

Utilization of Technology Facilities for Instructional Delivery among Accounting Education Students in Rivers State Universities

Bode-Joseph, Elsie & Ames, Joy

Department of Business Education

Faculty of Education

Rivers State University

Nkpolu-Oroworukwo

Port Harcourt

Corresponding Author Email: bodayjoe@gmail.Com
amesijoy@ust.edu.ng

Abstract

The study looked at Utilization of Technology Facilities for Instructional Delivery among Accounting Education Students in Rivers State Universities. Two specific objectives, four research questions and two null hypotheses guided the study. The study adopted a descriptive study design and was carried out in the two universities owned by Rivers State government. The population of the study was 17 Accounting education lecturers and 34 post-graduate students studying Accounting Education. Purposive sampling was adopted because the population was of manageable size. A self-structured questionnaire titled "Utilization of Technology in Accounting education instructional Delivery for Skills Acquisition (UTAEIDSA)" was used as the instrument for data collection with a response option of a 4-point rating scale of Very High Extent (VHE), High Extent (HE), Moderate Extent (ME) and Low Extent (LE). The instrument was subjected to face validation by Three experts, two experts the Department of Business Education and one expert in measurement and evaluation. After a trial testing of the instrument on 20 respondents from the University of Port Harcourt, Cronbach Alpha statistic was employed and a reliability coefficient of 0.83 was obtained. Data was analyzed using Mean and Standard Deviation and ANOVA was used to test the hypotheses at 0.05 level of significance. Findings from the study revealed that interactive whiteboard and Microsoft excel are necessary facilities for practical training in the Utilization of Technology in Accounting education instructional Delivery. Based on the findings of the study. It was recommended that awareness programmes be put in place to sensitize both teachers and students on the practical use of these technologies. Training programs should also be made available for teachers who need to get used to the practical application of these technologies.

Keywords: Utilization, Technology, Accounting Education, Instructional Delivery, Skills Acquisition.

Introduction

Utilization in education is the effective and purposeful application of educational resources, technologies, methodologies, and innovations to achieve specific learning objectives, enhance teaching practices, and improve overall educational outcomes. It encompasses the strategic deployment of various tools and strategies, including digital

technologies, instructional methods, assessment techniques, and learning materials, to optimize the learning experiences for students and facilitate the professional development of educators (UNESCO, 2013). Utilization emphasizes the practical implementation of research – based practices and resources to create meaningful, engaging and inclusive learning environments. It involves not only the integration of educational technologies, but also the thoughtful incorporation of pedagogical approaches and assessment methods that align with educational goals and the diverse needs of learners (Bannister, 2013; Bates, 2015). Technology allows for personalized learning experiences as adaptive learning platforms use algorithms to tailor content to individual student needs (Vanlehu, 2011). Technology integration in education offers immense potential to revolutionize teaching and learning experiences.

Accounting Education on the other hand, is that part of education that teaches the recording and manufacturing of books of accounts. Accounting's goal is to reveal how management actions have affected financial results. Accounting Education helps students learn to become professional accountants. In other words, accounting is a disciplined method for gathering, analyzing, and disseminating financial data so that consumers can make informed choices. The education and training of individuals geared towards the acquisition of financial recording skills, analysis, interpretation, measuring, and communication competencies in accounting programme for teaching and professionalism in the work environment are referred to as accounting education. (Onyeizuegbe, 2015),

An increase in knowledge shows that global education is dynamic and digitalization has no doubt added value to the system. It has become an important part of our daily lives with social networks and has become a vital necessity. Therefore, universities, polytechnics, and other tertiary institutions are re-adjusting their instructional delivery strategies and learning environment to align with global practices of digitalization of the educational process for easy transformation of knowledge and skills to the benefit of the learners and society at large (Bernard, 2019).

The assertion by Athanasius and George, (2014) indicated that the Interactive whiteboard is a very effective tool to provide initiative and facilitate students to understand, remember and think, especially for students who are willing to interact directly with this equipment. Interactive whiteboard is a multimedia resources designed to enhance classroom presentation, making lessons dynamic and engaging (Holland & Piper, 2017). Using the interactive whiteboards, teachers can show images, presentations and videos to the whole class at the same time. Interactive whiteboards integrate various learning styles into one experience. Students can learn by seeing, hearing and interacting with the board through touch. This equips teachers with new innovative ways to teach the same subject material.

According to Mary Bourbour and Camila Bjorklund (2014), teachers also agree that the use of the Interactive whiteboard can enhance student's involvement in active learning processes. The use of the Interactive whiteboard can increase student's confidence to engage in activity. This is supported by Drigas and George (2014) who stated that the Interactive whiteboard is a very effective tool to provide initiative and facilitate students to understand,

remember and thin, especially for students who are willing to interact directly with this equipment.

The digital tool to be introduced here is the Microsoft Excel. Microsoft Excel introduced in 1985, has become synonymous with spreadsheet software, revolutionizing the way individuals and organisations manage, analyze and visualize data. With its user-friendly interface and powerful features, Excel has become an indispensable tool across various sectors, enabling efficient data process and informed decision – making. It is one of the most significant computer programs because of the key role it plays in many sectors. It is used for storing, organizing and manipulating data.

Updates on versions have continuously enhanced its functionality, making it one of the most widely used spreadsheet software globally. In academia, Excel is extensively used for data analysis and visualization (Smith, 2018). Researchers leverage its user-friendly interface for preliminary data analysis and hypothesis testing (Johnson, 2020).

Generally, Excel functions as software for processing numbers, but in detail, this software is also used to create, edit, sort, analyze and summarize data. In addition, Microsoft Excel also functions to perform arithmetic and statistical calculations, so that it can help solve logic and math problems. Excel is also often used to create financial records, prepare financial budgets and create reports in the form of tables, graphs or diagrams. Across industries, Microsoft Excel plays a central role in financial modelling, inventory management, marketing analytics, and project planning (Deloitte, 2020). Its adaptability and versatility make it a preferred choice for professionals (Deloitte, 2020).

Instructional delivery refers to the interactions between students, teachers, content, and the knowledge or skills that students will need to learn and collaborate with others in a diverse society and a quickly changing global environment, (Deloitte, 2020). In a nutshell, instructional delivery is the process and materials the teacher uses to instruct students on a particular topic. It consists of principles, concepts, medium and strategies to enhance and relate skills competencies and attitude to learning. The instructional strategy according to (Dauda, Nasiru, Amos, Danlami & Lumo, 2018) are essential practices that teachers and learners must master for effective delivery of the subject matter to maximize the student's knowledge and skills acquisition in educational paradigm instructional delivery for all courses of activity can be completed online through learning management system (LMS).

Tertiary institutions in Nigeria are expected to prepare students with the necessary skills to thrive in their respective fields of study. According to Adeniji and Oke, (2018) There is a mismatch between the ability's graduates possess and the skills that companies desire. Study by Adebayo, Adetula, and Alabi, (2020) found that many Nigerian tertiary institutions are not providing their students with enough opportunities to develop practical skills. The study recommended that universities should establish partnerships with industry players to provide their students with internships, and other opportunities to gain practical experiences.

Thus, if Accounting Education courses remain absolutely on analogue facilities for instructional delivery, in Nigerian tertiary institutions, it may have a ripple effect on the institutions, programmes and students in particular (Bernard, 2019).

Statement of the Problem

The utilization of technology refers to the effective and practical application of various technological tools, devices, systems, and resources to achieve specific goals or tasks. In different contexts, utilization of technology can encompass a wide range of activities across various fields such as education, healthcare, business, research, and more. In effective utilization of technology facilities require proper training for teachers. it may not be out of place to noticed that some educators may struggle to utilize this technology seamlessly in their teaching methods, leading to underutilization or misuse.

In some cases, the interactive features of whiteboards may not be fully utilized, reducing the potential benefits. Teachers may use them primarily as traditional whiteboards, missing out on opportunities for more engaging and interactive lessons. Some educational institutions may not have the necessary infrastructure to support widespread technology use. or inadequate technical support. Effective integration of technology into instruction requires teachers to have sufficient training. Many educators may not be adequately prepared to use new technologies, hindering their ability to leverage these tools for teaching and learning.

Educational institutions may have outdated or inadequate technological infrastructure, including hardware and software. This may hinder the effective integration and utilization of modern technology tools into accounting education. Accounting educators and students may lack the necessary training to effectively incorporate technology into their teaching methods. Without proper training, instructors may be unfamiliar with relevant software, tools, or online platforms that could enhance accounting education. Technology utilization is closely linked to the ability to adapt to a changing environment. This includes staying updated with emerging technologies, embracing innovation, and evolving strategies to leverage technological advancements.

However, Accounting Education as the mainstream of vocational education has not effectively witnessed this digitalization development. Thus, if accounting education courses remains absolutely on analogue facilities for instructional delivery in Universities, it may have a ripple effect on the institutions, programmes, and students in particular (Bernard, 2019). According to Adeniji and Oke, (2018), There is a mismatch between the abilities graduate possess and those that companies require. This forms the bulk of this investigation. The researcher is attempting to pinpoint this gap.

Purpose of the Study

Utilization of interactive whiteboard for instructional delivery among accounting education students in Rivers State Universities. Specifically, the study determined:

1. The extent of utilization of interactive whiteboard in accounting education instructional delivery for skills acquisition in Rivers State Universities.
2. The extent of utilization of Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities.

Research Questions

The study was guided by the following research questions:

1. What is the extent of lecturers' utilization of interactive whiteboard in accounting education instructional delivery for skills acquisition in Rivers State Universities?
2. What is the extent of students' utilization of interactive whiteboard in accounting education instructional delivery for skills acquisition in Rivers State Universities?
3. What is the extent of lecturers' utilization of Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities?
4. What is the extent of students' utilization of Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities?

Null Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

1. There is no significant difference in the mean responses of lecturers and students on the extent of utilization of interactive whiteboard in accounting education instructional delivery for skills acquisition in Rivers State Universities.
2. There is no significant difference in the mean responses of lecturers and students on the extent of utilization of Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities

Methodology

The study adopted the descriptive survey research design, aimed at providing opinions from the respondents on Utilization of Technology in Accounting education instructional Delivery for Skills Acquisition in Rivers State Universities. The population of this study consisted of 17 Accounting Education Lecturers and 34 Accounting Education Post-Graduate Students. A self-structural questionnaire titled "Utilization of Technology in Accounting education instructional Delivery for Skills Acquisition in Rivers State Universities (UTAE/DSA)" was used to collect responses from the respondents. The instrument was structural on a 4 - point rating scale of Very High Extent (VHE), High Extent (HE), Moderate Extent (ME), and Low Extent (LE). The instrument was validated by two Business Educators and one expert in Measurement and Evaluation from Rivers State Universities. A reliability test was also carried out and a co-efficient of 0.83 was obtained, using the test re-test method.

Data collected was analyzed using mean and standard deviation for research questions and ANOVA was used to test the null hypotheses at 0.05 level of significance. The decision rule was based on the mean score of 2.50 which is the benchmark for very High Extent (VHE), High Extent (HV), Moderate Extent (ME) and Low Extent (LE) while any items with a mean score below 2.50 will be Low Extent (LE). The hypotheses were adjudged to be accepted when the calculated value is less than the table value and when the calculated value is higher than the table value, the hypotheses is rejected.

Result

Research Question 1: What is the extent of utilization of interactive white board in accounting education instructional delivery for skills acquisition in Rivers State Universities.?

Table 1: Computed Mean and Standard Deviation of Lecturers' Response on the Extent to which interactive white board is used in instructional delivery.

		N=17				$\bar{X}$	SD	Rmks
Variables		VHE	HE	ME	LE			
1.	Use of interacting whiteboard makes teaching interesting for the teacher.	0	2	5	10	1.53	0.72	LE
2.	Teaching objectives are easily achievable through the interactive whiteboard.	0	10	4	3	2.41	0.80	ME
3.	The interactive whiteboard presents an enabling teaching environment.	0	6	8	3	2.18	0.73	ME
4.	Use of the interactive whiteboard transforms teaching styles to stimulating experiences.	0	5	6	6	1.94	0.83	LE
5.	Teaching goals are easily achievable with the use of the interactive whiteboard.	6	4	7	6	1.88	0.78	LE
Mean and SD						1.99	0.31	LE

Source: Researcher's Field Survey (2023)

Table 1 reveals that the grand mean and standard deviation scores from the lecturers' responses on the extent to which interactive whiteboard is used in the utilization of technology in accounting education instructional delivery for skills acquisition in Rivers State Universities as 1.99 and 0.31 respectively. It shows that the usage of interactive whiteboard is to a low extent. The researcher therefore concludes, considering the mean and standard deviation figures that the extent to which Interactive whiteboard is used in the utilization of technology in accounting education instructional delivery for skills acquisition in Rivers State Universities is to a low extent.

Research Question 2: What is the extent of students' utilization of interactive whiteboard in Accounting education instructional delivery for skills acquisition in Rivers State Universities.?

Table 2: Computed Mean and Standard Deviation of Students' Response on the Extent to which Interactive whiteboard is used in Instructional Delivery. N=34

	Variables	VHE	HE	ME	LE	$\bar{X}$	SD	Rmks
11.	Use of Interactive whiteboard leaves a lasting impact on students' memory.	1	6	9	18	1.71	0.87	LE
12.	Students are able to master the objectives and knowledge conveyed through the use of the Interactive whiteboard.	3	15	11	5	2.47	0.86	ME
13.	The application of the Interactive whiteboard technology creates a positive environment for learning.	4	8	15	7	2.26	0.93	ME
14.	Students are quick to learn using the Interactive whiteboard.	0	9	8	17	1.76	0.85	LE
15.	The use of Interactive whiteboard enhances students' involvement in learning.	1	3	8	22	1.50	0.79	LE
Mean and SD						1.94	0.37	LE

Source: Researcher's Field Survey (2023)

Table 2 also reveals the students' responses with the grand mean of 1.94 and the standard deviation score of 0.37, that the extent to which interactive whiteboard is used in the Utilization of technology in Accounting education instructional delivery for skills acquisition in Rivers State Universities is to a low extent. The researcher therefore concludes that interactive whiteboard is used to a low extent in the utilization of technology in accounting education instructional delivery for skills acquisition in Rivers State Universities.

Research Question 3: What is the extent of Lecturers' utilization of Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities?

Table 3: Computed Mean and Standard Deviation of Lecturers' Response on the Extent to which Microsoft Excel is used in Instructional Delivery. N=17

	Variables	VHE	HE	ME	LE	$\bar{X}$	SD	Rmks
11.	Use of Microsoft excel enables efficient and effective decision making by lecturers.	0	8	5	4	2.24	0.83	ME
12.	Use of Excel enables critical thinking in the teaching process.	0	8	8	1	2.41	0.62	ME

13.	Use of Microsoft Excel provokes analytical thinking in the teaching and learning process.	0	12	5	0	2.71	0.47	HE
14.	Use of Microsoft excel helps to develop digital skills in data processing.	0	10	7	0	2.59	0.51	HE
15.	Use of Microsoft excel stirs up dormant skills in the teaching and learning process.	0	12	4	1	2.65	0.61	HE
Mean and SD						2.52	0.36	HE

Source: Researcher's Field Survey (2023)

Table 3 shows lecturers' responses with the grand mean and standard deviation scores of 2.52 and 0.36 respectively on the extent to which Microsoft excel is used in the utilization of technology in accounting education instructional delivery for skills acquisition in Rivers State Universities. From the mean score and that of the standard deviation, it is obvious that Microsoft excel is utilized. The researcher therefore concludes that usage of Microsoft excels to enhance acquisition of skills among business education students.

Research Question 4: What is the extent of students' utilization of Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities

Table 4: Computed Mean and Standard Deviation of Students' Response on the Extent to which Microsoft Excel is used in Instructional Delivery.
N=34

Variables	VHE	HE	ME	LE	$\bar{X}$	SD	Rmks
16. Usage of Microsoft excel helps to develop analytic thinking in students.	2	11	12	9	2.18	0.90	ME
17. Use of Microsoft excel aids better understanding with data analysis.	1	11	16	6	2.21	0.77	ME
18. Use of Microsoft excel helps to develop digital skills in learning.	0	20	7	7	2.38	0.82	ME
19. Microsoft excel exposes students to critical thinking skills.	1	15	12	6	2.38	0.81	ME
20. Use of Microsoft excel enables efficient data processing and informed decision - making.	1	17	8	8	2.32	0.88	ME
Mean and SD					2.28	0.53	ME

Source: Researcher's Field Survey (2023)

Table 4 shows the calculated mean and standard deviation scores from the students' responses on the extent to which Microsoft excel is used in the Utilization of technology in accounting education instructional delivery for skills acquisitions in Rivers State universities.

The mean response of 2.28 and the standard deviation of 0.53 shows that Microsoft excel is used to a moderate extent in the instructional delivery process. The researcher therefore concludes that the usage of Microsoft excel is to a moderate extent.

Null Hypothesis 1: There is no significant difference in the mean responses of lecturers and students on the extent of utilization of Interactive whiteboard in accounting education instructional delivery for skills acquisition in Rivers State Universities.

Table 5: Summary of ANOVA results on the Significant Difference in the Mean Response of Lecturers and Students on the Extent to which Interactive whiteboard is used in Instructional Delivery

Source	Type III Sum of Squares	Df	Mean Square	F -value	P-val	Decision
Status	.261	1	.261	2.199	.145	Accept
Institution	.061	1	.061	.510	.479	Accept
Status * Institution	.08	1	.081	.679	.414	Accept
Error	5.586	47	.119			
Total	201.400	51				

Source: Researcher's Field Survey (2023) (Details in appendix)

Table 5 shows the summary of calculated F-ratio 2.199, p-value .145, df 1 @ 47. Since the p-value of .145 is greater than the acceptable 0.05 level of significance, the null hypothesis which stated that there is no significant difference in the mean responses of lecturers and students on the extent of utilization of Interactive whiteboard in Accounting education instructional delivery for skills acquisition in Rivers State Universities is accepted. This implies that lecturers and students utilize interactive whiteboard in Accounting education instructional delivery for skills acquisition in Rivers State Universities.

Null Hypothesis 2: There is no significant difference in the mean responses of lecturers and students on the extent of Utilization of Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities

Table 6: Summary of ANOVA results showing the Mean Responses of Lecturers and Students on the Extent to which Microsoft excel is used in Instructional Delivery

Source	Type III Sum of Squares	Df	Mean Square	F -value	p-value	Decision
Status	.296	1	.296	1.663	.204	Accept
Institution	.767	1	.367	4.303	.044	Reject
Status * Institution	1.872	1	1.872	10.501	.002	Reject
Error	8.377	47	.178			
Total	296.240	51				

Source: Researcher's Field Survey 2023

Table 6 shows the summary of calculated F-ratio 1.663, p-value .204, df 1 @ 47. Since the p-value of .204 is greater than the acceptable 0.05 level of significance, the null hypothesis which stated that there is no significant difference in the mean responses of lecturers and students on the extent of utilization of Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities is accepted. This implies that lecturers and students utilize Microsoft Excel in accounting education instructional delivery for skills acquisition in Rivers State Universities.

Discussion of Findings

The discussion was done according to the findings from each research question thus;

Utilization of Interactive whiteboard in Accounting Education instructional delivery for skills acquisition

The Finding which shows no significant difference in the use of interactive whiteboards (IWBs) between lecturers and students could be attributed to the fact that educational institutions in Rivers state may place emphasis on developing skills relevant to the professional world. In line with the global best practices, interactive white board is recognized as a valuable skill in many fields including business education. Lecturers and students alike may prioritize acquiring and using these skills. This finding is in line with the view of Dauda, Nasiru, Amos, Danlami and Lumo, (2018) that Lecturers and students when adopted similar pedagogical approaches when using interactive whiteboards and the instructional strategies employed by both groups are comparable, it could lead to a lack of significant differences in their usage.

The finding showed that as collaborative learning is in the front burner in school and workplace environments, lecturers and students actively engage with each other and contribute to a shared use of tools like interactive white board. This finding is in line with the assertion of

Adeniji and Oke, (2018) who averred that when there is consistent institutional support for the integration and utilization of interactive whiteboards in both teaching and learning, it may result in similar usage patterns. Hence, Adequate support and encouragement from the educational institution can influence how both lecturers and students utilize the technology. This implies that when both students and lecturers have similar intentions and expectations regarding the technology's role in instructional delivery, it usually, result in similar usage patterns.

Utilization of Microsoft Excel in Accounting Education instructional delivery for skills acquisition

The absence of a significant difference in the use of Microsoft Excel between lecturers and students could be attributed to the widespread nature of Excel as a standard tool, its integration into curricula, emphasis on skill development, and the collaborative and interdisciplinary aspects of its applications in academic settings.

The result is in line with the works of Smith, (2018), who noted that any Lecturers who actively incorporate technology into their teaching methods may model the use of Microsoft Excel for students, creating a shared environment where both parties utilize the tool. The present finding is also in consonance with the works of Johnson, (2020), who asserted that both lecturers and students may recognize the importance of Microsoft Excel for their professional development, as lecturers may use it for research, administrative tasks, or teaching, while students may see it as a valuable skill for their future careers. The finding implies that given the prevalence of technology in education and the workplace, both lecturers and students may have a similar level of technological literacy, including proficiency in Microsoft Excel.

Conclusion

Based on the findings of this study, the study concludes that interactive whiteboards contribute to inclusivity in education by providing a versatile and interactive platform that caters to different learning styles, encourages collaboration, and supports accessibility features for students and lecturers alike. it shows that interactive whiteboard supports collaborative activities during lectures. Lecturers can encourage students to work together on the board, fostering a sense of community and inclusivity within the classroom. Excel enables lecturers to create customized learning materials, adapting content to suit the specific needs of their students. This customization supports diverse learning styles and helps ensure that educational content is accessible to all.

In all, Microsoft Excel's versatility contributes to inclusivity in education by providing a platform that supports diverse learning styles, enables collaboration, facilitates data-driven decision-making, and prepares students for a variety of professional paths. Its accessibility

features and ease of use make it a valuable tool for promoting inclusivity in both student learning and lecturer instruction.

Recommendations

Based on the findings and conclusion of this study, the following recommendations were made;

1. An awareness programme should be put in place to sensitize both teachers and students on the importance of practically using digital technology.
2. The curriculum of universities especially that of Accounting Education should include the practical use of these technologies.
3. Training programmes should be made available for teachers who need to get used to the practical application of these technologies.
4. Provision of these modern facilities should be looked into by both the Universities and the government to keep the students' abreast of the happenings in the outside world.

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