

Relative Effectiveness Of Inquiry And Expository Methods of Teaching Social Studies on Academic Performance of Secondary Students in Akwa Ibom State, Nigeria.

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Abstract

The aim of this work was to find out the relative effectiveness of inquiry and expository methods of teaching social studies on the academic achievement of secondary school students in Akwa Ibom State. Related literature was reviewed. The research design was pretest-post-test experimental design. Four hypotheses were raised to guide the study. The independent t-test statistical instrument was used in analyzing the data at .05 level of significance. The sample of the study was made up of 300 randomly sampled students from six public secondary schools in the state. The result revealed that students taught with the expository method. Based on this finding, it was recommended that inquiry method of teaching social studies be encouraged in the secondary school setting.

Keywords: Inquiry, Expository, Social Studies, Performance.

Introduction

One important aim of education is to foster the full development of an individual to enable full contribution to the well-being of the society. This principal aim of social studies education at all educational levels which nurtures responsible citizenship is made possible through the various teaching methods used to impart social studies knowledge. In other words, social studies teaching is part of the educational process that aims at giving the learners some skills, competencies and intellectual capability necessary for them to lead a useful life in the society. Social studies teaching is a complex process of co-operation and communication between the teacher and the learner. It is clear means by which students are assisted to acquire new skills, values, attitudes, appreciations, knowledge and understanding (Edinyang, 2001).

The achievement and failure of students in social studies, aside other variables, strongly depend on the teachers' teaching style. Some of the methods used by teacher are didactic and the students become very passive. It is the teacher who asks questions, rarely the pupils and very infrequently does a student's schooling allow him to discover problems (Edinyang, 2001). This factor has contributed in no small measure towards the massive failure of pupils in both internal and external examinations. The massive failure of learners in social studies (which does not involve any serious mathematical calculation that students are often afraid of) therefore informed the need for this research to find out an inspiring teaching method which will produce more positive result.

Thus, this research aims at comparing the expository and inquiry methods of teaching social studies with a view to determine which of the two, if well used, by the teacher can:

- a. Have a higher effect on students' academic achievement in social studies;
- b. Contribute towards improved performance in the subject at both internal and external examinations, and
- c. Heighten the standard of educational attainment in social studies in Akwa Ibom State.

Methods

To achieve the objectives of this research as stated above the following null hypotheses were stated:

- i. Student's pre-test performance in inquiry and expository methods of teaching social studies are not significantly different.
- ii. Student's post-test performance in inquiry and expository methods of teaching social studies are not significantly different.
- iii. There is no significant difference in academic performance among female students taught social studies with inquiry and expository methods.
- iv. There is no significant difference in academic performance among male students taught social studies with inquiry and expository methods.

Research design

The design used for the study was a pretest-posttest control group experimental design. This method was used because it allows for the manipulation of the independent variable (in this case inquiry and expository methods of teaching) in order to determine its effects on the dependent variable (which in this case is students academic achievement). This is represented as follows:-

R O₁ X O₂ X gain = O₂-O₁ O₁ O₃ pretest

R O₃ C O₄ C gain = O₄ -O₃ O₂ O₄ post test

where:

X stands for the experimental group.

C stands for the control group

R stands for the randomization

O₁ and O₃ stands for pretest

O₂ and O₄ stands for posttest

X and C= stands for treatment.

O₁ and O₂ = was the same instrument.

Population and sample

The population of the study consisted of all junior secondary two (2) students in the state-owned post primary schools. The population of JSS 2 students offering social studies as at the time of this research was 15,200. The hat and draw method was used in the selection of both the six (6) schools used for the study and three hundred (300) subjects. Fifty students were randomly selected from each school under study.

The instrument used in the collection of data for this study was a test. The identified items across the content area and objective dimension are thus contained in the table of specification shown below.

Table 1:

Table of specification: (Test Blueprint)

The content Objective	Knowl- edge	Comprehen sion	Application	Synthesis	Evaluative	Total
Physical environment	4	3	1	1	1	10
Leadership, followership and consequences involved	2	1	2	1	1	7
Transportation and communication	3	2	1	-	2	8
Development and growth	1	1	2	1	-	5
Total	10	7	6	3	4	30

The following procedures were followed in administering the instruments. Firstly, the principals' consent was sought for and obtained in the schools where the research was carried out. Secondly, the students were given code numbers according to their sex (1 for male and 2 for female). This was to allay fears on the confidentiality of the exercise.

However, to be able to match students' scores in the pre-test, students in the schools were advised to maintain their numbers in addition to the writing of either 1 or 2 in bracket to indicate their sex.

The students in the schools used for the experiment were taught by the researchers. All the groups received instruction on the topics stated above for 3 days a week for six weeks. It was hoped that the students may never have been exposed to the use of either expository or inquiry methods of teaching social studies. At the end of, the post-test was administered to all the subjects in the experimental and control groups and their scores recorded. The independent t-test was used in analyzing the data. Each hypothesis was tested at .05 level of significance, based on the degree of freedom (df) obtained.

Result, Discussion, Conclusion and Recommendation

The result of data analysis and the interpretation are presented hypothesis by hypothesis below:

Hypothesis 1

Students' pre-test performance in inquiry and expository methods of teaching social studies are not significantly different. In order to test this hypothesis, independent t-test analysis was performed. The results are shown in table 2.

Table 2

Independent t-test analysis of the pre-test performance of students taught social studies with inquiry and expository methods

The result in the table indicates that the calculated t-value (0.16) is less than the critical t-value of 1.96 at 0.05 significance level and 298 degree of freedom. This implies that there is no significant difference in the mean pre-test performance scores of students taught social studies with inquiry and expository teaching methods. Thus, the null hypothesis is retained.

Hypothesis 2

Post treatment performance of students taught social studies with inquiry and expository teaching methods are not significantly different. Since the pre-treatment knowledge of the two groups of students is homogeneous as exemplified in the non-significant difference in the pretest performance of the two groups obtained for hypothesis one, it was decided to test the present hypothesis with independent t-test analysis rather than the analysis of covariance. The results are shown in table 3.

Table 3:

Students groups	\bar{X}	S	N	t-cal
Inquiry	62.24	12.10	150	
				9.29*
Expository	50.45	15.30	150	

* $P < .05$ df = 298, critical t-value = 1.96

As shown in the table the calculated t-value is 9.29 while the critical t-value at .05 significance level and 298 degree of freedom is 1.96. Since the calculated t-value is far greater than the critical t-value, this means there is a significant difference in the mean post-treatment performance scores of students taught social studies with inquiry and expository method of teaching. Specifically, students taught social studies with the inquiry method performed significantly better than their counterparts taught with expository methods as exemplified by the greater mean score for the inquiry method of studies. The null hypothesis is therefore rejected.

Hypothesis 3

There is no significant difference in academic performance among female students taught social studies with inquiry and expository methods.

Table 4

Independent t-test comparison of the pre-test scores of female students taught social studies with inquiry and expository methods

Students groups	\bar{X}	S	N	t-cal
Inquiry	3.52	8.15	75	
				0.35*
Expository	30.99	8.25	75	

* $p > .05$ $df = 148$, critical t -value = 1.98

Since the critical t -value of 1.98 at 148 degree of freedom and .05 significance level is greater than the calculated t -value. This means that there is no significant difference in the pretest score of female students taught social studies with inquiry and expository methods. This implies that the two groups are homogeneous in terms of their knowledge level to the topics taught during the experimental treatment. Thus their difference after treatment will be due to the treatment.

On the basis of this result an independent t -test was used to test the post-treatment scores of the students. The results are shown in table 5.

Table 5.

Independent t-test comparison of the post-treatment scores of female students taught social studies with inquiry and expository methods

Students groups	\bar{X}	S	N	t-cal
Inquiry	64.63	11.70	75	
				6.33*
Expository	50.51	15.36	75	

* $p > .05$ $df = 148$ critical t -value 1.98

The results in the table indicate that the calculated t -value is 6.33 while the critical t -value at .05 significance level and 148 degrees of freedom is 1.98. Since the calculated t -value is greater than the critical value. It means that there is a significant difference in the post-treatment scores of female students taught social studies with expository and inquiry methods. Specifically, female students taught social studies with inquiry methods performed significantly better than their counterparts taught with expository method as exemplified in the greater mean score for the inquiry group ($X = 64.63$, $S = 11.70$) compared to the expository group ($X = 50.51$, $S = 15.36$). Thus, the null hypothesis is rejected.

Hypothesis 4

There is no significant difference in academic performance among male student taught social studies with inquiry and expository methods.

Here again an independent t -test comparison of the pre-treatment knowledge level of the two groups of male students was done as to determine the most parsimonious statistics to use in testing the hypothesis. The results are shown in table 6.

Table 6

Independent t-test comparison of the pre-treatment performance scores of male students taught social studies with inquiry and expository methods.

Students groups	\bar{X}	S	N	t-cal
Inquiry	65.84	12.53	75	
				6.75*
Expository	50.39	15.35	75	

* $P > .05$ $df = 148$, critical t -value = 1.98

The results in the table indicate that there is no significant difference in the pre-treatment scores of the male students in the two treatment groups since the calculated t -value of 0.61 is far less than the critical t -value of 1.98 at .05 significant level and 148 degree of freedom. On the basis of this result analysis of covariance was considered unnecessary. An independent t -test was performed instead. The results are shown in table 7 for the post-treatment scores.

Table 7

Independent t-test comparison of the post-treatment performance scores of male students taught social with inquiry and expository methods

Students groups	\bar{X}	S	N	t-cal
Inquiry	65.84	12.53	75	
				6.75*
Expository	50.51	15.36	75	

* $P > .05$ df = 148, critical t-value = 1.98

The results indicate that the calculated t-value (6.75) is far greater than the critical t-value at .05 significance level and 148 degrees of freedom (1.98). This means that there is a Significant difference in the mean performance scores of male students taught social studies with inquiry and expository methods. Thus, the null hypothesis is rejected. Male students taught with inquiry method ($X = 65.84$, $S = 12.53$) performed significantly better than their counterparts taught with expository method ($X = 50.39$, $S = 15.35$).

The summary of the result shows that:

- i. Student's pre-test performance in inquiry and expository methods of teaching social studies is not significantly different.
- ii. Students taught social studies with the inquiry method performed significant better than their counterparts taught with the expository method.
- iii. Female student taught social studies with the inquiry method performed significantly better than their counterparts taught with the expository method.
- iv. Male students taught social studies with the inquiry method performed significantly better than their counterparts taught with the expository method.

Discussion

The findings of this study are discussed under instructional methods and students performance in social studies. Firstly, the result of the study revealed that the inquiry and expository groups of students did not perform academically better than one another at the pretest level. Secondary, the result of the study also revealed that the inquiry group of students performed significantly higher than the expository group of students academically in the post-test level.

With regard to the equal academic performance of both the inquiry and expository group of students in the pretest level, invariably, one could not have expected anything different in their performance. This is because the selected students were randomly drawn from a class level, and none of them was exposed to any lesson before the test was administered. None of the groups was given any special treatment in terms of selection as well. Thus, none of the groups was therefore expected to have an edge over the other at the pre-test.

Furthermore, the students in the inquiry group of the study performed significantly better than their counterparts in the expository group of the study because of their physical involvement in the lesson and the teachers teaching technique. The result of this study supports Archibong (1989), Kupotali (1989), Umoh (1994), Odor (1999), Egomo and Obuyi (1999) Ewoh and Eteng (1999), and Edinyang (2001). They agree that students learn more and comprehend better when they are actively involved in the lesson. This is because any teaching procedures which involve students in some positive activity, as did the inquiry, are generally more effectively than any other method which does not give room for learners active participation as epitomized in the case of the expository method of teaching social studies. Our experience as practicing teachers have revealed that facts obtained by

students in the inquiry class have higher rotational values than facts merely dictated to students by the teachers.

Conclusion and Recommendations

It is therefore concluded that learning of social studies is enhanced more by the inquiry approach to teaching than the expository method. The better performance of pupils in their post-test than in the pre-test when inquiry method was used implies that as much as possible, teachers should endeavour to use inquiry method in teaching. It also implies that since inquiry method needs instructional materials, teachers should lay more emphasis on improvisation.

In view of the fact of the result of this research show that the inquiry method appear to be more beneficial to the learner achieving significantly higher as compared to the expository methods of teaching social studies. In schools, the inquiry method is strongly recommended for use in teaching social studies lessons.

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