



## EFFECT OF MULTIMEDIA PACKAGE ON SENIOR SECONDARY SCHOOL STUDENTS' ACADEMIC PERFORMANCE IN ISLAMIC STUDIES IN KATSINA STATE

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### Abstract

This study investigated the effect of multimedia packages on senior secondary school students' academic performance in Islamic studies in Katsina State. The study employed a posttest-only control group quasi-experimental research design. The population of this study consists of 11,273 SS 2 Islamic studies students. Two coeducational schools were purposively selected to participate in the study. One school (GSS Muduru) was placed into the experimental group, and the other school (GSS Doro) served as the control group. A sample of 165 male and female students participated, achieved through intact classes of each school. Two research hypotheses were tested at a 0.05 level of significance. The study employed a researcher-designed instrument for data collection titled the Islamic Studies Achievement Test. The test measured the students' academic performance and data obtained were analyzed using the t-test statistic. The findings of the study revealed that multimedia instructional resources have a significant impact on the academic performance of Islamic studies students exposed to multimedia packages. The study also revealed that there is a significant effect on the academic performance of male and female Islamic studies students exposed to multimedia packages, where male students performed better than their female counterparts. Based on the findings, the study recommended that education stakeholders should work together to ensure effective and sufficient provision of multimedia instructional resources and technical knowledge of such resources should be made available among secondary schools in Katsina State.

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**Keywords:** academic performance, multimedia, Islamic studies

### Introduction

Students' academic performance is a crucial concern for parents, teachers, and the government. Despite various efforts by education stakeholders in Katsina State, access to quality education remains a significant challenge. To enhance students' academic success in secondary schools, academic experts and religious leaders have recommended various ideas and strategies, including the use of multimedia instructional materials. According to Alorainis (2012) and Guan, Song, and Li (2018), multimedia is an essential aspect of 21st-century education that helps engage students and maintain their interest in learning. A multimedia instructional resource combines different types of media, such as text, symbols, images, audio, video, and animation, with the use of computer technology devices. This is done to create interactive learning activities and improve the understanding and mastery of skills, facts, and ideas related to a given concept. These resources support verbal instruction using images, visualization technology, and interactive tools to enhance students' expression and comprehension.

Teachers are responsible for facilitating the teaching and learning process for secondary school students by making lessons more interesting, convenient, and engaging. They aim to help students proactively use their senses to learn Islamic guiding principles and perfect ethics derived from the Holy Qur'an and Sunnah of the Prophet Muhammad (S.A.W). To achieve students' learning success, multimedia teaching



and learning resources are being produced and recommended for teachers to use. These resources allow teachers to present Islamic studies content using multiple formats and multi-sensory modalities to students. Multimedia learning resources are computer-aided instructions that use two or more information processing modalities. Visual learning (pictures, written text, animation, video) and verbal learning (spoken words) are used to deliver content in a way that is different from traditional classroom lessons in secondary schools (Mayer, 2002; Mahajan, 2012; Ado, Essien & Gabriel, 2018). Multimedia learning is often delivered using a computer running software, with a competent teacher assisting learners to process information using two discrete memory channels: an auditory channel to hear sound accompanying video and spoken words, and a visual channel to see and process written text, animation, still images, and moving images.

The use of multimedia instructional materials enhances communication channels during classroom presentations. Students are not only listening to their teachers but also actively participating in the lesson using their sensory organs through different communication channels which leads to effective and permanent learning. Mahajan (2012) noted that multimedia is used in teaching and learning Islamic studies to make better use of educational technology in modern classrooms. These multi-sensory resources are essential for increasing productivity and retention capacity. Research shows that students can remember 20% of what they see, 40% of what they see and hear, and about 75% of what they see, hear, and do simultaneously. Multimedia serves as an active learning tool, enabling students to directly engage in critical thinking, information and media literacy, communication skills, and collaborative and contextual learning. Furthermore, multimedia resources effectively reflect moral values in Islamic studies, providing students with holistic knowledge, values, attitudes, and skills that contribute to shaping and changing their minds during their formative years. Aminu (2019) emphasized that the foundation of Islamic studies at senior secondary schools aims to improve moral conduct and enhance religious harmony among students, preparing them for present and future life.

According to Liman (2012) and Saheed (2017), it was noted that students who have mastered Islamic studies at the secondary school level are capable of developing a solid foundation characterized by good manners, truthfulness, and honesty in words and behaviour as righteous servants of Allah (SWT). These students are seen as the future manpower of the country, expected to utilize their human qualities to provide effective services for the betterment of people worldwide. Several studies have been conducted in and outside Nigeria to address the issue of poor academic performance in Islamic studies. For instance, Lawal (2014) conducted a study on the effect of multimedia in teaching Islamic studies to junior secondary school students in Kaduna State, with the findings revealing a significant effect on the student's learning outcomes. Similarly, Ado, Essien, and Gabriel (2018) explored the influence of multimedia on students' interest and achievement in learning the mathematical concept of line in geometry in Bayelsa State, with the results showing that students learnt mathematics very well by using multimedia, and students' interest was significantly enhanced. Another study by Liman (2012) on problems associated with the curriculum of Islamic studies in secondary schools in Katsina State elucidated the difficulties that students at the secondary school level face in learning Islamic studies due to insufficient use of multimedia resources by teachers during their lessons. Additionally, Enikanolaye (2021) carried out a study on multimedia instructional strategy on senior school students' performance and Retention in Mathematics in Kwara State, reporting when students' minds were aroused and stimulated using illustrations, they were enabled to concentrate and exert effort to learn the lesson very well. These researches reported a positive impact of multimedia packages on the academic performance



of senior secondary school students, particularly in Katsina State. Aminu (2019) posit that despite the efforts made by researchers, the academic performance of students in Islamic studies at senior secondary schools in Katsina State has been unsatisfactory. This issue is mainly due to the use of poor teaching methods and rote learning by some Islamic studies teachers in secondary schools, as well as the lack of use of multimedia instructional materials in their daily lessons.

### **Statement of the problem**

The persistent poor academic performance of students in Islamic studies at the senior secondary school level in Katsina State is concerning to the Muslim community. Islamic studies are considered a core moral value and religious pillar for the people in Katsina State. The knowledge cultivated in Islamic studies is fundamental and crucial to ethics drawn from the holy Qur'an and the Sunnah of the Prophet (SAW) which is regarded as the perfect way of life. However, students are unfortunately reporting mass failure in the subject. This is causing doubt and confusion among parents, teachers, and the government regarding the future of these students. Despite being at an age where they are expected to learn social and religious ethics and develop a profound love for their religion, the students are consistently failing the subject in their Senior Secondary Certificate Examination (SSCE) graduating exam each year. This problem is considered a principal factor in the poor academic performance of students in Islamic studies subjects at senior secondary schools in Katsina State, Nigeria. Liman (2012) and Saheed (2017) observed that the problem of students' poor academic performance was largely attributed to the inadequate pedagogical use of multimedia instructional resources by some Islamic studies teachers since its effective use will respond to the students' intellectual needs and could play an important role in reversing the menace. Therefore, the researcher considered it pertinent to conduct a study to determine the effect of multimedia packages on senior secondary school students' academic performance in Islamic studies in Katsina State.

### **Research Hypotheses**

The following null hypotheses were formulated and tested in the study.

**Ho<sub>1</sub>:** There is no significant effect of multimedia packages on the academic performance of Islamic studies students among senior secondary schools in Katsina State Nigeria.

**Ho<sub>2</sub>:** There is no significant mean difference between the academic performance of male and female Islamic studies students exposed to multimedia packages among senior secondary schools in Katsina State, Nigeria.

### **Methodology**

The research design used for this study is the posttest-only control group design. This is the most appropriate design since intact classes were utilized as experimental and control groups. The posttest was administered to both experimental and control groups to ensure equal homogeneity and intellectual abilities of the respondents. The experimental group were taught Islamic studies using multimedia packages, while the control group were exposed to traditional/conventional teaching methods. The population for the study is 11,273 senior secondary school II Islamic studies students in Mani Zonal Education Quality Assurance, Katsina state. Purposive sampling was used to select two coeducational government senior secondary schools, while the experimental and control groups were determined through a random sampling technique. An intact class of 85 students for the experimental group and 80 students for the control group was sampled in the study. The Islamic Studies Achievement Test (ISAT) consisting of twenty multiple-choice questions covering the contents of prayer and fasting, with a

reliability coefficient of .70 determined by the Pearson product-moment correlation coefficient was used for data collection. The data collected were analyzed using a T-test at a 0.05 level of significance.

### Findings

**Hypothesis 1:** There is no significant effect of multimedia packages on the academic performance of Islamic studies students among senior secondary schools in Katsina State Nigeria.

**Table 1:** *T-test comparison of the post-test mean scores of the experimental and control groups*

Gender	N	$\bar{x}$	SD	df	Calculated t-value	p-value	Decision
Experimental	85	14.63	2.86	163	5.056	0.000	Rejected
Control	80	12.86	1.57				

Table 1 shows the effect of the multimedia packages on the academic performance of Islamic studies students among senior secondary schools in Katsina State Nigeria, ( $t=5.056$ ,  $df=163$ ,  $p=0.00$ ), therefore the null hypothesis is rejected. This implied that the experimental group of Islamic studies students had performed better than the control group in the post-test.

**Hypothesis 2:** There is no significant difference between the mean academic performance of male and female Islamic studies students exposed to multimedia packages among senior secondary schools in Katsina State, Nigeria.

**Table 2:** *T-test comparison of posttest mean scores of male and female students in the experimental group*

Gender	N	$\bar{x}$	SD	df	Calculated t-value	p-value	Decision
Male	40	17.05	2.04	83	11.424	0.000	Rejected
Female	45	12.60	1.54				

Table 2 shows the difference between the academic performance of male and female Islamic studies students exposed to multimedia packages among senior secondary schools in Katsina state Nigeria ( $t=11.424$ ,  $df=83$ ,  $p=0.00$ ), therefore the null hypothesis is rejected. This implied that male students performed better than their female counterparts in the Islamic studies achievement test at the post-test.

### Discussion of Findings

Hypothesis 1 revealed a significant effect of multimedia packages on the academic performance of Islamic studies students ( $p=0.00$ ) in the experimental group who were exposed to a multimedia package compared to the control group, which was taught using conventional methods in senior secondary schools in Katsina State, Nigeria. This supports the findings of Ercan (2014) and Akinoso (2018), who asserted that multimedia learning strategies enhance learning outcomes among students. It further aligns with Lawal (2014) that using instructional multimedia can make the students' performance more effective and efficient, bridging the gap between theory and practice to enhance the delivery of Islamic studies content.



This approach also helps students develop listening, viewing, cognitive and psychomotor skills, which they can apply practically in their daily lives of worship.

Hypothesis 2 further revealed a significant difference in the mean academic performance of male and female Islamic studies students exposed to multimedia packages in senior secondary schools in Katsina State, Nigeria. The findings show that the mean score (17.05) of male students in the experimental group are higher than the mean score (12.60) of female students in the same group. The computed t-value of 11.424 at the degree of freedom of 83 results in a p-value of 0.000, indicating statistical significance and leading to the rejection of the null hypothesis. The analysis favours male Islamic studies students in the experimental group over their female classmates in the Islamic studies post-test. This finding is consistent with Usman's (2010) assertion that male students tend to perform better due to their natural characteristics endowed by Allah (SWT), where males were attributed mostly as intelligent, logical, critical reasoning, tactful, fearless and self-confident over the female servants. Further, the study of Akinoso (2018) revealed higher mean achievement scores for male senior secondary school students compared to their female counterparts in an experimental group in Mathematics. However, a study conducted by Ado et al. (2018) suggested that gender has no influence on students' achievement but highlighted the significance of effective use of multimedia instructional materials in enhancing teachers' mastery of the subject matter, helping the students construct their knowledge, increases their curiosity, interest and achievement.

### **Conclusion**

This study investigated the effect of multimedia packages on the academic performance of senior secondary school students in Islamic studies in Katsina State. The findings of the study revealed that multimedia packages have a significant impact on the academic performance of Islamic studies students. The study also revealed that there is a significant effect on the academic performance of male and female Islamic studies students exposed to multimedia packages, where male students performed better than their female counterparts. It, therefore, concluded that the use of multimedia in teaching Islamic studies concepts helps the students to develop skills of listening, viewing, reading and retaining the concepts been taught to them for a long time and helps the students to apply them in their daily worship.

### **Recommendations**

Based on the findings of this study, the following recommendations are considered appropriate:

1. The government at all levels invest in acquiring computers and well-equipped computer laboratories in Katsina state senior secondary schools. This will help maintain students' academic performance as found in this study. It will also provide an opportunity for curriculum planners to design activities related to the technological groundwork of these schools for multimedia instruction, which can enhance the state's educational system.
2. The Katsina State Ministry of Basic and Secondary Education, in collaboration with the Katsina State Ministry of Religious Affairs and other donor agencies, organize workshops, seminars, and conferences. They should also provide in-service and pre-service training for Islamic studies teachers and principals of the schools. This training should focus on integrating multimedia with different information devices to help male and female students better understand abstract concepts in Islamic studies, thus improving their daily worship delivery.



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