COMPUTER SKILLS NEED OF BUSINESS EDUCATION LECTURERS FOR INSTRUCTIONAL DELIVERY IN COLLEGES OF EDUCATION IN NORTH-CENTRAL, NIGERIA

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Abstract

This research investigated the computer skills for teaching business education in colleges of education across North Central Nigeria. It uses a descriptive survey approach and involved 182 business education teachers who agreed to take part in the study. The research gathered information through a reliable structured questionnaire with a reliability score of 0.78. The analysis was done with SPSS version 25, focusing on mean scores and standard deviations to answer the research questions. The results showed that proficiency in Microsoft, Excel, PowerPoint, internet, and Corel Draw is crucial for business education teachers to use computers for teaching in the area. The study highlighted the significance of computer skills, especially in Microsoft Office and graphic design software, for business education teachers in North Central Nigeria. These skills are essential for successful teaching in colleges of education. It was suggested that colleges of education in North Central Nigeria should give priority to the training and professional growth of business education teachers in these areas. Ongoing training workshops and resources for skill improvement should be offered to guarantee effective teaching and learning results.

Keywords: Computer Skills, Lecturers, Instructional and Delivery

Introduction

The computer remains a formidable force shaping every facet of human existence and has significantly improved our lives in countless ways. Technological advancements have infiltrated nearly every aspect of our lives, making computers an essential part of our daily routines. A computer is an electronic device that takes in information and data, automatically stores it, and can access it at any moment for useful purposes (Adamu & Abdul 2014). In the realm of education, computers have evolved into tools for teaching fundamental skills and delivering knowledge to students, utilizing various resources such as multimedia projectors and PowerPoint presentations among others (Kajal, 2019). Therefore, integrating computers into the educational sector during the latter half of the 20th century has become the cornerstone of our existence. The significance of computer technology in educational instruction has been recognized by scholars. For instance, Doyle (2020) highlighted that to keep pace with the changing educational landscape and provide teachers and students with the necessary knowledge and skills, technological innovation in instructional delivery is essential. It is undeniable that computers have made significant contributions across various fields. Proficiency in using computer technology for educational purposes is crucial for effective teaching and learning.

Over time, researchers have conducted studies on the essential skills required for the successful implementation of computers in the classroom. Philip and Aksu (2015) noted that for the effective integration of computers in the classroom, teachers must possess a range of computer skills, from basic to advanced, including Microsoft Word, data processing, spreadsheets, Excel, desktop publishing, and Adobe PageMaker for office automation processing. Hafizu, Ismaila, and Adamu (2018) emphasized the importance of teachers' ability to use Microsoft Word, data processing, PowerPoint, and online applications, as well as their knowledge of Microsoft Draw/Graphic software, for effective instructional delivery. Esene (2015) argued that the computer skills and knowledge of business education faculty are crucial for effective teaching and learning. Thus, proficiency in computer technology and its application significantly enhances the quality of teaching and learning.

However, despite the remarkable progress computers have brought to education, research has shown that several obstacles have impeded the widespread use of computer technology in instruction. Specifically, it has been demonstrated that a large number of educators lack proficiency in using computers for teaching purposes. For example, Haizu, Ismail, and Adamu (2018) found that business education faculty in North-Eastern Nigeria require training on the use of technological devices for educational purposes. Similarly, Ikechukwu (2021) pointed out the severe shortage of skilled personnel in areas such as operating systems, network administration, application software, and local technicians for the maintenance and repair of computer infrastructure. According to Nwanyiuzor, Ugonma, Ojinnakaeze, and Amunabo (2022), the majority of teachers in Nigerian schools are not utilizing technology to its full potential in the implementation of curricula. Furthermore, Obiakor and Adeniran (2020) stated that the majority of public tertiary institutions in Nigeria either underutilize or completely disregard technological innovations like computers and smartboards, among other things, as a result of skills shortage.

Researchers have been working to understand the computer needs of teachers to introduce computer-based teaching in various areas and disciplines, including business education. For instance, Hafizu, Ismaila, and Adamu (2017) looked into how proficient business education teachers are with computers for teaching at Nigerian colleges of education. Ibelegbu (2013) explored the computer and communication skills necessary for business studies teachers in junior secondary schools in Adamawa State; Olugbade (2019) examined the current trends in information and communication technology (ICT) and suggested that Nigerian teaching methods need to be updated for the modern era. The studies also recommended conducting similar research in other Nigerian regions. To date, no such research has been conducted in Plateau State. The study aims to explore the computer skill requirements of business education teachers for teaching in North-Central Nigerian educational colleges, which challenges this assumption. Specifically, the study will: - (1) assess the need for Microsoft skills among business education teachers; (2) assess the need for Excel skills among business education teachers; (3) assess the need for PowerPoint skills among business education teachers; (4) assess the need for Internet skills among business education teachers; and (5) assess the need for Corel Draw skills among business education teachers in colleges of education across North Central Nigeria.

Research Questions

The following research questions were raised.

i. What are the Microsoft skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?
ii. What are the excel skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?

iii. What are the power-point skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?
iv. What are the internet skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?
v. What are the Corel draw skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?

Research Methodology

This research employed a descriptive survey methodology. Creswell (2014) describes a descriptive survey as a method where a select group of individuals or objects, believed to represent the entire population, is utilized to collect and assess data. This data is gathered through various techniques such as questionnaires, interviews, checklists, and observations, among others. The objective is to understand the opinions, attitudes, beliefs, behaviors, and characteristics of the entire group. The decision to use a questionnaire to explore the competency needs of lecturers in business education was deemed appropriate.

A total of 182 business education lecturers from 12 public colleges of education in North-Central Nigeria constituted the study's sample. All 182 lecturers were included in the analysis. Crossman (2018) suggests that a researcher might choose to include the entire population if it shares one or more common traits, which was the case for this study. The Business Education Computer Skills Needs for Instructional Delivery (BECSNID) structured questionnaire was selected as the data collection tool for this study. The questionnaire was adapted from elements in Ibelegbu's (2013) study, which focused on the Information and Communication Skills Required by Business Studies Lecturers in Junior Secondary Schools in Adamawa State. The 2018 study by Hafizu, Ismaila, and Adamu titled "Assessment of Computer Proficiency of Business Education Lecturers for Instructional Delivery in Nigerian Education Colleges" also served as a reference. This questionnaire consisted of 50 items and utilized a 5-point Likert scale, ranging from Very Highly Needed (VHN) to Not Needed (NN), with five points for each category.

To ensure the questionnaire's validity, three experts in business education were briefed on the study's topic, objectives, and the data collection tool. These experts were from Federal University Lafia, Ahmadu Bello University Zaria, and Abubakar Tafawa Balewa University Bauchi's Faculty of Education. They reviewed the questionnaire for its suitability, accuracy, and clarity. To verify the questionnaire's reliability, a reliability test using Cronbach Alpha was conducted on the data collected from 50 business lecturers from North East State's educational institutions. The Cronbach Alpha coefficient was found to be 0.78, which is considered sufficient by Madiha and Walid (2016) as a minimum reliability coefficient for a survey instrument. Based on this information, the questionnaire was deemed reliable and appropriate for the research.To address the research questions, descriptive statistics (mean and standard deviation) were performed using SPSS. Based on the lower and upper class boundaries as limits, the decision-making process was used as follows: 1.00–1.49, not needed; 1-50–2.49, somewhat needed; 2.50–3.49, moderately needed; 3.50–4.49, highly needed; and 4.50–5.00, very highly needed.

Results

The results of research questions were presented in Tables 1 to 5.

Research Question One

What are the Microsoft skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?

Table 1: Descriptive Statistics on Microsoft skills need of Business education lecturers for instructional delivery

S/N	Statement	Mean	Std. Div	Rmk
1.	Use word processing packages	1.89	0.47	SN
2.	Save and design file names to documents	3.16	0.79	MN
3.	Delete and correct spelling	3.13	0.78	MN
4.	View menu to manipulate the page layout	3.09	0.77	MN
5.	Use the insert menu	2.90	0.72	MN
6.	Format document	3.30	0.82	MN
7.	Change paper orientation	3.16	0.79	MN
8.	Move cursor around an active document	2.81	0.70	MN
9.	Adjust margins in document	3.20	0.80	MN
10.	Use the tools menu	3.01	0.75	MN
11.	Preview and print text	3.68	0.92	HN
12.	Align, centre and justify text in document	3.52	0.88	HN
13.	Merge two or more documents	3.54	0.88	HN
14.	Copy and move test	2.95	0.74	MN
	Cluster mean	**3.10**	**0.75**	**MN**

Source: Researchers' Fieldwork (2024)

Note: Std. Div. means Standard Deviation; Rmk. means Remark; SN means Somewhat Needed; MN means Moderately Needed; HN means Highly Needed

The descriptive statistics used to answer research question one is as presented in Table 1. From the Table, the lowest mean score was 1.89 (Somewhat Needed) and the highest mean of 3.68 (Highly Needed) with standard deviations of 0.47 and 0.92 respectively. The Cluster mean of the items stood at 3.10 (Moderately Needed) with the standard deviation of 0.75. The result indicated that Business education lecturers moderately need Microsoft skills for instructional delivery in College of Education in North-Central, Nigeria.

Research Question Two

What are the excel skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?

Table 2: Descriptive Statistics on Excel skills need of Business education lecturers for instructional delivery

S/N	Statement	Mean	Std. Div	Rmk
15	Classify data into groups	3.16	0.79	MN
16	Sort data into sequence	3.32	0.83	MN
17	Enter and edit data	2.39	0.60	SN
18	Insert rows and columns	3.59	0.72	HN
19	Skills in analyzing data using statistical tools	3.10	0.77	MN
20	create simple data base structure	3.27	0.82	MN
21	Store and retrieve data in a suitable storage	3.41	0.85	MN
22	Format and print out results	3.57	0.90	HN
23	Collect and store data	3.23	0.81	MN
24	Interpret result of analysis	3.57	0.89	MN
	Cluster mean	**3.28**	**0.82**	**MN**

Source: Researchers' Fieldwork (2024)

Note: Std. Div. means Standard Deviation; Rmk. means Remark; SN means Somewhat Needed; MN means Moderately Needed.

The analysis of excel skills need for research question two presented in Table 2 presents mean scores ranges from 2.39 (Somewhat Needed) to 3.59 (Highly Needed). The standard deviations stood

at 0.60 and 0.72 respectively. The Cluster mean score of 3.28 (0.82) obtained shows that Excel skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria was moderate.

Research Question Three

What are the power-point skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?

Table 3: Descriptive Statistics on Power points skills need of Business education lecturers for instructional delivery

S/no	Statement	Mean	Std. Div	Rmk
25	Create effective computer-based presentation using power point	3.88	0.97	HN
26	Use layout	3.53	0.88	HN
27	Insert object e.g shape tools photo album.	3.98	0.68	HN
28	Insert design on the background of text	3.63	0.91	HN
29	Use slide show	3.89	0.97	HN
30	Ability to review	3.68	0.92	HN
31	Use text direction (change the orientation of text to vertical, stacked or rotate to desire direction.	3.62	0.91	HN
32	Align text (change how text is aligned within the text box.	3.76	0.94	HN
33	Fine and replace	3.27	0.82	MN
	Cluster mean	**3.69**	**0.92**	**HN**

Source: Researchers' Fieldwork (2024)

Note: Std. Div. means Standard Deviation; Rmk. means Remark; SN means Somewhat Needed; MN means Moderately Needed

The result of the Power Pont skills for answering research question three is as documented in Table 3. The lowest mean score in the Table was 3.27 (Moderately Needed) with standard deviation of 0.82. The highest mean score was 3.98 (Highly Needed) with standard deviation of 0.68. The Cluster mean of 3.69 with standard deviations of 0.92 were obtained. The finding shows that Business education lecturers highly need Power Point Skills for instructional delivery in College of Education in North-Central, Nigeria.

Research Question Four

What are the internet skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?

Table 4: Descriptive Statistics on Internet skills need of Business education lecturers for instructional delivery

S/no	Statement	Mean	Std. Div	Rmk
34	access the internet	2.72	0.68	MN
35	access different websites	3.78	0.95	HN
36	download files	3.64	0.91	HN
37	send and access electronic documents	2.95	0.74	HN
38	use internet phones	3.06	1.02	MN
39	use internet services such as: internet relay, chat	3.86	0.97	HN
40	engage in electronic commerce business	1.60	0.40	PN
41	knowledge of distance education, education delivery	2.58	0.65	MN
42	use phone including cell phone	3.82	0.96	HN
Cluster mean		**3.31**	**0.83**	MN

Source: Researchers' Fieldwork (2024)

Note: Std. Div. means Standard Deviation; Rmk. means Remark; SN means Somewhat Needed; MN means Moderately Needed

The result presented in Table 4 was used to answer research question four. From the Table the mean scores of the 10 items ranges from 1.60 (Somewhat Needed) to 3.86 (Highly Needed) with standard deviations of 0.40 and 0.97 respectively. The Cluster mean of the items was 3.31 with standard deviation of 0.83. The result obtained was found to be under the benchmark of moderate. The analysis therefore shows that the internet skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria was moderate.

Research Question Five

What are the Corel draw skills need of Business education lecturers for instructional delivery in College of Education in North-Central, Nigeria?

Table 5: Descriptive Statistics on Corel drawneed of Business education lecturers for instructional delivery

S/no	Statement	Mean	Std. Div	Rmk
43	Ability to use text tool for typing document	3.57	0.89	HN
44	Create ellipse tool	3.74	0.94	HN
45	Insert shape tool	3.29	0.82	MN
46	Ability to insert crop tool	3.89	0.77	HN
47	Use artistic media tool	3.61	0.90	HN
48	Drop shadow tool	3.71	0.93	HN
49	Transparency tool	3.35	0.84	MN
50	Use freehand tool	2.96	0.74	MN
Cluster mean		**3.52**	**0.88**	**HN**

Source: Researchers' Fieldwork (2024)

Note: Std. Div. means Standard Deviation; Rmk. means Remark; SN means Somewhat Needed; MN means Moderately Needed

The result documented in Table 5 used to answer research question five presents the lowest mean score of 2.96 (Moderately Needed) and the highest was 3.89(Highly Needed). The standard deviations stood at 0.74 and 0.77 respectively. The Cluster mean was 3.52 with the standard deviation of 0.88. The finding shows that business education lecturers highly need Corel draw skills for instructional delivery in College of Education in North-Central, Nigeria

Discussion of the Results

The findings of the first research question indicate that while there is a moderate need for Microsoft skills among Business Education lecturers for classroom instruction at the College of Education in North-Central, Nigeria. This aligns with Gomes (2015) who highlighted the necessity of lecturers possessing Microsoft, spreadsheet, and PowerPoint skills for effective teaching. The author also emphasized that these skills allow lecturers to engage students through interactive presentations, spelling words, playing sounds, providing instructions, and responding to images and symbols. Similarly, Joseph and Gusen (2020) found that lecturers require proficiency in Microsoft for tasks such as document creation, opening, saving, and printing. The authors argue that in today's digital teaching landscape, where both students and teachers need to be adept at computer skills from an early age, those who possess these skills have a significant advantage in their personal and professional lives.

The second research question revealed that while there is a moderate need for Excel skills among Business Education lecturers for classroom instruction at the College of Education in North-Central,

Nigeria. This finding is in line with Philips (2017) who identified basic computer skills and knowledge of computer operations and concepts as essential. The author reiterated that for effective computer use in teaching, teachers must be knowledgeable in hardware use, such as keyboards and monitors, as well as software like Microsoft, PowerPoint, Excel, and how to organize and manage files. Additionally, they should understand text formatting, use the tab key for indentation, and know how to use bullet points and numbering. Kogge (2019) suggested the importance of teaching data processing skills to teachers to enhance their ability to process educational data and support other education administrators. The significance of these skills underscores the need for Business Education lecturers to acquire these abilities, improving their teaching effectiveness in computer-related subjects. Ukata (2018) noted that Business Education lecturers require a broad range of computer skills to enhance the teaching-learning relationship. These skills should include Microsoft, Excel, PowerPoint, and internet proficiency.

The outcome of the research question regarding the necessity of PowerPoint skills for Business Education instructors in the College of Education in North-Central, Nigeria, revealed a significant demand. This conclusion aligns with previous research by Paje, Rogayan, and Dantic (2021), which indicated that instructors require expertise in PowerPoint for effective teaching. Salma and Al-Saifa (2018) suggested that technological progress can only be achieved by acquiring the essential knowledge and skills, which are best learned through relevant computer skills education. The author emphasized the importance of mastering Microsoft operations, Excel, and PowerPoint.

The results of research question four indicated that the proficiency of Business Education instructors in using the internet for instructional purposes was moderate. This outcome supports Gomes (2015) who found that teachers need internet skills to access up-to-date and relevant materials for enhancing their subject matter knowledge. Similarly, Doyle (2020) argued that a computer-savvy instructor should possess the ability to use various computer applications for personal, academic, and professional purposes.

Regarding Corel Draw skills required by Business Education instructors for instructional delivery in the College of Education in North-Central, Nigeria, the results from research question five were substantial. This finding is in agreement with Philips (2017), who highlighted the importance of equipping teachers with skills in Microsoft, Power point, and Excel for effective teaching. The author also noted the necessity of skills in Microsoft, Design, Excel, Power point, and internet.

Conclusion

Based on the results of the study, it was deduced that business education lecturers in colleges of education in North-central Nigeria have no adequate skills for the use of computer for instructional delivery. The situation would make them to use orthodoxy method of lecturing which had been consider to be teacher. Based on these, it was concluded that business education lecturers have problem of computer skills needed for instructional delivery, hence, students might have graduated without Microsoft, Excel, Power-point, Internet and Corel draw skills needed in global labour market for self-reliance.

Recommendations

i. Business education lecturers should enroll in computer training programme to acquire Microsoft skills for instructional delivery in colleges of education in North-central Nigeria
ii. Management of colleges of education should organize training section for business education lecturers on how to use Excel package for instructional delivery in colleges of education in North-central Nigeria

iii. Heads of business education programme should organize workshop section on how to prepare and use Power-point for teaching and learning.

iv. Business education lecturers in each institution in North-central Nigeria should organize training section of capacity development on skills acquisition on the internet facilities for instructional delivery.

v. Management of colleges of education in North-central Nigeria should organize training section for business education on Corel draw application for instructional delivery.

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