



## LEVEL OF UTILIZATION OF NEW TECHNOLOGIES IN TEACHING BUSINESS EDUCATION COURSES IN COLLEGES OF EDUCATION IN DELTA STATE

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### Abstract

The study examined the level of utilization of new technologies in teaching business education courses in colleges of education in Delta State. Two research questions and a null hypothesis guided the study. Descriptive survey research design was adopted for this study. The total population of the study was one hundred and two (103) Business Educators from the three Colleges of Education in Delta State. The entire population was studied because of the manageable size. The instrument used for data collection was a structured questionnaire with thirty-eight (38) items validated by three experts. The reliability of the instrument was determined using split half method and subjected to Cronbach Alpha statistics, which yielded reliability coefficient score of 0.82. Mean and standard deviation were used to answer the research questions while a t-test statistics was used to test the null hypothesis at 0.05 level of significance. The decision rule was based on a cumulative mean score of 3.00 and above denotes high level (HL) while mean less than 3.00 means low level (LL) for utilization level and a cumulative mean score of 3.00 and above to denote strongly agreed (SA) and mean score less than 3.00 means disagreed (D). The null hypothesis was rejected if the t-calculated value was more than the t-critical value 0.05 alpha level or otherwise accepted. Findings revealed that; there is low level of utilization of new technologies in teaching business education courses, there are constraints to utilization of new technologies by business educators for teaching business education courses in Colleges of Education in Delta State and gender did not significantly influence the ratings of the respondents. It was recommended based on the study that; in response to a worldwide trend, curriculum developers for business education should pass legislation that would force business educators to use pertinent new technologies in the delivery of teaching in colleges in order to produce graduates who are capable of being productive in their careers. Managers and administrators of colleges of education should plan training and retraining on ICT for Teaching and Learning (E-learning Platform) for capacity building in partnership with the National Commission for Colleges of Education.

**Keywords:** New Technologies, Business Education, Colleges of Education

### Introduction

The development of technology has changed how individuals conduct jobs and deal with difficulties on a daily basis all around the globe. The operational procedures in a number of economic sectors have been impacted by this. No industry or organization today can remain competitive without fully adopting and adapting technology into all aspects of its operations, Vockley (2012) in Ukata and Udeh (2022). Technology is the application of knowledge to the attainment of realistic objectives in a repeatable manner. Technology is the practical application of scientific knowledge to the goals of daily living, including the modification and manipulation of the environment in which people live. According to Dhurumraj, Ramaila, and Ferhana(2021), technology is machinery and equipment that uses the application of scientific



knowledge in a particular area for practical purposes, using technical processes, methods, or knowledge with, a function, purpose, or benefit, to improve human life. In the context of this paper, technology refers specifically to digital technology, which includes computers, software applications and internet technologies, techniques, skills, tools, and services essential for online and offline teaching-learning.

New technologies are those whose development, practical applications, or both are still largely unreached. While most of these technologies are recent, some older ones are also finding new uses. New technologies are frequently seen as having the power to alter the status quo. New technologies are characterized by radical novelty (in application even if not in sources), rapid expansion, coherence, significant influence, and uncertainty and ambiguity. Emerging new technologies have got a significant impact on the education industry, particularly on how teachings and learning are done, as well as how educational researches are conducted in general. New technologies are emerging almost every day to make teaching and learning simpler, more advanced and better for all stakeholders. New technologies have the potentials to increase effectiveness in instructional delivery, reduce boredom, enhance students' participation in classroom, concretize and permanent experiences, reduce costs and make teaching worthwhile.

Teaching is the act of transmitting competencies, skills, ability, knowledge, values and morals to a learner usually referred to as a student. It entails deliberate activities planned and implemented by the teacher with the aim of causing a change in the behavior of the recipients. To achieve this, teachers in the 21<sup>st</sup> century need to adopt the use of new technologies available for efficient and effective teaching of business education in colleges.

Business education is a course taught in the colleges of education and in the universities. Business education is a course of programme which provides or acquaints its recipients with the prerequisite skills, competencies, values, abilities, attitudes and norms needed to be a productive entrepreneur or to function effectively as an employee in business organizations or world of work. The objectives of Business Education at the NCE level as contained in the National Policy on Education (2013) are to: produce well qualified and competent NCE graduate in business subjects who will be able to teach business subjects in our junior secondary schools, produce NCE business teachers who will be able to inculcate the vocational aspects of Business Education into the society, produce NCE business teachers who will start with so much desired revolution of vocational development right from the Nigeria Primary and Secondary schools, prepare students in Business Education with necessary competence so as to qualify them for a three-year post-NCE degree programme in Business Education in Nigerian universities and equip graduates with the right skills to engage in a life of work in the office as well as for self-employment. Besides, the basic objectives of business education according to Nwalado (2021) citing Bibiana and Joshua (2016) include: to enable students to acquire the basic knowledge of business studies, to prepare students for further training in business studies, to develop in the students the basic skills needed for office occupation, to prepare students to perform business activities common to many professional areas and to equip the students with the ability to relate the knowledge and skill to the national economy.

Actualizing the above objectives of business education in the 21<sup>st</sup> century requires using or employing the appropriate and relevant new technologies in instructional delivery for effective teaching and learning. Some of the new technologies available for teaching and learning business education includes: computer, internet, blogspot, youtube, smartphone, web browsers, virtual classroom, television, projector, power point, Microsoft word, Microsoft excel, interactive white board, digital library, Google classroom, teleconference, audio and video tape, slido.com, classroom management software, slide overhead and dot projectors, E-Journals, Mp3 Player, web based conferencing collaborative software, among others.

The awareness of the availability of new technologies for teaching business education is no longer news but the concern is the level of the utilization of these new technologies for teaching business education efficiently and effectively. Several studies have been carried out on the utilization of new technologies in business education, Onyesom and Utoware (2012), Akude and Ebenezer (2012), Owenvbiugie and Ojewale (2014) in Onotu, Osiah and Allen (2020). Findings from these studies have shown that great deals of instructional and administrative functions are still being done manually and traditionally. Olajide, Afolabi, Abidoye and Olojo (2012) and Igberaharha (2014) in Onutu (2020), advanced reasons for the lag in the paradigm shift to utilization of new technologies in teaching to include: inadequate funding, lack of basic technological skills amongst academic staff, poor power supply, lack of technology maintenance personnel, poor standard of technology equipment, and high cost of updating and procuring new technology hardware and software, lack of continuous in service training, and being adamant to change.



If business education programme is to produce graduates who are digitally savvy for the labour market of the 21st century, lecturers must incorporate modern technologies into the teaching and learning of business education courses. But when utilization doesn't live up to expectations, it raises questions and calls for more investigation into the problems preventing new technology from being used successfully in business education. Therefore, examining the level of utilization of new technologies in teaching business education courses in colleges of education in Delta State is not out of point.

### **Statement of the Problem**

The emergence of new technologies have in doubt brought about tremendous changes in the teaching profession, its effect seen in the way instructions and learning being delivered in the tertiary institutions like universities and polytechnics. By utilizing these new technologies in classrooms effectively, teachers may be able to deliver lectures more effectively, tailor learning for each student, and help students develop critical 21st century skills. Additionally, virtual learning environments, video, and other technological tools not only make classes more engaging but also promote collaboration and open-mindedness in a way that allows teachers to gather information on students' progress at any time, citing Ayemhenre, Okolo and Ogidan (2022).

The usage of new technologies is no longer new thing to some departments that are science or technical oriented in colleges. These departments use these new technologies in teaching, evaluating and assessing their students almost on regular basis. Thus it has made teaching and learning effective and efficient for them. The reverse is the case for business education. The participants experience proved that a good number of lecturers teaching business education courses in colleges of education seldom use these available new technologies for instruction delivery in classes: reasons maybe lack of technical know-how, lack digital learning skills, inability to procure or improvise one or being adamant to change and those that do, do it scarcely. The concern therefore is not about the availability and the capabilities of new technologies in teaching and learning, but the level of utilization in teaching business colleges of education courses. Thus, the need to examine the level of utilization of new technologies in teaching business education courses in colleges of education in Delta State.

### **Research Questions**

The following research questions were raised to guide the study:

1. What is the level of utilization of new technologies available for teaching business education courses in Colleges of Education in Delta State?
2. What are the constraints to the utilization of new technologies in teaching business education courses in Colleges of Education in Delta State?

### **Hypothesis**

The following hypothesis null hypothesis was formulated and tested at 0.05 alpha level of significance.

H<sub>0</sub>: There is no significance difference in the mean response of male and female Business Educators on the level of utilization of new technologies in teaching business education courses in Colleges of Education in Delta State.

### **Method**

Descriptive survey research design was adopted for this study. The total population of the study was one hundred and five (103) Business Educators from the three Colleges of Education in Delta State, namely: Federal College of Education (Technical), Asaba (73); College of Education, Warri (16) and College of Education, Mosogar (14). The instrument used for data collection was a structured and validated questionnaire with thirty-eight (38) items, on a five point rating scale of Very High Level (VHL,5), High Level (HL,4), Moderate Level (ML,3), Rare Level (RL,2) and No Level (NL,1) to answer research question one(1) with a five point rating scale of Very Strongly Agree (VSA,5), Strongly Agree (SA,4), Agree(A,3), Disagree(D,2) and Strongly Disagree(SD,1) to answer research question two(2). The reliability of the instrument was determined using split half method and subjected to Cronbach Alpha statistics, which yielded reliability coefficient score of 0.82. The researchers distributed (103) copies of the questionnaires to the respondents with the help of two research assistants who were duly briefed on what to do. In all, 102 questionnaires were correctly completed, returned (representing 99.03% return rate) and used for analysis. Mean and standard deviation were used to answer the research questions while the null hypothesis was tested using t-test statistics at 0.05 level of significance. The decision rule was based on the condition that



any questionnaire item with mean score of 4.50-5.00 is very high level/very strongly agree, 3.50-4.49 is high level/ strongly agree, 2.50-3.49 is moderate level/ agree; 1.50-2.49 is rare level/disagree and 0.50-1.49 is no level/strongly disagree. A cumulative mean of 3.00 and above denotes high level (HL) while mean less than 3.00 means low level (LL) while a cumulative mean of 3.00 and above denotes strongly agree (SA) while mean less than 3.00 means disagree (D). Null hypothesis is rejected if the t-calculated value is more than the t-critical value 0.05 alpha level or otherwise accepted.

**Table 1: Population Distribution of Business Educators.**

S/No.	Name of Institutions	Business Educators
1.	Federal College of Education (Technical), Asaba.	73
2.	Delta State College of Education, Mosogar.	14
3.	College of Education, Warri.	16
<b>Total</b>		<b>103</b>

Source: Heads of Department office, 2023.

### Results

**Research Question 1:** What is the level of utilization of new technologies available for teaching business education courses in Colleges of Education in Delta State?

**Table 2:** Respondents' Mean Ratings on the level of utilization of new technologies available for teaching business education courses in Colleges of Education in Delta State.

S/No.	Item Statements	Mean(x)	SD	REMARKS
1.	Computer.	3.77	0.51	HL
2.	Internet.	3.67	0.53	HL
3.	BlogSpot.	3.21	0.46	ML
4.	YouTube.	2.18	0.67	RL
5.	Web browsers.	3.97	0.56	HL
6.	Virtual classroom.	2.15	0.69	RL
7.	Slido.com (Question and answer).	1.48	0.72	NL
8.	E-mail.	3.95	0.20	HL
9.	Calendar schedules.	2.45	0.89	RL
10.	Zoom.	1.48	0.72	NL
11.	Smartphone.	3.22	0.49	ML
12.	Interactive multimedia projector.	3.00	0.40	ML
13.	Interactive white board.	3.14	0.58	ML
14.	Power point presentation.	1.48	0.72	NL
15.	Microsoft word.	3.18	0.48	ML
16.	Microsoft Excel.	3.23	0.49	ML
17.	Digital visualizes.	3.36	0.54	ML
18.	Digital library.	3.14	0.58	ML
19.	Google classroom.	1.48	0.72	NL
20.	Teleconferencing.	3.75	0.54	HL
21.	Audio and video tape.	3.10	0.50	ML
22.	Classroom management software.	3.08	0.49	ML
23.	Slide overhead and dot projectors.	3.21	0.46	ML
24.	E-journals.	1.46	0.51	NL
25.	Video conferencing.	1.48	0.72	NL
	<b>Cumulative mean</b>	<b>2.79</b>	<b>0.57</b>	<b>ML</b>

Table 2 above shows that items 1, 2, 5, 8 and 20 were rated high level by respondents with mean scores of 3.77, 3.67, 3.97, 3.95 and 3.75 respectively. While items 3, 11, 12, 13, 15, 16, 17, 18, 21, 22 and 23 with mean scores of 3.21, 3.22, 3.00, 3.14, 3.18, 3.23, 3.36, 3.14, 3.10, 3.08 and 3.21 respectively were rated moderate level while items 4, 6 and 9 with mean scores of 2.18, 2.15 and 2.45 respectively were rated by the respondents as rare level and items 7, 10, 14, 19, 24 and 25 with mean scores of 1.48, 1.48, 1.48, 1.48, 1.46 and 1.48 respectively were rated no level. The cumulative mean of 2.79 indicates that the



items in the table were accepted by the respondents as available new technologies utilized at moderately level by business educators for teaching business education courses in Colleges of Education in Delta State.

**Research Question 2:** What are the constraints to the utilization of new technologies available for teaching business education courses in Colleges of Education in Delta State?

**Table 3:** Respondents' Mean Ratings on the constraints to the utilization of new technologies available for teaching business education courses in Colleges of Education in Delta State.

S/No	Item Statements	Mean(x)	SD	Remark
26	Cost of purchasing networks data.	3.84	0.65	SA
27	Lack digital teaching-learning skills.	3.82	0.64	SA
28.	Inability to procure or improvise one of the new technologies.	3.86	0.57	SA
29.	Business educators being adamant to changes.	3.81	0.63	SA
30.	Inadequate funding.	3.73	0.53	SA
31.	Lack of basic technological skills amongst academic staff.	3.72	0.52	SA
32.	Lack of confidence on the part of business educators.	3.79	0.48	SA
33.	Poor electricity (power) supply.	3.69	0.56	SA
34.	Lack of technology maintenance personnel.	3.75	0.54	SA
35.	High cost of updating and procuring new technology hardware and software.	3.67	0.53	SA
36.	Network failure from service providers.	3.52	0.47	SA
37.	Lack of continuous in-service training on ICT usage in Instructional delivery.	3.74	0.56	SA
38.	Poor standard of technology equipment.	3.97	0.58	SA
	<b>Cumulative mean</b>	<b>3.76</b>	<b>0.56</b>	SA

Table 3 above showed that items 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37 and 38 were rated strongly agreed by respondents with mean scores of 3.84, 3.82, 3.86, 3.81, 3.73, 3.72, 3.79, 3.69, 3.75, 3.67, 3.52, 3.74 and 3.97 respectively. The cumulative mean of 3.76, indicates that the items in the table were accepted by the respondents as constraints to utilization of new technologies by business educators for teaching business education courses in Colleges of Education in Delta State.

**Test of Null Hypothesis**

**Table 4: Summary of t-test analysis of male and female Business Educators' mean ratings on level of utilization of new technologies for teaching Business education courses in Colleges of Education in Delta State.**

Gender	N	Mean(x)	SD	Df	t-Cal	t-Crit.	Decision
Male	53	2.60	0.520				Accepted
Female	49	2.40	0.235.	1.00	0.327	0.96	

The data in table 4 above indicates that the t-calculated value of 0.327 is less than the t-critical level of 0.96 at 0.05 level of significance indicating that the hypothesis was accepted. This implies that there is no significance difference in the mean rating between male and female Business Educators on the level of utilization of new technologies in teaching business education courses in Colleges of Education in Delta State.

**Discussion of Findings**

Findings of the study from research question one (1) showed the levels of utilization of new technologies for teaching business education courses in Colleges of Education in Delta State by Business educators was at low level. This means that business educators seldom utilize E-journals, Calendar schedules, Zoom, Videoconferencing, Google classroom, YouTube, Power point presentation and Slido.com in teaching in colleges. This in tandem with the assertions of Ukata and Udeh (2022), who



opined that the level of utilization of the above mentioned technologies in teaching accounting education in colleges is at very low level. This implies that business education graduates from colleges of education in Delta State may find difficulty in competing favourably with other business education graduates from other tertiary institutions who are exposed to these new technologies. Besides, when these technologies are employed in teaching business courses, it will help to expand access to education, increase participation and make teaching and learning process more engaging to real life practices, Ayemhenre, Okolo and Ogidan (2022).

The findings from research question two (2), regarding constraints to utilization of new technologies for teaching business education courses in Colleges of Education in Delta State by business educators revealed an agreement by the respondents on the items. It shows that they strongly agreed that inadequate funding, poor electricity (power) supply, lack of continuous in-service training on ICT usage in Instructional delivery, lack of confidence on the part of business educators among others actually inhibit the usage of new technologies in teaching and learning of business education course in colleges. This is in consonance with the opinions of Olajide, Afolabi, Abidoye and Olojo (2012) and Igberaharha (2014) in Onutu (2020), who advanced causes for the delay in the paradigm shift to the use of new technologies in teaching include: insufficient funding, a lack of basic technological skills among academic staff, a poor power supply, a lack of technology maintenance personnel, subpar technology equipment, and the high cost of updating and acquiring new technology hardware and software. These constraints are key factors to business educators adopting and adapting new technologies in teaching and learning in modern education, and absence of these is tantamount to obsolesce and retrogressive education.

Finally, the results of the finding on hypothesis formulated revealed that there is no significance difference in the mean response of male and female Business Educators on the level of utilization of new technologies in teaching business education in Colleges of Education in Delta State.

### **Conclusion**

Based on the findings, it was concluded that the level of utilization of new technologies in teaching business education courses in colleges of education in Delta State is low and does not make teaching and learning in colleges of education in Delta State conventional in instruction delivery approach. These new technologies are needed; as it has become a game-changer and has transformed the traditional methods of teaching and learning, providing access to numerous online resources that supports independent learning and research. Therefore, stepping up the level of utilization of these new technologies in teaching business education courses in colleges of education in Delta State, may encourage different learning styles, improve teamwork, give business educators immediate feedback, and eventually prepare students for the future.

### **Recommendations**

Based on the findings of the study, the following recommendations are made:

1. As a matter of necessity and in response to a worldwide trend, curriculum developers for business education should pass legislation that would force business educators to use pertinent new technologies in the delivery of teaching in colleges in order to produce graduates who are capable of being productive in their careers.
2. Managers and administrators of colleges of education should plan training and retraining on ICT for teaching and learning (e-learning platform) capacity building in partnership with the National Commission for Colleges of Education.

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