



INTEGRATION OF DIGITALIZED BUSINESS EDUCATION INSTRUCTION FOR IMPROVED SKILL ACQUISITION OF STUDENTS AT TERTIARY EDUCATION LEVEL IN DELTA STATE, NIGERIA

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Abstract

The study was carried out in Delta State to investigate the approaches for integrating digitalized instructional technologies for skill acquisition of Business education students in tertiary institutions. Two research questions and two hypotheses guided the study using descriptive survey research design. The population for the study was 164 Business Educators (145 Business Education Lecturers and 19 Instructors) from four tertiary institutions offering Business Education programme in Delta State. Due to the manageable size of the population, the entire 164 Business Educators were involved as respondents for the study; hence census survey sampling was adopted. The instrument for data collection was a 25-item structured questionnaire, validated by three experts. The reliability of the instrument was ascertained with Cronbach Alpha reliability technique which yielded a coefficient of 0.93. Data for the study were collected with the help of four research assistants. Data collected were analysed using descriptive statistics such as mean, standard deviation and t-test statistics. The result of the study identified 14 digitalized instructional technologies for improving skill acquisition of Business Education students and 11 strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students. The results of the hypotheses tested showed that there was significant ($p < 0.05$) difference in the mean ratings of the responses of Business Education lecturers and instructors on digitalized instructional technologies for improving skill acquisition of Business Education students whereas, there was no significant ($p < 0.05$) difference in the mean ratings of respondents on the strategic approaches for integrating digitalized instructional technologies. The study among others recommended improved skill training and retraining of Business educators in the use of digitalized instruction and organization of digitalized instruction conferences and workshops where the Business Education teachers, lecturers and instructors will constitute the key participants for effective skill acquisition and performance of learners.

Keywords: Digitalized instruction, Business education, skill, students, tertiary education



Introduction

Education is the foundation of meaningful development of any human society. Education system in Nigeria is structured into elementary/primary, secondary and tertiary institution. The Federal Republic of Nigeria (2014) described tertiary institution to include, universities, colleges of education, polytechnics and monotechnics. The interest of this study is tertiary institution which according to Okute and Agomuo (2010) is the third tier of education that provides training in an ever-increasing number of specialization necessary for the modern society. Tertiary education according to Jaja (2013) is an organised form of education at the institution of higher learning. Tertiary institutions are established and charged with the mandate of providing knowledge, skills and training to students who have successfully completed their secondary education and desirous of pursuing a chosen discipline for future career through education of higher learning. The aims and objectives of tertiary education include: contribution to national development through high-level relevant manpower training, developing proper values for the survival of the individual and society, developing the intellectual capability of individual to understand and appreciate their local and external environment, imparting both physical and intellectual skills on individuals to be self reliant and useful members of the society (Federal Republic of Nigeria, 2014). One of the unique attributes of tertiary education is that, it is at this level that learners make a choice of discipline for mastery in a course of study that will eventually lead to career. One of the disciplines in Nigerian tertiary education where an individual can make choose to pursue a career is Business Education.

Business education is a vocational and skill-based course of study that is widely promoted for its relevance in the contemporary competitive global labour market. Business education as described by Suleiman (2017) is an area of education which deals with the study of the subject of related to or dealing with the art of shorthand writing, typewriting, accounting, business mathematics, secretarial duties, and commerce and office practice. According to Osuala (2004) Business Education is a broad district of knowledge that deals with a nation's fiscal structure and also identifies and explains the rate of business gratification and experience that train persons for valuable involvement as citizens, workers and consumers. The objectives of Business Education as stated by Edokpolor and Egberi (2017) include: to prepare students for specific career in office occupations, equip students with the requisite skills for job creation and entrepreneurship and expose students with knowledge about business, including a good blend of computer technology, which incorporates Information and Communication Technology. The aforementioned objectives of Business education cannot be achieved on sustainable basis without paradigm shift towards digitalized instruction in line with the current global trend to make teaching, learning and skill acquisition more effective.

Digital instruction encompasses all forms of teaching and learning experiences that involves the use of audio, video, and visual contents to impart knowledge. This type of instructional instruction engages multiple learner senses, including sight, sound, and in some instances touch, where the media is interactive (Centre for Teaching, Learning and Mentoring, 2021). Digital instructions are becoming increasingly prominent methods of teaching for teachers in the contemporary education system. Shukla (2022) submitted that digital instructions require organized electronic resources to support instructions. Toshi, Doan, Woo and Henry (2019) noted that digital instructions are online and technology-based teaching and learning platforms. The goal of the digital instructional technique is to provide a clear picture of instruction to help encourage increased comprehension of digital learning (State Educational Technology Directors Association, 2019). Effective planning is essential when considering digital learning for quality instructional experience and skill acquisition of learners. Knowledge and skill acquisition in Business education is very crucial in the present world of work; this can better be achieved through integration of digitalized instruction. It was based on this background that this study examined integration of digitalized Business Education instruction for improved skill acquisition of students at tertiary education level in Delta State, Nigeria



Research Questions

The study answered the following two research questions in line with the specific purposes of the study:

1. What are digitalized instructional technologies for improving skill acquisition of Business Education students?
2. What are the strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students?

Research Hypothesis

The following null hypotheses guided the study and were tested at 0.05 level of significance:

H0₁: There is no significant difference in the mean ratings of Lecturers and Instructors on digitalized instructional technologies for improving skill acquisition of Business Education students?

H0₂: There is no significant difference in the mean ratings of Lecturers and Instructors on the strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students?

Methodology

The study was carried out in Delta State to investigate the approaches for integrating digitalized instructional technologies for skill acquisition of Business education students in tertiary institutions. Two research questions were answered while two hypotheses were tested. Descriptive survey research design was adopted in carrying out the study. Shona (2022) defined descriptive survey research design as a research method that aims at accurately and systematically describing a population, situation or phenomenon through data collected with the use of questionnaire. Descriptive survey design is suitable for this study because copies of well structured questionnaire were administered to collect data from selected respondents.

The population for the study was 164 Business Educators (145 Business Education Lecturers and 19 Instructors) from four tertiary institution offering Business Education programme in Delta State which are: (i) Delta State University, Abraka, (ii) University of Delta, Agbor, (iii) Federal College of Education (Technical) Asaba and (iv) Delta State College of Education, Warri. Due to the manageable size of the population, the entire 164 Business Educators were involved as respondents for the study. Therefore, census survey sampling technique was used. The instrument for data collection was a structured questionnaire titled "Integration of Digitalized Business Education Instruction Questionnaire (IDBEIQ). The instrument was structured into three parts. Part A was designed to obtain personal data of the respondents. Part B was structured to obtain data on digitalized instructional technologies for improving skill acquisition of Business Education students while Part C was made to obtain data on strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students. The response options for Parts B and C were: Strongly Agreed (SA) = 4; Agreed (A) = 3; Disagreed (D) = 2 and Strongly Disagreed (SD) = 1.

The validation of the instrument was done by three senior lecturers of Business Education from Nnamdi Azikiwe University, Awka, Anambra State. All the suggestions and errors noted by the experts were all effected to improve the quality of the instrument for quality data collection. The reliability of the instrument was carried out by administering 15 copies of the questionnaire on 15 Business Educators in tertiary institutions in Anambra State. Data extracted from the 15 copies of the questionnaire were analysed with Cronbach Alpha reliability technique of SPSS version 20 and the reliability yielded a coefficient of 0.93. Data for answering the research questions and testing the hypotheses were collected by administering 167 copies of the validated questionnaire to respondents



with the help of four research assistants from the four tertiary institutions. The researcher carefully monitored the activities of the research assistants to ensure high return rate. Hence, all the 167 copies of questionnaire administered were properly filled and retrieved indicating 100% rate of return. The retrieved copies of the questionnaire were collated from the research assistants by the researcher after two weeks of the administration.

Data were analysed using descriptive statistics such as mean and standard deviation for answering the research questions while t-test statistics was used for testing the null at 0.05 level of significance. The cut-off point for answering the research question was obtained as 2.50. Based on the obtained cut-off point value, any item with mean value of 2.50 and above was interpreted as “Agree” while those less than 2.50 were interpreted as “Disagree”. The hypothesis of no significant difference was accepted when the t-calculated (t-cal) value was less than the t-critical (t-tab) value of 1.96 at 0.05 level of significance while hypothesis of no significant difference was rejected when the t-calculated (t-cal) value was greater than the t-critical (t-tab) value of 1.96 at 0.05 level of significance.

RESULTS

Research Question One

What are digitalized instructional technologies for improving skill acquisition of Business Education students?

Table 1: Digitalized Instructional Technologies for Improving Skill Acquisition of Business Education Students.

SN	Digitalized instructional technologies include:	\bar{X}	SD	Rmks
1	Computer assisted instruction (CAI) with or without animation	3.71	0.44	Agreed
2	Use of Skype to share instruction with students	3.70	0.47	“
3	The use of computer programmes and software to complement teaching and learning of Business education	3.46	0.51	“
4	Video conference in teaching and learning	3.60	0.55	“
5	The use of simulation games for teaching and learning experiences.	3.33	0.48	“
6	The use of Zoom meetings for instructional delivery to students.	3.54	0.48	“
7	E-book Reader and Streaming Videos for students' learning	3.65	0.64	“
8	AUTOCAD for teaching and learning in schools.	3.64	0.50	“
9	The use of advanced calculators and dial access system for teaching	3.73	0.45	“
10	YouTube instruction for students learning.	3.46	0.52	“
11	The use of Computer Based Test (CBT) for students' assessment.	3.38	0.48	“
12	Web Based Test (WBT) for students' assessment and evaluation.	3.59	0.52	“
13	Mobile learning technologies such as smart phones, Laptops, Tablet (IPAD).	3.62	0.49	“
14	The use of power point projection for instructional delivery	3.48	0.50	“
Pooled Mean		3.56	0.49	Agreed

Note: \bar{X} = Mean; SD = Standard Deviation; N= No of Respondents; N = 167.



The result in Table 1 shows that the mean values of the respondents on the 14 items ranged from 3.33 to 3.73 which are all greater than the cut-off point value of 2.50 on 4-point rating scale. This implied that the respondents agreed that the identified 14 items are digitalized instructional technologies for improving skill acquisition of Business Education students. The overall pooled mean was 3.56 which is equally greater than 2.50 cut-off point, indicating that the cluster items are rated high by the respondents.

Research Question Two

What are the strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students?

Table 2: Strategic Approaches for Integrating Digitalized Instructional Technologies for Improving Skill Acquisition of Business Education Students.

SN	Strategic approaches for integrating digitalized instructional technologies include:	\bar{X}	SD	Rmks
15	Organization of digitalized instruction conference and workshop for teachers, lecturers and instructors.	3.58	0.72	Agreed
16	Adequate funding of digital instructional technologies for effective teaching and learning.	3.40	0.51	“
17	Recruiting computer and ICT literate Business educators.	3.49	0.50	“
18	Adequate provision of digital instructional facilities for improved usage in schools.	3.56	0.48	“
19	Adoption of digital-based curriculum in-line with global trend.	3.66	0.52	“
20	Improved skill training of Business educators in the use of digitalized instructional technologies for teaching and learning.	3.56	0.52	“
21	Effective monitoring and inspection of digital instructional technologies use in tertiary institutions	3.24	0.74	“
22	Creation of suitable environment in school to digital-based instruction through adequate supply of electricity.	3.68	0.45	“
23	Well equipped laboratories with digital instructional facilities.	3.31	0.52	“
24	Private Public Partnership arrangement for sustainable digitalized instructions in Nigerian tertiary institutions.	3.48	0.57	“
25	Provision of foreign grant and supports for supply of digital instructional facilities to Nigerian tertiary institutions.	3.55	0.47	“
Pooled Mean		3.50	0.54	Agreed

Note: \bar{X} = Mean; SD = Standard Deviation; N= No of Respondents; N = 167.

The result in Table 3 reveals that the mean values of the respondents on the 11 items ranged from 3.24 to 3.68 which are all greater than the cut-off point value of 2.50 on 4-point rating scale. This indicated that the respondents agreed that the identified 11 items are strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students. The overall pooled mean was 3.50 which is equally greater than 2.50 cut-off point, indicating that the cluster items are rated high by the respondents.



Testing of Hypothesis Hypothesis One

There is no significant difference in the mean ratings of Lecturers and Instructors on digitalized instructional technologies for improving skill acquisition of Business Education students?

Table 3: Result of t-test statistics of no significant difference in the mean ratings of Correspondents

Variables	N	\bar{X}	SD	DF	Std. Error	t-cal	t-tab	Level of sig.	Rmks
Lecturers	145	3.69	0.47						
Instructors	19	3.42	0.52	165	0.060	2.13	1.96	0.05	S*

Note: S* = Significant at 0.05.

The data presented on the t-test statistics in Table 3 shows that the t-calculated (t-cal) value of 2.13 was greater than the t-table (t-tab) value of 1.96 at 0.05 level of significance and 164 degree of freedom. This implied that there was significant ($p < 0.05$) difference in the mean ratings of the responses of Business Education lecturers and instructors on digitalized instructional technologies for improving skill acquisition of Business Education students. Consequently, the null hypothesis of no significant ($p < 0.05$) difference in the mean ratings of the responses of lecturers and instructors is rejected on hypothesis one.

Hypothesis Two

There is no significant difference in the mean ratings of Lecturers and Instructors on the strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students?

Table 4: Result of t-test statistics of no significant difference in mean ratings of Correspondents

Variables	N	\bar{X}	SD	DF	Std. Error	t-cal	t-tab	Level of sig.	Rmks
Lecturers	145	3.51	0.50						
Instructors	19	3.49	0.53	165	0.018	0.32	1.96	0.05	NS

Note: NS = Not Significant at 0.05.

The data presented on the t-test statistics in Table 4 reveal that the t-calculated (t-cal) value of 0.32 was less than the t-table (t-tab) value of 1.96 at 0.05 level of significance and 164 degree of freedom. This indicated that there was no significant ($p < 0.05$) difference in the mean ratings of the responses of Business Education lecturers and instructors on the strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students.



Hence, the null hypothesis of no significant ($p < 0.05$) difference in the mean ratings of the responses of lecturers and instructors is accepted on hypothesis two.

Discussion of Findings

This study in respect to research question one identified digitalized instructional technologies for improving skill acquisition of Business Education students to include: computer assisted instruction (CAI) with or without animation, use of Skype to share instruction with students, Video conference in teaching and learning, the use of simulation games for teaching and learning experiences, the use of Zoom meetings for instructional delivery to students, E-book Reader and Streaming Videos for students' learning, the use of advanced calculators and dial access system for teaching, AUTOCAD for teaching and learning in schools, the use of Computer Based Test (CBT) for students' assessment, Web Based Test (WBT) for students' assessment and evaluation and mobile learning technologies such as smart phones, Laptops, Tablet (IPAD) among others. This finding agreed with that of Eka (2022) in a study who identified some digital instructional materials required for Business education programme to include: computers, teleconferencing facilities, overhead projectors, micrographic system and electronic smart board among others. In addition, the findings of this study corroborated that of Nedum-Ogbede (2016) who identified modern technologies to facilitate teaching and learning to include: projectors, E-mail, Smart boards, Mimeo boards, Teleconferencing, Video Conferencing, E-book Reader and Streaming Videos. Ezenwafor (2012) equally found that digital instructional technologies in education include the use of broadcast materials, CD-ROM for information collection and storage, micro-computers, internet browsing using search engines, windows, messenger, yahoo, slide projector and multi-media projector, the use of different computer software applications such as word processors, spreadsheets, power point, desktop publisher, graphics, etc.

This study on research question two identified strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students to include: organization of digitalized instruction conference and workshop for teachers, lecturers and instructors, adequate funding of digital instructional technologies for effective teaching and learning, recruiting computer and ICT literate Business educators, adequate provision of digital instructional facilities for improved usage in schools, adoption of digital-based curriculum in-line with global trend, effective monitoring and inspection of digital instructional technologies use in tertiary institutions, well equipped laboratories with digital instructional facilities and creation of suitable environment in school to digital-based instruction through adequate supply of electricity among others. Nicole(2022) identified ways for intensified digital instruction to include making digital instruction a priority in schools, frequent conduct of teachers' check through digital skill training and provision of digital facilities and software tools for effective instructional delivery. The finding of this study supported that of Tarus, Gichoya and Muumbo (2015) who found that the expansion of ICT e-learning infrastructure to facilitate the access to e-learning by students, provision of stable power supply, government and institutional funding for ICTs and training of teaching staff and other stakeholders, prioritization of ICT and modern facilities as some of the measures for integrating the use of modern technologies in teaching and learning.

Conclusion

There is great shift towards digital instruction most especially among the developed nations of the world; hence Nigeria and other developing African countries must not be left behind. Digitalized instruction in most parts of the world has proved efficacious in learners' skill acquisition and academic performance. This study examined strategic ways for integrating digital instruction into the programme of Business Education for improved skill acquisition of students at tertiary education level. From the findings of the study, organization of digitalized instruction conference and workshops, adequate funding, provision of digital instructional facilities and adoption of digital-based curriculum are strategic measures for integrating digitalized instruction for improved skill acquisition of students. The study



concluded that the adoption of identified strategic approaches will help in perfect integration of digitalized instruction into Nigerian school programme.

Recommendations

From the findings and conclusion, the study recommended:

- i. Frequent organization of digitalized instruction conferences and workshops where the Business Education teachers, lecturers and instructors will constitute the key participants for effective learning of strategic approaches for integrating digitalized instructional technologies for improving skills acquisition of Business Education students.
- ii. Improved skill training and retraining of Business educators in the use of digitalized instructional technologies for teaching and learning in Nigerian schools and colleges

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