

Utilisation of audiovisual aids in the teaching and learning of business studies in secondary schools in Lagos State, Nigeria

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Abstract: *The paper examined the utilisation of audiovisual aids in teaching and learning business studies in junior secondary schools in the Ojo local government of Lagos State, Nigeria. Two research questions and four hypotheses guided the study. The study adopted a descriptive research design for the survey type. A sample of 60 teachers was selected using a purposive sampling technique. Questionnaires and checklists were used to collect data. The data collected were analysed using descriptive statistics to answer research questions, while a t-test was used to analyse the hypotheses. The Cronbach alpha technique was used to determine the reliability of the questionnaire and a coefficient of 0.91 was obtained. The finding revealed a significant difference between teachers' qualifications, gender, and availability of audiovisual aids and their use by business studies teachers in secondary schools in Lagos State.*

Keywords: *business studies; audio-visual; teaching aid; entrepreneurship; technology*

Introduction

Education is universally recognised as a key tool for sustainable development and nation-building. In Nigeria, basic education, comprising six primary and three junior high school years, is foundational for employability and entrepreneurship (Oarenren-Osaghae et al., 2019). Teachers at this level must be qualified and dedicated, especially in teaching core subjects like Business Studies, which is essential for entrepreneurship. Accurate teaching, supported by relevant instructional materials, particularly audiovisual aids, is crucial. The education sector, as the primary provider of workforce skills, requires significant investment from every country to ensure effective skill development (Ekoh, 2023).

Business education is vital for personal and national development, focusing on skills for business-related occupations (Suarta et al., 2017; Turgenev, 2013). Despite its significance for economic advancement, low student enrolment and poor performance in Business Studies at the junior school level remain concerns, troubling educators who recognise its impact on the future workforce (Solomon et al., 2011).

In Nigeria, the effective use of audiovisual materials in education is hindered by inadequate infrastructure, such as poor internet connectivity and a lack of necessary hardware, as well as insufficient training for educators (Adewale et al., 2022). These challenges limit the integration of information and communication technology (ICT) in secondary education. Developing a skilled workforce and improving infrastructure are crucial for sustainable technology use in education, especially in developing regions where the use of ICT is still limited (Lin, 2019).

Improper management and maintenance of audiovisual resources constitute a problem with their use. According to Oluwaseun et al. (2018), some libraries have audiovisual resources but need more funds and preservative measures to maintain them adequately. Some materials are carelessly handled, i.e., they are heaped where dust, dirt, or even rain can easily reach them. Moreover, there needs to be more trained personnel in critical areas such as application software, operating systems, network administration, and local technical support for servicing and repairing computer equipment. According to Okuonghae et al. (2022), individuals designated to use computers in Nigeria often need more training; individuals designated to use computers in Nigeria often need more training; in many cases, they receive no training. This training deficit significantly hampers the effective use of ICT in education, as untrained staff need to help utilise the technology or address technical issues when they arise. The lack of comprehensive training programs further exacerbates the challenge, underscoring the urgent need for initiatives to develop the necessary technical skills among educators and support staff to foster a more technology-integrated educational environment. Users sometimes even use them while eating, which introduces viruses to them. When these resources are not correctly handled or preserved (e.g., by using jacket cases or whatever they require to protect them), they will get spoiled in time.

The effectiveness of teaching efforts will be determined by the ability of students to learn with ease and use it (Gultom & Oktaviani, 2022). Audiovisual resources have their own unique roles to play in teaching and learning situations and so must be made readily available and accessible, especially at resource centres like libraries. When students find it easy to learn, it indicates that the teaching methods are accessible and engaging, accommodating different learning styles and needs (Hoang & Hoang, 2023). This ease of learning can lead to higher levels of student engagement, motivation, and retention of information, which are critical for academic success. Furthermore, the ability to use the learned material is equally important. This practical application demonstrates that students have understood the theoretical aspects and can translate their knowledge into real-world contexts. This can involve problem-solving, critical thinking, and using technology and other tools relevant to their field of study. For instance, students who are well-versed in ICT can leverage these skills in various professional environments, making them more competitive in the job market. Students' poor academic performance is attributed to several factors, among which is a poor learning climate (Al-Tameemi et al., 2023). Therefore, using Multimedia Learning Theory (MLT), developed by Richard Mayer, can change the situation. MLT is based on the assumption that people learn more effectively when information is presented through both visual and auditory channels rather than through a single modality (Adewale, 2024; Mayer, 2020). The theory emphasises that learners have separate channels for processing visual and verbal information, and these channels have limited capacity. Effective multimedia instruction, therefore, leverages both channels to enhance understanding, but it must be designed to avoid cognitive overload. This is achieved by integrating relevant visual and auditory elements that complement each other, thereby enabling learners to build coherent mental representations of the content.

Another critical assumption of Mayer's theory is that learning is an active process where learners construct knowledge by selecting relevant information, organising it into a coherent structure, and integrating it with prior knowledge (Mayer, 2020, 2024). The theory suggests that multimedia instruction should facilitate this process by guiding learners' attention to essential elements, minimising unnecessary distractions, and aligning the content with learners' existing knowledge. By doing so, multimedia learning environments can foster a more profound understanding and long-term retention of information, making learning more efficient and effective.

Several studies highlight the impact of instructional materials on academic performance. For instance, Kyari (2023) linked material resources to student success in social studies in Yobe State, showing the importance of instructional resources in academic achievement. Audiovisual materials have been recognised for engaging learners, enhancing motivation, and improving understanding (Kwegyiriba et al., 2022). Research by Nallivetti and Ali Odeh (2013) in Saudi Arabia also found that audiovisual aids significantly help students who struggle with traditional learning methods.

In Nigeria, declining academic performance at the basic education level is a growing concern. The federal government views basic education as essential for fostering self-reliance and combating poverty and unemployment. Researchers attribute poor performance to various factors, including resource availability and teacher-related issues. School facilities are crucial for effective teaching and learning, significantly influencing student achievement and teacher performance (Olayinka et al., 2021). In Lagos State, efforts like the "Eko Project," funded by the World Bank, aim to improve educational resources and student performance (Roshan et al., 2016). However, public discourse often blames teachers' utilisation of resources rather than providing qualified teachers.

It is worrisome that students' attitude toward and their performance in business studies as a subject whose main goals are to build the student's careers and make them successful entrepreneurs is poor and needs to be addressed. Bratianu and Hadad (2020) noted that in the next two decades, business study students may need help overcoming the hurdles of the labour market. This results from many factors, including too much emphasis on theories instead of being practical. Abdu-Raheem (2014) stressed the need for continuous use of instructional aids to make learning objective. The researcher, therefore, sought to determine whether teachers' use of audiovisual instructional aids in teaching and learning business studies affects students' academic performance in the subject. Hence, this study seeks to investigate teachers' use of audiovisual instructional aids on student's academic performance using some selected schools in Ojo metropolis, an area of Lagos State, as a case study. Also, to find out if the availability of audiovisual instructional aids determines their use by business studies teachers. This study tested three null hypotheses, namely: H01: There is no significant difference between the teachers' use of the audiovisual in teaching business studies and the student's academic performance in junior secondary school in the Ojo local government area; H02: There is no significant difference in the mean scores of male and female teachers in the use of the audiovisual in teaching business studies in junior secondary schools in the Ojo Local Government Area; and H03: There is no significant difference

between teachers' academic qualifications and the use of audiovisual materials in teaching business studies in junior secondary schools in the Ojo Local Government area.

This study also uniquely addresses the gap in understanding the specific challenges and opportunities presented by audiovisual tools in a Nigerian educational setting, where infrastructure deficits and inadequate teacher training often hinder the effective use of technology in classrooms. By providing empirical data on the impact of audiovisual aids on student engagement and learning outcomes, this research contributes to the broader discourse on enhancing educational practices through technology, particularly in developing countries. This study is therefore hinged on the learner-centric ecology of resources model. The model was put forward in 1978 by Vygotsky. According to (Luckin, 2008), the model emphasises the essentiality of the relationship between the learner's circumstances and the learning that takes place due to his interactions within the circumstances. The model comprises four major components: skills and knowledge, curriculum, resources, and administration. Skills and knowledge are what is learned, while the tools needed to learn the skills and knowledge are the resources (Luckin, 2008). This theory applies to this study because audiovisual materials used by teachers to aid teaching and learning are likened to resources. At the same time, business education, on the other hand, is the skills and knowledge substance to be learned.

Method

The study adopted a descriptive research design of the survey type. The population of the study comprised all the public secondary school teachers in Ojo local government of Lagos state. A purposive sampling technique was used to select 60 business studies teachers. A teacher questionnaire on the Availability and Utilisation of Audiovisual Material in Business Studies (TQAUAMB) and a checklist were used for data collection. The questionnaire was divided into three sections. Section A contained demographic information about the respondents, Section B contained information on the effect of the availability of audiovisual materials on the academic performance of students in business studies in secondary schools., and Section C was devoted to the investigation of the use of audiovisual resources in teaching and learning. The options were presented on a four-point scale ranging from strongly agree (SA), Agree (A), disagree (D), and strongly disagree (SD), respectively. Correspondingly, each of these options attracts the following: SA (4), A (3), D (2), and SD (1).

Table 1. Grid of the instrument

S/N	UTILISATION OF AUDIOVISUAL AIDS	SA	A	D	SD
1	I frequently incorporate audiovisual aids into my Business Studies lessons.				
2	The use of audiovisual aids helps me explain complex Business Studies concepts more effectively.				
3	I feel confident in using audiovisual aids during Business Studies classes.				
4	Audiovisual aids significantly increase student participation in Business Studies lessons.				
5	The use of audiovisual aids saves time when delivering Business Studies content.				

PERCEIVED STUDENTS' PERFORMANCE		SA	A	D	SD
6	Students in my Business Studies class consistently demonstrate a good understanding of the subject matter.				
7	The majority of my students perform well on Business Studies tests and assessments.				
8	Students can apply Business Studies concepts effectively in practical scenarios.				
9	Students in my Business Studies class show improvement over time in their academic performance.				
10	My students demonstrate strong analytical and problem-solving skills in Business Studies.				

The research instrument was adapted from the study of Egbunonu (2006) on the availability and utilisation of instructional resources for teaching and learning practical skills in biology. The total items yielded an internal consistency of 0.91 via the Cronbach Alpha reliability technique. This showed that the instrument was valuable and consistent for the purpose for which it was prepared. Collected data was analysed using Simple Percentage, mean, and T-tests with the statistical package for social sciences (SPSS) software.

Table 2. Participants' Teaching Experience

Years	Frequency	Percentage
Five years and above	55	91.6
Below five years	5	8.4
Total	60	100

Table 2 shows that 55 teachers (91.6%) have spent more than five years on the job as business teachers, while only five teachers (8.4%) have spent less than five years. The implication of this is that most of the sampled teachers are experienced.

Results and Discussion

Table 3. Influence of Teachers' Academic Qualifications on the Extent of Using Audiovisual Aids to Teach Business Studies

Qualification	Frequency	Percentage
PhD	0	0
M.Ed.	3	5.0
MA/M.Sc.	2	3.3
PGDE	9	15
B.ED/B.A	46	76.7
NCE	0	0
Total	60	100

Table 3 shows the academic qualifications of the respondents. Most are first-degree holders in the two categories of B.A. and B.Ed holders 76.6% and PGDE holders 15%. The table also shows that none of the respondents is an NCE holder—the Master's degree holders at 8.3% in three categories of M.A., M.Sc. and M.Ed. Further analysis shows that only (5%) have a master's degree in education. Also, all of the respondents were Ph.D. holders. This is expected because PhD holders are more relevant in higher institutions than secondary schools and must have migrated to the available ones. This accounts for the low percentage of Ph.D.

holders in public secondary schools. The analysis showed that there are more graduate respondents than any other category of staff teaching business studies in junior secondary schools in the Ojo local government area of Lagos, Nigeria.

It was found that many of the teachers are education professionals. However, despite this, many of them do not use it due to the inadequacy of the audiovisual instructional aids. In fact, many teachers teach students using methods they learned at least 15 years ago (Ray & Sikdar, 2023). This implies that the knowledge, skills, and methodology teachers gained during their period of university training may be obsolete because of advancements in knowledge in all fields of endeavour and technology.

Research Question 2: Does the availability of audiovisual instructional aids determine its use by business studies teachers?

Table 4. Availability of audiovisual instructional aids in Junior Secondary Schools in Ojo Local Government Area

S/n	Item	Available	Inadequate	Not available
1	Workshop	0	0	20
2	Computer Laboratory	0	20	0
3	Overhead projector	0	0	0
4	Electricity	0	20	0
5	Alternative power source	0	20	0
6	Television set	1	14	5
7	Radio	0	0	20
8	Filmstrip	0	0	20
9	Videotape	0	17	3
10	Satellite Dish	0	0	20
11	Internet Facilities	0	0	20

Table 4 shows the availability and adequacy of audiovisual materials to teach business studies in the selected junior secondary schools in Lagos state. Only item number 6, television, is the only adequately available audiovisual material in all the sampled schools. At the same time, computer laboratories, electricity, alternative power, and videotapes are available in the schools but are not adequate to cater to the teaming population of business studies students. It was also found that radio sets, filmstrips, satellite dishes, and internet facilities that facilitate teaching and learning business studies are unavailable. This presupposes that teachers can only use what is available; more so, most of these items are not improvisable. Research question two indicated that the availability of audiovisual instructional aids determines their use by business studies teachers. This aligns with (Saula, 2016), who found that the government poorly funds most schools in Lagos state, and many need to be better equipped.

Hypothesis One: There is no significant difference between the teachers' use of audiovisual instructional aids in teaching business studies and students' academic performance in junior secondary schools in the Ojo local government area.

Table 5. Teachers' Use of Audiovisual Instructional Aids in Teaching Business Studies and Students' Academic Performance in Junior Secondary Schools.

Variables	N	X	SD	t	P-value	df	Remark
Students' performance	60	24.00	0.60	82.66	.000	59	Rejected
Utilisation	60	14.25	0.91				

Level of significance $P < 0.05$

The result in Table 5 showed that the p-value 0.000 is less than the level of significance (0.05) with t- a calculated value of 82.66. Hence, the null hypothesis that there is no significant difference in teachers' use of audiovisual instructional aids in teaching Business Studies and students' academic performance in junior secondary schools in the Ojo local government, Lagos, is rejected. This, therefore, means that there is a significant difference among business teachers in terms of students' academic performance and the use of audio-visual teaching aids. The finding bore credence to the finding of Chukwueke and Oluwabunmi (2022) that the use of audiovisual resources impacts teaching and learning in secondary schools in Makurdi.

Hypothesis Two: There is no significant difference in the mean scores of male and female teachers using audiovisuals to teach business studies in junior secondary schools in the Ojo Local Government Area.

Table 6: Mean score difference of male and female teachers on Audiovisual Aid Utilisation in Business Studies

Variables	N	X	SD	t	P-value	df
MALE	21	14.81	0.60	112.81	.000	20
FEMALE	39	13.95	0.91	95.07	.000	38

Level of significance $P < 0.05$

Table 6 shows that a p-value of 0.000 is less than the significance level (0.05), with t- a calculated value of 112.81 for male respondents and 95.07. Hence, the null hypothesis that there is no significant difference in the mean scores of male and female teachers in the use of the audiovisual in teaching business studies in junior secondary schools in Ojo Local Government Area, Lagos, is rejected. It, therefore, means that there is a significant difference among business teachers based on gender. It could also be seen in the mean score as the mean score of the male teachers ($X=14.81$) is much higher than that of female teachers ($X=13.95$). This aligns with what Capper reported in (Nalliveettil & Ali Odeh, 2013), who points out that many teachers who have access to the technology will not use it because they do not have technical knowledge and are satisfied with their current approach to teaching due to the gender group they belong.

Hypothesis Three: There are no significant differences between teachers' academic qualifications and the use of audiovisual materials in teaching Business studies in Junior Secondary Schools in the Ojo Local Government area.

Table 7. Differences between Teachers' Academic Qualification and the use of Audiovisual Material in Business Studies

Variables	N	X	SD	t	P-value	df	Remark
Academic Qualification	60	4.63	0.78	-56.6	.000	59	Rejected
Utilisation of AV aid	60	14.25	0.91				

Level of significance $P < 0.05$

The result in Table 7 showed that the p-value 0.000 is less than the level of significance (0.05) with t- a calculated value of -56.6. Hence, the null hypothesis that there is no significant difference in the academic qualification of teachers and the use of audiovisuals in teaching business studies in junior secondary schools in Ojo Local Government Area, Lagos, is rejected. This means there is a significant difference between the academic qualifications of business teachers. This presupposes that a teacher's training also contributes to the ability to use audiovisual aids. It could also be seen in the mean score as the mean score on academic qualification of teachers ($X=4.63$) is much less than the mean score on utilisation of audiovisual instructional aid ($X =14.25$). This agrees with the finding of Faith and Esevosa (2022) that teachers with long years of teaching experience can impact students more than teachers with short years of teaching experience. Similarly, this finding aligns with (Mayer, 2020) who reiterated the importance of multimedia in teaching and learning. Multimedia theory emphasises the urgency of using multimedia to prepare students because they use different channels to process visual and audio information. A teacher who limits him/herself to a particular media is not just limiting the effectiveness of the subjects he/she teaches but also denying students the ability to build a coherent mental representation of the subject's content.

Conclusion

The findings from this study have clearly shown that the relationship between the inputs and the corresponding outputs largely determines the success of an academic programme. Audiovisual materials to teach, the attitude of teachers to the use of audiovisual aids, and gender differences of business studies teachers are among the input. The study equally established that teachers' use of audiovisual aids makes learning business studies more accurate, but this has become a mirage due to non-availability.

Based on the findings of this study, the following recommendations were made:

1. The government should give more priority to the enhancement of teachers' job performance through adequate provision of audiovisual instructional aids.
2. Principals should supervise teachers in the classroom to ensure compliance with the use of available audiovisual instructional aids.
3. Teachers should be allowed to teach only the subjects in their areas of academic specialisation, and recommendations should be made promptly to the post-primary school board when there is a shortage of teachers.

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