

**INFLUENCE OF DIGITAL INSTRUCTIONAL DELIVERY IN
TEACHING OFFICE TECHNOLOGY AND MANAGEMENT OTM
SKILLS IN COLLEGES OF EDUCATION IN SOUTH-SOUTH
NIGERIA**

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Abstract

This study examined the influence of digital switchover instructional delivery on the teaching of Office Technology and Management (OTM) skills among colleges of education in South-South Nigeria. Three research questions and hypotheses guided the study. A descriptive survey research design was adopted for the study. The population of the study consisted of 26) business educators in all the public colleges of education in South-South Nigeria where the business education program is offered. The whole population of 262 for the study was not too large, hence, no sampling technique was needed. As a result, the sample technique adopted for the study was the census sample technique. Self-structured questionnaires were designed for data collection. The questionnaires designed for the study were: Digital Switchover Instructional Delivery for Teaching OTM Skills (DSIDTOTMS), and Office Technology and Management Skills Questionnaire (OTMSQ). The research instruments were subjected to face and content validation. The instruments were subjected to trial test using Cronbach Alpha coefficient. DSIDTOTMS had an average coefficient of 0.873 while OTMS had an average coefficient of 0.860. The collected data was analyzed using mean ratings and standard deviation for study questions. The t-test was employed to test the constructed hypotheses. Findings revealed that video conferencing is used by business instructors in South-South Nigerian colleges of education to teach OTM skills, the use of interactive whiteboards has an effect on the teaching of OTM skills by business educators in South-South Nigerian colleges of education and business educators in South-South Nigerian Colleges of Education also use PowerPoint to teach OTM skills.

Keywords: Digital Instructional Delivery, Office Technology and Management OTM Skills, Business Education and Colleges of Education

Introduction

Office technology is seen as the use of digital tools to facilitate administrative tasks in modern offices. Adewumi and Mulkah (2019) saw office technology as “the application of scientific knowledge and equipment in performing office tasks to increase productivity and efficiency.” These include computers, software applications and internet-enabled platforms. Edna, Iwuoha and Alhassin, et al (2022), opined that office technology is “range of tools that support administrative functions, ensuring speed, accuracy and professionalism.” These definitions highlighted how office technology enable users to execute tasks with efficiency and effectiveness. The significance of office technology cannot be overstated, as it enhances organizational efficiency, reduces human error and supports data management and communication flow. It is vital in record keeping, correspondence and document processing all of which are crucial in academic environment. Office technology supports distance learning and digital literacy, making it an indispensable component of modern educational training. Given these, it is essential to introduce office technology skill which are specific competencies required to operate office technology tools effectively. Office Technology and Management skills, therefore are skills needed to gain employment, knowledge and attitudes that are required in the modern office using both software and hardware applications to carry out the specific technical capabilities required to use digital tools for office functions.

Carlson and Gadio (2020) opined that office technology and management skills is the acquisition of knowledge, competencies and abilities to operate modern technologies and carryout operational tasks. Ukonu et al listed OTM skills as: keyboarding skills, computer ICT skills, communication skills, critical problem-solving skills and so on. Hirux (2023) outlined Office Technology and Management (OTM) skills which guided this study as learning skills, literary skills and life skills. Ganiyu (2019) described these skills as “practical competencies which are needed for digital interaction, data handling and administrative support.” These skills are crucial for fostering professionalism, accuracy and digital competence in educational and corporate offices.

Acquiring Office Technology and Management skills equip individuals with the proficiency needed for modern office environments. These skills empower pre-service business educators to handle digital tools and instructional technologies confidently, preparing them for real-world challenges in schools and offices. They also enhance adaptability to changing workplace demands, thereby fostering innovation and problem-solving. Office Technology and Management skills play a vital role in vocational education by bridging the gap between theoretical knowledge and practical application. These skills ensure that graduates are job-ready and capable of

functioning independently in diverse work environments. For business educators, this combination is critical, as it enhances their teaching capacity, administrative competence and technical versatility, positioning them as agents of economic development and educational advancement. For effective teaching of OTM skills, educators should embrace digital switchover instructional delivery.

The process of using digital means including platforms, resources and network is referred to as "digital switchover instructional delivery." According to Ajayi (2021), digital instructional delivery is education that uses electronic media for the replacement of face-to-face instruction. Nduka (2023) further defined it as an ICT-driven mode of delivering instructional materials, using digital networks and platforms to facilitate learning. This helps in ensuring that learners have easy access to real-time, interactive, and flexible learning experiences through the use of digital devices.

In this research, the concept of digital switchover instructional delivery is viewed as the process of changing traditional, analog methods of teaching, such as chalkboard and textbooks, to the use of digital technologies for instructional delivery. It is the process of incorporating various technologies, such as computers, tablets, interactive whiteboards, software, online technologies, and internet resources, to improve the process of teaching and learning. Digital switchover instructional delivery is vital to business educators as it enhances pedagogical effectiveness, promotes interactive learning and aligns instructional methods with global digital standards. Educators can also use digital platforms to deliver content in real-time, access numerous educational resources and utilize numerous multimedia tools that can help students better understand complex business and technology concepts (Ajadi, 2021). Additionally, it can be used to provide personalized learning experiences that can help students become more engaged with the course materials and think more critically (Nwankwo & Udu, 2022). Moreover, it can be used to provide flexible learning experiences, which can help increase educational inclusivity. For business educators to become relevant in the modern world, it is important to use digital instructional tools which is crucial for the development of employable graduates (Okoro, 2020).

Business educators are professionals trained to teach business-related courses, focusing on imparting entrepreneurial, managerial and technological skills. Nwalado and Ezoem (2019) viewed business educator as "a professional who equip learners with knowledge and skills in business, office procedures and entrepreneurship to prepare them for gainful employment." Similarly, Iyamu and Chiedu (2018) defined business educators as "professionally trained educators with competencies to transfer knowledge of business courses and teach the contents of business education curriculum. Osuala in Orhorhoro (2023) viewed a business educator as any person who plays a critical role in making business education viable and visible in communication and plays a critical role agent of change in ensuring quality instruction, identify problems in the field and proffering desired

solutions. Business educators' role consists of teaching and evaluating the outcome of instructions, integrating instructional digital delivery in the classroom and it helps to improve student's academic performance. These definitions show that business educators play a dual role in skill transfer and human capital development. Their presence in Colleges of Education is essential for the effective delivery of office technology and management skills training.

However, the persistent challenges facing business educators in South-South zone of Nigeria, despite national efforts such as the National Digital Economy Policy (2020–2030) have created a significant and research-worthy problem, particularly for colleges of education in the region. This is because while states like Rivers and Cross River have introduced digital skill acquisition initiatives, the implementation has been undermined by infrastructural deficiencies, irregular power supply, poorly trained educators and ineffective policy execution (Federal Ministry of Communications and Digital Economy, 2020). As the National Bureau of Statistics (2021) reiterated, less than 45% of tertiary institutions in the zone have stable internet access, a factor that directly hampers instructional delivery, diminishes graduate productivity and limits employability. Despite these setbacks, the pressing need for a digital switchover remains critical to addressing these problems and aligning the South-South zone with national and global development trends. Despite these issues, it is crucial to incorporate a digital switchover in this region as a remedy to bridge the gap in digital training and facilitate modern educational practices. It was for some of these reasons this study was initiated.

Statement of the Problem

Graduates from Colleges of Education in the South-South often emerge with insufficient practical exposure to digital tools, limiting their employability in technologically driven workplaces. The gap between policy intentions and on-the-ground realities raises concerns about the capacity of current instructional management practices to harness the potential of the digital switchover in enhancing OTM skill acquisition. This situation necessitates a systematic investigation into how digital switchover instructional management influences instructional delivery in teaching OTM skills, with a view to identifying strategies that can bridge the skill gap, improve graduate readiness and strengthen Nigeria's human capital in the digital economy era. It is on this background that the researcher seeks to carry out an investigation on the influence of digital switchover instructional management in teaching of office technology and management education (OTM) skills in colleges of education in South-South Nigeria.

Purpose of the study

The main purpose of the study is influence of digital instructional delivery in teaching office technology and management OTM skills in colleges of education in south south Nigeria: specifically, the study seeks to:

1. determine the influence of video conferencing on the teaching of OTM skills by business educators in public Colleges of Education in South-South Nigeria?
2. investigate the influence of interactive whiteboard on teaching of OTM skills by business educators in public Colleges of Education in South-South Nigeria?
3. identify the influence of PowerPoint on the teaching of OTM skills by business educators in public Colleges of Education in South-South Nigeria?

Research Questions

The following research questions guided the study.

1. What is the influence of video conferencing on the teaching of OTM skills by business educators in public Colleges of Education in South-South Nigeria?
2. What is the influence of interactive whiteboard on teaching of OTM skills by business educators in public Colleges of Education in South-South Nigeria?
3. What is the influence of PowerPoint on the teaching of OTM skills by business educators in public Colleges of Education in South-South Nigeria?

Null Hypotheses

The following Null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the mean responses of business educators regarding the impact of video conferencing on the teaching of OTM skills in public Colleges of Education in South-South Nigeria do not show a significant difference.
2. There is no significant difference in the mean responses of business educators concerning the effect of interactive whiteboards on teaching OTM skills in public Colleges of Education in South-South Nigeria.
3. There is no significance in the mean responses of business educators concerning the effects of PowerPoint on teaching OTM skills in Colleges of Education South-South Nigeria.

Methods

This study adopted a descriptive survey research design. The population of this study comprised 262 business educators in the eight public colleges of education in South-South, Nigeria, where business education programmes are offered. The sample consisted of 262 business educators and since the sample size was not too large, therefore, there was no sampling technique. Hence, total enumeration sample technique was used. Two questionnaires were used for data collection. The questionnaire used for the study was divided into four sections: A, B, C, and D. Section A sought the respondents' demographic information. Section B titled: Digital Switchover Questionnaire (DSQ). Section C was titled: Digital Switchover Instructional

Delivery (DSIDQ) for Teaching OTM Skills. Section D was titled: Office Technology and Management Skills (OTMSQ). Section B was divided into three clusters B1 to B3. B1 has 8 items on video conferencing, B2 has 8 items on interactive whiteboard and B3 has 9 items on powerpoint. All the clusters were structured on a four-point rating scale: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). On the other hand, the second questionnaire had 15 items on OTM skills for teaching business education also structured on a four-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The instruments were subjected to face and content validation. The questionnaires were subjected to reliability test to know the internal consistency of the instruments. The method used for the reliability was trial-testing using 10 business educators from Nwafor Orizu College of Education, Nsugbe and Alvan Ikoku College of Education Owerri. Data collected were analyzed using Cronbach Alpha method. The digital switchover for instructional delivery yielded coefficient values: video conferencing (0.893), technology planning (0.873) and professional development (0.868). On the other hand, Office Technology Management (OTM) skills was 0.867. These high reliability values indicated that the instruments were reliable for the study. Face-to-face method was used to elicit information from the respondents. Data collected were analyzed using mean ratings and standard deviation for research questions. The decision rule for interpreting the data obtained from the research questions were distributed using the following boundary limits: 3.50 - 4.00 = Strongly Agree (SA), 2.50 - 3.49 = Agree (A), 1.50 - 2.49 = Disagree (D), 1.00 - 1.49 = Strongly Disagree (SD). One way ANOVA was used for the test of formulated hypotheses. The researcher rejected the null hypothesis when the resulting p-value was less than the alpha level of 0.05. Conversely, the null hypothesis was retained when the p-value exceeded 0.05.

Results

Research Question 1: What is the influence of video conferencing on the teaching of OTM skills on business educators in Colleges of Education in South-South Nigeria?

Table 1: Mean ratings of the influence of video conferencing on the teaching of OTM skills on business educators in Colleges of Education in South South Nigeria

Table 1: Mean ratings of the influence of video conferencing in the teaching of OTM skills by business educators in public Colleges of Education in South-South Nigeria.

S/N	Item Statements: Integration of video conferencing	X	SD	Remarks
1	Promotes demonstration of practical skills by teachers.	3.40	.947	Agree
2	Helps business educators in teaching large audience.	3.50	.869	Agree
3	Enables recording of lectures which students can replay later.	3.47	.864	Agree
4	Facilitates real-time interaction with industry professionals for practical insights	3.49	.811	Agree
5	Helps teachers to support remote access to lectures delivery.	3.48	.400	Agree
6	Enhances students' digital skills in OTM.	3.48	.910	Agree
7	Allows for virtual assessment during skill acquisition sessions.	3.09	1.191	Agree
8	Provide feedback in real time to improve students' performance in OTM skills.	3.46	.815	Agree
	Average	3.42	.749	Agree

Table 1:
Mean ratings of the influence of video conferencing on the teaching of OTM skills by business educators in public Colleges of Education in South South Nigeria.

The results in Table 1 showed the mean ratings of the influence of video conferencing in the teaching of OTM skills by business educators in Colleges of Education in South-South Nigeria. The results specified the average mean score rating of 3.42 with a corresponding standard deviation of 0.749.

Research Question 2: What is the influence of the interactive whiteboard on the teaching of OTM skills by business educators in Colleges of Education in South-South Nigeria.

Table 2: Mean ratings of the influence of interactive whiteboard in teaching of OTM skills by business educators in teaching of OTM skills in public Colleges of Education in South-South Nigeria.

The results in table 2 showed the mean ratings of the influence of

S/N	Items	Statements:	Integration	of	X	SD	Remarks
Interactive whiteboard							
1	Serves previous lesson as entry behaviour.				3.41	.948	Agree
2	Helps in sketching diagrams during lectures.				3.52	.855	Agree
3	Helps lecturers to present lectures in clear ways.				3.38	.992	Agree
4	Instructional delivery helps to make lecture stimulating to students.				3.39	.965	Agree
5	Helps to display multimedia content such as videos for practical skill acquisition.				3.40	.957	Agree
6	Helps to facilitate collaborative activities among students during OTM lessons.				3.40	1.019	Agree
7	Provide real-time feedback to students during skill demonstrations.				3.12	1.179	Agree
8	Enhances teachers' digital literacy.				3.38	.936	Agree
Average					3.38	.864	Agree

interactive whiteboard in teaching of OTM skills by business educators in Colleges of Education in South-South Nigeria. The results specified the average mean score rating of 3.38 with a corresponding standard deviation of 0.864.

Research Question 3: What is the influence of PowerPoint in teaching of OTM skills by business educators in public Colleges of Education in South South Nigeria?

Table 3: Mean ratings of the influence of PowerPoint in teaching of OTM skills by business educators in Colleges of Education in South South Nigeria.

S/N	Item Statements: Integration of PowerPoint	X	SD	Remarks
1	Helps to demonstrate practical skill subjects.	3.39	.950	Agree
2	Helps to make lecture delivery easy.	3.49	.867	Agree
3	Assists in summarizing lecture notes in presentation slides	3.47	.862	Agree
4	Helps in lecture delivery to take away the monotony of usage chalk pieces.	3.49	.809	Agree
5	Helps to create formatted test, pictures when making presentations.	3.48	.848	Agree
6	Helps teachers to present instructional images in slide shows.	3.47	.908	Agree
7	Allow for easy use of charts and graphs to illustrate data in OTM skills.	3.08	1.188	Agree
8	Facilitates structured flow of information during lectures.	3.46	.813	Agree
9	Encourages interactive question-and-answer sessions during OTM instruction.	3.39	.950	Agree
	Average	3.38	.864	Agree

The results in Table 8 showed the mean ratings of the influence of PowerPoint in teaching of OTM skills by business educators in public Colleges of Education in South-South Nigeria. The results specified the average mean score rating of 3.38 with a corresponding standard deviation of 0.864.

Hypotheses

1. The mean responses of business educators regarding the impact of video conferencing in the teaching of OTM skills in public Colleges of Education in South-South Nigeria do not show a significant difference.
2. There is no significant difference in the mean responses of business educators concerning the effect of interactive whiteboards in teaching OTM skills in public Colleges of Education in South-South Nigeria.

3. Business educators in South-South Nigeria public Colleges of Education did not have significantly difference in mean responses regarding the influence of PowerPoint on teaching of OTM skills in public Colleges of Education in South South Nigeria.

Test of Hypothesis 1

H₀: There is no significant difference in the mean responses of business educators on the influence of video conferencing on teaching of OTM skills in public Colleges of Education in South-South Nigeria

Table 4: Test of Hypothesis 1

	Sum of Squares	df	Mean Square	F	P-Value	Remark
Between Groups	26.911	19	1.416	3.557	.000	Significant
Within Groups	78.831	198	.398			
Total	105.741	217				

The results in table 1 indicated that the sum of squares between groups was 26.911, within groups was 78.831. More so, the F-value was 3.557 with a p-value of 0.00. Based on this, the null hypothesis was rejected and the alternative hypothesis was accepted. This signifies that video conferencing influence teaching of business educators' OTM skills in public Colleges of Education in South-South Nigeria.

Test of Hypothesis 2

H₀: There is no significant difference in the mean responses of business educators on the influence of interactive whiteboard on teaching of OTM skills in public Colleges of Education in South-South Nigeria.

Table 5: Test of Hypothesis 2

	Sum of Squares	df	Mean Square	F	P-Value	Remark
Between Groups	44.286	2	22.143	1655.894	.000	Significant
Within Groups	2.875	215	.013			
Total	47.161	217				

The results in table 5 showed that the sum of squares between groups was 44.286, within groups was 2.875. More so, the F-value was 1655.894 with a p-value of 0.00. As a result, the alternative hypothesis was accepted whereas the null hypothesis, rejected. This indicates that interactive whiteboards influence the teaching of OTM skills among business educators in public colleges of education in South-South Nigeria.

Test of Hypothesis 3

H₀: There is no significant difference in the mean responses of business educators on the influence of PowerPoint on teaching of OTM skills in public Colleges of Education in South-South Nigeria.

Table 6: Test of Hypothesis 3

	Sum of Squares	Df	Mean Square	F	P-Value	Remark
Between Groups	13.879	3	4.626	3.061	.000	Significant
Within Groups	323.461	214	1.511			
Total	337.339	217				

Discussion of Findings

Video conferencing influence the teaching of OTM skills

Findings revealed that video conferencing significantly influenced the teaching of Office Technology and Management (OTM) skills by business educators in Colleges of Education. Video conferencing platforms such as Zoom, Microsoft Teams and Google Meet provide real-time interaction, demonstrations and virtual collaboration, which enrich students' learning experiences. Through these tools, educators can invite industry experts, conduct live practical sessions and engage learners in interactive activities irrespective of geographical barriers. Conversely, the absence of video conferencing limits exposure to modern technological practices and reduces opportunities for interactive learning. Hence, the study emphasized that video conferencing bridges gaps in distance, enhances teaching delivery and promotes effective acquisition of OTM skills among students.

This finding aligns with existing scholarship that underscores the role of video conferencing in modern education. Onyema et al. (2020) findings confirmed that video conferencing enhances active learning and provides flexible access to instruction for students in Nigerian institutions. Similarly, Yusuf and Adebayo (2021) findings affirmed that the use of video conferencing strengthens the teaching of ICT-driven courses like OTM, which require real-time demonstrations. Okeke and Nwafor (2019) also affirmed that virtual platforms promote collaboration between educators and students, thereby improving engagement and knowledge transfer. In addition, Moore and Diehl (2022) highlighted that video conferencing supports blended learning models, enabling teachers to combine traditional pedagogy with digital approaches effectively.

Despite its advantages, some scholars criticized the assertion that video conferencing directly influences OTM teaching outcomes. According to Musa and Aliyu (2020), infrastructural challenges such as poor internet connectivity and irregular electricity supply hinder the effective use of video conferencing in Nigerian colleges. Similarly, Adegboye (2021) contended that many educators lack the technical competence to maximize the pedagogical benefits of such platforms. In addition, Olatunji (2019) warned that excessive reliance on virtual tools can diminish face-to-face skill acquisition, which is essential in OTM practical training. These criticisms suggested that while video conferencing has potential, its impact depends on infrastructure, teacher readiness and balanced integration into skill-based instruction.

The likely reasons behind the finding that video conferencing influences OTM teaching stem from the technological nature of the programme and its reliance on practical demonstration. OTM requires exposure to digital office tools, collaborative communication and real-world simulations, which video conferencing readily provides. The technology also allows educators to extend learning beyond physical classrooms, ensuring inclusivity for students with distance or time constraints. Furthermore, partnerships with industries through video conferencing enable students to interact with professionals, gaining insights into workplace applications. Therefore, the effectiveness of video conferencing in teaching OTM skills can be attributed to its ability to combine accessibility, interactivity and digital literacy development in instructional delivery.

Interactive whiteboard influence the teaching of OTM skills

Findings revealed that interactive whiteboards (IWBs) strongly influence the teaching of Office Technology and Management (OTM) skills by business educators in Colleges of Education. IWBs provided dynamic opportunities for combining text, images, videos and live demonstrations, which make OTM lessons more engaging and practical. With the aid of IWBs, educators can simulate real office tasks, demonstrate software applications and encourage active student participation. The interactive features promote collaboration, instant feedback and visualization of complex concepts. Conversely, without access to IWBs, teaching tends to remain theoretical, limiting students' skill acquisition. The study highlights that IWBs foster innovation, motivate learners and significantly enhance the delivery of OTM skills in Colleges of Education.

This finding is supported by research emphasizing the instructional value of IWBs. In agreement to Adegboye (2021) findings, IWBs promote interactivity and allow teachers to present business education content in visually stimulating formats. Similarly, Okoro and Eze (2020) argued that IWBs encourage collaborative learning and improve students' mastery of ICT-related skills. Yusuf and Adebayo (2021) maintained that IWBs help bridge the gap between theory and practice by enabling real-time demonstrations of digital office applications. Internationally, Smith et al. (2019) found that IWBs enhance student engagement and knowledge retention across skill-based courses. Collectively, these studies affirm that IWBs significantly support OTM teaching by improving interactivity, visualization and competence development.

Despite their advantages, some scholars argue that IWBs do not directly guarantee effective teaching outcomes in OTM. Musa and Aliyu (2020) findings attested that many Nigerian institutions lack stable electricity and technical support, making IWBs underutilized. Likewise, Olatunji (2019) contended that without adequate training, business educators may treat IWBs as traditional boards, thereby underusing their advanced features. Adeyemi (2018) also criticized the high cost of procurement and maintenance, which limits sustainability in resource-constrained Colleges of Education.

Moreover, Alabi (2021) noted that overdependence on IWBs may reduce teacher creativity, as educators may rely excessively on predesigned content. Thus, the effectiveness of IWBs depends on infrastructure, training and balanced integration into pedagogy.

The likely reasons behind the finding that IWBs influence OTM skill teaching stem from their technological affordances and relevance to skill-based instruction. OTM requires mastery of office applications, document management and ICT communication, all of which can be effectively demonstrated on IWBs. The interactive features allow educators to model tasks step by step, enabling students to practice and receive immediate feedback. IWBs also accommodate multimedia integration, which makes lessons more engaging and aligned with workplace realities. Furthermore, they foster collaborative learning and problem-solving, essential for business education. Therefore, IWBs positively impact OTM teaching because they combine visualization, interactivity and technology-driven pedagogy, ensuring better skill transfer and learner competence.

PowerPoint influence teaching of OTM skills

The findings of the study revealed that PowerPoint significantly influences the teaching of Office Technology and Management (OTM) skills among business educators in Colleges of Education. The results indicated that the use of PowerPoint presentations provides educators with a structured, visually engaging and simplified method of delivering complex OTM concepts such as document formatting, data presentation and digital communication skills. Furthermore, the findings showed that PowerPoint promotes clarity and allows educators to integrate multimedia elements such as images, charts and videos to enhance students' understanding. The findings also demonstrated that PowerPoint use increased students' attention span, fostered better classroom engagement and provided opportunities for active participation and collaborative learning.

These findings align with scholarly perspectives emphasizing the value of presentation technology in teaching. Yusuf and Adebayo (2021) found that PowerPoint supports teachers in simplifying instructional delivery, particularly in computer-related courses, thereby enhancing learners' grasp of technical skills. Similarly, Alabi (2020) reported that PowerPoint helps educators organize information sequentially and logically, which supports the development of students' digital literacy skills. Internationally, Jones (2019) argued that the integration of PowerPoint creates opportunities for interactive teaching and improves the retention of subject content by learners. Therefore, these scholarly positions affirm that PowerPoint provides a pedagogical advantage for business educators in teaching OTM skills effectively within Colleges of Education.

Despite the positive influence of PowerPoint on OTM teaching, some criticisms exist regarding its overuse and limitations. Adeyemi (2018) argued that PowerPoint often encourages teacher-centered instruction where learners become passive recipients of knowledge instead of active

participants. In another study, Musa and Aliyu (2020) highlighted that educators who rely excessively on slides may reduce creativity and spontaneity in classroom interactions. Similarly, Tufte (2019) warned that PowerPoint can sometimes oversimplify content, reducing critical depth in teaching technical skills. These criticisms highlight the need for careful integration, as dependence on PowerPoint without complementary strategies may undermine the experiential and practical aspects required in OTM skill acquisition.

The likely reasons for these findings are rooted in both pedagogical and technological dynamics. First, PowerPoint is a readily available tool in most Colleges of Education, which explains its widespread adoption in teaching OTM skills. Second, its ability to present information visually caters to diverse learning styles, which enhances comprehension and retention. Third, PowerPoint's compatibility with multimedia tools allows business educators to simulate real-world OTM applications, making lessons more practical and engaging. Lastly, the growing demand for digital literacy in education motivates both teachers and institutions to adopt PowerPoint as a modern instructional strategy. Thus, its influence stems from accessibility, versatility and alignment with 21st-century teaching standards.

Conclusion

The conclusions drawn from the study revealed that video conferencing, interactive whiteboard, and PowerPoint have a major impact on the effective teaching of Office Technology and Management (OTM) skills in colleges of education. Technological gadgets like video conferencing, whiteboards, PowerPoint, and digital conversion greatly enhanced teaching. Overall conclusion revealed that it has become evident that there should be sustainable funding on leadership, technology, collaboration, and other resources to ensure that learners acquire OTM skills relevant in the workplace.

Recommendations

Based on the findings from the study, the following recommendations were made by the researcher.

1. Business educators should integrate video conferencing platforms to facilitate real-time interactions and expert-led sessions in teaching OTM skills in colleges of education.
2. Interactive whiteboards should be installed in OTM classrooms to improve collaborative and innovative teaching and learning among instructors and students.
3. Business Educators should utilize PowerPoint presentations for structured, engaging and multimedia-based instructional delivery in teaching OTM skills in colleges of education.

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