



UTILISATION OF DIGITAL SKILLS FOR TEACHING AND LEARNING OF BUSINESS EDUCATION IN PUBLIC UNIVERSITIES IN THE SOUTH-SOUTH, NIGERIA

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Abstract

The study assessed the extent digital skills are utilized by business education lecturers for effective teaching and learning in public universities in South-South, Nigeria. It adopts the descriptive survey design. Three research questions and three hypotheses guided the study. Population consisted of 170 Business Educators in public universities in South-South, Nigeria. No sample was used because the population is not large. The instrument was validated by experts in business education and measurement and evaluation from Michael Okpara University of Agriculture, Umudike. Cronbach alpha was used to ascertain the reliability of the instrument with coefficient of 0.72. A four-point response type of Very High Extent, High Extent, Low Extent and Very Low extent with 23 items were used. Mean and standard deviation were used to answer the research questions while t-test was used to test the hypotheses. Findings of the study revealed that there is high extent use of mobile phone and internet and low extent use of smart board in teaching and learning of Business Education. The findings further showed no significant difference in the mean ratings of male and female business educators on extent mobile phones, internet and smart boards are utilized in teaching and learning of Business Education in public universities in South-South, Nigeria. It was concluded that Digital skills have positive usefulness in teaching and learning of Business Education. However, level of digital skills adoption for teaching in some universities are low, not all school adopts the use of smart boards and mobile phones in teaching and learning. It was recommended among others that Business Education lecturers should adopt new methods of instruction delivery and presentations in our tertiary institutions to embrace the advancement in technology.

Keywords: Digital Skills, Teaching, Learning, Business Education, Universities.



Introduction

The global technological innovations in the business world have brought about radical change in the educational system and instructional delivery. Technology is now a new tool that sharpens the global economy and equips individuals with long life learning. Every facet of human endeavour be it in the areas of healthcare delivery, business practices, social interaction, politics, information system, knowledge dissemination, education and others is now revolutionalized with digital technology. The traditional pedagogical practices of training in educational institutions are gradually paving way for new technological system of teaching. In line with the above view, Makinde, Makinde, and Shorunke (2013) argued that the role of technology in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education policy. According to authors, most experts in the field of education agreed that, when properly used, ICT holds great promise to improve education through teaching and learning in addition to shaping workforce opportunities. In the same vein, Sarah (2017), reiterated that digital world has penetrated the education and skills domain, where technology is employed to deliver education, knowledge and skills in new and innovative ways. This has led to changes to the mode and pattern of work, which are themselves affected by policies and economic uncertainty.

Digital skills entail knowledge of the use of digital technologies for communication, collaboration and professional development, to enhance learners' active engagement. Digital technologies in teaching and learning include sourcing, creating and sharing digital resources, enhancing assessment by enabling learners to use digital technologies creatively and responsibly for information, communication, content creation, well-being and problem solving. It is the ability of individuals and groups to grasp and utilize digital technology for meaningful activities in real-life situations. Kirikoi (2015) defined digital skills as the technologies that help us record, store, process, retrieve, transfer, and disseminate recorded information. Such device could be computer system, communication device, telecommunication, telephone, satellites, telex, facsimile, internet, email, fax, video text and document delivery, electronic copiers, radio, television, among others. Harper (2016) added that these systems link schools, homes, business, students, hospitals and facilitate teaching and studying.

According to Abubakar, (2016), the role of digital skill cannot be overemphasized. Digital skills enable learners and educators to have access to a multitude of additional online educational content as well as being able to create, provide knowledge of a range of digital tools and services (apps, games, websites, etc.) which allow educators to offer a number of approaches to learning and learners can choose the approach that best suits them. Digital skills not only enable educators to offer learners the opportunity to collaborate online with others from across the world in addition to their peers within their school or early years setting. They also assist educators to deliver learning in a digital context using digital tools and services. This better aligns with learners' experience of today's digital world (Barun, 2014). Moreso, they enable educators to provide learners with access to a range of digital resources which allow 'anytime/anywhere learning' and build a level of digital skills which will be vital in today's digital world, reduce workload by using appropriate digital assessments that provide instant results and personalized feedback. With digital skills, online digital networks educators can share resources and digital tools and services expedite lesson planning.

Digital skills through learning tools and technology enable students to develop effective self-directed learning skills. In the opinion of Odu (2017), they are able to identify what they need to learn, find and use online resources, apply the information on the problem at hand, and even evaluate resultant feedback. This increases their efficiency and productivity. In addition to engaging students, digital learning tools and technology sharpen critical thinking skills, which are the basis for the development of analytic reasoning. Digital skills through digital learning tools



create bond among educators and students. They do not only allow students to access more and more information but also ensure that the information in question is customizable and suited to their personal needs. The opportunity to help every student learn at the best pace and path for them is the most important benefit of digital learning (Harper, 2016). By embracing digital devices and connected learning, classrooms around the country and around the globe can not only coordinate with one another to share insights but also boost learning, experience, and communications skills (Ademola, Brume-Ezewu, Nwobu and Nweke, 2018). The use of digital learning tools and technology has enabled business educators to rapidly share information with other educators in real-time.

Business education, being dynamic and a programme for sustainable development should adapt to changes in technology and in the business world. Business Education is a course designed to equip individuals with the necessary skills and theoretical knowledge needed to perform in business world either for job occupations or self-employment. Business Education is one of the vocational programmes studied in universities in Nigeria. Emeasoba and Muo (2018) view Business Education as a tripartite program of instruction which prepares the recipient or the learner with skills, competencies, knowledge, attitudes and values to be a Business Education teacher, an office worker or to be an entrepreneur. University lecturers are the backbone of educational institutions, contributing significantly to the achievement of institutional objectives. With the advent of ICT, university lecturers now have a range of teaching alternatives. They must be ready to pass on vital skills, values, and information to students.

In this era of digitalization, lecturers must brace up to be digitally competent in order to meet up with the global standard (Ubong, 2019). To accomplish this, a shift from traditional teaching, learning, and research methods to a more digital approach is necessary, which involves the use of technology and digital skills in teaching and learning. The importance of highlighting the use and significance of digital skills in every learning and teaching context cannot be overstated. In order for learning to take place, the instructor must use specific digital skills that will allow him to properly educate his students.

Similarly, Ukwungwu and Oyedepo (2012) posit that students through the use of computers, internet, smart boards among others can acquire communication, creative, coordinating, calculating, commercial, concentration and cognitive skills. These skills once developed by students would lead to the improvement of their status in life, development of the nation's economy, creation of self-employment, and proper utilization of human and material resources. They also added that Internet enhances educational processes whereby teachers can handle large classes conveniently using computer-aided gadgets; aids skill acquisition and enhances problem-solving skills; makes the evaluation of students' works a lot easier; creates room for individualized instruction for different learning styles, and collaborations with peers and colleagues globally. It introduces easier ways of searching for research/ study materials at anytime and anywhere. Barun (2014) also reported that having the internet in classrooms can also help teachers avoid communication mishaps. When messages and information are shared digitally, misplaced notes and lost assignment sheets become a thing of the past. The internet can also improve class community by facilitating communication outside of the classroom. Class websites or blogs can give students the ability to download assignments and materials, talk with other students, and share their work globally.

Mobile phones on the other hand are efficient communication devices and make life easier. Udoh (2015) reiterated the role of mobile phones in education as follows: improving access to education; promoting new learning and alternative counselling processes, sustaining continuous learning and counselling. It increases access for those who are mobile or cannot physically attend learning institutions. Mobile learning makes education more accessible in that it enables learners to pursue their studies according to their own capacities in terms of chance



(time), cost, mobility. Mobile Learning can also increase access in those situations where cost represents a significant barrier to learning. For those in rural or remote areas where environmental and infrastructure challenges hinder other learning modalities, it presents great opportunities. The ubiquity of mobile phones means that educational services can be delivered with learners' existing resources and know-how. Furthermore, Darko-Adjei (2019) said that the reliance of mobile phones is quite evident and the usage of mobile phones among youths and students is rapidly growing. The physical boundaries on the classroom and time for learning no longer prevail because the content is ubiquitous (can be accessed from anywhere), students can communicate with teachers, other students and anyone else to satisfy their needs for knowledge using the new generation of mobile devices-digital media players (including iPad and iPad touches), mobile phones (including iPhone, android phones, and windows phones), personal digital assistants (PDAs), and table computers (including iPads).

According to Ukwueze and Onyia (2014), a smart board is an interactive projection display that allows teachers to include a variety of learning resources, such as web pages, images, and videos, into a teaching lesson. The smart board has an electronic pencil and eraser for writing on the screen, making it ideal for classroom use, PowerPoint presentations, and games. In the same vein, Chan, Churchill and Chiu, (2017) stated that smart boards make differentiated learning much easier because teachers are able to accommodate different learning styles. Visual learners are able to observe the whiteboard, while tactile learners can learn by touching the board. The touch screen option allows teachers to run programs with the tap of their finger. This makes it not only easy to navigate for the teacher but for the students as well. In addition to that, a student's learning experience is enhanced by technology because of its ability for students to view diagrams, charts, videos, and more right on the huge screen in front of them. Their learning comes to life, and many students find it more fun to learn than ever before.

Effective teaching and learning can take place in our universities when a student is properly guided by the lecturer by way of employing various methods and means through which his teaching could be meaningful. Business Education is a discipline taught in Nigerian Universities to empower students with skills, competencies, knowledge, values among others to compete favourably with global world of work upon graduation. Therefore, there is need for business education lecturers comprising of both male and female business educators to employ the use of digital skills in teaching and learning activities. However, one of the reasons why students in our universities sometimes find it difficult to comprehend immediately what is being taught by the lecturers is because of the complexity of the subject taught, and the inability of the instructor to employ suitable skills that can easily convey the message of the lesson to the learners. The study therefore, deems it necessary to determine the extent digital skills are utilized for effective teaching and learning of Business Education in Universities in South-South Nigeria.

Statement of the Problem

Digital skills enhance educational processes by allowing teachers to manage large classes easily with the help of computer-assisted devices; aid skill acquisition and problem-solving skills; greatly simplifies grading students' work; and allow for individualized instruction for different learning styles, as well as global collaborations with peers and colleagues. One of the major concerns of educators in this digital age has been how to make teaching and learning more effective and efficient and with the rapid advancement of technology and its inclusion into education.

Employing digital skills in teaching and learning has been a driver of change in the educational sector, changing the sector in developed nations from basic classroom teaching to virtual learning. However, in poor countries such as Nigeria, the use of digital skills in the teaching and learning process is still in its early stages, with education lecturers having little or no



digital literacy skills (Abubakar, 2016). This is because Nigeria's university education system is mostly focused on traditional pedagogical learning, which places a larger premium on the physical learning environment.

According to a report by the Data Centre of United Nations Educational, Scientific and Cultural Organization (UNESCO, 2018) Institute for Statistics, of all the 189 countries, Nigeria is among four nations with the highest number of overcrowded classrooms and the less with adequate ICT teaching/learning equipment in its tertiary institution. Furthermore, the COVID-19 outbreak has emphasized the need of appropriately adopting digital learning. Additionally, the declining educational condition, as well as the growing number of technologically inexperienced students graduating each year, have proven the detrimental impact of not completely integrating digital skills in teaching and learning on the university's overall educational progress. In light of this, the purpose of the study is to ascertain the extent of use of digital skills in teaching and learning of Business Education at universities, in South-South, Nigeria.

Research questions.

The following research questions were formulated;

1. To what extent is mobile phone utilized for teaching and learning of Business Education in Public Universities South-South, Nigeria?
2. To what extent is smart board utilized for teaching and learning of Business Education in Public Universities South -South, Nigeria?
3. To what extent is internet utilized for teaching and learning of Business Education in Public Universities South -South, Nigeria?

Hypotheses

The following hypotheses were formulated and will be tested at (0.05) level of significance.

- Ho₁: There is no significant difference in the mean ratings of male and female business educators on the extent mobile phone is utilized in the teaching and learning of Business Education courses in public universities in the South- South, Nigeria.
- Ho₂: There is no significant difference in the mean ratings of male and female business educators on the extent smart board is utilized in the teaching and learning of Business Education courses in public universities in the South -South, Nigeria.
- Ho₃: There is no significant difference in the mean ratings of male and female business educators on the extent internet is utilized in the teaching and learning of Business Education courses in public universities in the South-South, Nigeria.

Method

The descriptive survey research design was used in this study. The population of the study was all 170 (52 male and 118 female) business education lecturers in all public universities in South-South, Nigeria. No sample was used because the population is not large. A four- point rating scale questionnaire titled: Utilization of Digital skills Questionnaire (UDSQ) containing 23 items in three sections with Very High Extent (VHE), High Extent (HE) Low Extent (LE) Very Low Extent (D) was used for data collection. The instrument was validated by experts in business education and measurement and evaluation from Michael Okpara University of Agriculture, Umudike. A reliability coefficient value of 0.72 was obtained using cronbach alpha correlation coefficient. Data were collected by researchers with the help of five research assistants. Mean was used to answer the research questions and standard deviation to determine the homogeneity of the respondents' ratings. The decision was based on the cluster mean score in relation to the boundary mean score of 2.50. A cluster with mean score equal to or above 2.50



was high extent while the one with mean score less than 2.50 was low extent. t-test was used to test the hypotheses at 0.05 level of significance. The null hypothesis was not rejected where the calculated value is less than the significant level of 0.05 and rejected if the calculated value is equal to or greater than the significant level of 0.05.

Results

Research Question 1: To what extent is mobile phone utilized for teaching and learning of Business Education in Public Universities in South-South, Nigeria?

Table 1: Respondents' mean ratings on the extent of utilization of mobile phone for teaching and learning of Business Education.

S/N	ITEMS	Mean	SD	Remarks
1	Business educators use mobile phones to schedule lecture activities with reminder and demonstrate subject matter.	2.28	1.51	LE
2	Business Educators use mobile phones to make teaching of Business Education to be more meaningful, motivating and interesting.	2.36	1.54	LE
3	Business Educators store and share lecture materials using mobile phones.	2.56	1.60	HE
4	Mobile phones are used to facilitate presentation of visual information to the students in Business Education	2.75	1.66	HE
5.	Business educators use mobile phones in online discussion with students.	2.46	1.57	LE
6	Mobile Phone is used to link to the internet and find information from reputable sources that can be used in teaching Business Education	3.34	1.83	HE
7.	Business Educators used mobile phones to post assignments and due dates, which helps students stay connected.	3.34	1.83	HE
	Cluster Mean	2.72	1.65	HE

Table 1 shows that items 3, 4, 6 and 7 out of 7 mobile phone skills have mean scores above the cut off mean of 2.50. This means that the respondents admitted that the use of mobile phones in teaching of business education in order to motivate student's interest in learning, present visual information and link to the internet is at a great extent. While the mean score of item 1, 2, and 5 respectively were less than 2.5. This implies that respondents admitted that the use of mobile phone to stimulate students, develop subject matter and to make learning more meaningful is at a low extent for teaching business education in public universities South-South, Nigeria. However, the cluster mean score of 2.72 shows that the respondents agreed that Business Education lecturers utilize mobile phones in teaching and learning to a high extent. The



standard deviation scores for all the items are within the same range showing that the respondents are homogeneous in their ratings.

Research Question 2: To what extent is smart board utilized for teaching and learning of Business Education in Public Universities in South -South, Nigeria?

Table 2: Respondents' mean ratings on the extent of utilization of smart board for teaching and learning of Business Education.

S/N	ITEMS	Mean	SD	Remarks
8	Business Educator use smart board to motivate students interest in learning of business Education	2.58	1.61	HE
9	The smart boards are used to store notes and images in computer or memory storage device	2.31	1.52	LE
10	Presentation of topics using smart board creates an interactive and engaging class	2.28	1.51	LE
11	The use of smart board in teaching business education aids students to have a good understanding.	2.31	1.52	LE
12	Use of Smart board animation, images, and visual illustrate concepts clearer and better.	2.49	1.58	LE
13	The use of smart board creates productive learning among students.	2.72	1.65	HE
14	Business Educator use smart board in their teaching techniques.	2.12	1.46	LE
15	Business Educator use smart board to access knowledgeable databases that can help them reinforce their lessons	2.43	1.56	LE
16	Every Business Educator/student with his computer can interact with the smart board.	2.12	1.46	LE
Cluster Mean		2.42	1.56	LE

Table 2 shows that the mean scores of item 8 and 13 were respectively greater than 2.5. This translates that the respondents admitted that the use of smart board in teaching of Business Education in order to stimulate student's interest and create productive learning is of high extent. While the mean scores of item 9, 10, 11, 12, 14, 15 and 16 were respectively less than 2.5. This implies that respondents admitted that the use of smart board to create an interactive and engaging class, aid students to have a good understanding, illustrate concepts clearer and better and access knowledgeable databases is at a low extent for teaching Business Education. However, the cluster mean score of 2.42 shows that the respondents agreed that Business



Education lecturers utilize smart board in teaching and learning to a low extent. The standard deviation scores for all the items are within the same range showing that the respondents are homogeneous in their ratings.

Research Question 3: To what extent is internet utilized for teaching and learning of Business Education in Public Universities in South -South, Nigeria?

Table 3: Respondents' mean ratings on the extent of utilization of internet for teaching and learning of Business Education.

S/N	ITEMS	Mean	SD	Remarks
17	Business educators use internet to demonstrate various historical events in Business Education	2.79	1.67	HE
18	The use of internet aid Business Educators manage time more efficiently.	2.63	1.62	HE
19	Business Educator use internet to give students opportunities to learn by doing.	2.92	1.71	HE
20	The Business Educators use the internet to overcome the learning barriers	2.82	1.68	HE
21	The use of internet improves students level of understanding and learning behavior	3.13	1.77	HE
22	Business Educators use internet to motivate students to think critically about the subject taught	2.82	1.68	HE
23	Business Educator uses the internet to make animation, PowerPoint slides, and images to capture the students' attention.	3.11	1.76	HE
	Cluster Mean	2.89	1.70	HE

Table 3 shows that the mean scores of all the items are greater than 2.5 mean score. This applied that the respondents admitted that the use of internet in teaching of Business Education in order to demonstrate various historical events in Business Education, manage time more efficiently, give students opportunities to learn by doing, overcome the learning barriers, improve students level of understanding, motivate students to think critically and make animation, PowerPoint slides, and images are at a great extent. However, the cluster mean score of 2.89 shows that the respondents agreed that Business Education lecturers utilize internet in teaching and learning to a high extent. The standard deviation scores for all the items are within the same range showing that the respondents are homogeneous in their ratings.

Test of Hypotheses



Ho₁: There is no significant difference in the mean ratings of male and female business educators on the extent mobile phone is utilized in the teaching and learning of Business Education courses in public universities in the South -South, Nigeria.

Table 4: t-test analysis of the difference between the mean ratings of male and female business educators on the extent mobile phone is utilized.

Groups	Number	Mean	S.D	D.F	T.Cal	T.tab	Level of Sig.	Decision
Male	52	2.62	0.71	168	1.41	1.96	0.05	Not significant
Female	118	2.73	0.82					

The t-test analysis presented in Table 4 revealed that the t-calculated (t-cal) value of 1.41 is less than the t-table (t-tab) value of 1.96 at $P \leq 0.05$ levels of significance and at 168 degree of freedom (df). This showed that, there is no significant difference between the mean ratings of male and female business educators on the extent mobile phone is utilized in the teaching and learning of Business Education in public universities in the South-South, Nigeria. Therefore, the null hypothesis of no significant difference is accepted.

Ho₂: There is no significant difference in the mean ratings of male and female business educators on the extent smart board is utilized in the teaching and learning of Business Education courses in public universities in the South -South, Nigeria.

Table 5: t-test analysis of the difference between the mean ratings of male and female business educators on the extent smart board is utilized.

Groups	Number	Mean	S.D	D.F	T.Cal	T.tab	Level of Sig.	Decision
Male	52	2.49	0.86	168	1.10	1.96	0.05	Not Significant
Female	118	2.42	0.87					

The t-test analysis presented in Table 5 revealed that the t-calculated (t-cal) value of 1.10 is less than the t-table (t-tab) value of 1.96 at $P \leq 0.05$ levels of significance and at 168 degree of freedom (df). This showed that, there is no significant difference between the mean ratings of male and female business educators on the extent smart board is utilized in the teaching and learning of Business Education in public universities in the South-South, Nigeria. Therefore, the null hypothesis of no significant difference is accepted.

Ho₃: There is no significant difference in the mean ratings of male and female business educators on the extent internet is utilized in the teaching and learning of Business Education courses in public universities in the South-South, Nigeria.

Table 6: t-test analysis of the difference between the mean ratings of male and female business educators on the extent internet.



Groups	Number	Mean	S.D	D.F	T.Cal	T.tab	Level of Sig.	Decision
Male	52	3.03	0.73	168	0.22	1.96	0.05	Not Significant
Female	118	2.96	0.62					

The t-test analysis presented in Table 6 revealed that the t-calculated (t-cal) value of 0.22 is less than the t-table (t-tab) value of 1.96 at $P \leq 0.05$ levels of significance and at 168 degree of freedom (df). This showed that, there is no significant difference between the mean ratings of male and female business educators on the extent internet is utilized in the teaching and learning of Business Education in public universities in the South-South, Nigeria. Therefore, the null hypothesis of no significant difference is accepted.

Findings

The findings of research question one showed that the respondents admitted that the use of mobile phones in teaching of business education in public universities in South-South, Nigeria is to a high extent. However, the hypothesis one test results indicate that there is no significant difference in the mean ratings of male and female business educators on the extent mobile phone is utilized in the teaching and learning of Business Education courses in public universities in the South-South, Nigeria. The finding of this study is in agreement to the study of Msunju (2012) who found that the high use of mobile phones for teaching and learning was because it enables you to carry your files around wherever you go, ensuring that you are always with important documents. Darko-Adjei (2019) also in his findings noted the positive usefulness of the use of smart phone in the students learning activities such as easy sharing and accessing of lecture materials online, easy communication among others. However, this finding disagrees with that of Amhag, (2016), Amhag, (2017), Anshari and Alas (2015), who found that use of mobile phone in teaching and learning is not conducive to recall and retention of material.

The findings of research question two showed that the use of smart board in teaching of Business Education in public universities in South-South, Nigeria is to a low extent. There is also no significant difference in the mean ratings of male and female business educators on the extent smart board is utilized in the teaching and learning of Business Education courses in public universities in the South-South, Nigeria. These finding further reveals the level of technological adoption for teaching in our universities as not all school adopts the use of smart board in their teaching and learning aligning with the work of Ukwueze and Onyia (2014) who found that there is low use of smart board in our universities.

The findings of research question three showed that the use of internet in teaching of Business Education in public universities in South-South, Nigeria is to a high extent. Also, that there is no significant difference in the mean ratings of male and female business educators on the extent internet is utilized in the teaching and learning of Business Education courses in public universities in the South-South, Nigeria. This finding confirms the important role the internet plays in teaching and learning as it facilitates easy and quick access to needed information. This findings conforms with the work of Apuke and Iyendo (2018) who found that because the use of internet enables both teachers and students to perform research ahead of time, tackle multiple home-works, widen the scope of reading and learning its use in teaching and learning is at high extent.

Conclusion



From the findings, level of digital skills adoption for teaching in some universities is very low since some universities do not adopt the use of smart boards and mobile phones in their teaching and learning process. It was concluded that effectiveness of digital skills in teaching and learning business education in public universities was positive. In the education system, digitalization helps business education lecturers to develop their digital skills, as well as to develop the skills necessary for students to function in the digital world. Digital skills promote the future of Business Education in Nigerian universities and favourable competition of its recipients in the global world.

Recommendations

In view of the afore-mentioned result of this study, the following recommendations are made:

1. Business Education lecturers should use mobile phones in instructional delivery to make teaching more meaningful, motivating and interesting to students.
2. Government and school administrators should train business educators on the use of smart board in teaching to create productive learning among students and supervise their conformity in usage.
3. Government and school administrators should provide internet facilities in public universities to enable Business Education lecturers and students use them to their full potential and advance in knowledge.

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