

## **Effect of Cooperative Instructional Strategy on Students' Performance in Social Studies**

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### **Abstract**

*purpose of this study was to investigate the effects of cooperative instructional strategy on junior secondary school students' performance in social studies, in Ilorin. Nigeria a quasi-experimental, non-equivalent pre-test, post-test, control group design using a 2 \* 2 \* 3 factorial design was adopted for the study. The subjects included all the third year students from two purposively selected secondary schools in Ilorin West Local government Area of Kwara State. The treatment and control groups were made up of 48 and 45 students respectively. The selected secondary schools were randomly assigned 10 treatment and control groups. The post test scores were subjected to Analysis of covariance (ANCOVA) to test the hypotheses generated for the study. The findings showed that the students taught using Cooperative Instructional strategy (COOPIS) performed significantly better than their counterparts taught using the conventional Instruction Strategy (CIS). Based on these findings, it was recommended among others, that teachers of social studies should expose their students to cooperative instructional strategy, as this will promote social interaction, active engagement in learning, learning by experience and self-motivation in social studies.*

### **Introduction**

The Nigeria system of education is geared towards producing individuals who will not only possess the capability to solve his problems but also contribute to the development of his society. A number of several subjects can be identified in the curriculum of our schools at all levels of Nigerian education, the subjects are included with the expectation that when properly taught, a more effective learning will result and this will bring about the realization of the goal of Nigerian education as stated in the national policy on education (NPE) (federal republic of Nigeria(FRN) 2004 ).

At the primary and secondary levels, there are certain subjects that are classified as core subjects, while others are known as electives (federal Republic of Nigeria (FRN) 2004).

Core subjects are those subject Is which students compulsorily offer while the subject, called electives consist of subjects from which students can freely make their choice, based on their preference and future career interest. At the junior secondary school level, social studies is one of the core subjects, which, if effectively taught, according to Iyewarun (1989) has the potential to influence the intellectual, social and personal growth and development of Nigerian south.

In spite of the important place of social studies in our educational system, students' performance in the subject shows growing decline in junior secondary School Certificate examination (JSCE) in Kwara state, as observed by Yusuf. (2004). Social Studies educationists and educators such as Awoyemi (1986), Iyewarun (1989), Linda (2000), Mezieobi (2000). Okam (2000) and Yusuf (2004) have given some reasons for the poor performance of students in the subject. Awoyemi (1986) and Linda (2000) in their studies attributed the poor performance of students to the low quality of teachers. This view may be due to the position held by teachers as the implementers of curriculum.

Yusuf (2004) observed, in a study conducted on the effect of cooperative and competitive instructional strategies on performance of students, that the poor performance of students is due to overcrowded classrooms this problem is caused by increase in enrolment without proportionate increase in the provision of facilities, instructional and supporting personnel. However, it should be noted that efforts should be made to employ a strategy or strategies that will enhance better performance of the students in the subjects. Yusuf (2004) discovered further that if teachers employ problem

solving instructional strategies which will equip the learner with analytic skill, reflective thinking and problem solving tools, they will be able to perform better in the subject

Therefore instructional strategy should be centred on ways of seeking truth, which include those of problem approaches: problem detecting, problem solving, learning by doing, and learning by experience. National Council for the Social Studies (NCSS) (2001) stated that social studies should be taught and learned in a manner that is consistent with:

- (i) constructivists view of learning, and
- (ii) The principle of teaching essential characteristics of powerful social studies.

The primary teaching tasks of schools and teachers are to provide constructivist - rich learning experiences that take into account children's prior knowledge and understanding.

The essential characteristics which make powerful social studies as described by NCSS (2001) consist of five principles and each principle has direct implications for what teachers should know and be able to do and what disposition they should possess. The five principles are (A) social studies learning is powerful when it is meaningful; (B) social studies learning is powerful when it is integrative; (C) social studies learning is powerful when it is value-based; (D) social studies learning is powerful when it is challenging; and (E) social studies learning is powerful when it is active (NCSS; 2001). Social studies teachers are therefore expected to possess the pedagogical knowledge, capabilities and disposition needed to create the kind of learning experiences and school environment that are envisioned to favor learners towards meaningful, integrative, value-based, challenging and active instruction. Among the strategies aimed at meeting the principles of constructivism and characterizing powerful social studies is cooperative instructional strategy,

The popular saying that, no man is an island entirely on his own has permeated classroom practices. Probably that is why Okebukola (1985) observes that the individual student is never alone, but always in working relation to the world of other people in the classroom. Student learns in the presence of others. Since relationships are usually two-way process, the individual learner is in part, defined through others as in parts and he defines others through himself. Johnson and Johnson (1990) state *individual* is in a network of relations within the learning context. Probably, that is why they state further that socialization and development occur within the relationship and furthermore the extent of individual relationship determines the level of socialization.

In cooperative instructional strategy there is a common goal, and the achievement of the group determines the success of individuals. If the group does not succeed, individuals cannot succeed. Deutsch (1949) developed the idea of cooperation in human relation and educationists such as Johnson and Johnson (1999); Okebukola, (1985) and others have extended this concept to education, teaching and learning situations. Cooperative instructional strategy has become popular for many reasons. According to Learning (1989-90), cooperative instructional strategy adds variety to the teacher's repertoire. It helps teachers manage large classes of students with diverse needs. It improves academic achievement and social development. It prepares students for increasingly interactive workplaces. However, one of its most powerful, long-lasting effects may be in making school a more humane place to be by giving students stable supportive environments for learning. Teachers who teach social studies content through cooperative instructional strategy promote learning because such strategy produce greater academic learning and better inter-group relationships among diverse ethnic and ability groups. According to Johnson and Johnson (1999), cooperative learning is promising new educational approach. In studies reviewed, one teaching strategy consistently results in both achievement and attitudinal gains (Yusuf, 2004) This strategy is cooperative instructional strategy. In contrast to individual or competitive learning environments, a cooperative learning group is structured so that all members of the group dependent on each other to complete an assignment successfully.

The result is a group product and the group as a whole shares the reward. Studies of cooperative learning experiences shared by ethnically or otherwise mixed groups consistently indicate numerous positive cognitive and affective outcomes.

These include enhanced academic learning, improved self-esteem and more frequent social interactions among majority/minority member outside of the learning group, enhanced feelings of trust and acceptance by peers and teachers, expression of more altruistic feelings, and increased acts of cooperative behavior in other settings (Brandt and Meek, 1989-90). The purpose of this study is to find out the effectiveness of cooperative instructional strategy on the teaching and learning of social studies.

**Methodology**

The 2 x 2 x 3 quasi-experimental and non-equivalent pre-test and post-test control group design was employed in the study.

**The design of this research is shown on Table 1:**

**Table- 1: Research Design**

Group	Pre-test	Treatment	Post-test
Experimental group 1	Q <sub>1</sub>	X <sub>1</sub>	Q <sub>2</sub>
Control Group	Q <sub>1</sub>	X <sub>0</sub>	Q <sub>2</sub>

Key Q<sub>1</sub> represents pre-test X<sub>1</sub> represent Experimental group  
 Q<sub>2</sub> represents Post-test X<sub>0</sub> represents Control group

Table I shows the experimental group and the control group. Subjects in the two groups were pre-tested on social studies performance test prepared by the researcher. The experimental group received the treatment using Cooperative instructional strategy while the control group was taught using guided lecture method. After the treatment, all the groups were tested using a parallel version of the questions used for the pre-test as post-test. The study used Social Studies performance Test (SSPT), Teaching instruments for the two groups: Cooperative Instructional Package (COOIP) and Conventional Instructional Package (CIP) and Scoring Level test in Social Studies (SLTSS) to gather information from the samples, to ensure the face and content validity of the instruments used in this study, assistance of experts in test construction, social studies educators I social studies teachers in the secondary schools were sought and the

Reliability co-efficient of the instrument (SSPT) was 0.6 was obtained, the Spearman-Brown Prophecy formula was further used to correct the underestimation and 0.76 was obtained.

In this study a sample of ninety -three (93) JSS III students from two secondary schools in Ilorin metropolis participated in the study. The two schools were selected using Dimple random sampling technique. The selected schools had forty –eight(48) students and forty-five (45) for COOPIS and CIS respectively. The subject consisted of fifty-eight (58) male and thirty-five (35) female students in JSSIII that were regular at school. Three research question were raised and 3 research hypotheses were postulated and tested in the study

The following research questions were answered in this study.

1. Which of cooperative and conventional instructional strategies will enhance higher performance in social studies?
2. Does gender influence performance of students taught using cooperative instructional strategy in social studies':

3. Does scoring level influence the performance of students taught using cooperative instructional strategy in social studies?

### Hypotheses

The following hypotheses were formulated and tested in this study

H0 : 1 there is no significant difference in the performance of students taught using cooperative instructional strategies in social studies .

H0 : 2 there is no significant difference in the performance of male and female students taught using cooperative instructional strategies in social studies .

H0 : 3 there is no significant difference in the performance of low, medium and high scoring ability using cooperative instructional strategies in social studies .

The data collected were analyzed using mean gain scores to answer the research question one on the instructional strategy that would enhance higher students' performance. The students' scores were analyzed using ANCOVA

### Findings

To answer the research question one on which of the cooperative and conventional instructional strategies enhance higher performance in social studies, the mean gain scores of the two groups was used as shown in Table 2.

Table 2: mean gain scores of students taught using cooperative instructional strategy (COOPIS) and Conventional Instructional strategy (CIS).

Group	Pre –test	Post-Test	Mean Gain Scores
Cooperative	52.25	62.92	10.73
Control	52.01	55.29	3.28

From table 2, it is observed that there was a statistically significant difference in the performance of students taught using cooperative and conventional instructional strategies. This is because the mean gain score of cooperative group is 10.73 while the control group is with the mean gain score of 3.28.

Furthermore the analysis showed that the mean gain score of the females is greater than their male students in cooperative instructional strategy. The table 9 revealed this.

Table 3: Mean gain scores of male and female students exposed t Co-Operative Instructional Strategy (COOPIS).

Gender	Pre –test	Post-Test	Mean Gain Scores
Male	50.8125	60.83	10.0175
Female	55.125	67.625	12.5

From table 3, it is observed that the male students had a mean gain score of 10.02. However, the mean gain score of female students was different from the mean gain score of the male students by 2.48. To answer the research question two on the influence of gender on performance of students taught using

cooperative instructional strategy in social studies. The analysis revealed that significant difference existed in the performance of high, medium and low scoring students when taught using cooperative instructional strategy. Students who were medium scorers had highest mean gain scores among the students exposed to COOPIS this is shown on table 4.

Table 4 : Mean Gain Scores of Students exposed to COOPIS

Scoring Level	Mean of test	Post-Test	Mean Gain Scores
High	64.6667	73.333	8.6663
Medium	52.2222	67.6667	15.4445
Low	39.6667	52.5333	12.8666

From Table 4 medium scoring level students mean gain score is 15.44 while the low scoring level students had mean gain score of 12.87. the high scoring students had mean gain score of 8.6663.

H<sub>0</sub> : 1 there is no significant difference in the performance of students taught using cooperative instructional strategies in social studies .

The data collected from the study was analyzed as shown in table 3.

Table5 Analysis of Covariance for post-test scores of students taught using COOPIS and CIS.

Source	Type III sum of square	DF	Mean square	F	Sig
Corrected model	9343.437	2	4671.719	117.026	0.000
Intercept	739.489	1	739.189	18.521	0.000
Pre-test	7992.09	1	7992.09	200.202	0.000
Treatment	1315.825	1	1315.825	32.961	0.000
Error	3592.821	90	39.92		
Total	339.125	93			
Corrected total	12936.258	92			

a. R square = .722 (adjusted R square = .716)

It is observed from table 5 that was a significant difference in the post-test scores of students taught using COOPIS and CIS in social studies. The analysis showed that at 0.05 significance level, the value produced was .000 this implies that a significant difference existed between the two groups of students exposed to COOPIS (x=62.92) and CIS (55.29). from table 5, the treatment produced a significant difference, therefore hypothesis one was therefore rejected.

H<sub>0</sub> : 2 there is no significant difference in the performance of male and female students taught using cooperative instructional strategy (COOPIS).

The analysis of the data was computed as shown in table 6:

Table 6: Analysis of mean score of male and female students taught using COOPIS in social studies.

Source	Type III sum of square	DF	Mean square	F	Sig
Corrected model	4750.004	2	2375.002	57.524	0.000
Intercept	684.643	1	684.643	16.583	0.000
PreCOOP	4227.337	1	4227.337	102.389	0.000
genCOOP	112.459	1	112.459	2.724	0.106
Error	1857.913	45	41.287		
Total	196868	48			
Corrected Total	6607.9178	47			

a. R square = .719 (adjusted R square = .706)

The analysis in table 6 indicates that there was no significant difference  $F(2,45) = 2.72$  in the performance of male and female students taught using COOPIS on social studies. The analysis revealed that the hypothesis was not rejected. This indicates that gender did not mediate on the 'performance when taught using COOPIS.

$H_0 : 3$  there is no significant difference in the performance of low, medium and high scores taught using COOPIS.

The data obtained was analyzed as shown on table 5.

Table 7 : ANCOVA of mean score of high, medium and low scorer taught using COOPIS

Source	Type III sum of square	DF	Mean square	F	Sig
Corrected model	4655.756	3	1551.919	54.979	0.000
Intercept	67.292	1	67.292	1.517	0.225
PreCOOP	1282.506	1	1282.506	1282.506	0.000
ABICOOP	18.21	2	9.105	9.105	0.815
Error	1952.161	44	44.367	44.367	
Total	196868	48			
Corrected Total	6607.917	47			

a. R square = .705 (adjusted R square = .684)

Table 7 revealed that the treatment with COOPIS did not produce statistical significant difference of cal. value  $F(2,44) = 9.105$ , on the mean gain scores of the high, medium and low-scoring students. In other words, there was no significant difference in the performance of the three ability group taught using COOPIS. This means that hypothesis three was accepted.

### **Summary of Findings**

The major findings of this study as obtained from the analysis based on the hypotheses are summarized as follows:

- 1) there was a statistically significant difference in the performance of students taught using cooperative and conventional instructional strategies in social studies.
- 2) *There was* no significant difference in the performance of male and female students taught using cooperative Instructional Strategy COOPIS in social studies.
- 3) The use of Cooperative Instructional Strategy (COOPIS) did not produce statistically significant difference in the performance of high, medium and low scoring students. However the medium scorers gained higher than high and low scorers.

### **Discussion on Findings**

One of the findings in this study is that the students taught using cooperative instructional strategy had mean gain score significantly different from those students taught using conventional instructional strategy. The finding revealed that students' performance was better enhanced when students were taught using cooperative instructional strategy. This finding is in line with Johnson and Johnson (1990), Johnson, Johnson and Holubee (1993), Okebukola (1985), Rajardran (1987) Sharan, Ackerman and Hertz-Lazarowitz (1980) and Yusuf, (2004), who all found that students taught using cooperative instructional strategy had enhanced performance which made the students different and to outscore their counterparts in the other groups. The finding of this study on the superiority of cooperative instructional strategy is however contrary to the finding of Johnson and Johnson (1992) who reported that competitive instructional strategy was superior to cooperative instructional strategy in laboratory work.

Another finding of this research revealed that gender has no effect on the performance of students in social studies when taught using either cooperative or conventional instructional strategy. These findings agreed with the findings of Adamson (1997) and Ojo (1997). According to their findings, gender did not have any significant effect on their interaction.

The study revealed that there was no statistically significant difference in the performance of students on the basis of scoring ability in the treatment group using COOPIS. This finding is in line with George (1985) who observed that there was no significant effect of ability on performance while this finding disagreed with Okebukola (1985) who observed that scoring ability had influence on students when taught using cooperative instructional strategy.

### **Conclusion and Recommendations**

It has been asserted that the students' performance in social studies is fluctuating and poor despite the importance of the subject as a way of influencing the intellectual, social and personal growth of youth. The major cause of the poor performance is attributed to among others, inappropriate instructional strategy employed by social studies teachers and overcrowded classroom. However there is an indication that performance of students in social studies would be greatly improved if students were exposed to variety instructional strategies of problem solving like solving social problems in groups and in cooperative manner. It showed that cooperation among the students in the classroom provides room for interaction, non-discrimination of students on the basis of gender and ability and enhanced students' performance in social studies.

The following recommendations are made, based on the findings of this study. Teacher should expose students to cooperative instructional strategy that promotes and encourages social interaction, active engagement in learning self-motivation discovery learning, learning by doing and learning by experience.

Textbooks writer should shift emphasis from teachers' activities to students' activities that will promote learning by doing, -discover learning and furthermore incorporate cooperative instructional strategy in social studies textbooks. Producing teachers 'guide along with students copies can do this.

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