



Relative Effects of Discussion and Questioning Instructional Strategies on Middle School Students' Social Studies Learning Outcomes in Osun State, Nigeria

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Abstract

This study investigated and compared the effect of discussion and questioning instructional strategies on students' performance and their retention of learnt concepts in Social Studies. It also assessed the relative effects of the two strategies on students' attitude towards Social Studies. These were with the view to enhancing and improving students' learning outcomes in Social Studies. The study employed quasi experimental research design. The population consisted of middle secondary school (JSS II) students in Osun State. A sample size of 70 students in two intact classes was used for the study. The students in these intact classes were assigned to two experimental groups using simple random sampling technique. Four research instruments were used for the study. Three hypotheses were raised and tested at 0.05 level of significance. The results revealed among others that there was a significant effect of discussion and questioning instructional strategies on students' performance in Social Studies ($F = 13.485$; $p < 0.05$). The study concluded that the discussion learning strategy could be very effective in improving students' learning outcomes in Social Studies in middle schools in Osun state, Nigeria.

Keywords: Discussion strategy, Questioning strategy, Achievement, Attitude, Retention, Social Studies.

Introduction

Social Studies as a discipline in which essential knowledge for worthwhile living in society is taught, from the realities of the learners' environment. This makes the learners to have a better understanding of their environment and consequently, function in the environment more effectively. Raji (2015) asserted that Social studies teaches certain attitudes and values, which are considered desirable for good citizenship. Values such as cooperation, comradeship, togetherness, honesty, hard work and fairness are stressed in Social Studies.

Social Studies occupies an important place in the social development and advancement of any society. This is because Social Studies is found useful in man's daily existence, national economic development strategies, as well as in contributing to the intellectual development and discipline of its recipients (Mezeobi, 2000). Social Studies is one of the core subjects at the Upper Basic level of education in Nigeria; and it is one of the most appropriate tools for achieving the educational goals and objectives of the country. Yusuf (2004) opined that Social Studies is geared towards producing individuals who will not only possess the capability to solve problems, but who can also contribute to the development of the society. In the National Policy on Education (FRN, 2013), one of the goals of the Nigerian Education system is the development of individuals into sound and effective citizens, and this involves the integration of the individual

into the community. Abdulahi (2006) explained that Social Studies programmes help students understand themselves in terms of their relationship to the world they live in. It is a problem-solving discipline through which human beings study and learn about problems of survival in their environment. One of the cardinal objectives of Social Studies is to improve ethnic and other social relationships; self-esteem, produce better attitude towards the subject, the classroom and the schools; and improve time on task Ajitoni (2005).

Achievement of the above objectives of Social Studies requires effective teaching on the part of teachers who should be conversant and versatile with the appropriate teaching strategies and techniques, such as discussion and questioning techniques. Discussion refers to a verbal exchange of view, opinions or ideas between two or more people (Special Teacher Upgrading Programme, 2007), Discussion method entails the teacher involving the students in a problem-solving situation, whereby the students carefully consider the problem, argue among themselves in democratic manner, suggest solutions and draw conclusions. Sometimes, a short discussion among the students may take place as a part of lesson in which another method is dominantly used. The discussion method has been widely accepted and recommended by some educators as a good method of teaching (Abdulhamid, 2013). In the discussion method of teaching, the central and essential characteristic is interaction (Binkley and Tulloch, 1981). During discussion session, students participate in the learning process by coming up with problems, analyzing the factors associated with the problems, developing possible solutions to the problems, putting the solution(s) into action and evaluating the results of the solutions.

The discussion group may be in three forms, i.e., the whole class, small groups or the panel. The whole class discussion is usually used when the students are inexperienced to handle an organized discussion on their own, the teacher should be the chairman in this case. The small group discussion is the ideal for meaningful learning. A small group usually consists of about five or six students and the teacher should be careful in selecting the students in the group. As for the panel, a group of about five students are selected to address the class on different aspects of a topic. This method has the following advantages:

- It encourages students to listen, think, analyse and critically evaluate points made;
- Students learn from each other;
- It gives the students the opportunity to practice their oral communication skills;
- It gives the students training in respecting others' views; and
- It gives the students training in looking for facts on their own.

As good as the discussion method, the following could be seen as its disadvantages:

- It cannot be used in all topics in all subjects, particularly in Mathematics and the Sciences. It is useful mostly in the Arts and the Social Sciences;
- While the brighter and vocal students may find it as an avenue to show off, so also do the weak or shy students find it uneasy to argue convincingly in the group; and
- Unlike lecture method, it is not ideal for a large class.

Questioning method on the other hand, according to Special Teacher Upgrading Programme (2007), is the process in which a sequence of suitable questions are asked with the objective of leading the students to draw a logical conclusion or generalization. In this method, the teacher skillfully asks students questions so that they could see the limitations or inadequacies in a statement earlier made. This statement they would eventually reject for a more



adequate one. For instance, the teacher may make a statement which the students accept without any doubt. The teacher could then ask a question based on the statement. The answer to the question would throw light to the inadequacy of the statement and from which the teacher builds up more questions, which would lead the students to the generalization. It is however important for teachers to avoid factual but focus more on deep-learning level type of questions (Ramsden, 2003). Minton (2005) suggests that questioning does not come naturally to most people because novice teachers are used to thinking in terms of answers, not questions. It needs to be stated at the outset that, Bloom's (1956) cognitive domain criteria are useful for designing questions.

In general, research shows that an instruction involving questioning is more effective than one without questioning. Questioning is one of the nine research-based strategies presented in *Classroom Instruction That Works* (Marzano, Pickering, and Pollock, 2001). A teacher may vary his or her purpose in asking questions during a single lesson, or a single question may have more than one purpose. Questions that focus students' attention on important elements of a lesson result in better comprehension, than those that focus on unusual or interesting elements. Questions should also be structured in order to elicit most correct responses, such as a change in attitude.

Attitude as a concept is seen as an individual way of thinking, acting and behaving. Moris and Maisto (2005) saw attitude as the tendency of an individual to respond favourably or unfavourably to an object. Because of its nature of complexity, individual attitude cannot be observed directly, rather they would be inferred from what a person does or say. In other words, people can form strong positive and negative attitude towards neutral objects that are in some way linked to an emotional change in stimuli. Okwilagwe (2002) posited that the development of the right attitude to academic matters is a basic achievement of intrinsic worth.

Student achievement measures the amount of academic content a student learns in a determined amount of time. Each grade level has learning goals or instructional standards that educators are required to teach. Standards are similar to a 'to-do' list that a teacher can use to guide instruction. The primary focus of schools should be academic preparation of students (Hirsch, 1996; Tienken, & Wilson, 2001), the classroom teachers are primarily responsible for student academic achievement (Darling-Hammond, 2000), and schools should efficiently and effectively organize themselves towards that task (Engelmann & Carnine, 1991).

Student achievement will increase when quality instruction is used to teach instructional standards. Research consistently shows that teacher quality whether measured by content knowledge, experience, training and credentials, or general intellectual skills is strongly related to student achievement (Liu, and Johnson, 2003). Linda (2003) posited that student retention has become a challenging problem for the academic community; therefore, effective measures for student retention must be implemented in order to increase the retention of qualified students at institutions of higher learning. This same goes to those in lower and middle schools and as well applied to all subjects including Social Studies.

Statement of the Problem

In Social Studies lessons, discussions are made on topics of discussion by both teachers and students. Also, questions are equally asked and answered on various topics by both parties as well. Each of these learning strategies is known to have different contributions to students' learning outcomes in Social Studies. However, studies are yet to empirically establish the

relative effects of the two learning strategies on students' learning outcomes in Social Studies; hence this study.

Purpose of the Problem

This study aimed at determining the relative effect of discussion and questioning instructional strategies on middle school students' Social Studies learning outcomes in Osun State. Specifically the study is to:

- i. ascertain the effect of discussion and questioning instructional strategies on the mean achievement score of students in Social Studies;
- ii. compare the effect of discussion and questioning instructional strategies on students' mean retention scores in Social Studies concepts; and
- iii. determine the relative effects of the strategies on students' mean attitude rating towards Social Studies.

Hypotheses

The following hypotheses were formulated to guide the study;

- i. There is no significant effect of discussion and questioning instructional strategies on the mean achievement score of students in Social Studies.
- ii. There is no significant difference in the mean retention score of students exposed to discussion instructional strategy and those exposed to questioning instructional strategy in Social Studies
- iii. There is no significant difference in the mean attitude ratings of students exposed to discussion instructional strategy and those exposed to questioning instructional strategy in Social Studies

Method

The study employed quasi-experimental design. Specifically, non-equivalent control group design was used. The population of the study consisted of middle school (JSS II) students in Osun State. A sample size of 70 Social Studies students in two intact classes was used for the study. The students in the intact classes were assigned in the two groups comprising of the two experimental groups (Discussion instructional strategy group comprising of 35 students and questioning instructional strategy group also comprising of 35 groups). Four research instruments were used for data collection. These include: Social Studies Achievement Test (SSAT), Social Studies Attitude Scale (SSAS), Instructional Guide on Discussion Strategy (IGDS) and Instructional Guide on Questioning Strategy (IGQS). SSAT was made of a 30 – item multiple – choice objective questions on the three topics (Social groups, Group behaviours and Marriage) that were taught in the two groups, the instrument assessed students' academic performance. SSAS consisted of 20 items that elicited and measured students' attitudes towards Social Studies. The response options to SSAS ranges from Strongly Agreed (4 points) to Strongly Disagreed (1 point). The maximum score was 80 points while the minimum score was 20 points. IGDS and IGQS were instructional guides on discussion and questioning instructional strategies that indicated the procedures and methods of teaching the three main topics in Social Studies. The experiment lasted for six weeks with the help of four research assistants that were properly trained for the exercise. The data collected were analysed using ANCOVA.



Results

Table 1: Descriptive Statistics of the effect of the two strategies on students' academic performance in Social Studies.

Strategies	Pretest		Posttest		N
	Mean	SD	Mean	SD	
Discussion Strategy	12.91	1.70	21.71	4.15	35
Questioning Strategy	12.29	1.84	18.46	3.06	35
Total	12.60	1.79	20.06	3.98	70

As presented in Table 1, the result shows the mean scores of the students' performance in Social Studies having been exposed to Discussion Strategy and Questioning Strategy at ($\bar{x} = 21.71$ and $\bar{x} = 18.46$) respectively. The table reveals that the performance of students exposed to Discussion Strategy is the better of the two strategies since it has the highest mean score of ($\bar{x} = 21.71$) indicating that students taught Social Studies with the strategy performed better than their colleagues in the other group and that Discussion Strategy is good in the teaching of Social Studies. However, the pretest mean scores of Discussion and Questioning Strategies show no difference at ($\bar{x} = 12.91$ and $\bar{x} = 12.29$) respectively.

Testing of Hypotheses

Hypothesis One: There is no significant effect of discussion strategy and questioning strategy on students' mean achievement scores in Social Studies.

Table 2: Analysis of Covariance (ANCOVA) of the effect of the two strategies on students' academic performance in Social Studies.

Tests of Between-Subjects Effects						
Dependent Variable: Post-Test						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	186.941 ^a	2	93.471	6.939	.002	.172
Intercept	482.681	1	482.681	35.832	.000	.348
Pretest	1.284	1	1.284	.095	.758	.001
Strategies	174.506	1	174.506	12.954	.001	.162
Error	902.545	67	13.471			
Total	29330.000	70				
Corrected Total	1089.486	69				

a. R Squared = .172 (Adjusted R Squared = .147)

Result in Table 2 shows the effect of Discussion Strategy and Questioning Strategy on students' academic performance in Social Studies. The strategies adopted were seen to have a significant effect on the performance of the students ($F=12.954$, $p<0.05$). Hence the null hypothesis that states that there is no significant effect of Discussion Strategy and Questioning Strategy on students' academic performance was hereby rejected. A partial eta squared value of 0.162 revealed that 16.8% of the variance in the post test score of the student is accounted for by the strategies. However, Table 1 showed a posttest mean score (Discussion Strategy= 21.71 and Questioning Strategy=18.40) showed that students exposed to Discussion Strategy had better achievement score than those exposed to Questioning Strategy.

Hypothesis Two: There is no significant difference in the mean retention score of students exposed to discussion instructional strategy and those exposed to questioning instructional strategy in Social Studies

Table 3: Descriptive Statistics of the effect of the two strategies on students' retention score in Social Studies.

Strategies	Mean	Standard Deviation	N
Discussion Strategy	21.17	4.49	35
Questioning Strategy	16.60	3.48	35
Total	18.89	4.15	70

Table 3 shows the mean scores of the students' retention score having been exposed to Discussion Strategy and Questioning Strategy as 21.17 and 16.60 respectively. The Table reveals that the retention ability of students exposed to Discussion Strategy is the better of the two strategies, since it has the higher mean score of ($\bar{x} = 21.17$), indicating that students taught Social Studies with the strategy had better retention score than their colleagues in the other group; and that Discussion Strategy is better at improving the teaching of Social Studies. Note that Table 3 does not show the significant effect of the two strategies.



Table 4: Analysis of Covariance (ANCOVA) of the effect of the two strategies on students’ retention ability in Social Studies.

Tests of Between-Subjects Effects						
Dependent Variable: Retention Ability						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	562.854 ^a	2	281.427	23.563	.000	.413
Intercept	196.130	1	196.130	16.421	.000	.197
Posttest	197.140	1	197.140	16.506	.000	.198
Strategies	135.074	1	135.074	11.309	.001	.144
Error	800.232	67	11.944			
Total	26330.000	70				
Corrected Total	1363.086	69				

a. R Squared = .413 (Adjusted R Squared = .395)

Table 4 shows the effect of Discussion and Questioning Strategies applied on student’s retention ability in Social Studies. The strategies employed were seen to have a significant effect on the retention score of the students ($F = 11.309$, $p < 0.05$). However, the null hypothesis that states that there is no significant effect of Discussion and Questioning Strategies on students’ retention ability was rejected. A partial eta squared value of 0.144 showed that 14.4% of the variance in the retention test score of the student is accounted for by the strategies. Meanwhile, Table 3 revealed a retention test mean score (Discussion Strategy = 21.17 and Questioning Strategy = 16.60) showed that students exposed to Discussion Strategy had better retention score than those exposed to Questioning Strategy had.

Hypothesis Three: There is no significant difference in the mean attitude ratings of students exposed to discussion instructional strategy and those exposed to questioning instructional strategy in Social Studies

Table 5: Descriptive Statistics of the effect of the two strategies on students’ attitude towards Social Studies.

Strategies	Mean	Standard Deviation	N
Discussion Strategy	18.46	2.36	35
Questioning Strategy	17.00	2.51	35
Total	17.73	2.52	70

The data presented in Table 5 shows the mean scores of the students’ attitude when they were exposed to Discussion and Questioning Strategies as 18.46 and 17.00 respectively. The table shows that students exposed to Discussion Strategy exhibited the strongest attitude towards Social Studies of the two strategies considering its highest attitudinal mean score of ($\bar{x} = 18.46$). Note that Table 5 does not show the significant effect of the two strategies.

Table 6: Analysis of Covariance (ANCOVA) of the effect of the two strategies on students' attitude towards Social Studies.

Tests of Between-Subjects Effects						
Dependent Variable: Attitude						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	58.009 ^a	2	29.004	5.089	.009	.132
Intercept	298.742	1	298.742	52.420	.000	.439
Preattitude	20.852	1	20.852	3.659	.060	.052
Strategies	31.281	1	31.281	5.489	.022	.076
Error	381.834	67	5.699			
Total	22441.000	70				
Corrected Total	439.843	69				

a. R Squared = .132 (Adjusted R Squared = .106)

The data presented in Table 6 shows the attitude of the students towards Social Studies after they have been subjected to the two strategies using analysis of covariance and the scores for the two groups were compared. The result showed that ($F= 5.489, p < 0.05$) indicating that there exist a significant effect of Discussion and Questioning Strategies on the attitude of the students toward Social Studies, thus the null hypothesis that there is no significant effect of the two strategies on students' attitude to Social Studies was rejected. This result shows that the two strategies have significant effect on students' attitude towards Social Studies.

Discussion

The findings of hypothesis one showed that there was a significant effect of discussion and questioning instructional strategies on students' performance in Social Studies. The results tallied with previous studies such as Adam, (1985), Lowman, (1987), Haas, (2003), and Kumar, (2003), whose in their various studies where of the opinion that both discussion and questioning instructional strategies were effective means of enhancing students' learning achievement in their various teaching subjects.

On the second hypothesis the results showed that there was a significant effect of discussion and questioning instructional strategies on students' retention in Social Studies. This coincides with the findings of Abdulhamid, (2013), who examined the effect of teaching method on retention of agricultural science knowledge in senior secondary schools in Bauchi state and discovered that if effective teaching methods are employed in the teaching of Agricultural Science, knowledge of concepts are retained, this applies to Social Studies as well. Also Linda (2003), reiterated the needs for appropriate retention of concepts taught to learners for effective maximization of academic achievement.

On the third hypothesis, the results also showed that there was a relative significant effect of discussion and questioning instructional strategies of students' attitude towards Social Studies. This study corroborated previous studies such as Yara, (2009), Alaba, (2010), Maio and Haddock (2010), and Farooq (2013), who were of the view that attitude affect both students and teachers in everything they do and as a psychological construct significantly predict their



achievements. It is therefore presumed that when teachers are endowed with positive attitudes, it influences their students readiness to learn better but when the reverse is the case, it brings about poor performance.

Conclusion

It can be concluded from this study that in discussion instructional strategy, group members have reciprocal influence over each other which implies that the knowledge acquired by a student is affected by the behaviour of other students in the group and therefore the strategy is capable of creating an effective teaching strategy in improving students' learning outcome in Social Studies while questioning strategy on the other hand can as well facilitate and stimulate thinking on the part of students. However the results of the study revealed that the group taught with discussion strategy performed better than the group taught with questioning strategy which indicated the usefulness of discussion strategy in the teaching of Social Studies at middle schools in Osun state, Nigeria

Recommendations

1. Based on these findings on the usefulness of discussion strategy in the teaching and learning of Social Studies, it is therefore recommended that similar studies should be tried out in other subjects and levels
2. Further studies should be conducted to examine other variables such as home, school, psychological and sociological variables in the use of different teaching strategies
3. Government, Curriculum developers should ensure that students are exposed to different teaching strategies that will improve their attitudes positively towards teaching subjects.
4. Teachers of Social Studies need to be constantly trained and updated with some teaching techniques, which are student-centered and often neglected by many teachers. The revised National Policy on Education (6th ed., 2013) recommends that:
 - Teaching should be learner-centered for maximum self-development and self-fulfillment to all children;
 - Teachers should inculcate values and raise morally upright children;
 - Teachers should provide the pupil with basic knowledge and skills for entrepreneurship and educational advancement; and
 - Teachers should inspire national consciousness and harmonious co-existence.

The above objectives tallied with the objectives of Social Studies.

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