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EFFECTS OF INTERACTIVE INSTRUCTIONAL TELEVISION ON STUDENTS' ACADEMIC ACHIEVEMENT IN SOCIAL STUDIES, ZARIA QUALITY ASSURANCE ZONE, KADUNA STATE, NIGERIA

Sirajo Musa[1] & Abubakar Isa[2]
[1]Department of Social Studies, School of Secondary Education (Arts and Social Sciences), Federal College of Education, Zaria-Nigeria
[2]Department of Social Studies, Kaduna State College of Education, Gidanwaya-Kafanchan
Corresponding author: Email: surajomusa1968@gmail.com

ABSTRACT

This study examined the Effects of Interactive Instructional Television on Students' Academic Achievement in Social Studies, Zaria Quality Assurance Zone, Kaduna State, Nigeria. The design of study was the pre-test post-test non-equivalent comparison group design. The population of the study consisted of 31,001 junior secondary school students in Zaria Quality Assurance Zone, Kaduna State, Nigeria as at June, 2022.The study used 120 Junior Secondary School students from Government Junior Secondary School, Chikaji and Government Junior Secondary School, Jama'a, as experimental and control groups respectively. The schools were purposively selected as they are co-educational in nature. The study used Social Studies Achievement Test (SOSAT) as data collection instrument. The instrument was duly validated by experts and table of specification was used to determine the content validity of the instrument. Pilot study was conducted at Government Junior Secondary School, Hunkuyi using 15 students and the reliability coefficient index stood at 0.84 determined using Guttmann Split Halves method. The study used means and standard deviations to answer the research questions posed while independent samples t-test was employed to test the null hypotheses at 0.05 alpha level of significance. The study found significant difference between the mean academic achievement scoresof students taught Social Studies using interactive instructional television and those taught with conventional lecture method. It was also found that gender has no effect on the academic achievement of Social Studies students taught using interactive instructional television. In the light of the foregoing, the study among others recommendsthat Social Studies teachers should be encouraged to use interactive instructional television during Social Studies lesson periodsto enhance learners' academic performance.

Keywords: Academic Achievement, Instructional Television, Interactive, Social Studies.

Introduction

Social studies as a school subject has over the years occupied an important position in the school curriculum; the subject has been recognized as effective tool for citizenship education in Nigeria. It is also a subject that equips the learners with critical and problem solving skills which enable them to tackle problems and issues that may arise in their socio-economic life. As a result of this, the federal ministry of education in Nigeria categorized social studies as one of the core subjects in junior secondary school curriculum (National Policy on Education, 2004).

The National Policy on Education enunciated (2004) in accepting education as instrument of change has set up among other things on education resource centre where emphasis is paid to audio-visual aids. We also have the audio-visual development centre of the Federal Ministry of Education, Kaduna. As a matter of fact, a teaching plan is incomplete without

showing in comprehensive form; the audio-visual aid to be used. The students do not easily forget the experiments in the subject because most of their facilities of learning sight, touch, tastes, brain and so on are involved in their hard and softness.

A television set can be a window to worlds that students may never have the opportunity to visit. A television program can spotlight a foreign culture, a moment in history, a science concept, a person's life. Howard Gardner, Educational Psychologist, recognizes visual experience as the most common learning style; video is a natural educator. Like other educational resources, video should be used wisely and efficiently, maximizing its instructional impact. In the hands of a good teacher, the VCR, monitor, and remote control empower student learning, unhampered by cognitive skill levels, age, gender, or even language proficiency.

Instructional Television is an emerging instructional medium used in many parts of the world to improve students' academic performance and to enable a teacher teach a large group of students within and outside the school environment. Instructional Television as described by James, Richard, and Fred(1969) constitute of simple television cameras used in classroom which serve as image magnifiers to aid demonstration, small portable video tape recorders which permit review and evaluation of student performance. In their own view Vankatali, Pannersalvam and Sauthanam (2004) describe Instructional television as programmed related to an organized programmes of formal instruction and is directed to individual viewers who come under non formal educational programmed where suitable follow- up work by the teacher is essential to consolidate the gain of knowledge**.** Vankatali et al (2004) further stated that, instructional television programmed tend to bring into classroom experiences that local teachers cannot arrange. These include costly demonstration, complicated experiments and visual excursion to far off places and current events. Such programmed carefully produced an involving all kinds of inter related learning experiences which produce good result. They seek to overcome the obsolescence of the syllabus and present the latest advances in all fields. The programmed fully exploits the following potentials of the medium.

a. Immediacy for bringing to viewers the latest and existing new findings.
b. Omnipresence for taking the viewers to the exact place like a research laboratory of a hospital and conference.
c. Animation and special effects to help clarity concepts, invisible processes.
d. Visual power for showing a variety of things.
e. Intimacy with the things presented.

The term "instructional television" refers to the use of the television medium in any of its various technical forms to present information, ideas and experiences in any subject area and at any level as some portion of organized educational programmed. The methods and practices of educational television are rapidly evolving in the wake of changing educational philosophies and newly developing communication alternatives.

A study conducted by the ministry of education and culture in India (1981) recommended that television facilities should be used for educational development as well as notably for widening access to education, for reducing existing disparities between different regions of the country as well as different sections of the population and for bringing about an overall improvement in the quality of education. The study proved that television, through commonly devised programmed could contribute to the creation of national integration, bring about awareness of problems of national significance and develop desirable attitudes and values among children and youth and the population at large. Various studies have shown

that media have a profound influence on the minds of children as well as adults; some of them tend to encourage positive habits as well as curiosity on the part of the Historical studies revealed that there is no innovation investigated and discussed thoroughly as instructional television as it is the applications of television in formal course regardless of age or gender level and regardless of whether or not they are given for credit. This includes school instructions in part of courses for direct teaching or for facilitating lecture-demonstrations. Instructional television may be distributed by open or closed circuit systems or by both simultaneously. The primary goal of Instructional Television is to improve quality of education and classroom utilization. Instructional Television now stands as the most significant cross road in its history. A research study conducted by Wilbur Schramn (1962) revealed that there can no longer be any doubt that students learnt efficiently from instructional television.

In spite of the audible objectives and benefit of Social Studies in the school curriculum, the teaching of the subject is characterized with conventional method of teaching which always lead to ineffective learning and poor attitude of students toward the subject. Studies have shown the facilitative effects of instructional audio-visual media in learning, but most of these studies are in other school subject apart from social studies. This study in the light of the foregoing examined the Effects of Interactive Instructional Television on Students' Academic Achievement in Social Studies, Zaria Quality Assurance Zone, Kaduna State, Nigeria.

Purpose of the Study

The main objective of this study was to examine the Effects of Interactive Instructional Television on Students' Academic Achievement in Social Studies, Zaria Quality Assurance Zone, Kaduna State, Nigeria.The study has the following specific objectives which are to:

i. Determine the difference between the mean academic achievement scores of JSS students taught by way of interactive instructional television and those taught through face-to-face lecture method in Zaria Quality Assurance Zone, Kaduna State, Nigeria;
ii. Find out the difference between the mean academic achievement scores of male and female students taught by way of interactive instructional television in Zaria Quality Assurance Zone, Kaduna State, Nigeria;

Research Questions

This study was guided by the following question;

i. What is the difference between the mean academic achievement scores of JSS students taught by way of interactive instructional television and those taught through face-to-face lecture method in Zaria Quality Assurance Zone, Kaduna State, Nigeria?
ii. What is the difference between the mean academic achievement scores of male and female students taught by way of interactive instructional television in Zaria Quality Assurance Zone, Kaduna State, Nigeria?

Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

i. There is no significant difference between the mean academic achievementscores of JSS students taught by way of interactive instructional television and those taught through face-to-face lecture method in Zaria Quality Assurance Zone, Kaduna State, Nigeria;
ii. There is no significant difference between the mean academic achievement scores of male and female students taught by way of interactive instructional television in Zaria Quality Assurance Zone, Kaduna State, Nigeria.

Research Methodology

This study utilized non-equivalent comparison group designs. As stated by May (2012) it is a design in which the effects of a treated or intervention are estimated by comparing outcomes of a treatment group and a comparison group but without the benefit of random assignment. The population of the study consisted of 31,001 junior secondary school students in Zaria Quality Assurance Zone, Kaduna State, Nigeria as at June, 2022. This study utilized purposive sampling technique to choose the participating schools for the Quasi-experiment. Purposive sampling opines is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include specialist knowledge of the research issue, or capacity and willingness to participate in the research.

However, Olayiwola (2007) stated that 30 participants for each group (treatment and control) are considered adequate for this kind of study. It is based on Olayiwola's suggestions that this study utilized 120 JSS students; 60 students as experimental group and the other 60 as comparison group respectively. Therefore, Government Junior Secondary School, Chikaji (experimental) and Government Junior Secondary School, Jama'a (control), were used for the experiment. The schools were purposively selected as they are co-educational in nature.

The study used Social Studies Achievement Test (SOSAT) as data collection instrument. The instrument was duly validated by experts and table of specification was used to determine the content validity of the instrument. Pilot study was conducted at Government Junior Secondary School, Hunkuyi using 15 students and the reliability coefficient index stood at 0.84 determined using Guttmann Split Halves method. The study used means and standard deviations to answer the research questions posed while independent samples t-test was employed to test the null hypotheses at 0.05 alpha level of significance.

RESULTS

Research Questions

Research Question One: What is the difference between the mean academic achievement scores of JSS students taught by way of interactive instructional television and those taught through face-to-face lecture method in Zaria Quality Assurance Zone, Kaduna State, Nigeria?

Table 1: Descriptive statistics on Mean Academic Achievement Scores of Students Taught by Way of Interactive Instructional Television and thoseTaught through Face-to-Face Lecture Method

Variables	Groups	N	Mean	S.Dev
Academic Achievement	Experimental	60	29.50	8.57
	Control	60	18.02	5.13

Table 1 shows the difference between the mean academic achievement scores of Junior Secondary School students taught by way of interactive instructional television and those taught through face-to-face lecture method in Zaria Quality Assurance Zone, Kaduna State, Nigeria. According to the outcome, their computed academic achievement scores were 29.50 and 18.02 by experimental and control groups respectively. The mean academic difference stood at 11.48 in favour of the experimental group.

Research Question Two: What is the difference between the mean academic achievement scores of male and female students taught by way of interactive instructional television in Zaria Quality Assurance Zone, Kaduna State, Nigeria?

Table 2: Descriptive statistics between the Mean Academic Achievement Scores of Male and Female Students Taught By Way of Interactive Instructional Television

Variable	Gender	N	Mean	S.Dev
Academic Achievement	Male	30	30.27	8.26
	Female	30	28.23	8.89

Table 2 shows the difference between the mean academic achievement scores of male and female students taught by way of interactive instructional television in Zaria Quality Assurance Zone, Kaduna State, Nigeria. It indicated that the computed mean academic achievement scores are 3.27 and 28.23for male and female students taught using interactive instructional television respectively. The mean academic difference was 2.04.

Null Hypotheses

$H0_1$: There is no significant difference between the mean academic achievement scores of JSS students taught by way of interactive instructional television and those taught through face-to-face lecture method in Zaria Quality Assurance Zone, Kaduna State, Nigeria.

Table 3: Independent t-test Sample Statistics on Mean Academic Achievement Scores of Students Taught by Way of Interactive Instructional Television and those taughtusing Face-to-Face Lecture Method

Variable	Treatment	N	Mean	S.Dev	Df	t-cal	t-Crit	Sig (p)
Academic Performance	Experimental	60	29.50	8.57				
	Control	60	18.02	5.13	**118**	8.710	1.96	0. 000

Calculated p < 0.05, calculated t > 1.96 at DF 118

Results of the Independent sample t-test statistics in table 3 revealed that significant difference exist between the mean academic achievement scores of JSS students taught by way of interactive instructional television and those taught through face-to-face lecture method in Zaria Quality Assurance Zone, Kaduna State, Nigeria. This was because the calculated significance (p) value of 0.000 is lower than the 0.05 alpha level of significance while the calculated t value of 8.710 is higher than the 1.96 critical t value at Df 118. Hence the null hypothesis was rejected.

$H0_2$: There is no significant difference between the mean academic achievement scores of male and female students taught by way of interactive instructional television in Zaria Quality Assurance Zone, Kaduna State, Nigeria;

Table 4: Independent t-test sample statistics difference between the academic performances of male and female JSS students taught using interactive instructional television and those taught using lecture technique

Gender	N	Mean	S.Dev	Df	T-cal	t-crit	Sig (p)
Male	30	30.27	8.26	**58**	.918	1.96	0.363
Female	30	28.23	8.89				

Calculated p > 0.05, calculated t< 1.96 at Df 58

Result of independent samples t-test statistics shows no significant difference between the mean academic achievement scores of male and female students taught by way of interactive instructional television in Zaria Quality Assurance Zone, Kaduna State, Nigeria. Reason being

that the calculated significance (p) value of 0.363 is higher than the 0.05 alpha level of significance while the calculated t value of 0.918 is lower than the 1.96 critical t values at Df 58. Hence the null hypothesis is retained.

Discussions

The result of the study indicated that significant difference existed in the academic achievement of students taught with Instructional television and those taught with conventional lecture method. It was also found that gender has no significant effect on academic achievement of students taught with interactive instructional television. This study support the finding of (Anulobi 2009; Eshiet 2009; Okworo 2008; Enemugha 2008). They discovered that the use of instructional television in teaching science subjects enhance students' academic achievements. They affirmed that they are effective in teaching owing to their ability to captivate and hold attention as well as provide for direct interaction of students with what is learnt. The use of Instructional television is effective and results in more learning in less time and better retention of what is learnt, especially when the material being learned was repeated to the learners. They provide experiences not easily obtained through other media and contribute to the efficiency, debt and variety of learning. The study also shows that the use of Instructional television is not gender dependent this is in agreement with studies of Okworo (2008) and Eshiette (2009) but negate the study of Enemugha (2008) who discovered male performed better than females when taught Biology with Instructional television.

Conclusion

In the light of the foregoing, it is concluded that interactive instructional significantly enhances students' academic achievement in social studies lessons. Also, gender does not affect the academic achievement of students taught by way of interactive instructional television.

Recommendations

In the light of the above, the following recommendations are made:

i. Social Studies teachers should be encouraged to use interactive instructional television in their classrooms for their students for optimum academic performance.
ii. The Kaduna State government through the Ministry of Education should provide all the needed funds for junior secondary schools to secure interactive instructional television for use by teachers of Social Studies. This will greatly assist in promoting students' academic achievement at JSS level.

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