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Impact Of Audio-Visual Aids On The Teaching And Learning Of Business Studies In Government Day Junior Secondary School, Ramat- Gashu'a, Bade Lga, Yobe State, Nigeria.

¹Babagana Burah; ²Musa Ibrahim Usur & ³Samaila Malam Audu

¹Department of Economics
Umar Suleiman College of Education, Gashua, Yobe State, Nigeria
babaganaburah1213@gmail.com

^{2,3}Department of Educational Foundation
Umar Suleiman College of Education, Gashua, Yobe State, Nigeria
²musaiusur@gmail.com
³samailamaudu@gmail.com

ABSTRACT

This research work examined the Impact of audio visual aids on the Teaching and Learning Business studies in Government Day Junior Secondary Schools Ramat-Gashu'a, Bade Local Government Area of Yobe State. The research design employed was quasi-experimental design in which pre-test and post-test were administered to both the control group and experimental groups in the study. The study population was 2,400 respondents while 150 students were selected as sample for the study; with 75 students for experimental group and 75 for control group and they were selected through the use of simple sampling technique. The findings shows that students exposed to audio visual materials while teaching in the experimental group perform significantly higher and retain the concept taught than those in the control group who were exposed to conventional teaching method only. The objective of the study was successfully achieved. Recommendation for further improvement in the use of audio-visual instructional material and periodic check was given among others. Therefore, the use of audio-visual instructional material in teaching and learning has tremendous impact.

Keywords: Audio-Visual Aids, Teaching and learning

INTRODUCTION

Today we are living in the era of information and communication technology (ICT) where a child starts playing on a touch-screen before he learns to crawl. The power of technology has captured the minds of the generation and this influence could be seen in the field of education to the technology for teaching students in this competitive scenario is the use of audio-visual aids related to "learning" visual is "seen", and aids are the tools that are used for this purpose. Apart from the use of text-books when the teacher uses audio-visual instructional materials the topic or concept became more clear, effective and easy to understand and thus, it last forever in the mind of students, (Ayikia, 2010).

Audio-visual instructional materials are very critical in the general teaching learning process. Audio-visual aids are those instructional devices which are useful in class room to encourage learning and make

it easier and motivating. The materials such as models, charts, film trips, projectors, radios, televisions, maps etc. form part of some audio-visual instructional materials. Teaching and learning activities are interesting when instructional materials are used effectively and efficiently in a classroom situation. Audio-visual aids grow the accurate image when the students see and hear properly. Audio-visual aids provides complete example for conceptual thinking. Audio-visual aids create the environment of interest for the students. Audio-visual instructional materials help in increasing the vocabulary of the students. According to Muteshi (2023), the fundamental principle of achieving superior student achievement through student-teacher interaction has remained at the heart of technology developments. Inevitably, education is taking its cue from how corporate organizations are deploying new audiovisual (AV) solutions. De Bernardes and Olsen (1948), pointed out that schools have been using AVs for decades which came in form of drawings and pictures with spoken narrations before the age of a TV and radio player. However, this has been improved use of computer technology which comes with plenty of advantages marking the period where AV aids are linked to multimedia. The age of internet has brought greater interactivity, connectivity, and flexibility enhancing creation and distribution of educational content on online platforms such as YouTube and Facebook to anyone using AV media and connected to the World Wide web (Muteshi, 2023). Currently, it is becoming a regular practice for teachers to use AV aids in the teaching of various subjects and many studies have been conducted to examine their value in teaching and learning (Mathew & Alidmat, 2013; Oyesola, 2014). However, the numerous It is necessary for the teachers and the learner of business studies in Nigeria to use audio-visual instructional materials in order to make their teaching more interesting to arouse the learning interest, sustain back their attention for effective learning.

Statement of the Problem

The transmission of facts, ideas and information from the teacher to the students in a systematic order or procedure is referred to as teaching. During this process audio-visual material otherwise known as teaching aids meant to make instruction more meaningful, clear and much more interesting to students are brought in display. There is a general impression that business studies are not achieving the desired objectives especially with high incidence of students' poor performance in the subject at junior secondary certificate examination. This situation has assumed a precarious dimension in all junior secondary schools in Bade Local Government Area in Yobe state. The failure of educational system to provide adequate and appropriate audio-visual aids is of a great concern to government, educational institutions and other concern citizens. It is believed that if adequate audio-visual materials are made available to school and are used appropriately in teaching-learning process, a better performance could be achieved. Hence, this study which seeks to find out the influence of audio visual materials in teaching business studies in Government Day Junior Secondary Schools Ramat, Bade Local Government Area of Yobe State.

Objective of the Study

1. To determine whether there is a significant difference in the achievement in business studies when they are taught using the identified audio visual materials.

Research Question

1. What is the Effect of Audio Visual Aids in the teaching and learning of business studies in Government Day Junior Secondary Schools Ramat, Bade Local Government Area, Yobe State?

Hypothesis

H₀: There is no significant difference between the students taught with audio visual aids and those taught with conventional method in Government Day Junior Secondary Schools Ramat, Bade Local Government Area, Yobe State.

LITERATURE REVIEW

Concept of Audio-visual

Audio-visual is defined as the combination of various digital media types such as text, images, sound and video, into an integrated multi-sensory interactive application or presentation to convey a message or

information to an audience. In other words, audio-visual means an individual or a small group using a computer to interact with information that is represented in several media, by repeatedly selecting what to see and hear next". Audio Visual resources are those devices which have either sound and visual component or either the visual presentation only while the presenter provides the audio by speaking, which help to present an abstract concept in an easier way for learners to understand. Learning is made more effective, concrete, stirring, interesting and stunning (Muteshi, 2023). The power of audio-visual lies in the fact that it is multisensory, stimulating the many senses of the audience. It is also interactive, enabling the end users of the application to control the content and flow of information. This has introduced important changes in the educational system and impact the way teachers communicate information to the learners.

The evolution of audio-visual aids has made it very possible for learners to become more involved in learning activity. With audio-visual technologies, learners can create audio-visual applications as part of learning project requirements. This would make the learners active participant in the learning process, instead of just being passive learners of the educational content.

Visual aids may be identified into two sub-categories: projected and non-projected (Pike, 2003; Projected Visual Aids are projected visual aids as pictures shown upon a screen by use of a certain type of machine such as a filmstrip projector, slide projector, overhead projector or TV/VCR (Hussain *et al.* 2009). Projected visual aids include silent motion picture and filmstrips, computer graphics, epidiascope, magic lanterns, macro projections, and projection with the opaque and overhead projectors (Wilson and Brent, 2005) while Non-Projected Visual Aids are visual aids that do not require any form of projection before they can be used. Visual aids in this group do not require projector, projector screen and electricity (Anyanwu, 2003). Non-projected visual aids can be print or non-print materials (Sisiliya, 2013). Print materials are the journals, textbooks, newspapers, magazines, periodicals, and others while Non-print materials include chalkboard, felt board, bulletin board, photographs, posters, pictures, maps, graphs, wall charts, flip charts, globes, realia, models, specimens, and textbook illustrations.

Theoretical Framework

Constructivist theory

Constructivist Theory shows that learning is an active process in which learners construct new ideas or concepts based upon their current/past knowledge. The theory of constructivism suggests that learners construct knowledge out of their experiences. However, constructivism is often associated with pedagogic approaches that promote active learning, or learning by doing such as the use of audio-visuals in teaching and learning. The theory was propounded by John Dewey in 1859.

This theory is relevant to our study because in the classroom, the constructivist view of learning can point towards a number of different teaching practices which include audio visual. In the most general sense, it usually means encouraging students to use active techniques (experiments, real-world problem solving techniques using audiovisual aid which create an indelible mark in the mind of the student) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing.

Empirical Review

Gadon , Kafari & Blessing (2025) investigates the impact of audiovisual teaching methods on the academic achievement of senior secondary school students in Agricultural Science in Mubi Educational Zone, Adamawa State, Nigeria, addressing the declining student interest in the subject. Utilizing a pre-test, post-test, non-randomized quasi-experimental design, 100 students were sampled from a population of 5,400, with data analyzed using t-tests at a 0.05 significance level. Findings reveal that students taught with audio-visual materials significantly outperformed their peers receiving conventional instruction, and male students exhibited higher mean scores than females. The study concludes that audio-visual aids can

enhance student engagement and learning outcomes, recommending their integration into teaching practices and curricula to foster better educational experiences.

Ehiem (2023) conducted a study in Abia State, Nigeria, revealing that students taught with audio-visual aids outperformed those who received traditional instruction. This finding underscores the effectiveness of multimedia tools in enriching the learning experience and improving comprehension.

In Enugu State, Nigeria, Eze and colleagues (2021) explored the impact of multimedia applications on students' academic achievement in Agricultural Science. Their mixed method study found that incorporating multimedia elements into teaching strategies not only increased student engagement but also led to higher achievement levels compared to conventional teaching methods.

Olayinka (2021) in Ekiti State, Nigeria, assessed the effects of technology-enhanced instruction on Agricultural Science students' learning outcomes. The quasi-experimental study concluded that students exposed to technology-enhanced instructional methods exhibited superior performance and a deeper understanding of the subject matter than those taught through traditional approaches.

A study by Abdullahi (2019) in Taraba State, Nigeria, examined the effects of visual instructional materials such as diagrams, maps, and specimens on students' performance in Agricultural Science. The research demonstrated that these visual aids significantly enhanced students' understanding and retention of the subject matter, leading to improved academic outcomes.

Also, Ode (2014) carried out a study on the impact of audio-visual resources on teaching and learning in private secondary schools in Makurdi metropolis. It was found out that all the selected private schools in Makurdi were using various types of audio-visual materials ranging from filmstrips, microforms, slides, transparencies, tape recordings, flashcards, projected opaque materials, photographs, discs, arts and study prints, charts, atlases, maps, posters and billboards and realia for teaching and learning. The findings from the study suggested that the use of audio-visual resources significantly affected teaching and learning as they promoted better understanding and expanded students' learning experience.

Oladejo *et al*, (2011) investigated the effect of using improvised instructional materials on academic achievement of secondary school physics students in Oyo state. In an experimental study which involved treating some students to improvised instructional materials, it was found out that students exposed to instructional materials with some elements of audio-visual aids achieved better than students taught with standard instructional materials. It was discovered that using improvised instructional materials such as visual aids assists the teacher economically and also allows students' interaction which make students achieve better in their lessons.

On the same issue, Nwankwo (2004) carried out a study on the use of audio-visual aids in the teaching of English in secondary schools in Anambra state. It was found out that teachers required audio-visual material to facilitate teaching of English and improve job effectiveness in general. It was observed that there was a relationship between the English teachers' use of audio-visual aids in the classroom and their teaching experience as well as previous training in the use of audiovisual materials. Data from the study revealed that many teachers had no experience at all on the use of audio-visual materials which made it impossible to achieve expected educational results. The selected secondary schools were found to be adequately equipped with textbooks and chalkboards which were used very well. However, software materials such as charts, tapes, slides and transparencies were not found in the schools and few visual aids that existed were not used effectively. Lack of adequate funds, electricity supply and high costs of equipment on the supply of instructional materials were among the problems that hindered availability of audio-visual aids in Anambra schools. All these problems affected students' learning and academic achievement in general. On the other hand, the following studies related to visual aids and students performance were also conducted in Ghana.

METHODOLOGY

Research Design

This study will adopt quasi-experimental research design involving pre-test, post-test, control group. Quasi experimental research according to Morrison (2004) is studies that aim to evaluate interventions but that do not use randomization. Like randomized trials, quasi experiments aim to demonstrate causality between an intervention and an outcome.

The design is a 2x2 paradigm. This paradigm will represent experimental and control group. The methodology will involve using one or more elements of different teaching and assessment tools. Consequently, the research design is illustrated below:

Experimental group \longrightarrow Q₁ \longrightarrow X \longrightarrow Q₂

Control group \longrightarrow Q₁ \longrightarrow -- \longrightarrow Q₂

Key:

Q₁= pre test

X= Treatment

Q₂= post-test

Notes:

Pre-test – students in experimental group and control group will be given a test on all materials to know students initial baseline that is before treatment.

Treatment stage – students in experimental group will be taught using computer assisted instruction (audio visual aid), while the control group will be taught using the conventional teaching method.

Post-test- students in experimental and control group will be given a test on all materials to know students learning achievement after treatment.

Population of the Study:

The population of the study covers the entire student in Ramat junior secondary school in Bade local government area. The population consists of 2400 student of Ramat junior secondary school Gashua, Yobe state.

Table 1: Distribution of the Population

S/N	LEVEL	MALE	FEMALE	TOTAL
1	JSS 1	350	300	650
2	JSS 2	350	350	700
3	JSS 3	550	500	1050
TOTAL		1250	1150	2400

Source: Ramat junior secondary school (2026).

Sample and Sampling Technique

The two intact classes of one hundred (150) students were selected out of total population of 2400 student for both experimental and control group. As sampling being the method employed to choose a sample (certain part of population) which could be true representative of the population under study, as such, simple random purposive sampling technique will be use for sample selection in this research work. In this regard, therefore, 150 students from JSS I & II were purposively selected from the total population of the study in which seventy five (75) will form the experimental group and another seventy five (75) will form the control group.

Table 2: Distribution of sample selected

S/N	LEVEL	MALE	FEMALE	TOTAL
1	JSS 1	40	35	75
2	JSS 2	40	35	75
TOTAL		80	70	150

Source: Authors computation, 2026

Data Collection Instrument

The study will use **BSPET** (Business Studies performance test) pre -test and post-test questionnaire which measure student knowledge. The instruments will be given to the student in both experimental and control groups in order to find the impact of audio visual materials in teaching and learning of student in the study area. Treatment involving the use of audio visual materials will be applied to the experimental groups before the administration of the Post-test questionnaire to them and the control group will receive no treatment involving audio visual materials.

Validation of the Instrument

The researchers gave out the instrument to two experts (from department of Educational Technology) in the field for corrections and ascertained the validity of the instrument. Hence, content validity was used for the validation.

Pilot study

A complete class of JSS III students will be used for pilot testing to ascertain the reliability of the instrument. The students are part of the target population but are not part of the sample selected.

Reliability of the Instrument

The reliability of the instrument was established after the pilot study at 0.75 alpha using cronbach which is considered good for this type of research.

Procedure for Data Collection

Pre-test, Post-test Questionnaire will be used for data collection for the research work which includes a set of questions and answers treated with the student during class lesson presentation. The researchers administered the questionnaires with the help of the research assistant in the school. The procedure that will be used for data collection involves the use of pre-test, treatment and post-test.

Pre-Test

Pre-test will at initial stage administered to both experimental and control groups before treatment. The researchers conducted the experiments and also administered the measurement instruments (treatment instrument) to the students. The two groups (experimental and control groups) were subjected to Business studies performance test as pre-test.

Treatment stage

The treatment for all the groups will last for one (1) week. The experimental group will be exposed to computer Assisted instruction programme which is installed on computers using a web browser (explorer, opera or fire fox) and overhead projector. The students in the experimental group were exposed to the computer assisted instruction format under the supervision of the researcher long enough for them to be familiar with the navigation bottom and use the package independently. In addition, they were encouraged to take enough notes that will be useful to them in the post test. The control groups were exposed to the conventional teaching method on the same content that was used for experimental groups.

Post-test

After the treatment, the two groups (experimental and control groups) were exposed to Business studies performance test in order to observe certain changes in performance of the two independent groups. Assessment was given and results were recorded and analysis was made based on the findings of the study.

Procedure for Data Analysis

The data were collected using pre-test and post-test questionnaire item (Business studies performance test questionnaire) will be subjected to statistical analysis using Descriptive statistic (mean and standard deviation). While the hypotheses will be inferential tested using (T-test analysis) at 0.05 level of significance.

PRESENTATION OF RESULTS

Answers to Research Questions

Research Question One: *To what extent are audio-aids material available for use during instructional communication?*

To determine the extent of the use of in audio-aids teaching material in Ramat junior secondary school, test was administered as pre-test and post-test, descriptive statistics that is, mean and standard deviation will be used to answer the research questions as follows.

Table 3: Mean Scores for control and experimental group (pre-test and post-test)

Control group				Experiential group			
	N	Mean	SD		N	Mean	SD
Pre-test	75	4.34	1.66		75	3.64	1.45
Post-test	75	3.68	1.74		75	6.07	1.96

Source: Authors Computation, 2026

N: Number of respondents, **SD:** Standard deviation.

The above information shows that before treatment student in the control group score higher marks than students in the experimental group and after treatment, students from the experimental group scores higher marks than students of the control group. This is as a result of application of computer aided instruction in form of audio visual media in teaching and learning process in Ramat junior secondary school Gashua.

Research Question Two: *Does Audio visual materials improve students' performance in Government day Junior Secondary Schools Ramat Gashu'a Bade Local Government Area, Yobe State?*

Result of post-test of both control and experimental groups will be used to answer this research question.

Table 4: Mean Scores for control and experimental group (pre-test and post-test)

Test	Mean	SD
Pre-test	3.68	1.74
Post-test	6.07	1.96

Source: Authors Computation, 2026

The table above shows the mean scores and standard deviation of pre-test result and post-test of the experimental group.

To determine if audio visual materials improve student academic performance in the school, a comparison of mean scores and standard deviation between the pre-test and post-test of the control and experimental group is made.

From the table above, the following information is obtained. At pre-test in the control group, a mean score of 3.68 and standard deviation of 1.74 were obtained, and a mean score of 6.07 and standard deviation of 1.96 from post-test in the experimental group were obtained. The higher the mean score value, the higher the score of the students and the lower the mean value the lower the scores of the students. The above information shows that students' performance at both pre-test for control group and post-test sessions of the experimental group are significantly different with the student scoring higher mark in the post test after treatment. This shows that instructional materials in form of audio visual materials such as tape recorder, overhead projector, computer aided instruction programmes and television improve student performance upon application during classroom instructions since the student perform significantly better upon treatment involving instructional media in the experimental group which significantly improve the student performance in the school as it is indicated in the mean score of the student.

Research question three: *Does audio visual materials effectively use for teaching in the school?*

Result of post-test of both control and experimental groups will be used to answer this research question.

Table 5: Mean scores and standard deviation of respondent in control and experimental groups (post-test)

Test	Mean	SD
Pre-test	3.68	1.74
Post-test	6.07	1.96

Source: Authors Computation, 2026

Higher mean value indicate higher marks score and lower mean value indicate lower marks score. The higher the mean value of the groups (control and experimental groups), the more the importance of audio visual materials in effective teaching and learning. Based on the information from the above table, the mean score of the control group is 3.64 and standard deviation of 1.76 while the experimental group has a mean score of 6.07 and standard deviation of 1.96. The above information shows that student taught using traditional/conventional method of teaching (control group) score lower marks compare to student from experimental group which were taught using audio visual learning materials. This information shows that audio visual materials are effectively used in promoting student interest and retention level which lead to higher performance.

Table 5: t-test result and decisions

Ho ₁	Mean	SD	T-cal	T-crit	Level of significance	Remark
Per-test	3.68	1.74	2.07	4.20	0.05	Accepted
Post-test	6.07	1.96				

Source: Authors Computation, 2026

Analysis on table 5 above revealed that t-cal of H₀₁ is less than the t-crit, thus the hypothesis that there is no significant difference in the achievement of students in Business studies when they are taught using audio visual aids in Government Day Junior Secondary School, Ramat, Bade L.G.A in Yobe state is rejected while the alternative hypothesis is upheld since the t-cal < t-table at 0.05 level of significance.

DISCUSSION

The result of the finding revealed that student's performance at both pre-test for control group and past test session of the experimental group are significantly different. It shows that instructional materials in form of audio-visual materials improve students' performance when applied.

The result of the finding also revealed that students taught using traditional/conventional method of teaching (control group) score lower marks compare to students from experimental group which when taught using audio visual learning materials.

This result support the findings of Eze, Eze, & Ugwu (2021) who reported that multimedia applications on students' academic achievement in Agricultural Science with mixed method study found that incorporating multimedia elements into teaching strategies not only increased student engagement but also led to higher achievement levels compared to conventional teaching methods. They found that the techniques increased the student motivation, added efficiency to the classroom in both note-taking and amount of materials covered, and seemed to increase student learning as supported by higher test scores of those student using audio visual materials than those using conventional method of teaching.

CONCLUSION

Based on the findings of this study, it was concluded that the students who are exposed to audio visual instructional materials in the experimental group performed significantly better than their counterparts which were exposed to lecture method only. The students exposed to Audio visual aid also perform better and understand the concept taught than those students in the control group who were using lecture method. Finally, the use of audio visual instructional materials significantly arouses student interest, add efficiency to the classroom in both note taking and amount of materials covered and increase student learning.

RECOMMENDATIONS

Findings of this study forwarded the following recommendations:

1. Teachers should be encouraged to make use of different audio visual aids as long as they are relevant to their lesson contents and where they are not available or inadequate, teachers should improvise alternative audio-visual aids material.

2. Government and Non-Governmental Organizations should assist the School management boards to fund the provision of audio-visual aids in schools.
3. Teachers in Secondary Schools should be encourage to attend workshops, seminars and in-service training programmes in order to update their knowledge in handling and utilizations of audio-visual materials;
4. The school management should provide regular power supply for schools for operating the audio-visual facilities.

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