Assessment of the Availability and Utilization of E-Learning technologies in Economics Education Programme in Colleges of Education in Oyo State

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Abstract:- **The study determined the extent to which e-learning facilities were available for Economics Education in Colleges of Education in Oyo State, investigated the extent of e-learning technologies utilization of lecturers in colleges, and examined the computer competencies possessed by Economics lecturers in the colleges as well examined the constraint to the effective utilization of e-learning technologies in Economics Education programmes in the Colleges of Education in State. This study employed a survey research design. The population for the study consisted of Economics Educations lecturers and students in Colleges of Education in Oyo State. The study sample consisted of twenty lecturers and 120 students. Two (2) colleges of Education were selected using simple random sampling technique out of the Colleges of Education in Oyo State. Ten lecturers and 60 students were selected from each of the selected Colleges of Education using the simple random sampling technique. Two structured questionnaires were used to elicit information on the study namely: Economics Education Lecturers' Questionnaire (EELQ) and Economics Education Students' Questionnaire (EESQ). Data collected were analysed using simple percentage, relative significant index and independent t-test statistics. The findings of the study revealed that e-learning facilities were available especially computer room with RSI (0.63) and (0.51) for lecturers and students' responses respectively in most Colleges of Education in Oyo State. The results also showed that 75.0% of the lecturers used e-learning technologies in the instructional delivery of Economics Education in Colleges of Education to a low extent while 25.0% of them used it to a moderate extent which showed that Economics lecturers in Colleges of Education in Oyo State were not utilizing e-learning to deliver lessons. The results further showed no significant difference in the computer competence of lecturers in both Federal and State owned College of Education (t= 1.156, p> 0.05) which showed that lecturers in both Colleges of Education were competent in handling e-learning technologies. The study concluded that e-learning facilities are available but rarely used by Economics lecturers in lecture delivery due to e-learning constraints.**

Keywords: **Availability, Utilization, E-learning technology, Economics**

I. INTRODUCTION

Electronic learning, which is also referred to as e-Learning, is increasingly becoming acceptable for teaching, learning and administration purposes in higher institutions all over the world (Evarest & Laura, 2011). It is an important instructional tool to facilitate the transfer of information as well as effective means of communication in schools and colleges. The manifestation of e-Learning or Internet-based instruction comes in one-to-one i.e. teacher-to-student, one-to-many i.e. teacher-to-group and many-to-many i.e. group-to-group approaches to instruction (Webb 2004). This results from the opportunity provided by institutions and more students that are taking part in it.

E-Learning is the application of technologies involved in information processing and electronic communications which include computers, internet, e-mail, computer software, satellite, mobile communication gadgets, as well as other allied electronic devices for dissemination of knowledge and information. Electronic learning involves the application of computer and information technology in teaching-learning exercise. Adesoji (2012) is of the view that e-learning comprises computer and ICT materials and applications, which aid information collection and dissemination, research and global exchange of ideas that are necessary for advancing meaningful educational initiatives and to understand issues related to global development. The information age necessitated the introduction of e-learning facilities to the education systems with the aim of improving educational delivery and to prepare students for a role in this age. The application of facilities of e-learning provide productive teaching and learning so as to increase people's creative and intellectual resources more importantly in today's information society and gives ample and exceptional opportunities to the teachers and students to bring about development of capacities for high quality learning and to increase their innovative ability.

Electronic learning is the use of Information and Communication Technologies (ICTs) to enhance and support teaching, learning and research (Eteng & Ntui, 2009). There is growing concern for the use of ICT resources in this age of Information and Communication Technology. Such technologies include the computer, scanner, printer, Intranet, Internet, videophone systems, teleconferencing devices, Wireless Application Protocols (WAP), radio and microwaves, television and satellites, multimedia computer and multimedia projector, among others in instructional delivery (Nwana, 2012).

The use of e-learning in Economics education has shown that it empowers students and makes them more knowledgeable in the field of Economics (Lage, Platt and Treglia 2000). Various types of ICT tools are used in Economics courses such as tutorial, testing, simulation/game, database, spreadsheet, and tools of local area network and the internet which provides opportunities for students to think in an economic way.

(Adeosun, 2010) asserted that encouraging teachers to develop a sense of rapport with computer, appreciating its potentials for solving teaching and learning challenges and to entrench computer culture that permeates all activities in institutions of learning are the intents of objectives of the National Policy of Education. Also the National Policy on ICT Education in Nigeria (FRN, 2012) stated the objectives of ICT IN Education, which include: to integrate ICT into the National Education Curriculum, to promote the culture of lifelong learning, to promote development of ICT skilled personnel and support the training and capacity building among public sectors employees in the development and use of ICT tools and applications to improve the delivery of government services.

Furthermore, it pointed out the responsibility of the Government in the attainment of the objectives, which shall be: to encourage continuous training for professionals through specialized training, introduce mandatory training and appropriate courses for the ICT at all tiers of education, foster an ICT driven educational administration environment, train and retrain teachers and facilitators at all levels and enhance their ICT competence, promote the development of instructional materials in electronic format, develop and implement ICT training programs for public sector employees, in connection with introduction of e-Government and other functions within Government offices.

The adoption of this policy implies a paradigmatic complement from conventional methods of face-to-face teaching in classroom environment including Economics classroom to an environment where technology is a viable component of the overall infrastructure, skills and credentials of both teachers and learners for collaborative and e-Learning activities (Jone and Sims, 2002). Therefore, it is necessary for teachers, who serve askey implementers of the educational policy, to be well grounded and adequately equipped with ICT facilities in order to function productively in this age of information explosion and technological advancement. Its implementation should therefore lead to a speedy transformation of the arts of teaching, learning and administration of education which in turn fosters the production of graduates in the education system that can survive in the contemporary society, sustain national development and compete globally.

The actualization of this policy statement depends mainly on the capability of the key implementers of the nation's educational policy (i.e. teachers) to integrate e-Learning technologies effectively in day to day classroom activities for effective pedagogy considering ICT as a world of its own, with its various diversified aspects. It is worthy of note that e-Learning has a major advantage of individualizing instruction through the presentation of varied and flexible experiences to the individual learner and takes care of learners' indifference. Guided discovery and inquiry method are also made use of to ensure the application of effective teaching methods to the learner. The implication is that the provision of these e-Learning facilities cannot make any impact on their own until they are effectively utilized in the teaching and learning process. Okafor (2009), stated that the computer devices or tools are fed in sequential manner in the application of the e-learning with what to teach, the steps to be followed, how to evaluate success, how and when other classroom activities are to be carried out. This informs the basis of using e-learning technological tools in Economics Education program in Colleges of Education.

Challenges and concerns arise as a result of knowledge explosion resulting from the introduction of ICT in almost every field of human endeavour and this calls for an awakening even in teaching profession. Teachers need to be mindful of the quality of their teaching which is determined by the quality of instructional materials employed such as charts, model static, specimen and slides (Sansanwal, 2009). ICT can be used in producing, storing, processing, distribution and exchanging information as an information handling tool. It therefore, implies that ICT could help teachers even to be more effective and resourceful in work life and in content management which will make teaching task less cumbersome, productive thereby improving students' academic performance. Basically, the usage of ICT tools through e-learning is meant to serve as an orientation stimulus to aid the teachers, strategies of teaching and not to replace them. The use of ICT through e-learning is a paradigm complement to the traditional form of teaching to make teaching learning process more real and practical resulting to better performances of students academically.

Economics as a social science subject was introduced into the Nigerian curriculum in the year 1967 and as at then, only ten(10) candidates registered and later sat for the senior secondary school final year examination (Odusanya, 2001, cited in Yusuf, 2012). In the present time, because of the importance of the subject to all aspects of human endeavour, Nigeria is recording a tremendous increase in the percentage of candidates who register and sit for Economics yearly at both West African Senior Secondary Certificate Examination (WASSCE) and National Examination Council (NECO) levels (Odunsaya, 2001, cited in Yusuf, 2012).

The use of e-learning technologies has such advantages in teaching and learning process that objectives could be achieved in students offering Economics at the end of the three-year course. However, this depends strongly on the ability and capability, as well as the effectiveness of teachers to incorporate teaching strategies which use ICT

facilities to achieve the objectives of lessons in the classroom. Punie, Zinnbauer and Cabrera (2006), maintained that ICT has not revolutionized teaching methods rather, the subject content and by implication e-learning does not replace the teaching strategies but being other supportive devices to enhance content delivery.

However, the aims and effectiveness of teaching economics in recent years have been questioned due to lack of content knowledge as well as skills among the graduates (Becker, 2000). According to him, their inability to perform effectively in workplaces have raised serious concerns among parents, teachers, business communities, and concerned others. E-Learning is therefore aimed at enabling Economics teachers have access to the latest technologies giving them experience of using e-Learning in a variety of contexts during teaching. The methods used by lecturers should enable teachers in training to integrate e-Learning within their teaching and provide opportunities for them to use the technologies they will likely come about in school.

Furthermore, it was observed that one of the many other factors responsible for a declining performance of students is the inability of lecturers to cover the required syllabus before presenting the candidates for the examinations. These, could be due to ineffective teaching strategies employed by the teachers or lack of proper understanding of the subject content by the students. The benefits of ICT as an important tool in the teaching and learning of wide range of topics in Economics such as statistics, measures of central tendency, national income and so on could enable the students understand and learn the subject better. Walstad(2001) stated that little attention is being given to the improvement of teaching and learning of Economics in recent decades and that passive learning based on the traditional form of ″chalk and talk''method of teaching has widely characterized the 20th century style of teaching Economics. The teaching of Economics as a school subject as well as how it is being learnt has been very much under researched in many parts of the world (Jephcote, 2004),

Murray (2003) posited that economic forecasts and business analysts predict that the 21st century jobs will require information processing skills. Development of information literacy, therefore, becomes inevitable for workers of the present and quite essential for the future workers. The call for the 21st century literacy in e-Learning simply reflects the fact that the call for an educated citizenry and work force continues to rise to reflect changes in the society: be it in insurance, banking, economics, business, medicine, politics, military and even education. Simply put, these technologies have brought profound changes to all human endeavours as they ease data collection, processing, transmission, and interpretation provided by these technologies engendering the flow of information across boards and between individuals, cultures, nationalities, corporate bodies and organizations as never before, causing great technological, economics and social changes and binding the world ever more closely together. All sectors including education can be reformed through the use of e-Learning, Economics as it is widely believed that education should now be e-Learning system though the slow, and sometimes, unwilling designers of education instructional system planner is also a challenge.

The rapid changes that have taken place all over the world pose a challenge to the educational sector in Nigeria. It has become imperative for Nigeria to complement the traditional pedagogical practices that still underpin its educational system. In order to revolutionize the educational system, the country needs ICT not only as tools for teaching and learning but also for effective communication across institutions. Another problem facing the adoption and application of e-Learning in educational institutions is the attitude of school management and authorities towards procuring and installation of the devices. Another formidable challenge to the use of information and communication technology is infrastructural deficiency. Lack of these basic infrastructures to power and run ICT equipment hamper the effective application of e-Learning as most colleges of education lack the necessary capacity to put a standby power generating plan for this purpose. Also, some lecturers lack the skills to fully utilize e-Learning technology in curriculum implementation hence the traditional chalk and duster approach still dominates in college of education pedagogy.

The availability and use of e-Learning in Economics education in Colleges of Education has become imperative because of the fact that these institutions would produce teacher that need to teach/educate students or learners of values of e-Learning. Also by looking at the teaching-learners in Economics education, in which a lecturer has to teach quite a large number of students at a time if e-Learning is not used nothing or little can be achieved. Teaching may not be effective if a teacher has to stress him/her self to an extent beyond his/her capability in the course of the teaching. Education at the tertiary level should be e-Learning compliant as it is being found useful in other sectors such as in e-banking, e-commerce, e-government etc. There is therefore, the need to examine, if e-learning technology is available and used in Economics Education program. This will include; Economics education teachers' access to computer, their competencies in using computer packages as well as the challenges they encounter in utilizing these devices.

Statement of the Problem

It has been discovered that e-learning is a very important instructional tool to facilitate the transfer of information and an effective means of communication in schools and colleges. E-learning is equally an important tool when it comes to teaching and learning of wide range of topics in Economics. Previous studies Punie, Zinnbauer and Cabrera (2006), maintained that ICT has not revolutionized teaching methods rather, the subject content. Other studies such as (Evarest & Laura, 2011) showed that emergence of e-learning application in education delivery services of colleges

of education bring about a lot of problems. Some of the lecturers in the tertiary institution in Nigeria lack the adequate knowledge coupled with power outages, obsolete e-learning facilities, lack of skilled manpower and poor infrastructure required for effective e-learning instructional delivery.

However, much has not been done empirically to investigate the availability and utilization of e-Learning technologies in Economics education programme in Colleges of Education in Oyo State, hence this study.

Purpose of the Study

The purpose of the study is to examine the availability and use of e-learning technologies in Economics Education program in Colleges of Education in Nigeria. The specific objectives of this study are to:

a. determine the extent to which e-Learning are available for Economics Education in College of Education;
b. investigate the extent of utilization of e-Learning technologies by Economics Education lecturers in the course of delivery in Colleges of Education;
c. examine the computer and web competencies possessed by Economics Education lecturers in the course of delivery in Colleges of Education;
d. examine the constraints to the effective utilization of e-Learning technologies in Economics Education programmes in Colleges of Education; and
e. determine the difference in computer and web competency of lecturers in Federal and State owned Colleges of Education.

Research Questions

1. What is the extent of availability of e-Learning facilities for teaching Economics Education in Colleges of Education?
2. To what extent are e-Learning technologies utilized in Economics Education instructional delivery in Colleges of Education?
3. What are the computers and web competencies acquired by the lecturers of Economics Education for utilization of e-Learning for effective teaching and learning of Economics in Colleges of Education in Nigeria?
4. What are the constraints to effective utilization of e-Learning technologies in Economics Education instructional delivery in Colleges of Education?

Hypothesis

There is no significant difference in the computer and web competence of lecturers in Federal and State owned Colleges of Education.

II. METHODOLOGY

The study employed a survey research design. The population for the study consisted of Economics education lecturers and students in Colleges of Education in Oyo State. The study sample consisted of twenty lecturers and 120 students. Two Colleges of Education were selected using simple random sampling technique out of the College of Education in Oyo State. Ten lecturers and 60 students were selected from each of the two Colleges of Education using the simple random sampling technique. Two structured questionnaires were used to collect information on the research work namely: Economics Education Lecturers' Questionnaire (EELQ) and Economics Education Students' Questionnaire (EESQ). Each questionnaire was divided into four section based on the four research questions.

i. *Availability of e-learning Technologies:* which was designed to elicit information on the accessibility of e-learning technologies and it contained 10 items structured from Great Extent (3) to Not Available (0)
ii. *Utilization of e-learning Technologies:* was designed to collect information on the use of e-learning technologies by Economics lecturers which contained 10 item. Structured from Most Often (3) Not at All (0)
iii. *Assessment of Computer and Web competencies of Economics lecturers:* was designed to seek information on how capable the Economics lecturers can perform in use of computer and it comprised of 12 items. The instrument was structured using three point scale ranging from can use Very Well (2) to Not Able to Use (0)
iv. *Assessment of Constraints on the uses of e-learning Technologies (ACUET):* was designed to gather information on the effective utilization of e-learning technologies constraints in Colleges of Education with 12 items and the instrument was structured from Strongly Agreed to Strongly Disagreed (1).

The instruments were given to the experts in Tests and Measurement to ensure content, face validity and appropriateness. Some questions were modified and restructured to reflect the nature of the work. More so, some questions were compressed and modified, while some were expatiated after the expert judgements. The instruments were subjected to a reliability test using Cronbach alpha which yielded reliability co-efficient of 0.76 for EELQ and 0.78 for EESQ by field testing on Economics Education lecturers in public colleges of Education in Osun State. Data collected were analysed using frequency counts, simple percentages, Relative Significance Index and independent t-test statistics.

III. RESULTS

Research Question1: What is the extent of availability of e-Learning facilities for teaching Economics Education in Colleges of Education?

Items on Section A of both lecturers and students' version of questionnaire were scored and subjected to descriptive

analysis of frequency and percentages to answer the research question. The result is presented in Table 1and 2

Table 1: Lecturers' Responses to Extent of Availability of E-Learning Facilities for Teaching Economics Education in Colleges of Education

	E-Learning Facilities	Great Extent		Moderate Extent		Not Available		RSI
		f	%	f	%	f	%	
1	Smart interactive or electric board	-	-	4	20.0	16	80.0	**0.10**
2	Multimedia projectors/power point	2	10.0	17	85.0	1	5.0	**0.53**
3	Web based learning	-	-	5	25.0	15	75.0	**0.13**
4	Computer room	5	25.0	15	75.0	-	-	**0.63**
5	Offline computers	4	20.0	14	70.0	2	10.0	**0.55**
6	Digital library	1	5.0	6	30.0	13	65.0	**0.20**
7	E-mail facilities	-	-	17	85.0	3	15.0	**0.43**
8	Online/internet computer	1	5.0	9	45.0	10	50.0	**0.28**
9	Laptops/modem/flash drives	1	5.0	16	80.0	3	15.0	**0.45**
10	Electronic device for multiple marking	1	5.0	18	90.0	1	5.0	**0.50**

Table 1 shows the lecturers' responses to extent of availability of e-learning facilities for teaching Economics Education in Colleges of Education. It can be observed that computer room has the highest Relative Significance Index (RSI) value of 0.63. Analysis further showed that 25.0% of the lecturers indicated that computer room is available to great extent while 85.0% of them indicated availability of such facilities to moderate extent. Offline computers has the RSI value of 0.55 next to computer room. While 20.0% of the lecturers confirmed its availability to great extent, 70.0% of them indicated moderate extent whereas, 10.0% of them indicated that such facility is not available. Multimedia projectors/power point had RSI value of 0.53 with 10.0% of the lecturers indicated a great extent, 85.0% moderate extent while 5.0% of them indicated that it is not available at all. Electronic device for multiple marking had RSI value of 0.50. While 5.0% of the lecturers indicating its availability to great extent, 90.0% indicated moderate extent while 5.0% of them indicated not available at all. Laptops/modem/flash drives had RSI value of 0.45 with 5.0% of the lecturers indicating its availability to great extent, 80.0% moderate extent and 15.0% indicated not available. Next is E-mail facilities with RSI value of 0.43. While 85.0% of the lecturers indicated its availability to moderate extent, 15.0% indicated not available. Others with their respective RSI values include Online/internet computer (0.28); Digital library (0.20); and Smart interactive or electric board (0.10).

Table 2: Students' Responses to Extent of Availability of E-Learning Facilities for Teaching Economics Education in Colleges of Education

		Great Extent		Moderate Extent		Not Available		
	E-Learning Facilities	**f**	**%**	**f**	**%**	**f**	**%**	**RSI**
1	Smart interactive or electric board	36	30.8	42	35.9	39	33.3	**0.49**
2	Multimedia projectors/power point	33	28.2	56	47.9	28	23.9	**0.52**
3	Web based learning	42	35.9	45	38.5	30	25.6	**0.55**
4	Computer room	60	51.3	40	34.2	17	14.5	**0.68**
5	Offline computers	30	25.6	53	45.3	34	29.1	**0.48**
6	Digital library	44	37.6	38	32.5	35	29.9	**0.54**
7	E-mail facilities	44	37.6	48	41.0	25	21.4	**0.58**
8	Online/internet computer	58	49.6	43	36.8	16	13.7	**0.68**
9	Laptops/modem/flash drives	48	41.0	53	45.3	16	13.7	**0.64**
10	Electronic device for multiple marking	34	29.1	42	35.9	41	35.0	**0.47**

Table 2 shows the students' responses to extent of availability of e-learning facilities for teaching Economics Education in Colleges of Education. It can be observed that computer room and Online/internet computer have the highest RSI value of 0.68. Analysis further showed that 51.3% of the students indicated that computer room is available to great extent, 34.2% indicated moderate extent while 14.5% of them indicated that such facility is not available. Also, for Online/internet computer, 49.6% of the students indicated its availability to great extent, 36.8% indicated moderate extent while 13.7% of them indicated that such facility is not available. Laptops/modem/flash drives has the RSI value of 0.64. While 41.0% of the students confirmed its availability to great extent, 45.3% of them indicated moderate extent whereas, 13.7% of them indicated that such facility is not available. E-mail facilities had RSI value of 0.58 with 37.6% of the students indicated a great extent, 41.0% moderate extent while 21.4% of them indicated that it is not available. Web based learning had RSI value of 0.55. While 35.9% of the students indicating its availability to great extent, 38.5% indicated moderate extent while 25.6% of them indicated not available. Digital library had RSI value of 0.54 with 37.6% of the students indicating its availability to great extent, 32.5% moderate extent and 29.9% indicated not available. Next is Multimedia projectors/power point with RSI value of 0.52. While 28.2% of the students indicated its availability to great extent, 47.9% moderate extent while 23.9% indicated not available. Others with their respective RSI values include Smart interactive or electric board (0.49); Offline computers (0.48); and Electronic device for multiple marking (0.47).

Research Question 2: To what extent are e-learning technologies utilized in Economics education instructional delivery in Colleges of Education?

The scores on items of Section B of both lecturers and students' version of questionnaire were subjected to descriptive analysis of frequency and percentages to answer the research question.

Table 3: Lecturers' Responses to Extent of E-Learning Technologies Utilization in Economics Education Instructional Delivery in Colleges of Education

		Most Often		**Often**		**Rarely**		**Not at all**	
		f	**%**	**f**	**%**	**f**	**%**	**F**	**%**
1	Power point to deliver lessons	-	-	1	5.0	11	55.0	8	40.0
2	Multimedia projectors to deliver lessons	1	5.0	3	15.0	16	80.0	-	-
3	Simulation in teaching	-	-	1	5.0	2	10.0	17	85.0
4	Video conferencing in teaching	-	-	-	-	14	70.0	6	30.0
5	Documentary cameras or videos	-	-	-	-	17	85.0	3	15.0
6	Animation in teaching	-	-	-	-	4	20.0	16	80.0
7	Interactive whiteboard tools in teaching	6	30.0	9	45.0	5	25.0	-	-
8	Online and internet computers in teaching	-	-	1	5.0	5	25.0	14	70.0
9	e-textbooks for lecturing or teaching	1	5.0	2	10.0	14	70.0	3	15.0
10	Software and C.D. ROM in teaching	1	5.0	2	10.0	10	50.0	7	35.0

Table 3 shows the lecturers' responses to extent of utilization of e-learning facilities for teaching Economics Education in Colleges of Education. It can be observed that simulation in teaching had the highest percentage of 85% of not being used at all in lectures delivery. Analysis further showed that 10% of the lecturers indicated that they rarely used simulation in teaching. Animation in teaching had 80% next to simulation in teaching. While 20.0% of the lecturers confirmed that it was rarely used. Online and internet computer in teaching had 70% value of not being used at all, with 25.0% of the lecturers indicated rarely used, 5.0% often used while PowerPoint to deliver yielded 40% of not being used at all in teaching, while 55% of the lecturers indicating it is rarely used. 85% indicated video conferencing are rarely used in teaching while 30.0% of them indicated not at all. Interactive white board with 30.0% of the lecturers indicating it is more often used, 45% with often used and 25.0% indicated with rarely used. Next is e-textbooks for lecturing; 5.0% of the lecturers indicated most often used, 10.0% indicated often used. Based on the lecturers' responses, 'rarely used' and 'not at all' options had the highest percentages.

Table 4: Students' Responses to Extent of E-Learning Technologies Utilization in Economics Education Instructional Delivery in Colleges of Education

		Most Often		Often		Rarely		Not at all	
		f	%	f	%	f	%	F	%
1	Power point to deliver lessons	24	20.5	35	29.9	29	24.8	29	24.8
2	Multimedia projectors to deliver lessons	16	13.7	32	27.4	41	35.0	28	23.9
3	Simulation in teaching	46	39.3	35	29.9	17	14.5	19	16.2
4	Video conferencing in teaching	13	11.1	24	20.5	36	30.8	44	37.6
5	Documentary cameras or videos	16	13.7	23	19.7	35	29.9	43	36.8
6	Animation in teaching	22	18.8	30	25.6	30	25.6	35	29.9
7	Interactive whiteboard tools in teaching	73	62.4	22	18.8	15	12.8	7	6.0
8	Online and internet computers in teaching	23	19.7	33	28.2	36	30.8	25	21.4
9	e-textbooks for lecturing or teaching	46	39.3	23	19.7	27	23.1	21	17.9
10	Software and C.D. ROM in teaching	16	13.7	26	22.2	26	22.2	49	41.9

Table 4 shows the students' responses to extent of utilization of e-learning facilities for teaching Economics Education in Colleges of Education. It can be observed that simulation in teaching had the percentage of 16% of not being used at all in lectures delivery. Analysis further showed that 14% of the students indicated that their lecturers rarely used simulation in teaching. Animation in teaching had 29.9% next to multimedia projector in teaching. While 25.6% of the students confirmed that it was rarely used. Online and internet computer in teaching had 21.4% value of not being used at all, with 30.8% of the students indicated rarely used, 28.2% often used while Power point to deliver lessons yielded 24.8% of not being used at all in teaching, while 24.8% of the students indicated it is rarely used. 30.8% indicated video conferencing are rarely used in teaching while 37.6% of them indicated not at all. Interactive white board had the highest percentage 62.4% of the students indicating it is most often used, 18.8% with often used and 12.8 indicated rarely used. E-Textbooks for lecturing with 39.3% of the students indicated most often used, 19.7 % indicated often used. Based on the students' responses 'rarely used' and 'often'options had the highest percentages.

The result presented in Table 3 and Table 4 with their respective scores were computed in table 5 to determine the extent of usage such that score of 0-9 were considered low extent, scores 10-20 average while scores 21 and above were considered as high extent of usage.

Table 5: Extent of E-Learning Technologies Utilization in Economics Education Instructional Delivery in Colleges of Education

Extent of E-Learning Technologies Usage	Lecturers		Students	
	Frequency (f)	Percent (%)	Frequency (f)	Percent (%)
Low	15	75.0	21	17.9
Moderate	5	25.0	73	62.4
High	-	-	23	19.7
Total	20	100.0	117	100.0

Table 5 shows the extent of e-learning technologies utilization in Economics education instructional delivery in Colleges of Education. As shown in the table, 75.0% of the lecturers used e-learning technologies in Economics education instructional delivery in Colleges of Education to a low extent while 25.0% of them used it to a moderate extent. Also, 17.9% of the students indicated that their lecturers utilized e-learning technologies to a low extent, 62.4% of them indicated moderate extent while 19.7% of the students indicated that their lecturers utilized e-learning technologies to a high extent. From the above result, there is an indication that the use of e-learning technologies utilization in Economics education instructional delivery in Colleges of Education is still at its lowest ebb according to lecturers responses.

Research Question 3: What are the computers and web competences acquired by the lecturers of Economics education for utilization of e-learning for effective teaching and learning of Economics in College of Education in Nigeria?

In order to answer the research question, items on Section C of both lecturers and students' version of questionnaire were scored and subjected to descriptive analysis of frequency and percentages. The result is presented in Table 6 and 7Also,

their respective scores were then computed to determine their level of competencies such that score of 0-10 were considered low, scores 11-14 average while scores 15 and above were considered as high competency level. The result is presented in table 6.

Table 6: Lecturers' Responses to items on computers and web competencies Scale

		Very Well		Fairly Well		Can't Use	
		f	%	f	%	f	%
1	e-learning to empower students with skills and prepare them for global competiveness	14	70.0	6	30.0	-	-
2	e-learning to create, give, receive and grade student assignment and test, on-line	16	80.0	3	15.0	1	5.0
3	To keep students records and grades using computer database	17	85.0	3	15.0	-	-
4	To prepare and submit students' results on-line	14	70.0	6	30.0	-	-
5	To receive students' project on-line	10	50.0	8	40.0	2	10.0
6	e-learning for effective communication and to collaborate research work (share insight with colleagues)	12	60.0	8	40.0	-	-
7	e-learning for distribution of class materials, tasks and others	6	30.0	10	50.0	4	20.0
8	To access e-library, e-textbook that are designed according to learning ability and learning style of students	8	40.0	11	55.0	1	5.0
9	On-line spread sheets and data analysis software for sharing and analysing data	12	60.0	7	35.0	1	5.0
10	Statistical and econometric data analysis software	14	70.0	3	15.0	3	15.0
11	To facilitate classroom teaching and learning	10	50.0	10	50.0	-	-

Table 6 shows the lecturers' responses to their computer competencies for teaching Economics Education in Colleges of Education. It can be observed that e-learning to empower students with skills yielded 70.0% of very well, 30.0% of fairly well. Analysis further showed that 80% of the students indicated that lecturers can use e-learning to grade, create and receive students' test and results online very well, 15% with fairly well and 5.0% who cannot use e-learning to facilitate classroom teaching and learning with 50.0 very well response, 50.0% with fairly well. Statistical and econometric data analysis competence with 15.0% of fairly well responses, 70.0% with very well option and 15% responded that they cannot. Online and spread sheet and data analysis software for teaching had 5.0% cannot use at all, with 35.0% of the lecturers indicated fairly well, 60.0% very well while e-learning to receive students project online yielded 10.0% of cannot use, while 40.0% indicated that they can fairly use 50.0% of very well. This analysis revealed lecturers' responses on their computer competence and the highest percentage of the lecturers' responded to 'can use very well' option

Table 7: Students' Responses to items on computers and web competencies of their lecturers

		Very Well		Fairly Well		Can't Use	
		f	%	f	%	F	%
1	e-learning to empower students with skills and prepare them for global competiveness	59	50.4	38	32.5	20	17.1
2	e-learning to create, give, receive and grade student assignment and test, on-line	50	42.7	45	38.5	22	18.8
3	To keep students records and grades using computer database	66	56.4	33	28.2	18	15.4
4	To prepare and submit students' results on-line	52	44.4	42	35.9	23	19.7
5	To receive students' project on-line	43	36.8	49	41.9	25	21.4
6	e-learning for effective communication and to collaborate research work (share insight with colleagues)	44	37.6	48	41.0	25	21.4
7	e-learning for distribution of class materials, tasks and others	34	29.1	48	41.0	35	29.9
8	To access e-library, e-textbook that are designed according to learning ability and learning style of students	49	41.9	43	36.8	25	21.4
9	On-line spread sheets and data analysis software for sharing and analysing data	33	28.2	50	42.7	34	29.1
10	Statistical and econometric data analysis software	36	30.8	53	45.3	28	23.9
11	To facilitate classroom teaching and learning	63	53.8	36	30.8	18	15.4

Table 7 shows the students' responses to computer competencies of their lecturers for teaching Economics Education in Colleges of Education. It can be observed that e-learning to empower students with skills yielded 50.4% of very well. Analysis further showed that 42.7% of the students indicated that their lecturers can use e-learning to grade, create and receive student test and results online 38.5% with fairly well and 18.8% who cannot use. E-learning to facilitate classroom teaching and learning with 53.8% with very well response 30.8% with fairly well while 15.4% with cannot use option. Statistical and econometric data analysis competence with 45% of fairly well responses, 30.8% with very well option and 23.9% responded that their their lecturers cannot use. Online and spread sheet and data analysis software for teaching had 29.1% cannot use at all, with 42.7% of the students indicated fairly well, 28.2% very well while e-learning to receive students' project online yielded 21.4% of cannot use, while 49.1% indicated that it is fairly used, 44.4% had very well. It can be concluded from students' responses that the lecturers are equipped with web competency.

Table 8: Computers and web Competencies Level of Economics Lecturers in Colleges of Education

Competence Level	Lecturers		Students	
	Frequency (f)	Percent (%)	Frequency (f)	Percent (%)
Low	1	5.0	31	26.5
Average	6	30.0	37	31.6
High	13	65.0	49	41.9
Total	20	100.0	117	100.0

Table 8 shows the computer and web competencies level of Economics lecturers in Colleges of Education. The result showed that 5.0% of the lecturers have low computer and web competencies level whereas, 26.5% of the students indicated that their lecturers possessed low computer and web competencies level. Also, 30.0% of the lecturers have average computer and web competencies while 31.6% of the students indicated that their lecturers have average computer and web competencies. Finally, while 65.0% of the lecturers indicated that they have high computer and web competencies, 41.9% of the students indicated that their lecturers possessed high computer and web competencies level. There is an indication from lecturers responses that most of them (65.0%) had high computer and web competencies level.

Research Question 4: What are the constraints to effective utilization of e-learning technologies in Economics education instructional delivery in Colleges of Education?

Table 9: Constraints to Effective Utilization of E-Learning Technologies in Economics Education Instructional Delivery in Colleges of Education

	Constraints	SA		A		D		SD		RSI
		F	%	f	%	f	%	f	%	
1	Inadequate e-learning infrastructure e.g. computer software and computer accessories	9	45.0	11	55.0	-	-	-	-	**0.86**
2	Lack of ready access to internet (insufficient bandwidth)	4	20.0	16	80.0	-	-	-	-	**0.80**
3	Lack of time to spend in utilizing e-learning gadgets due to teaching workload	4	20.0	14	70.0	2	10.0	-	-	**0.78**
4	Lack of updated computer packages readily available for application	2	10.0	8	40.0	9	45.0	1	5.0	**0.64**
5	Irregular electricity supply	14	70.0	5	25.0	1	5.0	-	-	**0.91**
6	Lack of technical support from e-learning technologists	9	45.0	9	45.0	2	10.0	-	-	**0.84**
7	High costs of maintenance and repair of e-learning gadgets	4	20.0	7	35.0	7	35.0	2	10.0	**0.66**
8	Lack of adequate training to lecturer on how to integrate e-learning gadgets into Economics teaching and learning	7	35.0	5	25.0	8	40.0	-	-	**0.74**
9	High cost of personnel computers, laptops, software, internet and their technical support	1	5.0	8	40.0	10	50.0	1	5.0	**0.61**
10	Lack of adequate incentives to enable Economics lecturers utilize the software and e-learning tools	11	55.0	6	30.0	2	10.0	1	5.0	**0.84**

Table 9 shows the constraints to effective utilization of e-learning technologies in Economics education instructional delivery in Colleges of Education. It can be observed that Irregular electricity supply is identified as the most important constraint with the highest value of RSI which is 0.9. It is also shown that 70.0% and 25.0% of the lecturers respectively strongly agreed and agreed while 5.0% of the disagreed. Next to irregular supply of electricity is inadequate e-learning

infrastructure such as computer software and computer accessories with RSI value of 0.86. Also, while 45.0% of the lecturers strongly agreed, 55.0% agreed and none of the lecturers either disagreed or strongly disagreed. Such constraints as lack of technical support from e-learning technologists; and lack of adequate incentives to enable Economics lecturers utilize the software and e-learning tools had RSI value of 0.86. While 45.0% and 45.0% of the lecturers strongly agreed and agreed to the former, 55.0% and 30.0% of them strongly agreed and agreed to the latter. Lack of ready access to internet (insufficient bandwidth) had RSI value of 0.80 and 20.0% and 80.0% of the lecturers strongly agreed and agreed to the item. This is followed by lack of time to spend in utilizing e-learning gadgets due to teaching workload with RSI value of 0.78. Also, while 20.0% and 70.0% of the lecturers respectively strongly agreed and agreed, 10.0% of them disagreed to this item. Another constraint is lack of adequate training to lecturer on how to integrate e-learning gadgets into Economics teaching and learning with RSI value of 0.74. While 35.0% and 25.0% of the lecturers respectively strongly agreed, 25.0% of them agreed and 40.0% of them disagreed. Other constraints include High costs of maintenance and repair of e-learning gadgets (0.66); lack of updated computer packages readily available for application (0.64) and high cost of personnel computers, laptops, software, internet and their technical support which is considered the least among other constraints with RSI value of 0.61.

Research Hypothesis: There is no significant difference in the computer and web competence of lecturers in Federal and State owned Colleges of Education.

To Test this research hypothesis, scores of lecturers on computer and web competencies were subjected to independent t-test while College ownership were used as differentiating variable. The result is presented in Table 10

Table 10: t-test of significant difference in computer and web competencies of lecturers in Federal and State owned Colleges of Education

Institution	N	Mean	Std. Deviation	Std. Error Mean	t	df	P
Federal	10	16.0000	4.24264	1.34164	-1.156	18	.263
State	10	18.1000	3.87155	1.22429			

Table 10 shows the difference in the computer and web competence of Federal and State owned Colleges of Education lecturers. It is observed from the table that there was no significant difference in the computer and web competence of lecturers in Federal (M = 16.00, SD = 4.24) and State owned Colleges of Education the information, M = 18.10, SD = 3.87; t (20) = -1.156, p > .05. Though, this result shows that lecturers from State owned College of Education had a higher mean than their counterparts from Federal owned College of Education. However, such difference was not statistically significant at 0.05 probability level. Since the p-value is greater than.05, the null hypothesis is therefore not rejected. The result concludes that there was no significant difference in the computer and web competence of lecturers in Federal and State owned Colleges of Education.

IV. DISCUSSION

It is observed from the findings of the study that availability of e-Learning facilities in the schools sample showed that e-learning facilities are available moderately although not to a great extent. This is in line with the findings of the study on learning electronically in Nigerian universities conducted by Everest and Laura (2011) where it was identified that e-Learning facilities available were inadequate and that students' access to these facilities is very negligible. Also, Jegede and Owolabi(2003) confirmed in their study that e-Learning materials such as computers, radio sets, Skype, printers, scanners, video recorders, teleconferencing, and books on e-learning are available but were not adequately being utilized in Nigerian colleges of education

The findings of the study also revealed that Economics lecturers in colleges of Education in Oyo state do not utilize e-learning to deliver lessons such as power point, using multimedia projector among other backed up by Gunga (2010) who stated that though the urge to embark on e-learning in Africais high but it is still a dream because of weak ICT infrastructure, unsensitised populace and technophobic workforce. The wide gap existing between the experience of ICT experts that develop e-Learning system and the slow, and sometimes, the unwilling designers of education instructional system planner is also a challenge.

The findings further revealed that economics education lecturers have the competence of using computer and e-learning application in their teaching, viz: discussion board for students team, debate, training software that adapt to learners individual need, use of user interactive training software in teaching, use of multimedia computer, use of simulation in teaching, use of software in CD Rom in teaching, use of multimedia computer projectors in teaching, use of interaction through electronic mails in teaching, and use of smart boards in teaching. These agree with the view of White (2003) that Economics Education lecturers are trained to possess ICT skills that are prerequisite for e-Learning application skills, such skills include setting up computers, of knowledge of operating Windows, skill of application of Ms word, of use of Goggle search engine, skills of use Yahoo search engine, the skill of identification of web address, of application of world wide web, of use of email attachment, of identification of computer peripherals.

The findings of the study showed that the greatest challenges for effective e-Learning utilization by lecturers include inadequate ICT infrastructure, lack of fund, lack of ready access to internet (insufficient bandwidth), lack of updated computer packages readily available for application, lack of time administrative support in providing ICT materials; irregular electricity supply. These findings agree with the submission of Asogwa (2011) that challenges of e-learning in University of Nigeria Nsukka, includes: funds, power, skill and corruption. He further explained that power supply had always failed and e-Learning is capital intensive.

Further findings showed that lecturers from State owned College of Education had a higher mean than their counterparts from Federal owned College of Education. However, such difference was not statistically significant at 0.05 probability level for the p-value is greater than .05hence the null hypothesis is not rejected. The result concludes that no significant difference existed in the computer competence of lecturers in Federal and State owned Colleges of Education.

V. CONCLUSION

This study was carried out to assess the availability and use of e-learning facilities by Economics Lecturers in Colleges of Education in Oyo state, Nigeria. The study however, concluded that most e-Learning facilities available are rarely used by Economics Lecturers in lecture delivery due to problems such as infrastructure, connectivity, irregular electricity, teaching workload, inadequate training on how e-Learning gadget are used in Economics Education programme and lack of adequate incentive.

VI. RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

- Need for a workable ICT policy in educational
- Colleges of Education should ensure the incorporation of computer mediate communication strategy in the relevant areas of the curriculum units.
- Special ICT and e-Learning funds be made available for e-Learning education.
- There is need for adequate publicity on the importance of e-Learning in Economics Education programme in Colleges of Education in Nigeria.
- Teachers-in-training should be subjected to in-service training and workshops in Information and Communication Technology (ICT) to be kept abreast of the current developments in ICT utilization.

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