

An Investigation into the Impact of the Use of Overhead Projector on Learning of Social Studies in Junior Secondary Schools in Lapai Local Government Area of Niger State - Nigeria



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Abstract

The study investigated the impact of the use of overhead projector on the learning of Social Studies in some selected Junior Secondary Schools in Lapai Local Government Area of Niger State, Nigeria. It further investigated the gender differences in the achievement of the students. Junior Secondary School (JSS 3) students were randomly selected in four (4) Junior Secondary Schools in Lapai Local Government Area of Niger State. Pretest – Post tests experimental group design was employed for the study. The sample population was made up of one hundred and sixty (160) students. The students were divided into two groups. Four (4) essays and ten (10) objectives pretest questions were administered to both groups before any teaching was carried out. The experimental group was treated using overhead projector while traditional talk and chalk method was used for the control group. The data collected was then analysed using the mean, standard deviation and t-test statistics.

Background of the Study

This study is aimed at determining the impact of overhead projector in the learning of Social Studies in some selected Junior Secondary Schools in Lapai Local Government Area of Niger State, Nigeria. Social Studies is generally accepted to be the study of the man and his physical environment (Zubairu 2004). Social Studies is a subject that studies man in his social, historical, geographical and cultural context (Fadeiye 1981). This justifies the saying that it is one of the subject after history that served as “Key to recall the past events.” Moreso that it teaches man about the world around him. For example, it deals with how man influences his physical, social, economic, cultural and political environments and how these in turn influence him.

The use of overhead projector in learning Social Studies as an instructional materials is very essential in every classroom in any educational

system. Students of today are motivated to assume an increasing responsibility for their own learning. So the use of Overhead projector gives each student the chances to see practically what the teacher is discussing or teaching. Empirical evidences attest the fact several forms of media, including Overhead projector have been found to be useful in teacher educational and training. Experiments in some African Countries and even beyond i.e. Algeria, South Africa, Zambia, Ghana, India, Italy, Australia, Thailand and some Latin American Countries have been found successful, and rewarding. (1972) May and Lumsdaine (1999) have this to say “one of the major conclusions of previous research is that Overhead projector of all variations and quality(s) have proved to have value for teaching at all school levels, especially at Secondary Schools and in all subjects.” Other research findings tend to support the above mention view. For example Wilbur Schram (2000) came with the convincing evidenced that there is hardly

any subject matter which could not be taught effectively using Overhead projector. Projector has become useful in the hands of teachers, especially for demonstration and illustration for meaningful learning of students while at the same time the teacher keeps full control over the class.

Overhead project had always helped in illustrating and conveying ideas. Experiment and research studies have proved that through, appropriate use of overhead projector subjects like social studies can be taught more effectively. For instance topic like, extended family in social studies. A lot of students fail social studies both at the Junior and Senior Secondary Certificate Examination levels (NECO, 2003). This is probably due to lack of proper mastery of the subject by the learners right from the very beginning. It may also be as a result of inadequate exposure to learning experiences.

Research studies in social studies indicates that the attitude, motivation and interest of the learner are factors of crucial importance in determining his achievement (Zubairu 2004), it would therefore be necessary for the teachers to be aware of the practical consequences of all negative attitudes against the Motivation of a learner and the need to develop the enthusiasm the learner will need to learn social studies. In the researcher's findings, overhead projector appears to be the best motivator that may make students learn best and faster (Zubairu 2004). A lot of teachers of Social Studies in almost all the Nigerian schools only depend on the "chalk and talk" method of teaching which is very much teacher centred' instead of the Learner – Central approach. The "Chalk and talk" method of teaching is rather abstract to the students and makes learning a very arduous task for the Learners. This method is very much opposed to Piaget's development psychology (Murkaje 1984) – placed

emphasis on the activity learned/practical classroom techniques for active learning. According to her, students learn better when exposed to see objects or action practically.

Goft (1979) has stressed the importance of the senses in the selection and using of learning methods, he concludes that 75% of what we learn is through sight, 13% through learning and 6% through touch, 3% through taste, and 2% through smell. Research findings by Anyegbu (1979), Ayogu (2000) Ikwuke (2005), Nwaorgu (2005), Gambari (2005) and Dantala and Zubairu (2006), have an audio – visual material contribute to learners understanding, factual learning, permanence of learning and then motivation and interest. Overhead projector motivate students to learn and widen their experience which makes them to participate fully in the learning process. Overhead projector are instructional materials that employ the stimuli of sight and hearing. They are used to sight motion and sound on screen (Anyegbu, 1999). Ayegu (2000) observed that motion and sound attract the viewers, and held their attention, making learning more meaningful and permanent. He see is retained almost permanently throughout life.

According to Adaralegbe (1976) Social Studies is a problem – approach discipline through which man studies and learns about problems of survival in his environment. It is a study of how man influence and is in turn influenced by his physical, social, political, religious, economic, psychological, cultural, scientific and technological environment. Furthermore, social studies deals with the relationship of human beings to human beings and the relationships of human beings to the world in which people live. However, it is pertinent to know that social studies as an integrated subjects, is made up of many subjects, such as civics, history, geography, political science, religion,

sociology, economics, philosophy and a host of others. Social studies helps to correct or eradicate bad social behaviours which are very common in our society today. As Professor (Mrs) Bolanle Awe (one time Commissioner for Education in Oyo State) remarked (1985) "Social studies as a discipline it properly programmed and taught effectively should help to solve social problems that are facing developing countries like Nigeria where the old norms are fast losing grips and no effective substitutes to replace them". Such social problems are drug addition, cheating, theft ignorance, statism, illiteracy, hoarding, smuggling, neptosim, and other irresponsible social behaviours.

Social studies helps both the teachers and the pupils to become intelligent citizens of their country. This is done through teaching carefully selected topics which emphasize the need to understand one another, to cultivate the habit of open-mindedness, critical assessment of situations before posing any Judgement understanding and welcome the views of others.

Overhead projectors are use in front of a light room. They present a large brillaint picture. It can visual present concepts, processes, facts, outlines, and summaries to small groups, and summaries to small groups, to average size cllass, and to large groups (Ahmed 2004). A series of overhead projector is like any other audio-visual mateiral in requiring systematic planning and preparation before one can show pictures and diagrams using a painter on the overhead projector to direct attention to a detial. A person can use feltpen or a special pencil to add details or mark paints on the overhead projector during viewings. One can control the rate of presentign information by covering an overhead projector with paper or cardboard and then exposing the data when you are ready to discuss each point. Overhead projector has the ability

to store data and process information in many ways. This is what makes it a potential (teaching aid for social studies and other subjects (Barker, 1987). It is in this view that this study aims at investigating the use of overhead projector in learning for individualized social studies instruction in some selected Junior Secondary Schools in Lapai Local Government area of Niger State, Nigeria.

Statement of the Problem

The study attempts to investigates the impacts of overhead projector on the learning of social studies in Junior Secondary Schools in Lapai Government area of Niger State. It would look at the achievement of students in social studies using experimental and control groups, the retention levels of students and the difference between academic achievement of students in terms of their gender. This is because social studies as a discipline assist in solving social problems such as drug addiction, cheating, theft, ignorance, statism, hoarding, smuggling and nepotism. However, despite the importance of the subject Junior Secondary school students are failing it particularly at the junior secondary school class three SSCE and NECO Examinations. This necessitates the need to investigate better ways of improving the learning of social studies.

Objectives

The main objective of the study are to find out if,

- a) The use of Overhead projector would improve achievements of students in learning of social studies in secondary schools.
- b) The use of Overhead projector will improve the retention levels of students in social studies
- c) The use of overhead projector will have achievement in terms of gender difference.

Research Questions

The study seeks to answer the following questions:

Will the use of overhead projector on learning social studies junior secondary schools improved:

1. Result in better performance of social studies?
2. Result in differential performance of male and female students?
3. Gender difference in the performances of both male and female.

Research Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significances.

1. There is difference in the performance of students taught social studies with overhead projector and those taught without projector.
2. There was significance difference in the performance of boys and girls taught social studies using overhead projector, hence girls performed higher than the boys.
3. The Gender has effect on the performance hence girls are known to be good in English than boys when it comes to learning.

Research Design

The research design used for this study is the pretest-posttest control group random sampling of Kerlinger (1973) and Tuckman (1978). Both the experimental and control groups were first pretested. The overhead projector (experimental stimulus) was withheld from the control group and used on the experimental. The traditional teaching method was used for the control group.

The experimental group was taught the same topics with the control (group) using overhead projector. After the treatment, a posttest, same as pretests, consisting of (20) items multiple choice achievement test on the

treated topics was administered to both groups, after five weeks of teaching and a week revision. The pretest scores of the two groups (control and experimental) were compared to ascertain the equivalence of the groups before treatment (teaching) was administered. The scores of the two groups in the posttest were analysed to test the hypothesis of the study and hence answer the research questions.

Sample and Sampling Techniques

The population for this study was made up of all Junior Secondary School (JSS III) students in Lapai Local Government Area of Niger State, Nigeria. The sample was drawn from one hundred and sixty (160) male and female students. In each of the schools used, there are four (4) arms of JSS III classes (A-D). each arm consist of 40 intact class of student which were randomly selected using simple random sampling method. They were drawn from four (4) selected Junior Secondary Schools in Lapai Local Government area of Niger State. (40) students from each school. The schools were:

1. Government Junior Secondary School Lapai
2. Government Junior Secondary School Kutirko
3. Government Junior Secondary School Dangana
4. Government Junior Secondary School Evuti

A minimum of about 5-8 kilometre distance was in between one school. This was to avoid interference or communication between the sample which could affect the researchers findings or result. Also, this was done to maintain reliability of the posttest administered to the experimental and control groups as much as possible.

Research Instrument

The research instrument used was the researcher - made social studies Achievement Test (SAT). The transparency which was also developed by the research materials for the study as well as an approach for teaching social studies.

The instrument was made up of four (4) essays and ten (10) multiple choice objective tests. The test covered two topics taught during the research work.

Validation of Test Instrument

Three experts in social studies subject validated the social studies achievement test (SAT) instrument. One educational inspector from test and measurement department, Niger State Ministry of Education and two senior lecturers from department of social studies, Niger State College of Education (COE) Minna carried out face and content validity of the instrument.

Reliability of Test Instrument

The validated test instrument was subjected to pilot test in order to

ascertain its reliability. This was done by administering the test items to twenty (20) students from Government Secondary School Paiko which is a school outside the research sample schools. Test – re-test method was used for the pilot test. In this case the test instrument was administered to the same group of students twice at an interval of two (2) weeks, to obtain two set of scores. The scores obtained were then used to calculate the reliability coefficient. The reliability coefficient obtained was 0.85. This shows that the test instrument is good enough to be use for this research work.

Method of Data Analysis

The scores of the students in both groups for the pretest and posttest were collected and arranged in frequency distribution table. Means standard deviation and T-test statistics were used to analyse and to test the hypothesis formulated, the level of the significance adopted for the analysis was $P < 0.05$. This level of significance form the basis for retaining or rejecting each of the hypothesis.

Results

Table 1: t-test Result for Pretest of Experimental and Control Groups:

Variable	No of sample	DF	Mean x	SD	E-Value Calculated	t-Value Critic	Signific level
Control group	80		17.89	5.13	0.355		0.05
Experimental group	80	79	18.20	6.17		1.65	

NB – not significant at 0.05 significant level

Table 1 shows that the t-test result for the pretest of control and experiment groups from the table, the t-value calculated (0.335) is less than the t-value critical (1.67). This indicates that there is no statistical significant difference between the mean score of the

experimental group (18.20) and the control group 17.05 in the pretest.

$H(0)$ there is no significant difference in the pretest mean score of students in the experimental and control groups. This is an indication that the two groups are comparable.

Table 2: T-test Result for Posttest Control and Experiment Groups

Variable	No of sample	DF	Mean x	SD	E-Value Calculated	t-Value Critic	Signific level
Control group	80		43.61	4.97			0.05
Experimental group	80	78	68.83	4.72	29.86	1.67	

Not significant at 0.05 level

Table 2: The table 2 shows the t-test result for posttest of the experimental boys and girls from the table, the t-value calculated (0.274) is less than the t-value critical (1.67). This indicates that there is no statistical difference between the mean scores of the experimental boys (63.62) and the girls (63.62) groups. Therefore, H03 is not rejected, because it is gender friendly, for example there is no statistical significant difference between the performance of the girls and boys in the experimental group.

Discussion of Results

From the result in table, there was significant difference between the mean score of students taught social studies with the use of Overhead projector and those taught without it. In other words, this study showed that the use of Overhead projector instructional materials in teaching social studies at secondary schools has positive effects on the students performance. This is because those taught with Overhead projector performed significantly better than those taught without it. The findings was in agreement with Onyegbugu (1999), Ikwuka (2005), Nwaorgu (2005), Otebanyo (2005), who found that Overhead projector improve students performance in social studies, oral English, Biology, Geography, and Integrated Science respectively at secondary schools level.

From the result in table 3, gender had no effect on the performance of students in social studies achievement test. In other words, Overhead projector instructional materials for teaching

social studies are gender friendly. This is in agreement with Onyegebu (1999), Ayogu (2000), Ikwuka (2005), Nwarogu (2005) Otegabyo (2005) who conducted similar studies and their findings, were in support of this study. They found no significant difference between male and female students, achievement in disciplines, like social studies, history, oral English, Biology, Geography and Integrated Science respectively. It is hoped that with further encouragement of female education, they female students) could performed even better than their male counter parts.

Implication for Nigeria Education System

Students with positive attitude to learning social studies at early life derives joy and satisfaction from knowing and discovery scientific ideas and finds studies of social studies more interesting. Therefore, the teachers in secondary schools should strive to achieve this in students and there is no other way to do this than effective instructional media for classroom teaching.

Conclusion

- i) Instructional strategies that teachers employ in teaching social studies subjects at secondary school level have significant effects on students' achievement. The findings of the present study showed that better performance and high retention in social studies was achieved through the use of Overhead projector.

- ii) The male and female students were affected positively and equally by the use of Overhead projector in teaching social studies. This showed that the effect of Overhead projector is not gender dependent.

Recommendations

The following recommendations were deduced/made from the findings of this research:

1. Government should organize seminars, workshops, and conferences on the use of modern instructional materials, so as to be able to compare and contrast the effect of this method of teaching on student achievement.
2. Teachers' attitudes towards integration of technology into teaching and learning should change in order for them to be relevant in this computer age.
3. Federal Government should encourage private sector to assist, promote and donate instructional

materials to secondary schools in Nigeria.

References

- Abimbade, A. (1999). *Principles and Practice of Educational Technology*. Ibadan: International Publishers Limited.
- Adaralegbe, A. (1980). *The Nigerian Social Studies Programme: Retrospect and Prospect in N.E.R.C., Social Studies. Teaching Issues and problems*. Lagos: Teaching Issues and Problems N.E.R.C.
- Agboola, S. (2000). *Teachers perception of the use of instructional media in junior secondary schools in Minna Local Government area of Niger State*. F.U.T. M. Tech thesis unpublished.
- Dele, F. J. (1981). *Current Affairs in Social Studies*. Ibadan Printing Press.
- Dele, F. J. (1981). *Social Studies Revisional Questions and Answers*. Prica. Olufemi Printing Press, Box 320, Ilesha.
- Gana, F Z (1981). *Effective Educational Media Journal of Nigeria Audio Visual Association, Maiden Issue*.