

## Assessment of Utilization of E-Learning Tools by Business Educators in Tertiary Institutions

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**Abstract:** The study assessed the utilization of e-learning tools for teaching by business educators in tertiary institutions in South East Nigeria. Two research questions guided the study and two null hypotheses were tested at 0.05 level of significance. A descriptive survey design was adopted. A total of 200 business educators in 14 colleges of education and universities in South East, Nigeria made up the population of the study. No sample was taken as the number was deemed manageable by the researchers. A 10-item structured validated questionnaire was used for data collection. The reliability of the instrument was ensured using test retest technique, which was analyzed using Pearson Moment Correction Coefficient to determine its degree of reliability and obtained 0.80 and 0.95 for Section A to B respectively with overall reliability of 0.88. Data collected regarding the research questions were analyzed using percentages for the first research question while, mean and standard deviation were used for research question 2 and z-test was used to test the hypotheses using Statistical Packages for Social Science (SPSS). The findings from the study revealed that majority of the e-learning tools were not available and the utilization of e-learning tools for teaching was at a low extent. The study also revealed that gender and ownership of institutions do not significantly affect the opinions of the respondents' on the extent they utilized e-learning tools for teaching in tertiary institutions in South East Nigeria. It was concluded that e-Learning tools were not much available and the utilization was at a low extent for teaching by business educators in tertiary institutions in South East Nigeria. To encourage the use of e-Learning tools for teaching by business educators, it was recommended, among others, that business educators should realize that a lot of changes are going on in education and the business world and therefore should develop them and constantly uses e-Learning tools for teaching in business education.

**Keywords:** e-Learning tools, teaching, utilization, business educators.

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## Introduction

The 21<sup>st</sup> century has witnessed the advancement of learning technologies especially that of electronic learning. According to Naidu (2006), e-Learning incorporates all educational activities that are carried out by individuals or groups working online or offline, and synchronously or asynchronously via networked or stand-alone computer and other electronic devices. This can be achieved when teaching and learning involve e-Learning approaches. It has been shown that a single mode of instructional delivery system may not provide sufficient choices, engagement, social contact, relevance and context needed to facilitate successful learning and performance (Carner, 2010). This accounts for why institutions continue to explore strategies for effective learning for improved performance. Institutions furthermore, have to consider a variety of issues to ensure effective delivery of learning that will ensure a high return on investment. Garrison and Vaughan (2008) opined that institutions must use electronic learning to get the right content in the right format to the right people at the right time.

Electronic learning involves a combination of computer, internet and digital media with established classroom forms that require physical co-presence of teachers and students (Naidu, 2006). It helps business educators to acquire learning on face-to-face mode while enjoying the fruits of tools like computer, plasma screen, power point, educational software, and virtual classroom among others. Many tertiary institutions have adopted the use of e-Learning tools, however; the extent to which they are used in the institutions is still unknown. The importance of this e-Learning is that, it facilitates learning process in whatever combination of technology-mediated instruction used.

Some business educators in the South East Nigeria have been provided with e-Learning tools but the extent to which they utilized them is still unknown. Electronic learning according to Horton and Horton in Bupo and Ndinechi (2015) simply refer to the use of computer (laptop or desktop), mobile smart phones, interactive television, podcasting, video conferencing, computer aided assessment, satellite cable devices, video discs, interactive radio and respondus devices among others to improve learner-centered learning. There seem to be uncertainty also about the availability of e-learning tools in tertiary institutions in South East Nigeria. There are also various opinions on how business educators utilize-learning tools for teaching.

Teaching is not limited to imparting knowledge or managing a school. According to Ogwo and Oran (2006), teaching is a planned process which requires the methodical application of techniques based on the result of experimental analysis of behavior. Onabanjo (2008) defined teaching as a deliberate effort by a mature or experienced person to impart information, knowledge and skills to an immature or less experienced person through a process that is morally and pedagogically acceptable. It is the action of a person imparting skills or knowledge or giving instruction. In order to effectively impart these skills and knowledge, there is need to adopt appropriate teaching tools. e-Learning has been recognized all over the world as one effective tool for enhancing teaching and learning.

Electronic learning is dependable on availability of relevant tools among which are computer (laptop or desktop), mobile smart phones, interactive television, podcasting, video conferencing, computer aided assessment, and others mentioned above. It is not certain that any of those tools are available except for smart phones deployed by students for personal studies (Bupo & Ndinechi, 2015). Computer (laptop or desktop) are machine that can be programmed to accept data input, process it into useful information (output) store it for as

long as required. They can be utilized in classroom to deliver lectures to the students. Mobile smart phones are possessed by a majority of the students. They are used to make and receive phone calls to and from, and text messages from friends and relative for their personal usage. They can be utilized in classrooms to text messages to their fellow students on the course assignment.

Interactive television where available can be used to visualize the course content or subject matter to the students for teaching process. On the other hand, podcasting are typically audio or video files that may be broadcast over the Internet. They can be utilized for students' to download lectures as they usually download music. Video conferencing tools are used to allow participating students/individuals in different locations to see and hear each other in real-time through videoconferencing equipment.

Moreover, computer aided assessment/computer based instruction are tools by which interaction between a student and a computer system, designed to help the student learn (for drills and practice, tutorials, simulations and virtual realities). They can be used where computers are used as an aid to library and empirical research. Satellite cable devices are tools by which modem acts as the interface between the computer and the coaxial cable. They can be used in teaching by connecting computer to the modem either through USB or 10 bases -T Ethernet.

Video discs tool is a means to contextualize curriculum content and instruction across the curriculum. For example, they can be used to anchor accounting courses instruction to an authentic context. That is, video discs can be used to present to students a real-world context within which accounting problem-solving can then be situated.

In addition, interactive radio is an instructional device in which message can be heard. They can be used in classroom for delivering instructions to the students in a large classroom environment. Respondus is mainly an assessment tool which the business education teacher can use to assess students learning progress. They are programmes that interact with whiteboard, but are basically separate from it. Respondus can be used to compile tests offline, which can then be exported to one or more whiteboard courses to be completed online. The availability of those tools (used in e-learning) in South East Nigeria tertiary institutions is in doubt. Even the extent to which they are utilized is still in doubt too. These tools are not likely to be effectively utilized to improve instructional delivery if they are not readily available for use, hence this study.

Electronic learning tools appear to be poorly utilized for teaching in tertiary institutions in Nigeria. Inije, Utoware and Kren-Ikidi (2013) reported that poor utilization of e-learning tools for teaching was as a result of shortage of qualified staff with e-learning application skills, lack of e-learning facilities and infrastructure, as well as inadequate training and retraining of lecturers to acquaint them with the development of new technologies. It appears that business educators in many institutions do not have basic training and retraining on the use of e-learning tools; cannot operate a computer; and have little knowledge of e-learning platforms. As posited by Ohakwe and Njoku (2010), e-learning utilization is influenced by business educators' computer literacy, adequate fund available to schools for training of their teachers in e-learning skills, lack of equipment and electronic devices, and constant electric power failure that forms the basis for e-learning integration. Furthermore, factors influencing the utilization of e-Learning tools for teaching among business educators could be gender and ownership of institutions.

Gender in this study means male and female business educator in colleges of education and universities. Murphy and Greenwood in Sharda (2010) reported that gender could be factors in low teacher adoption of e-Learning tools for instructional delivery. In the same vein, Paula (2010) stated that male business educators experience less anxiety about e-Learning and make more frequent use of it. Similarly, ownership of institutions could influence the use of e-Learning tools in business education. Okiki (2011) pointed out that the use of e-Learning is influenced by the stakeholders. As noted by Volman and Van Eck, (2001), one of the stakeholders is the owner of institutions. Others include the students, the instructors, content providers, technology providers, accrediting bodies and employees. The government and privately owned tertiary institutions may differ in the e-learning tools provided to them (Leem & Lim, 2007).

Business education is a component of vocational technical education programme, which prepares individuals for careers in business and enables them to be intelligent consumers of economic goods and services. A vital need in the present business environment is the ability of business educators to use computers for different purposes. The usage of e-learning tools as teaching tools among business educators in tertiary institutions will lay the foundation for computer and software utilization in the business environment by business education graduates. It seems to the researchers that the extent to which Business Educators in tertiary institutions utilize e-learning tools for teaching has not been sufficiently established, and that necessitated this study. This study is focused on determining extent of utilization of e-learning tools for teaching among Business Educators in tertiary institutions in South East, Nigeria.

### Statement of the Problem

There appears to be under-utilization of electronic learning tools for teaching in institutions among business educators. Inije, Utoware and Kren-Ikidi (2013) noted that under-utilization of e-learning tools for teaching was as a result of shortage of tools, lack of qualified staff with e-learning ability, lack of e-learning facilities and infrastructure, inadequate training and retraining of lecturers to acquaint them with the development of new technologies, among others. Poor utilization of e-learning tools may result to teacher-centeredness in the learning process. It could also hinder collaborative, active and lifelong learning. Manir (2009) pointed out that lack of computer culture among business educators will impede the integration of new technologies in the educational process. Based on this background the researchers intend to find out the extent of utilization of e-learning tools as instrument for business educators in tertiary institutions in South East Nigeria.

### Purpose of the Study

The purpose of this study was to assess the utilization of e-Learning tools for teaching by business educators in tertiary institutions in South East Nigeria. Specifically, the study sought to determine:

- 1) Availability of e-learning tools for teaching by business educators in tertiary institutions in South East Nigeria.
- 2) Extent of utilization of e-learning tools for teaching by business educators in tertiary institutions in South East Nigeria.

### Research Questions

The following research questions guided the study:

- 1) What are the e-learning tools available for teaching by business educators in tertiary institutions in South East Nigeria?

2) To what extent do business educators utilize e-learning tools for teaching in tertiary institutions in South East Nigeria?

### Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

- 1) There is no significant difference in respondents' mean ratings of their opinions on the utilization of e-learning tools for teaching based on gender (male and female) in South East, Nigeria.
- 2) There is no significant difference in respondents' mean ratings of their opinions on the utilization of e-learning tools for teaching as a result of ownership of institution (government and private owned) in South East, Nigeria.

### Method

Descriptive survey design was adopted for the study. The researchers considered this design appropriate for this study since it intended to collect data from practicing business educators regarding assessment of utilization of e-Learning tools for teaching by business educators in tertiary institutions in South East Nigeria. The population for the study consisted of 200 business educators who teach in colleges of education and universities that offer business education programme in South East Nigeria. No sample was taken as the number was deemed manageable by the researchers. The instrument for data collection was a structured questionnaire titled; Assessment of utilization of e-Learning tools for teaching among business educators (AUE-LTTABE). The instrument was validated by three experts, from the Department of Vocational Education and the Department of Educational Foundations, Nnamdi Azikiwe University, Awka.

To ascertain the validity of the instrument, the researchers conducted a test retest whereby copies of the instrument were administered to 20 business educators from Delta State University, Abraka who were not part of the population of the study. The data were analyzed using Pearson Moment Correction Coefficient to determine its degree of reliability and obtained 0.80 and 0.95 for Section A to B respectively with overall reliability of 0.88 and used Statistical Package for Social Sciences (SPSS). The administration of the instrument was carried out personally by the researchers with the aid of five research assistants who were business educators.

Out of 200 copies of the questionnaire distributed to the respondents, 194 (representing 97 percent) were filled, retrieved and used for data analysis. Data collected regarding the research questions were analyzed using percentages for the first research question to determine whether there are available or not available. Mean and standard deviation were used for research question 2. The z-test was used to analyze the hypotheses. The decision rule regarding the research questions were based on the real limit of numbers.

With reference to the research question two, the decision was that items with mean ratings of 4.50-5.00 were regarded as "very great extent". Mean ratings from 3.50-4.49 were considered as "great extent". Mean ratings that range from 2.50-3.49 were regarded as "moderate extent". Mean ratings from 1.50-2.49 were regarded as "low extent", while mean ratings between 0.50-1.49 were regarded as "very low extent".

The null hypothesis was upheld where the calculated z-value was equal to or greater than the critical z-value: otherwise the null hypothesis was not upheld.



## Results

### Research Question 1

What are the e-learning tools available for teaching by business educators in tertiary institutions in South East, Nigeria?

**Table 1. Percentage scores of availability of e-learning tools for teaching by business educators' in tertiary institutions in South East Nigeria (N = 194)**

S/N	Items	Available		Not Available		Decision
		No	(%)	No	(%)	
1	Computer (laptop & desktop)	134	69.07	60	30.92	Available
2	Mobile smart phone	146	75.25	48	24.74	Available
3	Interactive television	70	36.08	124	63.91	Not Available
4	Podcasting	80	41.73	114	58.76	Not Available
5	Video conferencing devices	42	21.64	152	78.35	Not Available
6	Computer aided assessment	164	84.53	30	15.46	Available
7	Satellite cable to aid teaching	41	21.13	153	78.86	Not Available
8	Video discs	26	13.40	168	86.59	Not Available
9	Interactive radio	143	73.71	51	26.28	Available
10	Respondus devices	45	23.19	149	76.80	Not Available

In Table 1, respondents responses shows that items number1, 2, 6 and 9 are available, while items 3, 4, 5, 7, 8 and 10 were not available. This means that majority of the e-learning tools for teaching by business educators was not available.

### Research Question 2

To what extent do business educators utilize e-learning tools for teaching in tertiary institutions in South East Nigeria?

**Table 2. Mean rating of business educators on the extent of utilization of e-learning tools for teaching in tertiary institutions in South East Nigeria (N = 194)**

S/N	Utilization of e-learning tools	Mean	SD	Remarks
1	Computer (laptop & desktop)	2.89	0.26	Moderate Extent
2	Mobile/smart phone	2.77	0.43	Moderate Extent
3	Interactive television	2.16	0.42	Low Extent
4	Podcasting	2.18	0.41	Low Extent
5	Video conferencing devices	2.24	0.35	Low Extent
6	Computer aided assessment	2.75	0.28	Moderate Extent
7	Satellite cable to aid teaching	2.14	0.49	Low Extent
8	Video discs	2.78	0.44	Low Extent
9	Interactive radio	2.57	0.31	Moderate Extent
10	Respondus devices	2.32	0.47	Low Extent
	<b>Mean of Means</b>	<b>2.48</b>		<b>Low Extent</b>

The data shown in Table 2 shows that business educators utilized Computer (laptop & desktop), Mobile/Smart Phone, Computer Aided Assessment and Interactive Radio to a

moderate extent with mean ranging from 2.57 to 2.89. The result showed that Interactive Television, Podcasting, Video Conferencing, Satellite Cable, Video Discs and Respondus Devices were used at a low extent ranging from 2.14 to 2.32.

The standard deviations of 0.26 to 0.49 show their opinion to be within the same range. This means that the respondents were not wide apart in their mean ratings. The mean of means revealed that business educators utilized e-learning tools for teaching in tertiary institutions in South East Nigeria at a low extent with a mean of means score of 2.48.

## Testing the Hypotheses

### Null Hypothesis 1

There is no significant difference in respondents' mean ratings of their opinions on the utilization of e-learning tools for teaching in tertiary institutions based on gender (male and female) in South East, Nigeria.

**Table 3. Summary of z-test result of male and female business educators on the extent of utilization of e-learning tools for teaching in tertiary institutions (N=194)**

Gender	N	Mean	SD	$\alpha$	Df	z-cal	z-crit	Remark
Male	66	2.10	1.21	0.05	192	1.67	1.96	Not Significant
Female	128	2.62	1.17					

As shown in Table 3, the calculated z-value 1.67 is less than the critical z-value 1.96 at 192 degree of freedom at 0.05 level of significance. The results indicate that male business educators in tertiary institutions with a mean score of 2.10, and female business educators with a mean score of 2.62 do not differ on their utilization of e-learning tools for teaching. The null hypothesis was upheld that respondents from colleges of education and their counterparts' from universities do not differ significantly on their utilization of e-learning tools for teaching in tertiary institutions based on gender (male and female) in South East Nigeria. Therefore the hypothesis was upheld.

### Null Hypothesis 2

There is no significant difference in respondents' mean ratings of their opinions on the extent of utilization of e-learning tools for teaching in tertiary institutions as a result of ownership of institution (government and private owned) in South East, Nigeria.

**Table 4. Summary of z-test result on the significant difference in respondents mean ratings of their opinions on the extent of utilization of e-learning tools for teaching in tertiary institutions as a result of ownership of institutions (government and private owned) (N = 194)**

Ownership of Institution	N	Mean	SD	$\alpha$	Df	z-cal	z-crit	Remark
Government	179	2.73	0.67	0.05	192	1.16	1.96	Not Significant
Private	15	2.74	0.52					

As shown in Table 4, the calculated z-value 1.16 is less than the critical z-value 1.96 at 192 degree of freedom at 0.05 level of significance. The results indicate that government owned tertiary institutions with a mean score of 2.73 and private owned tertiary institutions with a mean score of 2.74 do not differ on their utilization of e-learning tools for teaching. The null hypothesis was upheld that respondents from colleges of education and their counterparts' from universities do not differ significantly on their utilization of e-learning tools for teaching

in tertiary institutions as a result of ownership of institution (government and private owned) in South East Nigeria. Therefore the hypothesis was upheld.

### Discussion of Findings

Findings of the study in the first research question revealed that majority of the respondents agreed that e-learning tools for teaching in tertiary institutions in South East Nigeria were not available, while only few were available.

The results in Table 3 revealed that business educators did not differ significantly in their mean ratings on the extent they utilized e-learning tools for teaching in tertiary institutions in South East Nigeria based on gender (male and female). This contradicts the views of Paula (2010) who opined that male business educators are assumed to show lower confidence or knowledge or ability than female about using e-learning tools for teaching. However, the results of this study showed that male and female business educators do not differ in the extent they utilized e-learning tools for teaching.

Findings of the study regarding the second research question indicated that business educators utilized e-learning tools such as Computer (laptop & desktop), Mobile/Smart Phone, Computer Aided Assessment and Interactive Radio to a moderate extent with mean ranging from 2.57 to 2.89 respectively. The result also showed that Interactive Television, Podcasting, Video Conferencing, Satellite Cable, Video discs and Respondus devices were used at a low extent ranging from 2.14 to 2.32. The findings of the study were supported by the findings of Ohakwe and Njoku (2010), that there was little or no use of e-learning tools, due to lack of electricity in substantial part of the country.

However, in Table 4 it also shown that as a result of ownership of institutions (government and private) they did not differ significantly. This means that business educators in government owned tertiary institutions in South East Nigeria do not utilized e-learning more than those in the private tertiary institutions in South East Nigeria. As a result, ownership of institutions does not significantly determine how e-learning tools are used for teaching. This finding was in line with the propositions of Okiki (2011) that there was increased in government policy on how often e-Learning tools are used. This view cuts across all tertiary institutions in South East Nigeria irrespective of the ownership structure of those institutions.

### Conclusion

Based on the findings of the study, it was concluded that majority of the e-learning tools were not available while the extent of utilization of e-learning tools for teaching was at low extent. This means that business educators in tertiary institutions in South East Nigeria did not use e-learning tools for teaching as a result of inadequate training and retraining given to them. The outcome of the study also revealed that gender and ownership of institutions do not affect the extent of utilization of e-learning tools for teaching by business educators as an instructional delivery in tertiary institutions in South East Nigeria.

### Recommendations

Based on the findings and conclusion drawn from the study, the following recommendations are made:

- 1) Business educators should realize that a lot of changes are going on in education and the business world and therefore should develop themselves and constantly use e-Learning tools for teaching in business education.



- 2) In-service training programmes such as seminar, in-service courses, conferences and workshops on the use and operation of new learning technologies should be made compulsory for all practicing business educators and lecturers from tertiary institutions in South East Nigeria.
- 3) Business educators in tertiary institutions in South East Nigeria should basically be involved in the use of e-learning tools provided by the government and administrators of institutions in their teaching tasks.

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