

Utilization of Modern Technologies for Teaching Office Management and Technology Courses in Business Education Programme in Rivers State Universities

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ABSTRACT

This study investigated the utilization of modern technologies for teaching office management and technology courses in Business Education programme in Rivers State Universities. Three objectives, three research questions and three hypotheses guided the study. A descriptive survey design was adopted in the study. The population of the study comprises of 68 office management and technology experts. The entire population was used for the study. The instrument for data collection was a self-structured questionnaire titled “Questionnaire on Utilization of Modern technologies for teaching office management and technology courses in Business Education programme in Rivers State Universities. The research questions were analyzed with mean and standard deviation while t-test was used to test the hypotheses formulated in the study at 0.05 level of significance. Findings revealed that; digital visual aids and digital audio aids are utilized for teaching at moderate extent while interactive whiteboard is not utilized. It was recommended that; more digital visual aids and digital audio aids should be provided by government and interactive whiteboard should be provided to enhance the teaching of office management and technology courses.

Keyword: Utilization, technology, Office management, Business Education, Rivers State Universities.

Introduction

Teaching and learning involves purposeful and meaningful transfer of knowledge, skills, competences and attitudes formation to learners in a formal or informal set up. The era of information and communication technology (ICT) known as information age has changed the traditional ways of learning in the classroom to a more interesting and fascinating one characterized with active and evaluative learning. This technological revolution has not only changed the way teaching and learning is done but also the way the world communicates conducts businesses carryout every day-to-day activities.

Technology is the systematic application of scientific or other organized knowledge to practical tasks (Harmony, 2017). Teachers use technologies to enhance teaching and learning through active participation of the students. Teachers do this by allowing students to source for information online and discuss with them in the classroom. The teachers also post basic information for students to access and learn from.

Modern technologies are the new tools (Electronic tools) that are used to enhance teaching and learning. Modern technologies are made up information and communication technologies are represented by several digital tools like computers, internet and intranet, general system of communication (GSM), world wide web (www), teleconferencing and video-conferencing devices and mobile technologies. Others are smart/interactive whiter board, dedicated e-learning centres, search engines and machines such as google, e-library and projectors, multimedia devices that combine sound images, graphics, video and text in a single presentation (Ebisine, 2017). There are other modern technologies for data capturing, multimedia software for simulations, publishing and presentation, digital recording, computer and computer projection technology that enhances teaching and learning (Amiaya, 2019). Modern technologies have been found to possess the capacity to improve instructions in the classroom. It has the great potential to support education across curriculum, thus, providing opportunities for an effective communication between teachers and students in ways that have not been possible before (Lefebure, Deaudelin & Loiselle, 2019).

Office management and technology courses are courses that are taught at the tertiary level of education with the aim of preparing students of office management and technology to become efficient managers of information in various spheres of life and organizations where they will be employed upon graduation important. It is of great importance to the extent that it involves the following course contents; office skill, office practice, meeting procedures etc. The introduction

of modern technologies has changed the way things are done in various professions including the teaching of office management and technology courses in universities. The essence of this, is to enable graduates of office management and technology programmes to compete favourably with their counterparts all over the world and as well be in line with global best practices. Some of these modern technologies for teaching in today's world are; interactive whiteboard, digital visual aids, digital audio aids, artificial intelligence, robotic technologies etc.

An interactive white board (IWB) is an interactive display system that is commonly used in educational application. Interactive white board forms a link between a teaching surface and a digital projector and a computer. It is large wall-mounted panel that uses teaching surface that allows the user to operate the computer through interaction with projected images (Tufan, 2020) interactive white board is generally perceived by students and teachers as a positive asset for classroom learning environment.

The use of interactive white board in instruction helps in improving learners with learning difficulties or disabilities to improve in their study. The use of interactive white board in teaching economics improves learning within a group of students that requires special techniques to be taught a particular subject (Oliver & Roschly, 2019). The use of interactive white board helps in harnessing literacy problems in subjects by offering repetition, recall prompt and other stimuli (Glover, 2019). It can help to reduce distraction which is common among students with special need and in turn affect their academic achievement (Oliver & Reschly, 2019). Distracted children pay attention for longer periods when interactive white board is used for instruction in the classroom. Interactive white board may be able to keep students on task for a longer period of time by decreasing their distraction time. Perhaps, students are less distracted and there is an increase in their motivation when compared with the understanding of concepts being taught in a particular subject (Blanton & Helms-Brezale, 2020).

An interesting presentation in the classroom with the use of interactive white board has a strong motivational effect and thus decreases distraction and increases students' motivation in a particular subject (Glover, 2019).

Interactive white board are visual learning tools that provides retention and recall of information and sequential explanation backed by movement such as "drag and drop" because of the visual orientation, the visual display of interactive white board results in a high level of student motivation (Glover, 2019).

It has also been observed that despite the benefits of interactive white board to the teaching and learning of interaction of various courses (including OMT courses) its usage largely depends on a lot of factors such as; availability, ability to operate this facility and availability of manpower (Okonkwo, 2019).

Digital visual aids as part of modern technologies that are used in teaching office management courses in secondary schools are material or equipment which are employed while teaching to aid learning by stimulating the senses particularly that of sight (Okeke, 2019). Visual aids refers to any visible materials which the teachers use to make his or her lesson clearer interesting and understandable. Visual aids are representation of materials such as photographs, diagrams and charts. Visual aids are materials which are employed while teaching to aid learning by stimulating the senses (Imogie and Agun, 2019). Generally, visual aids arouse the interest of learners and helps the teacher to explain various concepts in a subject easily. They are those instructional aids which are used in the classroom to encourage students' learning process. (Imogie and Agun, 2019).

The use of visual aids for teaching has immense benefits to the learners and teachers. It is helpful in teaching and learning process because it creates better subject contents and meanings. It helps students' to recall what have been taught easily (Abdullahi, 2019). According to Yunus, Salehi and John (2019), the use of visual aids such as pictures, videos and projectors helps the learners to understand the abstract ideas that are presented in the subject. Moreover, visual aids creates authentic communication between the learners, teachers and the course content that is being delivered to learners. It makes the learning process to be active and engages the learners through the display of materials to the learners' views. The use of visual aids in education draws the attention of the learners easily and learn with ease and creates comfort and enhances learners attention in the classroom. When learners see images, objects or visuals in front of them which matches their interest and choices, they become enthusiastic to express their opinion about the content being taught or delivered to them in the classroom (Abdullahi, 2019). When learners gets some background information from the visual aids, it becomes easier to talk or contribute in the class as the subject is being taught (Abdullahi, 2019).

Audio as part of modern technologies are materials that are commonly referred to as those without complete dependence on verbal symbols or languages (Anzaku, 2020). Audio when used

in teaching specific subjects encourages students' active participation. Audio are rich opportunities for students to develop communication skills while actively engaged in solving meaningful in specific contents in a particular subject (Natoli, 2019). It helps in stimulating the interest of students' in the teaching and learning process. Learning takes place effectively when the teacher sets out to provide learning situations in which a child will learn because of his natural reactions of the provided materials. During the process of learning, the teacher has to provide the learning situation to satisfy the natural reactions of the learner and this through the use of audio aids (Katherine, 2019) hence attracting the attention of the learners is caught and his interest is also won and he/she is ready to learn (Katherine, 2019). The use of audio resources for teaching in secondary schools makes learning interesting and permanent. Audio methods of instructions facilitates its acquisition, retention and recall of lessons learnt because they seem to evoke the maximum response of the whole organism to the situation in which learning is done (Gopal, 2019)

Statement of the Problem

The popularity in the digital and advanced ways of carrying out various activities at different spheres of life has introduced innovations. The educational sector is not left out in the development where modern methods of instructions are adopted to enhance students' comprehension of the concepts in various subjects against the old methods that were used before now to drive home the concepts in a course.

The issue of resource persons not being able to replace traditional mode of instruction with modern and advanced mode of instruction is of great concern looking at the importance of office management courses as a subject in senior secondary schools. Hence, the need for lecturers to adopt modern/digitalized mode of instruction becomes paramount so that objective of office management and technology courses can be adequately achieved. However, it has been observed that most lectures still use the old method of the instructional delivery at the detriment of the learners. This therefore, becomes a serious concern (Nwanewezi, 2021). It is on this ground this ground that this study seeks to ascertain the utilization of modern technologies for teaching office management and technology courses in Business Education Programme in Rivers State Universities.

Objective of the Study

The main purpose of the study was to determine the utilization of modern technologies for teaching office management and technology courses in Rivers State Universities. Specifically the study sought to;

1. Determine the extent of utilization of interactive white board for teaching for teaching office management and technology courses in Rivers State Universities
2. Determine the extent of utilization of digital visual aids for teaching office management and technology courses in Rivers State Universities
3. Determine the extent of utilization of digital audio aids for teaching office management and technology courses in Rivers State Universities

Research Questions

The followings research questions guided the study;

1. To what extent is interactive white board utilized for teaching office management and technology courses in Rivers State Universities?
2. To what extent are digital visual aids utilized for teaching office management and technology courses in Rivers State Universities?
3. To what extent are digital audio aids utilized for teaching office management and technology courses in Rivers State Universities?

Hypotheses

The following hypotheses were formulated in the study;

1. There is no significant difference in the mean rating of respondents in RSU and IAUE on the extent they utilize interactive white board for teaching office management and technology courses in Rivers State Universities
2. There is no significant difference in the mean rating of respondents in RSU and IAUE on the extent they utilize digital visual aids for teaching office management and technology courses in Rivers State Universities
3. There is no significant difference in the mean rating of respondents in RSU and IAUE on the extent they utilize digital audio aids for teaching office management and technology courses in Rivers State Universities

Methodology

The study was on the extent of utilization of modern technologies for teaching office management and technology courses in Business Education programme in Rivers State

Universities. The study adopted a descriptive survey research design. The population of the study consist of 68 respondents. The entire population was used for the study. Three objectives, three research questions and three hypotheses guided the study. The instrument for data collection was a self-structured questionnaire titled “Questionnaire on utilization of modern technology for teaching office management and technology courses (QUMTTOMTC) the instrument was structured on a four point rating scales of High Extent (HE) = 4, Moderate Extent (ME) = 3, Low Extent (LE) = 2, Very Low Extent (VLE) = 1. The instrument was subjected to face and content validity by three experts (two in Business Education and one in measurement and education department). Test-retest method was used to establish a reliability coefficient of 0.86 with the use of Pearson products Moment Correlation Coefficient.. Mean and Standard Deviation were used in analyzing the research questions while t-test was used in testing the hypotheses formulated in the study at 0.05 level of significance. A mean score of 2.50 was the acceptance region.

The boundary limit was thus;

High Extent (HE) = 4 = 3.50 – 4.00

Moderate Extent (ME) = 3 = 2.50 – 3.49

Low Extent (LE) = 2 = 1.50 – 2.49

Very Low Extent (VLE) = 1 = 1.00 – 1.49

Results

Research Question 1: To what extent is interactive Whiteboard utilized for teaching office management and technology courses in Business Education Programme?

Table 1: Mean And Standard Deviation On The Extent Interactive Whiteboard Is Utilized For Teaching Office Management And Technology Courses In Business Education Programme.

S/N	TEMS	RSU (28)			IAUE (34)		
		\bar{X}	SD	RMK	\bar{X}	SD	RMK
1.	To display information about subject matter so as to motivate students	1.61	0.32	LE	1.42	0.28	VLE
2.	To recall previous lessons that will enhance students' understanding	1.58	0.32	LE	1.29	0.26	VLE
3.	To repeat previous information that can help students to overcome literacy problems	1.45	0.29	VLE	1.26	0.25	VLE
4.	To display images that will help to reduce distraction among students with special needs	1.58	0.32	LE	1.27	0.25	VLE
5.	To display sharp and captivating information that will increase students' interest in the teaching and learning process	1.11	0.22	VLE	1.29	0.20	VLE
Total Mean/SD		1.47	1.47		6.53	1.30	
Grand Mean/SD		1.47	0.29		1.30	0.26	

Source: Field Survey, 2023

The analysis in table 1 shows that all the mean responses are below the 2.50 acceptance region. Thus, interactive whiteboard is not utilized by lecturers to display information about subject matters display images and display sharp and captivating information.

Research Question 2: To what extent are digital visual-aids utilized for Teaching Economics in Secondary Schools in Port Harcourt Metropolis?

Table 2: Mean And Standard Deviation On The Extent Visual-Aids Are Utilized For Teaching Office Management And Technology Courses In Business Education Programme

S/N	TEMS	RSU (28)			IAUE (34)		
		\bar{X}	SD	RMK	\bar{X}	SD	RMK

6.	To facilitate the acquisition of knowledge through auditory and visual stimuli	3.36	0.67	ME	3.00	0.60	ME
7.	To enhance the recall of lessons through auditory and visual stimuli	3.36	0.67	ME	2.97	0.59	ME
8.	To increase the interest of students in a topic through auditory and visual stimuli	3.25	0.65	ME	2.79	0.56	ME
9.	To promote teaching and learning process through auditory and visual stimuli	3.14	0.63	ME	2.94	0.59	ME
10.	To promote the retention of knowledge, through auditory and visual stimuli	3.36	0.67	ME	2.79	0.56	ME
Total Mean/SD		16.47	3.29		14.49	2.90	
Grand Mean/SD		3.29	0.66		2.89	0.58	

Source: Field Survey, 2023

The analysis in table 2 shows that all the mean responses are above 2.50 acceptance region. This, indicates that Digital Visual-aids are utilized to enhance lesson plan through pictures and models, concretize learning through visual stimuli simplify learning through pictures and real objects and as well create interest among learners.

Research Question 3: To what extent are digital audio-aids utilized for teaching office management and technology courses in Business Education Programme?

Table 3: Mean and Standard Deviation on the Extent Digital Audio-Aids are Utilized for teaching office management and technology courses in Business Education Programme.

S/N	TEMS	RSU (28)			IAUE (34)		
		\bar{X}	SD	RMK	\bar{X}	SD	RMK
11.	To enhance lesson plan through the use of pictures and models	3.21	0.64	ME	3.15	0.63	ME

12.	To concretize learning process through visual stimuli	3.10	0.62	ME	3.18	0.64	ME
13.	To make teaching and learning process real	3.25	0.65	ME	2.97	0.59	ME
14.	To simplify learning in the classroom through pictures and real objectives	3.21	0.64	ME	2.97	0.59	ME
15.	To create interest among learners through slides, pictures and real objects	3.18	0.64	ME	3.26	0.65	ME
Total Mean/SD		15.95	3.19		15.53	3.10	
Grand Mean/SD		3.19	0.64		3.11	0.62	

Source: Field Survey, 2023

The analysis in table 3 shows that all the mean responses are above 2.50 acceptance region. This, indicates that digital audio-aids are utilized to facilitate acquisition of knowledge, enhance recall of lesson through auditory stimuli and promote retention of knowledge through auditory stimuli.

Hypotheses

Hypothesis 1: There is no significant difference in the mean rating of respondents in RSU and IAUE on the extent they utilize interactive Whiteboard for teaching office management and technology courses in Business Education Programme

Table 4: T-Test Of Difference Between The Mean Ratings Of Respondents In RSU And IAUE On The Extent They Utilize Interactive Whiteboard For Teaching Office Management And Technology Courses In Business Education Programme

Groups	N	\bar{X}	SD	Df	t-cal	t-crit	Level of Sign	Decision
RSU	28	1.47	0.29	60	2.4	2.000	0.05	Rejected
IAUE	34	1.30	0.26					

Source: Field Survey, 2023

The analysis in table 3 shows that the t-calculated is higher than the t-critical ($t\text{-cal} > t\text{-crit}$). Therefore, the hypotheses was rejected. Thus, there is significant difference in the mean ratings of respondents in RSU and IAUE on the extent they utilize interactive whiteboard for teaching office management and technology courses in Business Education Programme

Hypotheses 2: There is no significant difference in the mean rating of respondents in RSU and IAUE on the extent they utilize digital visual aids for teaching office management and technology courses in Business Education Programme

Table 5: T-test of Difference between the Mean Ratings of Respondents in RSU and IAUE on the Extent they Utilize Digital Visual-Aids for teaching office management and technology courses in Business Education Programme

Groups	N	\bar{X}	SD	Df	t-cal	t-crit	Level of Sign	Decision
RSU	28	3.29	0.66	60	2.4	2.000	0.05	Rejected
IAUE	34	2.89	0.58					

Source: Field Survey, 2023

From the analysis in table 5 shows that the t-calculated is higher than the t-critical ($t\text{-cal} > t\text{-crit}$). Therefore, the hypotheses was rejected. Thus, there is significant difference in the mean ratings of respondents in RSU and IAUE on the extent they utilize digital visual aids for teaching office management and technology courses in Business Education Programme

Hypotheses 3: There is no significant difference in the mean rating of respondents in RSU and IAUE on the extent they utilize digital audio-aids for teaching office management and technology courses in Business Education Programme

Table 6: T-test of Difference between the Mean Ratings of Respondents in RSU and IAUE on the Extent they Utilize Audio-Aids for teaching office management and technology courses in Business Education Programme

Groups	\bar{X}	SD	Df	t-cal	t-crit	Level of Sign	Decision
RSU	28	0.64	60	0.57	2.000	0.05	Accepted
IAUE	34	0.62					

Source: Field Survey, 2023

The analysis in table 6 shows that the t-calculated is less than the t-critical ($t\text{-cal} < t\text{-crit}$). Therefore, the hypotheses was accepted. Thus, there is no significant difference in the mean rating of respondents in RSU and IAUE on the extent they utilize audio aids for teaching office management and technology courses in Business Education Programme

Discussion of Findings

The analysis in table 1 showed that interactive whiteboard is not utilized to display information about a subject matter, enhance recall of previous lessons, display images and display shapes capturing information that will increase students' interest in teaching and learning process.

This finding is an agreement with the view of Okonkwo (2019) who opined that despite the benefits of interactive whiteboard in enhancing instructions. Its usage depends on a lot of factors such as; availability, skill and availability of trained manpower to manage it.

The analyzes in table 2 showed that digital visual aids is utilize to do the following; enhances lesson plan through use of pictures and models, concretize learning and simplify learning in the classroom through pictures and real objectives.

This finding is in agreement with the view of Yunus, Salehi and John (2019) that the use of digital visual aids such as pictures, videos and projectors helps the learners to understand abstract ideas that are presented in the subject.

The analysis in table 3 showed that digital audio aids are utilized to; facilitate the acquisition of knowledge enhance recall of lessons though auditory, stimuli; to increase students' interest in a topic through auditory stimuli and promote the retention of knowledge through auditory stimuli.

This findings is an agreement with the view of Glopal (2019) who opined that the use of digital audio resources makes learning interesting, permanent, facilitates acquisition, retention and recall of lessons learnt because they evoke the maximum responses of the whole organization to the situation in which learning is done.

Conclusion

This study investigated the utilization of modern technologies for teaching office management and technology courses in Business Education Programme. The technologies considered were; interactive whiteboard, digital visual aids and digital audio aids. The findings revealed that

digital visual aids and digital audio aids are utilized at a moderate extent while interactive whiteboard is not utilized.

Recommendations

Based on the findings in the study, the researcher made the following recommendations;

- a. Interactive whiteboard should be provided by government so that it can be utilized to enhance the teaching of office management and technology courses in Business Education Programme.
- b. More digital visual aids / facilities should be provided to enhance the teaching of office management and technology courses in Business Education Programme.
- c. More digital audio aids / facilities should be provided to enhance the teaching of office management and technology courses in Business Education Programme.

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