

Effect of Overhead Projector on the Learning of Social Studies in Secondary Schools in Bosso Local Government Area of Niger State.

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Abstract

This study examined the effects of overhead projector on the learning of Social Studies in Bosso Local Government Area of Niger State. The design adopted for the study was the pretest-posttest experiential control group design. The instrument used was an 80 item multiple choice questions in Social Studies. A total of 200 JSS II students randomly selected from two co-educational schools in Bosso Local Government participated in the study. They were randomly assigned into two groups, the experimental and the control group. The group which received the treatment with overhead projector was the experimental group and the one which was not used was the control group. The findings revealed that the use of overhead projector in teaching Social Studies significantly improved the performance of students in the subject. It is recommended that overhead projector be used for instruction in schools.

1.1 - Background of the study

Social Studies is one of the subjects taught at the Junior Secondary School level in Nigeria. It emphasises more on integration of experiences and knowledge concerning human relations for the purpose of citizenship education (NERDC, 1994). Its overriding purpose is to develop in the students good citizenship through knowledge, skills, values, beliefs and social participation. As an inter-disciplinary field of study, it is basically anchored on the integrative study of man and his environment (both physical and social) emphasising cognitive, functional skills and desirable attitudes and actions for the purpose of creating effective citizen (Ololobou, 1996).

Despite its clear-cut relevance in the achievement of the ethical and social goals of the society, it is one of the subjects that students perform poorly at Junior Secondary Schools Certificate Examination (JSSCE). According to Balogun (1998) "the poor performance of students in the subject has been attributed to the perceived complexity

of the subject which emphasises a great deal on the study of man and his physical environment."

It has been observed that students dread the subject because of its integrative nature, woven around various aspects of society working together. This observation has frequently called to question the problem of acceptable definition of the subject. (Okorie, 2004).

Omolewa (2008) stated that most of the students who offer the subject expressed displeasure over the wide scope and abstract nature of the subject. Consequently, they oftentimes resort to rote learning to pass the JSSCE. Rote learning is intellectually discouraging as it creates temporary or false understanding because after sometimes, the learner forgets virtually all what he has learnt (Ifeanyi, 2000). Alabi (2002) stated that lack of coherent and up-to-date textbooks on the subject, rooted in the culture and backgrounds of the students was responsible for the inadequate comprehension of Social Studies by the students. This

observation is supported by James (2001) that "most of the Social Studies textbooks used in our schools are laden with obscure and incoherent facts and examples that do not sufficiently capture the reality of our people and environment." Nwolise (2000) also attributed the problem to lack of highly skilled and qualified Social Studies teachers and the persistent inability of the students to comprehend the substance of the varied Social Studies concepts being taught. There have been series of reports on the dearth of competent teachers in our schools. Most of them even in other disciplines do not have the ability to use practical teaching tools for effective instructional delivery and communication purposes. Okorie (2004) also confirmed the seeming appalling lacuna in assigning teachers the responsibility to teach. He said: "The vogue in some schools today is that many teachers who read pure or applied sciences, and therefore, not competent and qualified to teach Social Studies, are recruited and assigned to teach the subject. This is a tacit attestation to our misguided educational policy direction. The effect is easily discernible: The schools will end up producing robots and highly deficient manpower that will, in the final analysis, constitute a burden to the society". It will also obscure the tendency at achieving the goals of educational system. (Abubakar, 1999).

The heavy reliance on the use of traditional lecture method in teaching most of the subjects taught in Nigerian schools has been found to be responsible for poor comprehension of the subjects. According to Okorie (2004) the method is bereft of the modern paraphernalia for accelerated

learning. A great deal of emphasis should therefore, be shifted from teacher-centered mode by rote learning to student-centered by inquiry oriented learning in teaching Social Studies.

Olalomi (2002) also identified the persistent emphasis on theoretical expression by Social Studies teachers, the attitude of students towards the subject and lack of parental encouragement as factors that impinge the desire of the students to learn the subject.

Many research studies have revealed the appropriateness and relevance of practical exercises in bringing about effective learning. Ifeanyi (2000) stated that most students who offer Social Studies today complain that their teachers simply engage in explaining abstract concepts rather than using visible materials to teach the concepts. Consequently, they express anxiety syndrome particularly when they could not understand those concepts in examination halls. According to Abubakar (1999). "The introduction of instructional media is basically anchored on the need to improve teaching and learning." Banathy (2001) discovered that "when properly used for instruction, instructional media could supply a concrete basis for conceptional thinking and reduce meaningful word responses of students, make learning more permanent, stimulate interest of students in the subject taught, offer a reality of experience which will stimulate self-activities on the part of the students, develop continuity of thought, contribute to the meaning of words and hence to vocabulary development and provide experiences not easily obtained

by other materials and variety of learning.”

One of the instructional media that has been found to enhance the teaching of Social Studies is the overhead projector. It enables a resourceful teacher to make the teaching of the subject more meaningful and permanent. According to Gana (2000), overhead projector adds value to teaching and learning by evoking the involvement of human sense organs. This view is corroborated by Rudler (1993) that “people generally remember ten (10) per cent of what they read, twenty (20) per cent of what they hear, thirty (30) per cent of what they see, fifty (50) per cent of what they hear and seventy, (70) per cent of what they say, and Ninety (90) per cent of what they say as they do a thing.”

One peculiarity of overhead projector which makes it more appropriate for instructional delivery is that it provides shortcuts in the learning process. According to Ogunranti, et al (1982) “it enables the teachers to interact with the students by engaging them more on those drills, exercises and instructions. It makes the teacher’s personal influence more indispensable and therefore, calls for an energetic and investigative approach by the teachers. However, the successful utilization of the overhead projector depends, to a large extent on the wisdom and the resourcefulness of the teacher. It calls for the teacher’s professional knowledge of the students, a thorough knowledge of the limitations and capabilities of the overhead projector. The use of overhead projector, adjudged as a versatile medium, with potentials of stimulating students’ active

involvement in the teaching and learning process, will address the problem, particularly when used for teaching Social Studies. This study investigated the effect of overhead projector instruction in the teaching and learning of Social Studies.

1.2 - Statement of the problem

There have been complaints by many students that arts subjects such as Social Studies is very difficult to understand. Olalomi (2002) stated that most students in Nigerian schools claim that arts subjects are not only wide in scope but very abstract. Consequently, many students simply resort to rote learning or memorization to pass examinations. But it is quite known that rote learning does not encourage adequate understanding of a concept or subject taught. According to Ifeanyi (2000), “it creates temporary or false understanding and after some time, the learner forgets virtually all what he has learned.

There have therefore, been reported cases of students performing poorly in Social Studies at Junior Secondary School Certificate Examination (JSSCE). Frantic efforts have been made to address this problem through effective application of several teaching strategies. But no significant achievement has been recorded. However, many unstructured media have been designed and produced to bring about effective teaching and learning (James, 2001).

Aside from the broad-based nature of the subject and the difficulty to come up with a holistic conception of the subject, lack of highly skilled and competent social Studies teachers

constitutes a very serious problem to proper understanding of the subject. Also the persistent use of the traditional method of teaching in many Nigeria schools hampers thorough learning. According to Ukadike (2000), "the method is not effective enough for accelerated learning, but the method can be juxtaposed with the use of instructional media to bring about effective learning. This also requires the adoption of relevant teaching techniques".

Many research findings have revealed the effectiveness of instructional media in teaching many subjects. There is therefore, the need for Social Studies teachers to acquire basic knowledge on how to design, produce and operate the media such as Overhead projector.

1.3 - Objectives of the study

The followings are the objectives of the study:

1. To ensure that the performance of students in Social Studies at the Junior Secondary School Examination is improved.
2. To stimulate the interest of teachers of Social Studies in the use of instructional media such as Overhead projector.
3. To make the teaching and learning of Social Studies easier and less cumbersome
4. To make teachers and Students more creative in using local materials for instructional purposes.

1.4 - Research Questions

The study specifically sought answers to the following research questions:

1. Is there any difference in the performance of students taught Social Studies with overhead projector and those taught without it?
2. Is there any difference in the performance of male students taught Social Studies with the overhead projector and those taught without it?
3. Is there any difference in the performance of female students taught Social Studies with the overhead projector and those taught without it?

1.5 - Hypotheses

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

HO1 There is no significant difference in the performance of students taught Social Studies concepts with overhead projector and those taught without it.

HO2 There is no significant difference in the performance of male students taught Social Studies concepts with overhead projector and those taught without it.

HO3 There is no significant difference in the performance of female students taught social Studies concepts with overhead projector and those taught without it.

1.6 - Methodology

1.6.1 - Research Design: The design adopted for this research study was the

Pretest-Posttest Experimental Control Group design. Tuckman (1978) and Karlinger (1978) advocated the use of this design in a situation where two or more subjects possess the same characteristics on variables.

1.6.2 - Sample and Sampling Techniques

The population of this study was made up of six junior secondary school three (JSS iii) students in Bosso Local Government Area of Niger State. They are approximately 4,729 students. The sample subject for the study was made up of 200 students - 100 boys and 100 girls selected from two of the Junior Secondary Schools. The two schools were selected because they are co-educational and have a high students population. The 200 students were selected by the use of stratified random sampling advocated by Kerlinger (1978) to reduce sampling error and ensure that differences among the subjects, such as sex, social background are distributed evenly. One School formed the experimental group and the other formed the control group. JSS III students were used for the study because Social Studies is being offered in the JSS classes alone, and JSS III students were more familiar with the subject, having been studying the subject for the past two years.

1.6.3 Research Instrument

The instrument used for data collection was an 80-item Social Studies Achievement Test (SSAT). The test is a multiple choice objective type covering topics in JSS III syllabus. Transparencies were also developed by the researcher and used as the main research materials for the study. The

instrument was subjected to face and content validity by four experts in Social Studies. They include a chief lecturer and three principal lecturers teaching Social Studies in Niger State College of Education, Minna.

The researcher personally administered the Social Studies Achievement Test (SSAT) to the students. After the application of pretest to determine the academic equivalence of the randomly selected students, the researcher then taught the experimental group with overhead projector and the control group without overhead projector. After 6 weeks of teaching, the researcher administered the posttest to the respondents (experimental and control groups), which formed the basis for testing the hypotheses formulated.

1.7 - Result Analysis

Performance of the Experimental and Control Group on the Posttest

The posttest was administered to the experimental and control groups. The items in the test covered the five topics that the subjects were taught: Transportation, Institutions, Culture and Identify, Continents of the World and National Economic Life. The same test was administered under the same condition. The time interval between the administering of the pretest and posttest was seven weeks. The test was administered after the two groups were taught for six weeks and a week revision. This was in line with the suggestion of Mukerje (1979) that there should be a minimum interval of three weeks before a posttest can be administered after a pretest. The scores from the tests administered on the

experimental and control groups were recorded and subjected to data analysis.

HO1: There is no significant difference in the performance of students taught Social Studies concepts with overhead projector and those taught without it.

To test the hypothesis, the posttest means scores of the experimental and control groups were computed and analyzed using the t-test statistics. The result is shown in table 4.1 below:

Table 4.1: t- Test Result for the posttest performance Scores of the Experimental and Control Groups.

Groups	N	df	X	SD	t-value calculation	t-value critical	P	Remark
Experimental	100	49	58.89	7.658	22.34	1.66	0.001	Significant
Control	100		39.82	6.152				

* Significant at $P \leq 0.05$

The results in the table above show that the calculated t -value of 22.34 is greater than the t-value critical of 1.66 at 0.05 level of significance. This implies that there is a significant difference between the performance of students taught without the overhead projector. The null hypotheses was therefore, rejected. This indicates that the use of overhead projector enhances students performance in Social Studies.

Performance of Male Students in the Experimental and Control Groups on posttest.

The experimental group comprises of 50 males. The subjects have the same

entry qualification or academic abilities before the Social Studies topics were presented to them. The test was carried out after six week of intensive teaching and a week revision period.

HO2: There is no significant difference in the performance of male students taught Social Studies concepts with overhead projector and those taught without it.

To test the hypothesis, the mean scores of male students in the experimental group and control group were computed. The analysis was carried out using the t-Test statistics as shown in table 4.2.

Table 4.2 t- Test Results for the Posttest Performance Scores of the Males in the Experimental Group and Control Group.

Groups	N	df	X	SD	t-value calculated	t-value critical	P	Remark
Experimental Male	50	29	58.22	8.185	14.60		0.001	Significant
Control Male	50		39.98	6.448		1.68		

* Significant at $P \leq 0.05$

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From the result in the table 4.2 above, the calculated t-value of 14.60 is greater than the critical t-value of 1.68 at 0.05 level of significance. This shows that there is a significant difference between the performance of male students taught with the overhead projector and the male students taught without the overhead projector. The null hypothesis was therefore, rejected. This also shows that overhead projector enhances male students performance in Social Studies.

Performance of female Students in the Experimental and Control Groups.

HO3: There is no significant difference in the performance of female students taught Social Studies concepts with overhead projector and those taught without it.

To test the hypothesis, the mean scores of female students in the experimental and control groups were computed and compared. The analysis was carried out using the t-test statistics as shown in Table 4.3 below.

Table 4.3: t - Test comparison of the posttest mean scores of the females in the experimental and Control Groups.

Groups	N	df	X	SD	t-value calculation	t-value critical	P	Remark
Experimental Female	50	29	59.56	7.10	17.10	1.68	0.001	Significant
Control Female	50		39.66	5.90				

* Significant at $P \leq 0.05$

From the result in table 4.3, the mean score of the Experimental Female was greater than the mean score of the Control Female. The calculated t-value of 17.10 was greater than the t-value critical of 1.68. This shows that there is a significant difference between the

1.8 Summary of Findings

The research was orchestrated by the poor performance of students in Social Studies. The poor performance has been attributed to many factors like the complex nature of the subjects, lack of qualified Social Studies teachers, lack of effective use of instructional media and persistent adaptation of the

experimental female mean scores taught with overhead projector and the control female mean scores taught without the projector. The null hypothesis was therefore, rejected. This shows that overhead projector enhances female students' performance.

traditional lecture method (Ololobou, 1996; Okorie, 2004 Gana, 2000).

The findings from the study revealed that overhead projector significantly improved the performance of students in Social Studies Specifically, this was reflected in the varied performance records observed:

I. There was a significant differences in the performance of students taught using overhead projector and those taught without it.

II. There was a significant difference in the performance of experimental males taught with the overhead projector and the control males taught without it.

III. There was a significant difference in the performance of experimental females taught with the overhead projector and the control females taught without it.

The study therefore, revealed that the use of overhead projector will greatly improve the academic achievement of students in Social Studies. However, considering the variation in the performances of the male and female students; for specific learning objective to be achieved; and for a balanced gender result, more effective modes of presentation of instruction should be employed.

1.9 Conclusion

The study showed that the use of overhead projector has the capacity of improving the performance of students in the Social Studies. The major findings of the study were:

- i. The use of overhead projector significantly enhanced the performance of students in Social Studies.
- ii. Male and female students are affected in the same manner (equally affected) by the use of overhead projector in teaching and learning Social Studies. In other words, the effect of the overhead

projector in teaching Social Studies is not gender dependent.

- iii. There is no fear of any sex or gender being particularly favoured when the overhead projector is used to teach Social Studies.

1.10 Recommendations

Based on the findings of the study, the following recommendations were made for the improvement of teaching and learning of Social Studies:

- i. Government should at all levels of education, provide instructional materials and equipment such as transparencies and overhead projectors to Social Studies teachers.
- ii. Pre-service and in-service teacher training programmes for the preparation of secondary schools teachers, should emphasize the use of and application of instructional media by student teachers in order to give them good training as well as provide clear meaning of the concepts taught to the teachers themselves (and hence to their future students.
- iii. Qualified teachers who are already in the field and who are not knowledgeable in the use of media materials such as the overhead projector in teaching should be trained through seminars, workshops, conferences and in-service programmes.
- iv. Effort should be made through research to further find out other relevant roles which overhead projector and software can play towards improving the performance of students in teaching and learning of Social Studies.

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