

Effects of Discussion Method and Lecture Method on Students' Academic Achievement in Social Studies in Akwa Ibom State

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Annotation: The main purpose of this study was to examine the effects of discussion method and lecture method on students' academic achievement in social studies in Akwa Ibom State. Quasi experimental of 2 X 3 factorial designs was adopted for the study. The study was conducted in Akwa Ibom State. The target population for this study was all the Junior Secondary two (JS2) Social Studies students in all the public secondary schools in Akwa Ibom State. A two-stage sampling technique was used to select 150 students from a centrally located secondary school in Akwa Ibom State. It was the use of intact classes drawn from the 3 arms of JS2 class from the selected secondary school centrally located. Each of the 3 arms of the JSS 2 class used for the study had 50 students. This gave a total of 150 participants in the study. The Main Instrument used in this study was a questionnaire titled "SOCIAL STUDIES ACHIEVEMENT TEST QUESTIONNAIRE (SOSAT)". In order to ascertain the validity of the instrument the social studies achievement test (SOSAT) were given to experts in Social Studies, Abia State University, Uturu and the researchers Supervisors to screen for face and content validity. The instruments were again re-administered on the same group of students, and the scores generated on the first and the second administration of the instruments were subjected to analysis using Independent t-test statistics. The reliability coefficient or index was 0.89 for SOSAT. With these indices, the instruments were considered valid reliable, and capable of measuring the intended events with consistency. Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance. The study also concluded that discussion and lecture method is important as a learning process because it is a way of considering various facets of a problem and also because it lays the ground work for many discussion situations in which young people and adult are constantly taking part. One of the recommendations made in the study was that considering the role of Social Studies in the life of learners, the school system, the Nigerian society and the world at large, it is therefore imperative that secondary school students should be well grounded in the discipline for Nigeria to attain the state of national development it desires and to rank favourably among the committee of nations.

Keywords: Discussion Method, Lecture Method, Students' Academic Achievement & Social Studies.

Introduction

Lecture method is usually an exposition. The lecturer tells the audience what he thinks they should know. The lecture may contain any combination of; citing what well known authors have written on the topic of the lecture, expressing the lecturer's own opinions; demonstrating how something works, or stating the argument in favour of and against a particular proposition. It is essentially autocratic in form and style. This method does not permit the teacher to know the students since it does not encourage students' activities which can help the teacher to know what his learners are like (Michael, 2013).

Collaborative and discussion learning methods therefore requires great efforts and perseverance. Learners therefore must be persevering and committed to the learning methods. How people behave can often be better predicted by their beliefs about their capabilities than by what they are actually capable of accomplishing. This is simply because these beliefs help in determining what individuals do with the knowledge and skills they have (Bandura, 2006). Therefore, it is important to understanding what affects students' self-concept to engage in Collaborative and discussion learning methods. According to Bandura (2006), people's judgment of their capabilities to organise and execute courses of action required to attain designated types of performances strongly influences the choices people make, the effort they expend, and how long they persevere in the face of challenges. According to Okwubunka (2007), low self-concept can be closely associated to learning difficulties in students. A student who believes he is incapable of accomplishing his academic task is bound to be an academic failure.

Discussion implies the participation of students in the process of learning by raising issues of their own, contributing ideas, asking questions and seeking solution based upon the study and drawing conclusion under the teacher's guidance. Discussion is important as a learning process because it is a way of considering various facets of a problem and also because it plays the ground work for many dissension situations in which young people and adults are constantly taking part (Rivlin, 2006). Essentially, discussion is based on extensive contribution of ideas and expressions from the members of the group participating and has the potency of improving students' self-concept in the discipline and improves students' achievement. This is in line with the experimental study conducted by Vantran (2014) to investigate the effect of collaborative learning and discussion method on the achievement, knowledge retention and self-concept in psychology. After approximately 8 weeks of instructions, students who were instructed using collaborative and discussion methods achieved significantly higher than those taught using lecture based method.

Statement of the Problem

It saddens the concerned minds that the performance of students in Social Studies in our secondary schools has been consistently poor particularly in the external examinations. Many scholars have attributed the poor student's achievement in Social Studies to lack of qualified teachers to handle the subject, poor teaching delivery and teacher's method of presenting the content of curriculum to students. Some scholars have also identified several factors that may be responsible for these ugly situations. Some of such factors on a broad scale have been grouped as government related, society related, school related, teacher related and also students related.

Purpose of the Study

The main purpose of this study was to examine the effects of discussion method and lecture method on students' academic achievement in social studies in Akwa Ibom State. Specifically, the study seeks to:

1. Ascertain the effect of discussion method on academic achievement of male and female students in Social Studies.
2. Find out the effect of lecture method on academic achievement of male and female students in Social Studies.

Hypotheses

HO1: There is no significant difference between the performances of male and female students' achievement taught using discussion method.

HO2: There is no significant difference between the performances of male and female students' achievement taught using lecture method.

Theoretical Review

Generative Learning Theory

Wittrock (1974) introduced generative learning theory with its companion model generative teaching to stress the importance of learners. The theory states that although a student may not understand sentences spoken to him by his teacher, it is likely that the students understand sentences that he generates by himself (Wittrock, 1974). Generative learning theory emphasizes that learning is not by discovery but by generating knowledge from interactions between students, teacher and instruction. In Wittrock's view, students are not passive recipients of information but active participants in the learning process working to construct meaningful understanding from the pieces of information found in the learning environment. The theory recognizes that both the students and learning environment are of equal importance, that intentionality on the part of the teacher and the students are critical (Bonn & Grabowski, 2011).

Even though Wittrock stressed individual students' active participation in instruction and learning, the theory showed that students can learn more through interaction and collaboration. The teacher's role is knowing how and when to facilitate construction of the relationship by the students. The focus of generative learning theory is on selecting appropriate student-centered instructional activities for the students with emphasis on generation of new conceptual understanding and not on transforming the information (Grabowski, 2002). In so doing, the student is active and conscious, comprehend, elaborate and recognize information to generate new knowledge from the relationship between interactions. Bonn and Grabowski (2011) described generative learning theory as practical cousin of constructivism and second cousin to behaviorism.

Generating learning activities require internal processing of external stimuli and that is what exists between external (teaching) stimuli and the students. Generative learning theory as student-centered learning theory has specific steps for engagement and construction of knowledge. It does not assume dominance of the role of the students or the instructor but partnership in the process (Ritchie & Volkl, 2009). Activities can be selected based on the type and learning outcome desired. This theory is of importance to this study as Social Studies teacher will acquire the ability to select or create appropriate learning activities that would help students to engage actively and also relating experiences to meaningful understanding of concepts through challenging instructional delivery.

Conceptual Review

Concept of Discussion Method

Discussion is important as a learning process because it is a way of considering various facets of a problem and also because it lays the ground work for many discussion situations in which young people and adult are constantly taking part (Riclin, 2007). Essentially, discussion is based on extensive contribution of ideas and expression from the members of the group participating. Okorie (2009) pointed out that as a guideline for the use of discussion method, during the discussion period, all the students should be active and the teacher should see that no small group is allowed to monopolize the discussion. Michael (2014) also maintained that the subject under discussion must be within the reach of the participants. He meant that the discussion should be centered on issues that are familiar. Adelawale (2009) observed that any class discussion must be purposeful in order to keep it from degenerating to the level of idle talk or conversation. This is to say the discussion of any class must be about something pertinent to the work of the course.

Instructional advantages of discussion method have been indicated by scholars. For instance, Kehinde (2009) stated that discussion encourage constructive original and logical thinking among students. Kunte (2005) maintained that discussion helps students to develop attribute such as self-confidence, self-concept, tolerance and poise. He further asserted that it

helps the students to solve and find solutions to problems and also help students become aware of or identify mutual problems.

However, some of the instructional disadvantages of discussion method are as follows:

1. It is not very appropriate as a method of teaching in a class of very young students.
2. Where the participants are inexperienced or not knowledgeable, the topic introduced may not be extensively discussed.
3. It takes much time for the topic to be extensively and conclusively discussed (Kalu, 2009).

In a way, discussion implies the participation of students in the process of learning by raising issues of their own, contributing ideas, asking questions and seeking solutions based upon the study and drawing conclusion under the teacher's guidance. Discussion is important as a learning process because it is a way of considering various facets of a problem and also because it lays the ground work for many discussion situations in which young people and adult are constantly taking part (Riclin, 2007). Essentially, discussion is based on extensive contribution of ideas and expression from the members of the group participating. In order for the discussion to be effective as a teaching method, the teacher must know how to guide the students without dominating the discussion. His role is to develop the interest of his students to participate actively in the discussion. It is to be noted that discussion may not be appropriate or effective for any given topic.

Concept of Lecture Method

According to Obanya (2009) a lecture is usually an exposition. The lecturer tells the audience what he thinks they should know. The lecture may contain any combination of citing what well known authors have written on the topic of the lecture; expressing the lecturers own opinions, demonstrating how something works, or stating the argument in favour of and against a particular proposition. Lecture method can deal with very large classes in a comparative show time. There are cases also at the lower level of education, when the lecture method may have to be used. For example, some subjects (e.g. history) may require a certain amount of storytelling. Some others may require scientific concepts by the teachers.

Ketchum (2009) compared the notes students wrote during lectures with what the lecturer actually said. He arrived at two broad conclusions. Firstly, students did not regard the lecture primarily as a source of detailed, factual information. Secondly, student did not regard the lecture as a means of providing them with a framework of ideas and theory. Mike reported that when lecturers speak indistinctly or are going over difficult grounds, the information processing demands were so high that students could not even hear what was being said while they were struggling to write down the previous bit. They had a choice to either listen and (with luck) understand, or record. They are capable of during both simultaneously unless lecture content was familiar. Nwankwo (2002) stated that lecturing is the poor way to give students a proper set of notes and result in all sorts of associated problems for students.

Lecture method is often defended because it is argued that it functions well in combination with other teaching methods which have higher level objectives. If preparation for a discussion requires gaining some understanding of the subject matter and this would seem more realistic, then lectures are poor preparation. If you want students to think and discuss, then the best preparation involves thinking and discussions.

Empirical Review

Moore (2005) conducted an experiment on the impact of collaborative learning and lecturing method on first year non-Asian ethnic minority engineering students on calculus. In engineering department, University of Sri-Lanka. The experiment was to specifically, determine the retention level of fresh non-Asian students in the calculus class. The findings of the study revealed that the collaborative learning was more successful and produce positive result than the lecture learning method in improving retention and academic success rate away non-Asian fresh engineering students.

In a similar development, Busari (2010) also conducted an experimental study on comparative effect of four instructional strategies on students' achievement and self-concept in chemistry in some selected secondary schools in Lagos State. The purpose of the study was to compare the effect of instructional strategies are; students' achievement in chemistry; and self-concept of students in chemistry.

The design was a randomized experimental and control group, pretest-posttest instructional design. Two null hypotheses were formulated and tested at thus 0.05 level of significance, the sample for the study, consisted of 218 SSII chemistry students randomly drawn from seven (7) schools in Lagos state. There were 130 students in the experimental group and 88 students in the control group. The researcher used Pre-Achievement Test (PAT); the chemistry Achievement Test (CAT) and the questionnaire. The result indicated each of the instructional strategies except lecture method contributed positively to learning of chemical concept and development of high self-concept in chemistry students. The research helped in directing the current research on the choice and formulation of the instrument for data collection. However, the researcher did not state the statistical tool that was used in analyzing the data. However, this study will make use of the appropriate tool.

Vantran (2014) in his experimental study investigated the effects of collaborative learning retention of 110 first year primary education students in psychology subject over the eight weeks of instruction at AnGiang University. These tertiary students were divided in to matched groups of 55 to be taught by the same lecturer. In the experimental group collaborative learning and discussion method were employed, while in the control group, lecture-based teaching was used. The results

showed that after approximately eight weeks, students who were instructed using collaborative learning and discussion method achieved significantly higher scores on the achievement and knowledge retention at post tests than students who were instructed using lecture-based teaching.

Methodology

Quasi experimental of 2 X 3 factorial designs was adopted for the study. The study was conducted in Akwa Ibom State. The target population for this study was all the Junior Secondary two (JS2) Social Studies students in all the public secondary schools in Akwa Ibom State. A two-stage sampling technique was used to select 150 students from a centrally located secondary school in Akwa Ibom State. It was the use of intact classes drawn from the 3 arms of JS2 class from the selected secondary school centrally located. Each of the 3 arms of the JSS 2 class used for the study had 50 students. This gave a total of 150 participants in the study. Two research instruments were developed and used for the purpose of this study titled “SOCIAL STUDIES ACHIEVEMENT TEST QUESTIONNAIRE (SOSAT)” and SOCIAL STUDIES SELF-CONCEPT QUESTIONNAIRE (SSCQ). In order to ascertain the validity of the instrument the social studies achievement test (SOSAT) and social studies self-concept questionnaire (SSCQ) were given to experts in Social Studies, Abia State University, Uturu and the researchers Supervisors to screen for face and content validity. To establish the reliability of the research instruments, (SOSAT) and (SSCQ) reliability testing was conducted. The validated instruments were tried out on a group of 20 JSS II students from Aka Community Secondary School, Aka-Offot that was not used in the actual study. Measures of the reliability of the instruments were obtained through test-retest approach which measured the same set of subjects again with the same measuring instruments. After a period of two weeks the instruments were again re-administered on the same group of students, and the scores generated on the first and the second administration of the instruments were subjected to analysis using Independent t-test statistics. The reliability coefficient or index was 0.89 for SOSAT. With these indices, the instruments were considered valid reliable, and capable of measuring the intended events with consistency. Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance.

Results

Hypothesis One

There is no significant difference between the performance of male and female students’ achievement taught using discussion method.

Table 1: Summary of Independent t-test of Male and Female Students’ Achievement using Discussion Method (N = 50)

Gender	N	\bar{X}	SD	Std error	Df	t	Ho Decision
Males	30	64.60	7.21		48	1.66	P > 0.05 Retain Ho
Females	20	68.55	8.86				
Total	50	68.58					

Not significant at P < 0.05 alpha level; critical t- value = 2.021; degree of freedom = 48.

Table 1 contained the result of the t-test analysis to test hypothesis five. The calculated t- test gave a t- ratio of 1.66 given 48 degrees of freedom while the critical t- value remains at 2.021 given 48 degrees of freedom at the 0.05 level of significance. Since the critical t is greater than the calculated t- value, the null hypothesis was retained.

The result of this analysis implies that the discussion method did not affect any of the gender tremendously. The male had a mean of 64.60 with a standard deviation of 7.21 while the female had a mean of 68.55 with a standard deviation of 8.86. The 3.95 difference in favour of the females was not statistically strong to be significant at the 0.05 level of significance. It can therefore be concluded that neither of the gender made more gains than the other when discussion method was employed. The observed mean error may be as a result of change factor.

Hypothesis Two

There is no significant difference between the performance of male and female students’ achievement taught using the lecture method.

Table 2: Summary of Independent t-test Comparison of Mean Achievement between Male and Female Students using Lecture Method (N = 50).

Gender	N	\bar{X}	SD	Std error	Df	t	Ho Decision
Males	21	66.6	5.68		48	1.52	P > 0.05 Retain Ho
Females	29	63.69	7.93				
Total	50	65.15					

Not significant at P < 0.05 alpha level; critical t = 2.021 degree of freedom = 48

Table 2 also showed that males had a mean of 66.6 with a standard deviation of 5.68 while the females had a mean of 63.69 with a standard deviation of 7.93. This result means that lecture method did not particularly attract any of the gender to perform better than the other. However, a mean difference of 2.91 exists between the two groups. This mean difference was also not statistically strong to be significant at the 0.05 alpha level. It occurs as a result of chance error.

The independent t-test analysis was done to test hypothesis two. The calculated t- test gave a t- ratio of 1.52 given 48 degrees of freedom while the critical t- value remains at 2.021 given 48 degrees of freedom at 0.05 alpha level of significance. The null hypothesis was therefore retained. The result of this analysis has been summarized in table 2.

Conclusion

Lecture method can deal with very large classes in a comparative show time. There are cases also at the lower level of education, when the lecture method may have to be used. For example, some subjects (e.g. history) may require a certain amount of storytelling. Some others may require scientific concepts by the teachers. The study also concluded that discussion and lecture method is important as a learning process because it is a way of considering various facets of a problem and also because it lays the ground work for many discussion situations in which young people and adult are constantly taking part.

Recommendations

1. Considering the role of Social Studies in the life of learners, the school system, the Nigerian society and the world at large, it is therefore imperative that secondary school students should be well grounded in the discipline for Nigeria to attain the state of national development it desires and to rank favourably among the committee of nations.
2. It is therefore very crucial to examine the effects of instructional strategies used in the Nigerian secondary schools on the students' achievement bearing the negative consequences of poor achievement in deterring students from pursuing Social Studies as a carrier as well as its overall impact on the attainment of National Development.

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