Extent Of Availability And Utilization Of E-Learning Technologies By Teachers Of Business Subjects In Secondary Schools In Anambra State

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Abstract: This study was carried out to determine the extent of availability and utilization of e-Learning technologies by teachers of business subjects in secondary schools in Anambra State. Four research questions were used to guide the study while four null hypotheses were tested at 0.05 level of significance. Related literature and five empirical studies were reviewed. Descriptive survey research design was adopted for the study. 220 male and female teachers of business subjects in public secondary schools in Anambra State were used as population for the study. A 45-item structured questionnaire on a five point rating scale was validated. The reliability co-efficient of the instrument of the study was found to be 0.71, 0.76, 0.83, 0.89 and collectively yielded a reliability of 0.78 for the whole section. Mean and standard deviation were used to answer research questions while the null hypotheses were tested at 0.05 level of significance using z-test. The findings of the study revealed that e-Learning technologies for teaching business subjects in secondary schools in Anambra state in Nigeria were available at low extent. It was also revealed that teachers of business subjects utilized hardware, software and internet e-Learning technologies at low extent in teaching. However, locations of schools tend to affect their response on the extent of availability and utilization of e-Learning technologies in teaching. Gender is a factor in business subjects teachers utilization of hardware and internet technologies in teaching. Based on the findings of the study, the researcher recommended that government should provide more basic e-Learning technologies in public secondary schools for teaching and Curricular for teaching that will inculcate the use of e-learning technologies by teachers should be developed.

I. INTRODUCTION

Information and communication technology are potentially powerful enabling tools for educational change and reform. When used appropriately, different ICT gadgets help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by helping to make teaching and learning an engaging active process that is connected to real life.

The introduction of ICT to the educational system has led to the development of e-learning. E-learning is an inclusive term that describes educational technology that electronically or technologically supports teaching and learning. Luskin (n.d), a pioneer of e-learning, advocates that the "e" should be interpreted to mean "exciting, energetic, enthusiastic, emotional, extended, excellent, and educational" in addition to "electronic". Electronic learning is basically the use of information and communication technologies (ICTs) to enhance and support teaching and learning (Eteng & Ntui, 2009).

Rosenberg (2001) see e-learning as the appropriate application of the internet to support the delivery of skills and knowledge in a whole approach not restricted to a particular courses, technologies or infrastructure.

According to Horton (2005) e-Learning technologies are those electronic learning technologies like the internet, software applications, hardware components and digital technologies that are used to support the teaching and learning processes. E-learning has an advantage of enabling students to learn from anywhere and at anytime. E-learning also provides a one-stop service for teachers and learners in order to create and deliver educational content quickly, effectively, and economically (Ong, Lai, & Wang, 2004).

In Nigeria, the national policy on education (Federal Republic of Nigeria, 2004:17) stated that "in recognition of the prominent role of ICT in advancing knowledge and skills necessary for effective functioning in the modern world, there is urgent need to integrate ICT into education in Nigeria".

With this statement, the Anambra State government recognizes the need to harness ICT for educational development, and have partnered with other private sectors such as Technology Distribution (TD), Microsoft, SchoolNet Nigeria, Education Trust Fund (ETF) and HP and also initiated Secondary School Connectivity and education programme. In 2010, former State governor Peter Obi provided computers, laptops, printers, telephone and other internet connectivity to all the public secondary schools as a way of fostering ICT-driven education in Anambra State. Effective utilization of e-Learning technologies by teachers of business subjects depends on the availability of e-Learning technologies.

Availability is the extent to which a given resources or material is readily accessible or obtainable for use by a group, team or the needy public while utilization is the employment of available resource for definite or desirable use. In this age of information and communication technology (ICT), there is growing concern for the use of e-Learning technologies such as the computer, Internet, e-mail, teleconferencing, wireless application protocols (WAP), multimedia and projector, among others in instructional delivery (Nwana, 2012). Through e-Learning, students would be able to communicate, collaborate and cooperate with other learners worldwide and assess worldwide libraries irrespective of their geographical locations and bring to fulfillment the goal of business subjects as enshrined in the National Policy on Education.

Business subjects consist of skills that help students in office occupations. Business subjects also provide orientation and basic skills with which to start a life of work for those who may not undergo further training. The Federal Republic of Nigeria (2009) defined business subjects as that aspect of subjects which leads to the acquisition of practical and applied skills as well as basic scientific knowledge. One of the objectives of business subjects is to help students to have intelligent understanding of the increasing complexity of technology. Teachers of business subjects in senior secondary schools are expected to utilize e-Learning technologies in classroom instruction processes. They are expected to use e-Learning technologies to support instruction and enable secondary school students use technology as an important tool to meet their learning needs.

Business subject therefore has to align itself with this emergent information and communication technology. This is necessary because, according to UNESCO (2011), ICT more than any other technology provides teachers and students access to vast stores of knowledge beyond the school, as well as with multi-media tool to add to their store of knowledge.

II. STATEMENT OF THE PROBLEM

The call for utilization of e-Learning technologies in business subjects instructional delivery is to infuse and inject efficiency and effectiveness in curriculum implementation. However, despite the efforts of the Federal Ministry of Education and the Anambra State Government in providing ICT facilities in secondary schools, it seems like teachers of business subjects in secondary schools do not utilize e-Learning technologies in their teaching which may be as a result of inadequate number of computer facilities. Supporting this view, Jegede and Owolabi (2008) lamented that dearth of trained teachers for e-Learning technologies, inadequate number of computer facilities, inadequate number of computer laboratories and absence of experts in secondary schools in Nigeria are contributing factors to teachers' non utilization of e-Learning technologies in their teaching.

Low availability and utilizations of e-Learning technologies by teachers of business subjects in senior secondary schools could result to producing students with only theoretical knowledge and less experience in practical courses requiring the application of ICT where skill acquisition is needed.

There seems to be shortage of research information as to the extent of availability and utilization of e-Learning technologies by teachers of business subjects in senior secondary schools in Nigeria especially in Anambra State.

III. PURPOSE OF THE STUDY

The main purpose of this study was to determine the extent of availability and utilization of e-Learning technologies by teachers of business subjects in senior secondary schools in Anambra State. Specifically, the study sought to determine the:

- Extent of availability of e-Learning technologies for utilization by teachers of business subjects in senior secondary schools in Anambra State.
- Extent of utilization of e-Learning hardware technologies by teachers of business subjects in senior secondary schools in Anambra State.

IV. SIGNIFICANCE OF THE STUDY

The findings of this study would provide comprehensive information on the extent of availability and utilization of e-Learning technologies for teaching business subjects among secondary school teachers. It is also hoped that the study could benefit secondary school teachers, curriculum developers and students.

The findings of this study may ginger teachers to develop skills for effective teaching strategies since that will help them keep abreast of modern technologies, develop professionally, bring about interactive classes which could improve academic performance for future individual and national development. Also, the findings and recommendations of this study would expose secondary school students to know different eLearning technologies available for utilization that would help them to improve and enhance their learning.

SCOPE OF THE STUDY

The focus of this study was to determine the extent of availability and utilization of e-Learning technologies by teachers of business subjects in senior secondary schools in Anambra State. The study was delimited to the extent of availability of e-Learning technologies and the extent of utilization of hardware, software and internet technologies by teachers of business subjects.

RESEARCH QUESTIONS

The following research questions guided this study:

- To what extent are e-Learning technologies available for utilization by teachers of business subjects in senior Secondary schools in Anambra State?
- ✓ To what extent do teachers of business subjects in senior secondary schools in Anambra State utilize e-Learning hardware technologies in teaching of business subjects?

HYPOTHESES

The following null hypotheses were formulated to guide this study and were tested at 0.05 level of significance:

- ✓ There is no significant difference in the mean ratings of business subjects teachers in urban and rural areas in senior secondary schools in Anambra States on the extent of availability of e-Learning technologies for utilization.
- ✓ Male and female teachers of business subjects in senior secondary schools in Anambra State do not differ significantly in their mean ratings on the extent of utilization of e-Learning hardware technologies in teaching.

V. THE CONCEPT OF E-LEARNING

According to Hedge and Haward (2004), e-learning is an innovative approach for delivering electronically mediated, well-designed, leaner-centred and interactive learning environment to anyone, anytime and anyplace by utilizing the internet and digital technologies in concern with instructional design principles. Nwokike (2010) defined e-learning as the use of computer as a key component of the education environment. For Asah (2011), e-learning is the use of Information and Communication Technology (ICT) which include computer networks, communication and mobile technologies to enhance and extend learning. These technologies help to deliver and make education and information accessible to whoever needs it.

Accordingly, e-learning can be synchronous or asynchronous. Synchronous e-learning is "live" and requires simultaneous participation of all learners and instructors at different location. Every learner is expected to be at the computer at the same time receiving instructions. It can be regarded as scheduled delivery of learning (Alu, 2011). Asynchronous e-learning according to Rosenberg (2001) is learning that is "pre-coded" or is available, prepared and kept and can be used when needed at anytime. It does not take place at the same time. Learners are free to make their schedule (Alu, 2011). E-Learning means the use of technology to support and enhance learning practice.

E-learning technologies is a digital educational resource which is divided into units that are reusable, adaptive, and can be re-purposed to different learning styles, knowledge levels and conditions. These technologies can be used in various forms that suit the individual user. According to Nwaosa and Okolocha (2014) the e-Learning technologies includes computer hardware, software applications and internet facilities.

The utilization of some of these technologies is here under reviewed.

According to Siemens (2005), hardware is a comprehensive term for all of the physical parts of a computer, as distinguished from the data it contains or operates on, and the software that provides instructions for the hardware to accomplish the tasks.

Computer is a machine that can be programmed to accept data input, process it into useful information (output) store it for as long as required. They are the modern of all machines that process, analyses. Store, Supplies and retrieve information instantaneously (Nwosu, 2004).

Spreadsheets – These include enhancement of database elements and the capability to graphically depict data. Student can use these tools to do the following:

- Track financial information spreadsheet first became a popular tools for helping businessmen track finances. Students can use them tracking financial information.
- Keep records Though primarily calculating tools, they can be used to keep simple record and maintain information list.
- ✓ Create charts and graphs Students can use it to keep record of investment.

VI. BUSINESS SUBJECTS

According to the Federal Republic of Nigeria (FRN, 2009), Business subjects is called vocational subjects at senior secondary school level which at the junior secondary school level is called business studies. In Nigeria, vocational subjects are usually offered at the senior secondary schools or technical colleges and include general education, practical skills and recounted theories required by the chosen occupation vocational subjects at senior secondary schools includes office practice, accounting, economics, data processing, bookkeeping, commerce etc which are taught as separate subjects with emphasis on practical training. Vocational subjects are designed to prepare individuals or skilled personnel for one or a group of occupations, trade or jobs. According to Olaitan (1990), vocational subjects are those subjects that help students in development of skills, knowledge and attitudes required for success in any useful occupation. One of the aims of secondary education is that secondary school leavers should be able to make a useful living for themselves within the society. According to Federal Republic of Nigeria (FRN, 2009), the following are objectives of vocational education in secondary school level:

- ✓ To provide trained manpower in applied science, technology, commerce particularly at sub-professional (lower) grade
- ✓ To provide technical skills necessary for agricultural, industrial, commerce and economic development.
- ✓ To give introduction to professional studies in engineering and other technologies.

VII. THEORETICAL FRAMEWORK

CONSTRUCTIVIST LEARNING THEORY

Constructivism according to Piaget (1972) is defined as active construction of new knowledge based on a learner's prior experience. It is an educational approach that effectively motivates learners by enabling a more active, explorative and interactive learning process. In other words, through the learning process, learners construct knowledge within a constructivist learning environment. Constructivists view teaching and learning as a process in which the learner actively constructs or builds new ideas or concept (student centered). The relevance of the theory to this study cannot be over-emphasized. The constructivist theory has altered our environment to the extent that students have the opportunity to be exposed to other ideas, cultures, and forums on global issues. Students can work on collaborative projects, which may come in the form of a networked writing project, or the building of separate phases of an engineering project that enables them to receive and give instant responses.

RELATED EMPIRICAL STUDIES

In this section, empirical studies that have some relationship with this present study were reviewed.

Also, Nwaosa, Ikechukwu and Okolocha (2014) carried out a study to determine the extent of utilization of e-Learning technologies by business educators in tertiary institutions in Edo and Delta states of Nigeria. Five research questions were raised to guide the study, while three hypotheses were formulated and tested at 0.05 level of significance. Descriptive survey research design was employed for the study. A total of 173 practicing business educators selected from universities, polytechnics and colleges of education in Edo and Delta states made up the population. The data collection instrument was a 56-item questionnaire that was structured on a five point Likert type rating scale. The data collected for the study were analyzed using mean and standard deviation for the five research questions, while the t-test and One-way Analysis of Variance (ANOVA) were also used for testing the null hypothesis. The findings revealed that business educators rarely utilized e-Learning technologies such as: hard ware. It also showed that gender has no effect on the extent at which business educators in tertiary institutions utilize internet facilities in teaching business education courses in their various institutions.

Based on the findings of the study, it was recommended that, the federal and state governments should make adequate

budgetary allocation for the provision of computers, internet and other telecommunications technologies in tertiary institutions in Nigeria. While business educators should as a matter of urgency update their knowledge in e-learning technology.

The relatedness between the study by Nwaosa, Ikechukwu and Okolocha and the current research is that both seek to determine availability and utilization of e-Learning technologies. They both used survey design and questionnaire to collect data. The two studies differ in term of respondent; their study used students while the current study makes use of business subjects teachers.

VIII. METHOD

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.

The study was carried out in Anambra State of Nigeria which. It has 269 public secondary schools spread across the six education zones. These education zones of the state are Aguata, Awka, Nnewi, Ogidi, Onitsha and Otuocha. Anambra State 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 matters leading to educational developments.

The study population was made up of 248 male and female business subject teachers in the six education zones in Anambra state public secondary schools. The six education zones include: Aguata, Awka, Nnewi, Ogidi, Onitsha and Otuocha. The population is not too large to give rise to sampling. Thus, the whole population was used for this study. The instrument used for data collection for this survey was the questionnaire method. This was because of the nature of information required and the form of analysis to be conducted. Questionnaire tagged "E-learning Technologies Availability and Utilization Questionnaire (ETAUQ)" was used to obtain data from respondents for the study. It was structured on a five-point scale and has two sections (A-B) which sought information on the two research questions. Section A deals with extent of availability of e-Learning technologies for utilization and it consists of 13 items. Section B contains 11 items on the extent of utilization of hardware e-Learning technologies. The instrument is a 5 points rating scale with the following options:

Very high extent	(VHE)	-	5 point
High extent	(HE)	-	4 point
Moderately extent	(ME)	-	3 point
Low extent	(LE)	-	2 point
Very low extent	(VLE)	-	1point

The research instruments were subjected to face validation by three test experts in Nnamdi Azikiwe University Awka, one in Measurement and Evaluation and two experts from the Department of Vocational Education validated the instrument. The reliability of the instrument was established using Pearson Product Moment Correlation Co-efficient the instrument yielded a reliability coefficient of 0.71, 0.76, . Mean was used to analyze the data collected. The 45 copies of

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the questionnaire that were administered by the researchers were returned and used for computation. The data collected were analyzed using mean and standard deviation while the null hypotheses were tested using t-test statistics at 0.05 level of significance. Since the items were structured on a five-point rating scale, the decision rule was based on the mid-point of the scale, 3.0. Therefore, items with mean scores of 3.0 and above were regarded as high extent.

RESEARCH QUESTION 1:

To what extent are e-Learning technologies available for utilization by teachers of business subject in secondary schools in Anambra State?

To answer research question one, the mean and standard deviations were obtained as shown on table 1.

ing technologies op) to aid teachers m eeaching	Mean 3.39 1.90 1.74	SD 1.30 1.10 1.02	Remarks Moderate Extent Low extent
pp) to aid teachers m reaching	3.39 1.90 1.74	1.30 1.10 1.02	Moderate Extent
m eaching	1.90 1.74	1.10 1.02	Low extent
reaching	1.90 1.74	1.10 1.02	Low extent
	1.74	1.02	• · ·
			Low extent
	1.42	0.77	Very low extent
N/WAN)	1.74	1.13	Low extent
locument	3.28	1.33	Moderate extent
on materials	3.34	1.55	Moderate extent
	1.35	0.81	Very low extent
	1.48	0.96	Very low extent
are to support	1.79	0.21	Low extent
for recording	2.81	1.22	Low extent
photographic material			
	3.55	1.31	High extent
	2.07	1.15	Low extent
	1.56		Low extent
	N/WAN) ocument on materials are to support for recording whotographic material	1.42 N/WAN) 1.74 locument 3.28 on materials 3.34 1.35 1.48 are to support 1.79 for recording 2.81 shotographic material 3.55 2.07 1.56	1.42 0.77 N/WAN) 1.74 1.13 ocument 3.28 1.33 on materials 3.34 1.55 1.35 0.81 1.48 0.96 are to support 1.79 0.21 for recording 2.81 1.22 photographic material 3.55 1.31 2.07 1.15 1.56

Table 1: Respondents' mean ratings on the extent of availability of e-Learning technology for utilization in teaching of business subjects

Table 1 shows that computer (laptop/desktop) facilities, Scanner and Printer with a mean score of 3.39, 3.28 and 3.34 were available to a moderate extent. Telephone is available at high extent. The respondents also indicated that electronic organizer, tape recorder and spreadsheet (excel) software were available to a very low extent, while the remaining five items of which Portable CD/DVD player for recording students' work, others items were available to low extent. The mean of means score of 1.56 shows that on the whole e-Learning technologies for utilization were available at low extent. The standard deviations for all the items are within the same range showing that the respondents are not wide apart in their ratings.

RESEARCH QUESTION 2

To what extent do teachers of business subjects in senior secondary schools in Anambra State utilize hardware e-Learning technologies in teaching of business subjects?

The answer to this research question is presented in Table 2.

				(N=220)
S/N	Hardware e-Learning technologies	Mean	SD	Remarks
14	Computer simulation	1.45	1.14	Low extent
15	Interactive television	2.81	1.22	Low extent
16	Passing of instruction via telephone	1.80	1.40	Low extent
	(cell phone)			
17	Radio player for listen to educational	1.63	0.92	Low extent
l	programmes			
18	Tape recorders for shorthand classes	1.95	1.17	Low extent
19	Flash drive for storing instructional	1.72	1.16	Low extent
	materials			
20	Printer for producing hardcopies	3.24	1.08	Moderate extent
21	Video for recording teaching activities	1.74	1.06	Low extent
22	Laptops	3.48	1.38	Moderate extent
23	Scanner	2.23	1.47	Low extent
24	CD-ROM containing prepared lessons	1.67	1.08	Low extent
	Materials			
Me	an of means	2.79		moderate extent

Table 2: Mean ratings and standard deviation of respondents on the extent of utilization of hardware e-Learning technologies for teaching business subjects

Data on Table 2 indicated that teachers of business subjects utilize printer and laptop to moderate extent. While other items such as Computer simulation, Instructional television, Telephone (cell phone), Radio player, Tape recorders and flash drive identified in Table 2 are utilized to low extent by the respondents for teaching business subjects. The mean of means score of 2.79 shows that overall, senior secondary school business subjects teachers in the area of the study utilize hardware e-Learning technologies for teaching business subjects at moderate extent. The standard deviations for all the items are within the same range showing that the respondents are not wide apart in their mean ratings.

HYPOTHESIS 1

There is no significant difference in the mean rating of business subjects teachers in urban and rural areas in senior secondary schools in Anambra States of Nigeria on the extent of availability of e-learning technologies.

The results are presented in Table 5.

Location	Ν	Mean	S	D	α	df	z-cal	z-crit
Remark								
Urban	127	3.15	1.48					
				0.05	218	3.46	1.96	Rejected
Rural areas	93	2 51	1 26					5

 Table 3: Result of the z-test analysis of urban and rural areas respondents on the extent of availability of e-learning technologies for utilization by teachers of business subjects

As shown in table 5, the z-calculated value of 3.46 is greater than the z-tabulated value of 1.96 at 0.05 level of significance and at 218 degree of freedom. This suggests that urban and rural business subjects teachers in senior secondary schools in Anambra State differ significantly in their mean ratings on the extent of availability of e-learning technologies for utilization. This therefore means that the null hypothesis is rejected.

HYPOTHESIS 2

Male and female teachers of business subjects do not differ significantly in their mean rating on the extent of

utilization of hardware e-learning technologies for teaching business subject in senior secondary schools in Anambra state.

Th	is r	ull hyp	othesi	is wa	s tes	ted at	a 0.05	level of	
significance using z-test. The results are presented in Table 6.									
Gender	Ν	Mean	SD	α	df	z-cal	z-crit	Remark	
Male	86	3.47	1.24						
				0.05	218	4.00	1.96	Rejected	
Female	134	2 73	1 32					-	

Table 4: Z-test result of the difference between the MeanRatings of Male and Female teachers of business subjects ontheir extent of utilization of hardware e-Learning technologiesin teaching business subjects

Table 6 shows that male business subject teachers in secondary schools in Anambra State had a mean score of 3.47 on their ratings on the extent of utilization of hardware e-Learning technologies in teaching of business subjects, while their female counterparts recorded a mean score of 2.73. The z-calculated value of 6.15 is greater than the z-tabulated value of 1.96(4.00 > 1.96) at 218 degree of freedom and 0.05 level of significance. The null hypothesis was rejected. This suggests that male and female business subject teachers in senior secondary schools in Anambra State differ significantly on the extent of hardware e-Learning technologies.

IX. SUMMARY OF THE MAJOR FINDINGS

The major findings that emerged from the analysis of data collected from the study are:

- ✓ Senior secondary schools business subjects teachers considered e-Learning technologies for teaching business subjects to be available at low extent.
- ✓ Teachers of business subjects in secondary schools in Anambra States utilize e-Learning hardware technologies at low extent in teaching business subjects.

X. DISCUSSION OF FINDINGS

Findings of the study were discussed as follows:

RESEARCH QUESTION 1

AVAILABILITY OF E-LEARNING TECHNOLOGIES FOR UTILIZATION

The result of the analysis on the extent of availability of e-Learning technologies for utilization by teachers of business subjects in senior secondary schools in Anambra State, shows that e-Learning technologies such as multimedia projector, digital projector, internet connectivity, desktop publishing software, CD player, telephone are available at low extent. The findings are in accordance with Nweke (2013) who found that ICT facilities for teaching in secondary schools were available at low extent. This is because effective utilization of e-Learning technologies lies heavily on the availability of e-Learning technologies. When these facilities are not available or adequately available compared with the student ratio, the objectives of secondary schools will not be achieved. The testing of hypothesis indicated that there is significant difference in the mean rating of teachers of business subjects in senior secondary schools in urban and rural areas in Anambra State on the extent of availability of e-Learning technologies for utilization. This agrees with Adeyemi and Olaleye (2010) who found that the level of provision of ICT equipment to secondary schools in the Ekiti State was low. Therefore the null hypothesis was rejected. RESEARCH QUESTION 2

UTILIZATION OF E-LEARNING HARDWARE TECHNOLOGIES BY TEACHERS OF BUSINESS SUBJECTS

The result of the findings in research question 2 revealed that teachers of business subjects in senior secondary school in Anambra state do not utilize hardware technologies such as tape recorder, laptop, slide projectors, transparencies and computer laboratory for purposeful teaching of business subjects. They utilize instructional television, tape recorders for shorthand and flash drive for storing instructional materials at moderate extent. The outcome of this study tends to agree with previous findings of Nwanewezi & Isifeh-Okpokwu (2010), who observed that there was little or no utilization of ICT facilities by teachers for instructional delivery. This indicates that secondary schools graduates will lack the necessary competencies required for manipulations of these technologies after graduation, because they are not well exposed to the hardware e-Learning technologies by their teachers. The data gathered revealed that some of these e-Learning technologies are used; but not extensively for proper teaching of business subjects by teachers in secondary schools. Epileptic power supply, lack of adequate e-learning technologies and funding constitute the constraints to the use of the hardware technologies for teaching business subjects in secondary schools in Anambra States. In spite of these constraints revealed above, hardware technologies are often used in administrative offices for recording of business transactions and storing of relevant information needed for decision making. Still, as a result of technological advancement, organizations now require that every employee from the top manager down must possess ICT competencies as a prerequisite for gaining employment (Okiki, 2011). Failure to utilize these e-learning technologies will eventually lead to the production of half-baked business education graduates who cannot function proficiently in automated business offices (Omeje, 2009). The test of hypothesis indicated that male and female teachers of business subjects in senior secondary schools in Anambra State differ significantly in their mean ratings on the extent of utilization of hardware e-Learning technologies in teaching business subjects. Therefore the null hypotheses that respondents do not differ significantly in their mean ratings on the extent of utilization of hardware e-Learning technologies by teachers of business subjects in senior secondary school in Anambra State as a result of gender (male and female) was rejected. The findings affirmed the research carried out by Summer (1990) in Agboola (2006) which suggested that male students experienced less anxiety about ICT and make more frequent use of it. Also, female students are assumed to show lower confidence or knowledge or ability than males about using computers (VanBraak, 2001).

XI. CONCLUSIONS

Based on the findings of the study, it could be concluded that teachers of business subjects in senior secondary schools in Anambra State utilized e-Learning technologies in teaching at low extent as a result of low availability of e-learning technologies. It was also concluded that location of schools affected the opinion of business subjects teachers on the extent of availability of e-Learning technologies for utilization. Gender affects teachers of business subjects on the extent of utilization of e-Learning technologies.

XII. RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made.

- ✓ Anambra State Government should provide more basic e-Learning technologies in urban and rural areas in public senior secondary schools for teachers such as WAIS, Laptop and modem needed for effective teaching of business subjects.
- ✓ Government should also sponsor the re-training of business subject teachers on the utilization of e-Learning technologies in education in order to update their skills and knowledge.
- Curricular for teaching that will inculcate the use of elearning technologies by teachers should be developed by curriculum planner.

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