Effects of Audio-Visual Usage on Upper Basic School Students' Performance in Christian Religious Studies in Federal Capital Territory Abuja, Nigeria

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Abstract

This study examined the effects of audio visual materials on the performance of Upper Basic Secondary School Students' in Christian Religious Studies in Federal Capital Territory Abuja, Nigeria. The study adopted the descriptive survey research method. All the upper basic secondary school students in FCT Abuja formed the population of the study. A purposive sampling technique was used to select two schools to participate in the study. The two selected schools were designated as experimental and control group through balloting. A total of 65 students formed the sample for the study. A validated Christian Religious Studies Achievement Test achievement test instrument was developed by the researchers, validated by experts with a reliability coefficient of 0.76 was administered. The research questions were answered using descriptive statistics and the two hypotheses were tested using independent sample t-test statistic. The results from the study revealed that the treatment was effective in improving the students' academic performance. It was also found that, there was a significance difference between the academic performance of the students in the experimental and control group. This study concludes that students' poor academic performance in CRS could be as a result of poor or inadequate utilization of audio visual materials. Therefore, the study recommends that school management should make audio visual materials available for effective delivery of instruction. Also, school authorities should encourage teachers to make efficient use of audio visual materials during the instructional process.

***Keywords*:** Audio visual material, academic performance, Christian Religious Studies (CRS).

Introduction

Teaching and learning activities are interesting when audio-visual materials are used effectively and efficiently in a classroom-teaching situation. To teach Christian Religious Studies effectively, teachers should use audiovisual materials as instructional tools to pique learners' interest, and keep their attention for effective learning. Teachers are aware that students learn in different ways and have different ways of absorbing information and demonstrating their knowledge. Teachers employ a variety of teaching strategies and methods to ensure that learners have equal opportunities to learn. It must however be stated that teaching methodology in education is not a new concept in the teaching and learning process. New methods and techniques evolve almost every day to supplement existing ones in teaching.

Christian religious studies, like any other subject, can be effectively taught by utilizing various audiovisual resources that appeal to the three senses of sight, touch, and hearing. Swank (2011), Mercedes and Amelia (2017), also stressed the effectiveness of visual material in learning; it was estimated that about 40% of what is learned is through visual experience, 25% through auditory experience, 17% through tactile experience, 15% through miscellaneous organization, and 3% through taste. Fillmore (2008) also opined that when teaching, the teacher should appeal to the mind primarily through the visual and auditory sense organs as these senses absorb up to 85% of our learning.

Investigations, however, have shown that Christian Religious Studies is in crisis as the number of students studying CRS at all levels is declining rapidly by the day (Njoku, 2015; Ojo, 2016;Adeboye, 2019**)**. It has also been discovered that, of all the arts subjects, CRS is one of the subjects with the lowest enrollment (Edorhe, 2017). One reason could be a lack of specialist CRS teachers, as well as the perception that CRS is a difficult subject Aladetimehin 2017, Isola, 2010). According to Oyedeko (2013), CRS is a difficult subject to learn because maximum concentration is required for the understanding of historical facts, and students these days have a lax attitude toward learning.

Studies have also revealed that the performance of students in the CRS in the West African School Certificate Examination (WASSE) and National Examination Certificate NECO) has been generally and consistently poor over the years (Amadi 2012,Akubue 2013). Njoku (2015)observed that not all those who teach students are considered teachers in the traditional sense. In his opinion, the teacher is the one who understands what his or her students need to learn and their capabilities for learning. Thus, the teacher must be able to judge just how much intervention students will require in their learning activities. As a result, the CRS teacher is expected to facilitate learners' learning processes. He or she should be a professional who will use all available resources to improve teaching and learning.

Teaching without teaching resources reduces student interest and participation in the teaching-learning process. Amadi(2012), Akubue(2013), Njoku (2015)are of the opinion that effective utilization of audio-visual resources will help in promoting students' understanding and academic performance. Hence the need for this study. Audio-visual materials are popular and effective teaching strategies when combined with lecture and demonstration. Mkpa (2014) sees audio-visual materials as resource materials used in facilitating learning by saving the instructor's time and effort, capturing the learner's interest, promoting effective retention of subject matter learned, keeping students busy and active, and stimulating imagination. Audio-visual materials, when properly used, can help make the message of the teacher more vivid and interesting. They make the participation of the learner in the teaching and learning process more fully involved, meaningful, and useful.

When used intelligently, audio-visual materials can provide the most effective type of teaching and learning at all levels of education because audio-visual materials can make important aspects of teaching that appear unreal, vague, uninspiring, shadowy, and relatively meaningless seem real and meaningful. Allen and Bacon (2014) stated that audio-visual materials provide a wide variety of musical and dramatic experiences that carry the stimulus of sound and picture to the students. Moreover, they have well-developed systematic, progressive, and applied approaches that carry organized, integrated knowledge and experience presented from a source to a large audience (number of students) in order to mitigate educational problems and improve the process of learning. They are useful materials for promoting better planning and scheduling, giving the teacher more time for supervision, guidance, coordination, and correction of students' work.

Audio and visual materials such as radios, televisions, video sets, power points, and computers have found their way into the classroom. If these are properly used, they can make the teacher's task easier and more effective. A good teacher tries to use a number of these materials to enhance the efficiency and effectiveness of the teaching and learning. Kosoko-Oyedeko (2013) opined that the achievement of educational objectives depends primarily on the knowledge and proper utilization of audio-visual materials. Onyejemezie (2014) reveals that audio-visual materials do not achieve any of the attributed values on their own; their usefulness and impact depend on what the teacher makes of them. This is why it is absolutely necessary for the teachers to have the knowledge and manipulative skills to use these materials to the fullest, for without the teacher using these materials in the teaching-learning process, the students may find it extremely hard to learn.

Audio-visual materials provide a stimulating environment for the child's exploration, developing the child's sensory skills (tasting, touching, feeling, seeing, and smelling), body coordination, and increasing finger and gross motor skills through manipulating objects (Ikwuka, 2018). Learning is most effective when two or more senses are used simultaneously to receive information. For example, using

vision and hearing to learn something is believed to be more effective than just seeing something. The use of audio-visual materials is an effective method for students to achieve greater knowledge. Audio-visual materials are an integrated part of the teaching and learning process. They complement the teacher's use of selected teaching methods by clarifying and simplifying the communication, arousing interest and attention, and leading to motivation, concrete understanding, and enforcement of communicated information (Naidu, 2018).

The use of audio-visual aids in education has been found to be an effective way of communicating ideas and concepts to students (Falade 2015). Literature has also established that audiovisual-aided instruction has greatly improved the performance of students in CRS. (Babalola, 2004; Amadi 2012). However, it is common knowledge that most school teachers no longer make use of instructional materials when teaching. Some teachers find it quite complex to use audio-visual aids to complement the traditional lecture method, while others perceive the use of them as a waste of time. This has a negative effect on the teaching and, by extension, has a negative effect on the academic performance of the students.

Statement of the problem

The teaching and learning of CRS with the use of audio-visual material is not without its challenges. Whatever the challenges may be it is important that the teachers should find a means of making their teaching to be backed up with improvised material as much as possible. The teaching and learning process is still going on without audio-visual materials, to the detriment of the learners. According to Akubue (2013), most of these audio-visual materials are not available in schools, and even where they are, they are rarely used. Classroom observation of teachers while they teach revealed that teachers of CRS do not use audio-visual materials. Thus, Upper Basic schools in the Federal Capital Territory of Abuja are not an exception. At the upper basic school levels, a greater percentage of the instructional process is based on rote memorization.

Many classroom teachers still prefer the traditional or story-telling mode of instruction to the using of audio-visual materials during the teaching and learning process. It has been noted over the years that, as a result of the advancement and development of modern technology, audio-visual materials can be used to make learning more vivid and effective. The ability of audio-visual materials to provide effective teaching and learning should be seen as a right step in the right direction. Because most students consider Christian Religious Studies as an abstract subject, therefore, the use of audio-visual resources is of great importance if the aim of the teacher is to guide the student to master concepts in the subject (CRS).

Ilori (2002),Falade(2015),sum up tenaciously that words may easily be forgotten but mental pictures will long be remembered. It is therefore important to

prepare illustrative materials and short demonstrations or other visual materials that are effective means of helping students understand and thereby facilitate learning. In light of this, this study evaluates the effects of audio-visual materials in teaching CRS in upper basic schools in the Federal Capital Territory, Abuja, Nigeria.

Purpose of the Study

The purpose of this study is to find out the effects of audiovisual materials when used with the conventional method on the performance of CRS students compared to the use of the conventional method only. Specifically, the study sought to:

1. determine the effect of audio-visual materials on students' performance in some selected upper basic schools in the Abuja Municipal Area Council,
2. see if there is a difference in performance between CRS students taught conventionally and those taught using audio-visual materials in Abuja Municipal Council's Upper Basic Schools.
3. determine if there is any significant difference in the academic performance of Upper Basic School Students taught based on gender.

Research Questions

The following research questions were raised to guide the study:

1. What is the effect of audiovisual materials on students' academic performance in CRS?
2. What is the difference in academic performance between Upper Basic School students' taught CRS using the conventional method and those taught using audiovisual materials?
3. What is the difference in the performance of Upper Basic School students' in CRS based on gender?

Research Hypotheses

Ho1: There is no significant difference in the academic performance between Upper Basic School students taught CRS using the conventional method and those taught using audio-visual materials.

Ho2: There is no significant difference in the academic performance of Upper Basic School students taught CRS using audio-visual aids based on gender.

Methodology

The research design adopted for this study was quasi-experimental design. The design was used because there was no radomization of subjects since intact classes were used. The population of this study comprised all 48 upper basic schools

in the Abuja Municipal Area Council. A total of 65 CRS students in the upper basic school formed the sample of the study. The students were purposively selected because CRS students were from government-owned upper basic schools in the Abuja Municipal Area Council, established at the same time and have qualified CRS teachers.

The instrument used in this study was the researchers' self-designed Christian Religious Studies Achievement Test (CRSAT). The CRSAT consisted of 30 multiple-choice objective items with four options on the units adopted from past questions of West African Examinations Christian Religious examination questions. The instrument was validated by three (3) experts from the Department of Social Sciences Education, Faculty of Education, University of Ilorin, Nigeria, to ensure its face and content validity. The study adopted a test-retest method for the reliability of the instrument. An interval of two weeks between the first and second retest of the instrument on the same respondents were given. The instrument has a reliability of 0.76. The pre-test and post-test design was used to collect data for this study. The experimental group received instruction via audiovisual aids, while the control group received instruction via the traditional method. The teaching of the topics lasted for four weeks in each group, after which the experimental group was exposed to the treatment. Post-tests were conducted to determine if the treatment was effective in improving students' performance in CRS.Descriptive statistics (means) were used to answer research question 1, while research questions 2 and 3, which correspond with hypotheses 1 and 2, were tested using inferential statistics (t-test) at the 0.05 level of significance.

Results and Findings

Research Question 1: What is the effect of audio visual aids in students' academic performance in CRS

Table 1: Pre test and Post test mean gain scores for the experimental and control groups

Group	N	Mean Pre test	Mean Post test	Mean Gain
Experimental	30	18.16	23.20	5.04
Control	35	14.93	18.13	3.20

Table 1 shows that the mean pre-test scores for the experimental and control groups are 18.16 and 14.93, respectively, and the mean post-test scores for the experimental and control groups are 23.20 and 18.13, respectively. The mean gain scores for the two groups are 5.04 and 3.20, respectively. The mean gain score of 5.04 for the experimental group is a clear indication that the treatment was effective in improving students' academic performance.

Hypotheses Testing

Ho_1. There is no significant difference in the academic performance between Upper Basic and School students are taught CRS using the conventional method and those taught using audio-visual materials.

Table 2:t- test result of the Experimental and Control groups

Groups	N	Mean	Df	T	P-value	Decision
Experimental	30	23.20	63	2.97	0.01	Sig
Control	35	18.13				

Table 2 shows that there was a significant difference in academic performance between upper basic students taught using traditional methods and those taught using audio-visual materials (t (2.97) at df (63) with P-value (0.01) 0.05. The decision is in favor of the experimental group, with a mean score of 23.20, against the control group, with a mean score of 18.13. Thus, the null hypothesis is rejected.

Ho_2: There is no significant difference in the academic performance of the Upper Basic School. Students were taught CRS using gender-specific audio-visual materials.

Table 3: T-test result (Post test) of the experimental group based on gender

Groups	N	Mean	Df	t	P-Value	Decision
Male	12	15.20	28	0.97	0.38	Not Sig
Female	18	17.95				

From Table 3, the t-test (0.97) at df (28) with P-value (0.38) < 0.05 indicates that there is no significant difference in the academic performance of students taught in the experimental group based on gender. Thus, the null hypothesis is retained. This is an indication that the use of visual materials for teaching and learning is appropriate for both genders.

Discussion of Findings

One of the findings of the study revealed that audio-visual materials and teaching aids were effective in improving students' academic performance. The mean score of the experimental group treatment (visual materials) clearly indicated that the students' academic performance improved. The finding is in line with what Adedapo and Adigun (2018) found that there was a significant difference in the academic performance of students taught with instructional aids in mathematics when compared with those taught without instructional aid. In their study, Elisabeth, Hesbon, and Amos (2020) found that audio-visual teaching aids were effective tools for promoting students' academic performance because the students performed better in the outcome of the test administered to them.

It was found that there was a significant difference in academic performance between the students' taught using audio-visual teaching aids and those taught using the conventional method. The result is in favor of the experimental group exposed to the treatment. This finding is consistent with the findings of Elisabeth, Hesbon, and Amos (2020) and Ngonyani (2018), who established that the proper use of visual aids has an effect on students' academic performance. The use of audiovisual aids in the classroom, such as television, video, movie projector, and computer, helps to enrich students' understanding, stimulate their interest, and create a creative learning environment.

It was also discovered that there was no significant difference in the academic performance of the students' taught using audiovisual aids based on gender. This is a clear indication that the use of audiovisual aids for teaching and learning is gender-friendly. Cheng and Su (2014) supported the findings in their study, which established that learning through audio visual aids cuts across gender and is thus user friendly. Yien, et al. (2011) confirmed the study's findings by claiming that there was no significant difference in academic performance between students taught using audio visual and those taught using traditional methods based on gender.

Conclusion

This study concluded that when appropriate media (audiovisual materials) are integrated into the classroom activities to complement the traditional method, higher learning outcomes in terms of achievement scores would probably result. Upper Basic School students taught with the audio-visual method achieved better than students taught with the traditional method. This is because instructional material arouses students' curiosity and motivates them to learn. This implies that unless the provision of these materials is improved and used effectively, students' academic performance could continue at its current stage.

Recommendations

The study recommends that:

1. Teachers should intensify the use of audio-visual aid in order to make the students have better understanding of the subject taught.
2. Audio visual materials should be used so that the lesson will appeal to the senses of hearing and seeing whereby making the students to assimilate better in the classroom.
3. Teachers should not make any distinction based on gender in the use of audio visual materials because all the students would benefit from the teaching despite their gender difference.

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