a world away from where the teacher is speaking via teleconferencing (Peterson, 2009). With virtual classroom, students can have online learning without the teacher engaging them in the usual conventional face to face contacts. In fact, Gunga (2010) noted that with e-learning both teachers and learners are eased off the stress of traveling distances and being in school for hours just to either teach or attend lecturers. E-learning is a fast gaining ground in Nigerian higher institutions but not without their normal challenges which above all includes access to the facilities.

Access simply connotes a way of entering or reaching something. Hence, access in this study is operationalized as ways and means of learning electronically through the use of computers, internet and World Wide Web connectivity. This implies that an e-learning user will be Information and Communication Technology (ICT) compliant; have access to computer, internet connectivity and adequate power supply among others.

1.2 Literature Review:

Studies show that accessibility to e-learning facilities form the bases of success of university programmes. In Jamia Millia Isilomia Central University, (Naqvi 2007) found that access to e- learning facilities motivates students to search for information for research proposes and for effective learning. It was also found that the provision of many computer terminals enhance access to e-learning at Guru Wanak Development University. (Kaur, 2006). However, Chetan's (2009) study revealed that 80% of teachers and 86.67% of researchers have access to e-learning opportunities in Guru Gbina Slugh, Indraprastha University, India. This made their research works faster, easier and better. Also, Lazenger, Bar-ilan, Peritz (1997) study indicated that only a very poor percentage (12.5 %,) of the university students have access to internet facility with 83% relying on their personal laptops while 91.7% relied on cyber cafés. They also found that only 4.1% have access to e-learning through university internet connectivity. Similarly, Eze (2012) observed that teachers have poor access to e-learning facilities in Enugu state, Nigeria. Eze's study revealed that only 14.5% of secondary school teachers in Enugu State, Nigeria, had personal computers (PC) or laptops while only 21.2% of them have e-mail accounts.

Inadequate access to e-learning facilities had earlier been observed by Adika (2003) who remarked that efforts should be made to salvage staff and students in African Universities from the problem of access to e-learning facilities. One wonders if the situation is the same in the universities under study. This is the essence of this study. E-learning literatures also reveal that access to e-learning can be challenged by many hindrances. These include issues such as perennial epileptic electricity supply, high cost of hardware like personal computers (PC) and laptops (which students find astronomical), technophobia systems in the country and poor attitude of students towards ICT, among others (Salawudeen 2006); Ajadi, Ibrahim & Femi, 2008; Achebe 2012). Salawudeen (2008) also observed that some higher institutions in Nigeria have started building ICT centers but the remoteness of these centers and their non-connectivity to necessary internet facilities hinder access to e-learning. These findings leave no doubts that there are hindrances to students' access to e-learning facilities in universities SE Nigeria, which this study also investigated.   .

1.3. Statement of the problem:

The relevance of e-learning in facilitating the ever growing need for equity in knowledge acquisition and quality assurance in education in Nigerian universities has been a topical issue among Educationists, Policy Makers, Administrators and school Guidance Counselors. Probably, this may be the driving force behind the efforts of many universities in Nigeria towards the preparation towards introduction of e-learning mode of service delivery in their institutions.   The University of Nigeria Nsukka, for instance had trained an e-learning squad made up of lecturers from all faculties, to sensitize students to e-learning service delivery. However, the preparation cannot be completed without ascertaining if there is adequate access to the facilities for both teachers and learners. This is most crucial for education students (novice teachers) that need access to e-learning facilities not only for their academic success, but also to have deep knowledge of the technicalities of e-learning, as they will use same to teach secondary school students after their graduation.

Universities in South-East unlike other universities in Nigeria have suffered the crunch of the three-year civil war which made them lag behind developmentally, economically and academically especially in this area of technology and globalization. As many universities in Nigeria gear towards world class standard through global competitions enabled by e-learning service delivery, those in South –East are still struggling to meet up with other universities. As such, most universities in South-East Nigeria are seriously planning to introduce e-learning service delivery for their undergraduates and post graduate students in readiness for the world class status race. The big question is: How ready they are these universities? Are the facilities available and have students enough access to the facilities? The answers to these crucial questions that should be settled during the planning stage before the take -off of the programme, are what this study sought for to ensure that failures and wastages are avoided and to promote Total Quality Management in the universities.

1.4. Purpose of the study:

The main purpose of this study is to investigate education students' access to e-learning facilities in universities in South-East of Nigeria. Specifically the study investigated;
1. Types of e-learning facilities that student have access to.
2. The percentage of students that have access to e-learning facilities in the universities.
3. The extent of students' access to e-learning facilities.
4. Hindering factors to students' access to e-learning facilities in the universities SE of Nigeria.

1.5 Research Questions:

The following research questions guided the study.
1. What types of e-learning facilities do Education students in universities SE Nigeria have   access to?
2. What percentages of Education students have access to various e-learning facilities in the universities?
3. To what extent do the students have access to e-learning facilities in the universities?
4. What factors hinder Education students' access to e-learning in the universities?

1.6 Null Hypothesis:

The following null hypotheses guided the study and were tested at 0.05 level of probability.

Ho$_1$ There is no significant difference between the mean ratings of male and female students with regards to the hindering factors to students' access to e-learning facilities.

Ho$_2$ There is no significant differences between the mean ratings of federal and state universities on the extent education students have access to e-learning facilities in the universities SE of Nigeria.

2. Research method:

2.1 Design of the study:

A descriptive survey design was adopted which enabled the researchers to collect and analyze data from a sample of the entire population without any manipulations.

2.2 Area of Study:

The study was carried out in South-East of Nigeria which comprises of five states namely, Abia, Anambra, Ebonyi, Enugu and Imo state, each with a federal and a state university. This area is dominantly Ibo speaking. The people are very hard working and determined to meet up with the developments in other states despite the adverse effects of the civil war. They are highly interested in education and all the states except one belong to the educationally advantaged states in Nigeria. This implies that they are highly interested in education and matters leading to educational developments.

2.3 Population:

The study population was made up of all the ten universities (five states and five federal) in SE of Nigeria. The choice of these universities (state and federal) is governed by the fact that all have similar sources of funding by either the state of federal government and are also under same supervision of the Nigerian University Commission (NUC). It is therefore expected that all of them will have the same level of e-learning facilities.

The participants involved are the final year education students of 2011/2012 session.

2.4 Sample and sampling technique:

A multistage sampling approach was employed; firstly, a deliberate sampling method was used to select all the seven universities that offer education courses from the ten universities in SE Nigeria. Secondly, using a simple random sampling method by balloting, five (77.3%) (Two federal and three state) universities out of the above seven, were selected for this study. Thirdly, from the five selected universities, a convenient sample of 76 final year students, (40 males students and 36 females) were selected from each of the five universities giving a total of 380 (200 male and 180 female) students used for the study. Convenient sampling technique employed was to enable the use of students on site during the administration of the instruments as suggested by (Trochim 2004).

2.5 Instrument for Data Collection:

Two instruments were used for the study comprising of a researchers' designed structured interview schedule titled E-learning Access Facilities Interview Schedule (EAFIS) and a structured questionnaire titled, Students' E-learning Accessibility Inventory (SEAI). The EAFIS was designed to elicit information on students' access to e-learning facilities. It focused on access to necessary facilities needed for e-learning with a response pattern of Yes and No.

The SEAI comprised of sections A and B. Section A focused on demographic data of the respondents, Section B has 22 items with two clusters, designed to collect data for answering research questions 3 and 4. Cluster 1 focused on extent of students' access to e-learning facilities, while cluster 2 focused on hindering factors to students' access to e-learning. The items in cluster 1 were on a four-point rating scale of Very Large Extent (VLE); Large Extent (LE), Small Extent (SE) and Very Small Extent (VSE), while Cluster 2 items were placed on a four-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) respectively.

2.6 Validation and Reliability of Instrument

The research instruments were subjected to face validation by three test experts in the University of Nigeria, Nsukka, one in Measurement and Evaluation, one in Educational Administration and Planning and the other in Guidance and Counseling. After that, the instruments were trial tested on 15 final year education students, each in two universities (one Federal, one State) in South-South of Nigeria. Data collected were subjected to Cronbach Alpha statistic to determine their internal consistencies. The analysis gave an Alpha coefficient value of 0.77 for the interview schedule (cluster one) 0.64 and 0.74 for clusters two and three respectively. These moderate values revealed that the instruments were reliable for use in the study.

2.7 Method of Data collection:

The researchers assisted by four research assistants administered the instruments on the 380 respondents that were equally interviewed during the process. Data collection lasted for two weeks. On the whole, 376 (98.96%) inventories were retrieved, 150 from federal and 226 from state universities made up of 197 from males and 179 from females.

2.8 Method of Data Analysis:

For research questions 1 and 2, frequency counts and percentages were used for data analysis. Means and t-test statistics were used also in analyzing the data collected for answering research questions 3 and 4. To arrive at decisions for research question 3, limits of real numbers were used as follows;

Mean Range	Decision
3.50 - 4.00	Very Large Extent
2.50 – 3.49	Large Extent
1.50 - 2.49	Small Extent
0.00 - 1.49	Very Small Extent

For research question 1, the use of and 50% was employed in determining the items accepted and those rejected as types of facilities students have access to. Any 'YES' column with a percentage score of 50% and above was accepted as a type of facility students had access to and the items below 50% were rejected as types of facilities students had access to. 'No' items 50% and above were rejected as facilities students had access to and items below 50% were accepted as facilities student did not have access to. For research question 4 the use of 2.50 criterion mean was employed in determining the items accepted and those rejected as hindering factors. Scores below the criterion mean of 2.50 were rejected as factors that hinder students' access and those above 2.50 criterion mean were accepted as the hindering factors to students' access to e- learning.

3. Results: The results of this study are presented in four tables with the adjoining explanations.
The answers to research questions 1 and 2 are presented in table 1.

3.1 Research Question 1.
What types of e-learning facilities do the Education students have access to?
3.2 Research Question 2,
What percentages of Education students have access to various e-learning facilities in?

Table 1:
Frequencies counts and percentages of students that have access to various e-learning facilities in universities

S/No	Types of / Access to e-learning facilities	Respondents n = 376					
		Yes			No		
		Freq.	% Dec		Freq.	%	Dec.
1.	Possession of persona (laptops,palmtop,desktops	149	(36.6) Reject		227	(60.5)	Reject
2.	Regular electricity supply in the universities	160	(42.6) Reject		216	(57.4)	Reject
3.	Regular electricity supply in the hostel/residence	144	(38.4) Reject		232	(61.6)	Reject
4.	Possession of e-mail account	297	(79.0) Accept		79	(21.0)	**Accept**
5.	Internet connectivity in institution	117	(47.0) Reject		212	(56.4)	Reject
	Average	**159**	**(42.9)Rej**		**217**	**(57.1)**	**Reject**

Table 1 shows the result of research questions 1 and 2 (the structured interview schedule) on types of e- learning facilities students had access to and the percentage of students that have access to e- learning facilities. The table shows that 60.48% of the students did not have personal computers, 59.5% did not have electricity supply, while 56.4% did not have internet connectivity in their institutions. However, 79% had e-mail accounts. The result indicates that the only facility students had access to was only e-mail accounts and that on the average, 42.95% of the students had access to e-learning facilities while 57.1% did not.

3.3 Research Question 3.
To what extent do the students have access to e-learning facilities in universities SE of Nigeria?

Table 2:

Mean and standard deviation of the extent of students' access to e-learning facilities.

S/No	Item Extent of access to e-learning facilities	Male &Female & n=376 Freq.	$\overline{X}$	Decision
1.	Learning through off-line computer connectivity	134	2.81	**LE**
2.	Have access to web-based internet connectivity	145	2.59	**LE**
3.	Have online access to e-learning materials	121	3.10	**LE**
4.	Exposed to synchronous mode of learning	156	2.41	**SE**
5.	Engage in asynchronous mode learning	202	1.86	**SE**
6.	Access materials using soft-wares like CD. ROM	196	1.92	**SE**
7.	Learn through combined use of conventional face to face classroom approach and on-line (Blended learning).	214	1.85	**SE**
8.	Have online chatting activities	121	3.11	**LE**
9.	Engage in virtual classroom meetings	102	1.86	**SE**
10	Have forum discussions	196	1.92	**SE**
	Overall Mean	169	2.23	**SE**

n= 376; x= Mean; LE=Large Extent; SE=Small Extent.

Table 2 shows an overall mean score of 2.23 on extent of students' access to e-learning facilities. This result indicates that students' access to e-learning facilities was to a **Small Extent (SE).**

3.4 Research Question 4:

What factors hinder Education students' access to e-learning in universities SE of Nigeria?

Table 3:

Mean ratings of hindering factors to Education students' access to learning facilities.

S/N	Items E-learning hindering factors	Male n=179 $\overline{X}$	Dec.	Female n =179 $\overline{X}$	Dec.	Male & Female n=376 $\overline{X}$	Remark
1.	Poor students' knowledge of ICT	3.56	A	3.40	A	3.48	A
2.	No accessibility to computers	3.34	A	3.41	A	3.37	A
3.	Irregularity of electricity supply	3.78	A	3.42	A	3.34	A
4.	Lack of ICT skills on the part of students	3.30	A	3.35	A	3.32	A
5.	Absence of web connectivity in my institution	2.95	A	2.86	A	2.91	A
6.	Poor availability of e-learning software materials.	3.25	A	3.18	A	3.22	A
7.	Unwillingness of lecturers to incorporate e-learning	2.02	R	2.24	R	2.13	R

Criterion Mean = 2.50; A=Agreed, Dec= Decision

Table 3 reveal that items 1 to 7 are the hindering factors to student's access to e-learning with mean ratings of respondents (male and female students) falling above the criterion mean of 2.50 except item 7 with a mean of 2.13 that is below the criterion mean. The decision shows that items 1 to 6 are accepted as hindering factors while item 7, 'Unwillingness of lecturers to incorporate e-learning' was rejected as a hindering factor to student's access to e-learning facilities.

3.5 Hypothesis 1:

There is no significant difference between the mean scores of male and female students with regards to the hindering factors to students' access to e-learning facilities

Table 4:

t-test analysis of hindering factors to students' access to e-learning facilities.

Variable	N	X	SD	DF	t-cal	Sig (2tailed)	Decis
Male	197	3.26	0.55	374	0.08	0.93	**NS**
Female	179	3.26	0.49				**H$_0$ Accept**

Table 4 reveals that the calculated t-value -0.08 is significant at 0.93. Since the t-calculated is higher than the set probability level of 0.05, the null hypothesis that there is no significant different between the mean ratings of male and female students on hindering factors to students' access to e-learning facilities **is accepted**.

3.6 Hypothesis 2:

There is no significant difference between the mean scores of federal and state universities on extent students have access to e-leaning facilities.

Table5:

t-test analysis of the difference between federal and state universities on extent students have access to e-leaning facilities.

Groups	N	X	SD	DF	t-cal.	Sig (2 tailed)	Dec.
Fed.	150	2.40	1.11	374	0.07		NS
	226	1.70	1.01	0.75			H$_0$ Accep

Table 5 reveals that the calculated t-value of -0.07 is significant at 0.75. Since the t-calculated is higher than the set probability level of 0.05 the null hypothesis that there is no significant different between the mean ratings of federal and state universities on the extent students have access to e-leaning facilities **is accepted**.

3.7 Summary of Findings:

The findings of this study are as follows;
1. Education students in universities SE Nigeria had access to only e-mail accounts.
2. A good number, 217 and greater percentage, 57.15% of the students did not have access to e-learning facilities.
3. Students' access to e-learning facilities was to a **Small Extent (SE).**
4. There is no significant different between the mean ratings of male and female students on hindering factors to students' access to e-learning facilities.
5. There is no significant difference between the mean ratings of federal and state universities on the extent students have access to e-leaning facilities.

4. Discussion:

Findings from the study reveal that a greater percentage (57.15%) of education undergraduate students did not have access to e-learning facilities. Specifically, the study reveals that 60.48% of students did not have personal computers, 57.4% and 61.61% did not have regular electricity supply in consonance with earlier studies (Lazinger, Bar-Ilan & Pertz; 1997; Adika 2003; Eze, 2012). Lack of these basic e-learning facilities no doubt limited students' access to e-learning facilities irrespective of the fact that high percentages (79.0%) of them had e-mail accounts through which they could access online information. The fact that only 47% of the students had internet connectivity in their institutions will no doubt limit their global information sharing, which in turn will peg quality assurance needed in teacher preparation in universities. This study revealed that the extent to which students' access to e-learning opportunities such as synchronous, asynchronous and blended learning were all to a small extent. So also were their access to e-learning facilities such as CD ROM, DVD, online chatting activities, forum discussions and virtual classroom meetings. This seems to be in line with the finding of Wayne, (2013:10) who observed that in Australia, university students indicated that they used Web 2.0 tool for general use "but where resistant to accessing it for pedagogical information. He concluded that the students did not have "admittance" (access) "to appropriate to use such for their studies." This finding of this

study is discouraging as it implies that the students in SE Nigerian universities may not benefit from the various opportunities offered by e-learning as in other developing and developed countries of the world. (Salawudeen, 2006, Ajadi, Ibrahim and Femi, 2008). This will surely limit their academic performance, international and national employability opportunities.

The implication of this finding is that although e- learning mode of service delivery offers much potential, it may not be employed for use in universities SE of Nigeria in the very near future as in other developed and developing countries. This implies that the face to face mode of learning will likely continue in SE Nigerian universities, thereby depriving the undergraduates of the advantages that e-learning offers over face to face service delivery. Again, it appears that secondary schools in the area will equally be affected as the teachers may not be adequately prepared to use e- learning mode of service delivery in secondary schools.

Also revealed in this study is that students' access to e-learning was hindered by factors sincluding lack of knowledge and possession of ICT skills, non accessibility to computers, irregular electricity and non-web connectivity in institutions. Others include poor availability of e-learning software and lecturers' unwillingness to incorporate e-learning approach in teaching. Gender analysis on this issue reveals no significant difference between the male and female students. These findings are not surprising but rather in consonance with earlier studies of Salamudeen & Naqvi; (2007); Ajadi, Ibrahim and & Femi; (2008) who found that students in India lack access to e- leaning facilities and Eze (2012), who also found the same in Enugu. The non-gender difference of this finding is not surprising because male and female students were exposed to same environmental learning conditions. The findings further show that there was no significant difference between federal and state universities with regards to access to e-learning facilities. This is probably due to the similarities in funding and supervisory bodies both types of institutions. The Nigerian government (federal and state) has severally complained of her inability to continue funding education without assistance. Consequently, she called on all and sundry to come to her assistance. (Chiaha and Oboegbulan, 2009). This poor funding no doubt leaves Nigerian universities in bad shape without adequate facilities including e-learning facilities. This has resulted in frequent crisis, unrests and strikes among students, academic, non academic staff and the various University Staff Unions that commonly characterize Nigerian universities. No doubt, none of the universities in Nigeria was listed among of the world-class universities in the 2012 world-class university assessment. This is evident from the finding that the only available facility student had access to happen to be the one provided by the students themselves, that is e- mail accounts. Such facilities like regular electricity power supply, internet connectivity which are the responsibility of the government were seriously lacking. Also, the finding that students' access to e- learning facilities was to a small extent supports the finding that there was inadequate access to the facilities. Implicitly, the probability of education students in universities south-east of Nigeria to acquire knowledge through e-learning as in the globalized world of today seems bleak. Finally, various hindering factors to education students' access to e-learning facilities suggest that in Nigeria, teacher preparation in universities is likely to continue being ineffective if efforts are not made overcome the hindrances.

4.1 Conclusion

The implication of this finding is that SE Nigerian universities may not attain the much desired world class standard if this trend of lack of access to e- learning facilities continues. Without e- learning, Knowledge Management which is very essential for knowledge sharing will be difficult and without knowledge sharing, world class standard will be impossible to attain. E-learning is gradually becoming the world's fastest form of communicating and a means of disseminating international and domestic information. It enables both students and their lecturers to use varied electronically mediated learning opportunities for generating and sharing of knowledge in a more convenient form. The achievement of e-learning benefits is not without challenges. It is hoped that with proper planning universities South –East of Nigeria would see the need, not only to vigorously pursue the provision of e-learning facilities but, also to have their Information Communication Technology (ICT) centers properly equipped so as to motivate both students and lecturers to develop positive attitudes towards the use of e-learning in teaching and learning.

In conclusion, since the education undergraduate students of universities SE of Nigeria do not have enough access to e-learning facilities, the planned take-off of e-learning service delivery should be suspended till adequate facilities are provided. Consequently, the use of e-learning service delivery in universities SE of Nigeria and even in secondary schools SE of Nigeria especially in Abia, Anambra, Enugu, Ebonyi , and Imo States of Nigeria stands bleak.

4.2 Recommendations.

In view of the findings the following recommendations were made:

1. Universities south-east of Nigeria should endeavor to establish ICT centers and provide necessary facilities like computers, web-connectivity and constant electricity supply in the institutions to enhance students' access to e-learning facilities.

2. Universities should think of alternative sources of energy supply like solar energy to help augment the perennial epileptic power supply

3. Students should be assisted by universities and philanthropic organizations and individuals to possess Personal Computers through at subsidized rates or through loans and grants.

4. Capacity building workshops in ICT should be organized for lecturers to enhance their ICT skills and increase their confidence level in the use of e-learning modes in service delivery.

5. The universities SE of Nigeria should not start the proposed e-learning service delivery yet till the necessary facilities are made available. This is to avoid failure and wastages and promote Total Quality Management.

6. Universities SE of Nigeria should seek for External and Internal assistance in the provision of e-learning facilities for education students.

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