EXTENT OF ADOPTION AND UTILIZATION OF DIGITAL SKILLS FOR QUALITY OFFICE AND BUSINESS EDUCATION IN EDO AND DELTA STATES

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Abstract

This study assessed the extent of adoption and utilization of digital skills for quality Office and Business Education in Edo and Delta States. Four research questions and one hypothesis guided the study. Descriptive survey design was employed in the study. One hundred and ninety-six Office and Business educators formed the sample. The instrument was validated by three experts in the field of Office and Business Education. The reliability of the instrument was determined using the test-retest method. 15 copies of the instrument were administered to Office and Business educators twice at a two week interval. The data obtained were analyzed using Pearson Product Moment Correlation Method and a reliability coefficient of 0.82 was obtained. The data for the study was analyzed using Mean, Standard Deviation and t-test. The findings revealed that Office and Business educators in tertiary institutions in Edo and Delta States adopt and utilize digital skills such as e-business skills, software skills and online teaching skills to a very low extent. These educators only adopt and utilize word processing skills to a high extent. Based on these findings, it was recommended that since the employment of digital teaching and learning environments now form essential feature in instructional delivery for tertiary education, Office and Business Educators should urgently seek for ways to acquire and upgrade their digital skills for proper adoption and utilization in the course of lecture delivery. Again, the government and authorities of tertiary institutions should urgently address the issues of shortage of digital facilities and power supply which are needed by educators for excellent service delivery among others.

Key words: Adoption, Utilization, Digitalization, Office and Business Education

Introduction

In this era of information and communication technology, the innovation that has brought so much improvement in the quality of education worldwide is digitalization. Digitalization of education has made education not only affordable but it has also made education more interesting, interactive and inclusive. Digitization in education is the process of turning traditional methods of teaching such as paper document, white board, hard textbooks, sounds and more to a digital format that can be understood by pupils or students toward the achievement of educational goals and objectives (Falasteen, 2018) through the use of information and communication technologies. According to Langthaler and Homa (2020), digital innovations shift teaching and learning from teacher to learner-centred practices thereby fostering creativity and problem-solving skills.

Using digital technology allows teaching and learning to become more interesting, effective, and efficient as technology can automate repetitive tasks for the learners' understanding and also speed up common processes like computation of results (Kehinde in Akpan & Homevor, 2023). Again, digitalization in education allows students to access more sophisticated and broad fields of study in order to improve their analytical skills and also improve educators' performance. According to Langthaler and Homa (2020), digital tools have been introduced both as mediums of learning (digital devices such as computers and tablets) and as part of the curriculum (from

digital user skills, to programming, coding and highly specialized digital skills). Digital skills can also be said to be set of skills needed to use networks, digital devices and different applications on online mediums that facilitate the management of information according to specific requirements of working environment, learning environment, and problems solving situations (Olaniyi, 2022).

The basic digital skills needed in a day-to-day professional or personal contexts including teaching were defined by Akpan and Homevor (2023) as digital foundation skills, communication, handling information and contents, transacting, and problem-solving and electronic marketing skills. Digital skills that Office and Business Educators need are conceptualized in this paper to include among others e-business skills, software skills, word processing skills and on-line teaching skills to be able to equip students with saleable skills needed for successful transition to the world of work. These digital skills if properly acquired are needed to help Office and Business Educators improve teaching method, deliver new ideas, engage students in more collaborative learning and initiatives which may help to prepare business education students to fit into the global world of work.

E-business skills are a specific subsets of computer skills needed to be enable the successful development and management of business contents. For Office and Business educators, e-business skills practically involves using digital tools to teach students how to transact businesses such as e-marketing, e-advertising, e-payment among others. Apart from e-business skills, an Office and Business Educator also needs adequate software skills. Software skills which are of high value to the educators according to Trucano in Akpan and Homevor (2023) are communication tools, social media, spreadsheets, word processing and desktop publishing tools, presentation tools, databases management and graphic design skills. Again, Cruz (2020) in Akpan and Homevor (2023) stated that there are many areas of software skills for instruction in Office and Business Education including operating systems such as windows, office suites, presentation systems, spreadsheets, accounting, typing speed, word processors, and databases management. These software skills are very important for instruction in Office and Business education because technology has taken over modern workplace. It is, therefore, imperative that Office and Business Educators train their students with the technologies that they are likely to meet in the world of work.

A word processor as the name implies deals with word documents. Some examples of word processing programmes include Microsoft Word, WordPerfect (in Windows only), AppleWorks (Mac only), and OpenOffice.org (Aladwan, 2021). Word processing skills include ability to create word documents, sort documents, format and set page layout, set document margins and print amongst others. Excellent word processing skills are needed by Business Educators to prepare lecture and examination materials, prepare students results and office correspondences amongst others.

Online teaching skills is the teaching in which the teacher uses electronic media, modern technologies such as computers, and the internet to deliver educational contents to students through increasing communication and interaction between teachers and students, and between the learner and educational contents in an interactive way that benefit students' use, enhance the level of performance and improve the quality of teaching (Al-Atribi in Al-Kayed, 2020). Some of the learning activities that an Office or a Business Educator can carry out digitally may include development/management of instructional websites, use of open source software for instruction, use of artificial intelligence in teaching, use of local intranet/extranet among others. Effective application of these digital skills without doubt has pedagogical and socio-economic benefits to both educators, students and the economy at large. In fact, ICTs employed in online

teaching environments now forms an integral and an essential feature in the instructional delivery for education and training across the globe (Lawn, Zhi & Morello, 2017).

Application of digital skills has been recorded to have numerous pedagogical and socio-economic benefits Al-Kayed (2020), Al Rawashdeh, Mohammed, Al Arab, Alara & Al Rawashdeh, 2021), To this end, the Nigerian tertiary institutions programmes including Office and Business Education have been on the vanguard of adopting and utilizing digital skills in the delivery of course contents and knowledge (Ojeaga & Ainetor, 2022). The government at various levels have in recent times placed much emphasis on application of digital skills in teaching and learning. However, it is important to note that there are so many secondary variables such as availability, accessibility and gender bias that may influence the adoption and utilization of digital skills by Office and Business Educators. Gender issues have been linked with adoption, utilization, versatility level of lecturers in digital teaching. The results of a study by Zhou and Xu (2007) showed that females had lower confidence and less experience in the use of computers and digital skill sets in learning than males. According to Zhou and Xu, females tended to learn how to use technology from others, whereas males were more likely to learn from their own experience. However, the result of the study by Ganiyu (2019) on versatility levels in e-learning among colleges of education lecturers in souths-west Nigeria showed that there is no significant difference between male and female colleges of education lecturers on e-learning versatility level.

Tertiary institutions are those learning organizations beyond secondary schools such as universities, polytechnics or colleges of education (Sanusi in Ojeaga, 2018). Office and Business Education on the other hand are specialized course programmes in Vocational Education with subjects such as book keeping, keyboarding, marketing, accounting, office education, office management, store-keeping, co-operative education and desktop publishing/word processing amongst others. Office and Business Education are academic programmes designed to prepare students to enter into gainful teaching employment, office occupation or business opportunities upon graduation. The achievement of these goals in this era of information and communication technology will to a very high extent depend on the extent of acceptance, adoption and utilization of digital skills by the educators. Nigeria, as a nation, has recognized the potentials of information and communication technology and digital technologies in the school system (Yusuf, 2005). This is evidenced in the educational reform policies aimed at integrating the use of ICT, particularly the computer, in the Nigerian school system. Integration of digital learning technologies with conventional teaching methodologies though being considered a veritable tool to ameliorate the challenges of traditional teaching in Office and Business Education, the issue of how to select, adopt and effectively utilize digital skills in business education programme for flexibility and self-learning has continued to pose a big challenge (Ojeaga, 2011). This is so because effective digitalization of learning contents require a new pedagogical practices and skills for the educators.

This study, therefore, seeks to assess the extent of adoption and utilization of digitals skills by Business Educators in tertiary institutions in Edo and Delta States, Nigeria.

Purpose of the Study

This study investigated the extent of adoption and utilization of digital technologies and skills by Office and Business Educators in Tertiary Institutions in Edo and Delta States. Specifically, the study investigated:

1. Extent of utilization of e-marketing skills for quality Office and Business Education
2. Extent of utilization of software skills for quality Office and Business Education
3. Extent of utilization of word processing skills for quality Office and Business Education

4. Extent of utilization of E-learning skills for quality Office and Business Education

Research Questions

The following research questions were raised and answered in the course of this study:

1. What is the extent of utilization of e-marketing skills for quality Office and Business Education in Tertiary Institutions in Edo and Delta States?
2. What is the extent of utilization of software skills for quality Office and Business Education in Tertiary Institutions in Edo and Delta States?
3. What is the extent of utilization of word processing for quality Office and Business Education in Tertiary Institutions in Edo and Delta States?
4. What is the extent of utilization of E-learning skills for quality Office and Business Education in Tertiary Institutions in Edo and Delta States?

Hypothesis

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

- No significant difference in the extent of utilization of digital skills for quality Office and Business Education in Tertiary Institutions in Edo and Delta States based on gender.

Research Method

Four research questions and one hypothesis guided the study. Descriptive survey research design was used. The population size of 205 business educators in Edo and Delta States formed the sample. A 4-point rating scale of Very High Extent, High Extent, Low Extent and No Extent weighted 4, 3, 2 and 1 was used. The instrument was validated by three experts in the field of Office and Business Education. The reliability of the instrument was determined using the test-retest method. 15 copies of the instrument were administered twice on Office and Business educators at two weeks interval. The data collected were analyzed using Pearson Product Moment Correlation Method and a reliability coefficient of 0.82 was obtained. Mean values were utilized to analyze the research questions. 2.50 was set as the decision rule for acceptance of a Mean, such that a Mean value on any item equal to or above 2.50 was taken as "Agree" while a mean lower that 2.50 was taken as "Disagree". The null hypothesis was tested at 0.05 level of significance using t-test and it was rejected because the t-calculated was greater than t-critical.

Presentation of Results

Table 1:Population Distribution of Business Educators in Edo State and Delta States by Sex

S/N	Type of Institution	Edo	Percentage %
1	Males	101	51
2	Females	95	49
	Total	196	100

Table 1 showed 101 males representing 51% and females 95 representing 49% making a total of 196 Office and Business Educators in tertiary institutions in Edo and Delta States.

Research Question 1: What is the Extent of Utilization of E-Business Skills for Quality Office and Business Education?

Table 2: Extent of Utilization of E-Business Skills for Quality Business Education

S/N	Extent of utilization of e-business skills	N	Mean	SD	Decision
1	Analyzing Google for market Segmentation	196	2.27	0.99	Low Extent
2	Building on-line presence	196	2.46	1.35	Low Extent
3	Online delivering to customers across wide area	196	2.78	1.00	High Extent
4	On-line product promotion and merchandizing	196	2.93	0.88	High Extent
5	Connect with potential customers through internet apps such as Whatsapp, E-mails, Instagram and Facebook	196	2.46	1.16	Low Extent
6	Online Marketing Contents Development	196	2.32	1.22	Low Extent
7	Making payments and receiving payments Online	196	2.19	0.87	Low Extent
8	Managing Online Orders for goods and services	196	2.12	1.19	Low Extent
9	Advertising products and service Online	196	2.43	1.16	Low Extent
	Aggregate Mean		**2.44**		**Low Extent**

Table 2 revealed an aggregate mean value of 2.44 implying that e-business digital skills are utilized to a low extent for quality Office and Business Education in tertiary institutions in Edo and Delta States. The standard deviation ranged from 0.87 to 1.22 showing that the respondents were not wide apart in their responses.

Research Question 2: What is the Extent of Utilization of Software Skills for Quality Office and Business Education in Tertiary Institutions in Edo and Delta States?

Table 3: Extent of Utilization of Software Skills for Quality Business Education

S/N	Extent of utilization of Software skills	N	Mean	SD	Decision
10	Install e-learning learning digital apps	196	2.64	1.03	High Extent
11	Configure software for information mapping	196	2.15	1.10	Low Extent
12	Create databases for e-learning	196	2.16	1.10	Low Extent
13	Setup web servers for teaching	196	2.19	0.90	Low Extent
14	Create e-learning contents	196	2.17	1.01	Low Extent
15	Create a web page	196	1.87	1.09	Low Extent
16	Login students to e-learning websites	196	2.69	1.04	High Extent
17	Register students for online courses	196	2.52	1.05	High Extent
18	On-line information security	196	2.06	1.11	Low Extent
19	E-learning Contents management	196	2.58	0.99	High Extent
20	Network with other educators/students across wide area	196	3.01	0.83	High Extent
	Aggregate Mean 28.97		**2.36**		**Low Extent**

Table 3 showed an aggregate mean value of 2.36 implying that software skills are utilized to a low extent for quality Office and Business Education in tertiary institutions in Edo and Delta States. The standard deviation ranged from 0.83 to 1.11 showing that the respondents were not wide apart in their responses.

Research Question 3: What is the Extent of Utilization of Word Processing Skills for Quality Office Technology and Business Education in Tertiary Institutions in Edo and Delta States?

Table 4: Extent of Utilization of Word Processing Skills for quality Business Education

S/N	Extent of Utilization of Word Processing Skills	N	Mean	SD	Decision
21	Create word documents using different word processing packages	196	3.23	0.70	High Extent
22	Store information and images in word processing	196	3.18	0.71	High Extent
23	Retrieve documents at later date	196	2.86	0.95	High Extent
24	Effectively use Search Engine for relevant office information	196	3.07	0.95	High Extent
25	Create password to secure computer information	196	2.28	1.16	Low Extent
26	Making presentations using power point	196	2.59	0.93	High Extent
27	Create tables	196	2.78	0.94	High Extent
28	Find meaning of concepts using Thesaurus	196	3.15	0.88	High Extent
	Aggregate Mean 21.96		**2.89**		**High Extent**

Table 4 showed an aggregate mean value of 2.89 indicating that word processing skills are utilized to a high extent for quality Office and Business Education in tertiary institutions in Edo and Delta States. The standard deviation ranged from 0.70 to 1.16 showing that the respondents were not wide apart in their responses.

4. Research Question Four: What is the extent of utilization of Online Teaching Skills for Quality Office and Business Education in Tertiary Institutions in Edo and Delta States?

Table 5: Extent of Utilization of Online Teaching Skills for Quality Teaching

S/N	Extent of utilization of Online Teaching skills	N	Mean	SD	Decision
29	Use Audio and videos streaming to transfer practical skills	196	1.81	0.89	Low Extent
30	Use Virtual Field strips	196	2.40	0.93	Low Extent
31	Use Artificial intelligence (AI)	196	2.34	1.13	Low Extent
32	Use local intranet/extranet	196	2.15	8.88	Low Extent
33	Use satellite TV	196	2.26	0.99	Low Extent
34	Use CD-ROM	196	2.70	1.05	Low Extent
35	Use instructional software packages	196	2.15	1.17	High Extent
36	Establish virtual learning environment	196	2.20	1.18	Low Extent
37	Organize and participate in online discussions	196	2.37	1.12	Low Extent
38	Use open source software for instruction	196	2.47	1.20	Low Extent
	Aggregate Mean		**2.28**		

Table 5 showed an aggregate mean value of 2.48 implying that online teaching skills are utilized to a low extent for quality Office and Business Education in tertiary institutions in Edo and Delta States. The standard deviation ranged from 0.88 to 1.20 showing that the respondents were not wide apart in their responses.

Null Hypothesis Testing: There is no significant difference between the mean responses of male and female respondents on extent of utilization of digital skills for quality teaching.

Table 6: **Summary of t-test Table on Extent of Utilization of Digital Skills based on Sex**

Variable Categories	N	Mean	SD	Df	t-value	p-value	P≥ 0.05
Male	101	2.49	1.30	194	-.95	0.004	Not Significant
Female	95	2.57	1.23				

Testing the null hypothesis at alpha level of 0.05 and at a degree of freedom of 194, the result on Table 6 revealed a t-value of -.95 with a p-value of 0.004. Since the t-value is lesser than the p-value, the null hypothesis of no significant difference on the extent of utilization of digital skills for quality teaching based on sex in Edo and Delta States based on sex was retained.

Discussion of Findings

The result obtained showed that Office and Business Educators in Edo and Delta States utilize digital skills in analyzing google for market segmentation, building on-line presence, connect with potential customers through internet apps such as whatsapp, e-mails, instagram and facebook, online marketing contents development, making payments and receiving payments online, managing online orders for goods and services and advertising products and service online to a very low extent. This findings supports the view of Ojeaga (2011) that though the integration of digital learning technologies with conventional teaching methodologies is being considered a veritable tool to ameliorate the challenges of traditional teaching in Office and Business Education, the issue of how to select, adopt and effectively integrate the contents of e-teaching in business education programme for flexibility and self-learning has continued to pose a big challenge.

Results also revealed utilization of software skills to a low extent. Office and Business Educators in Edo and Delta State utilize digital skills in installing e-teaching apps, creation of databases for e-teaching, setup of web servers for teaching, create e-learning contents, create a web page, login students to e-learning websites, register students for online courses and finding sources of vital office information using search engines amongst others to a low extent. This finding supports the remarks of Dhume, Gondkar, Murgaiah and Subhas (2006) that in spite of the various advantages of digital and e-teaching technologies, the diffusion of e-teaching is rather slow in the developing countries because of lack of information, negative perceptions among teachers and students and non-availability of e-teaching facilities.

Results, however, revealed that word processing skills are utilized to a high extent. Office and Business Educators utilize to a high extent digital word processing skills in creating word documents, storing information and images, retrieving documents at later date, effectively utilizing search engine for relevant office information, making presentations using power point, create tables, find meaning of concepts using thesaurus. Results equally revealed that online teaching skills are utilized to a low extent. Office and Business Educators in Edo and Delta States utilize digital skills in audio and videos streaming to transfer practical skills, use virtual field strips, use artificial intelligence, use local intranet/extranet, use satellite TV, use CD-Rom, establish virtual learning environment, organize and participate in online discussions and use open source software for instruction to a low extent. This findings supports the view of Ojeaga (2011) that though the integration of digital learning technologies with conventional teaching methodologies is being considered a veritable tool to ameliorate the challenges of traditional teaching in office and business education, the issue of how to select, adopt and effectively integrate the contents of e-teaching in business education programme for flexibility and self-learning has continued to pose a big challenge

Null hypothesis testing revealed no significant difference in the adoption and utilization of digital skills for quality Office and Business Education based on sex. This implies that both male and female educators utilize digital skills to a low extent for Office and Business Education. This finding agrees with the findings of Okyere (2020) which points to a gender gap, with males significantly benefitting more from internet access and utilization than females. The result however, negates the findings of the study by Ganiyu (2019) on versatility levels in e-teaching among colleges of education lecturers in souths-west Nigeria which showed that there is no significant difference between male and female colleges of education lecturers on e-teaching versatility level.

Conclusion

This study concluded that adoption and utilization of digital skills for quality Office and Business Education in Edo and Delta States is still very low. E-business skills, software skills and online teaching skills are utilized to a low extent. However, word processing skills is utilized to a high extent for Office and Business Education. It could, therefore, be concluded that business educators are only skilled at using word processing for quality Office and Business Education in tertiary institutions in Edo and Delta States at the neglect of other digital skills. .

Recommendations

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

1. Since employment of digital teaching and learning environments now form integral feature in instructional delivery for tertiary education, Office and Business Educators should urgently seek for ways to acquire these digital skills for quality instructional delivering.
2. Government and school authorities should urgently address the issues of shortage of digital facilities and power supply which are needed by the educators for excellent digital adoption and utilization.
3. There should be regular training exercises for Office and Business Educators on how to efficiently adopt and utilize various digital skills for quality teaching.

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