

## **RELATIVE EFFECTS OF PARTICIPATORY LEARNING STRATEGIES ON JUNIOR SECONDARY SCHOOL STUDENTS' PERFORMANCE IN SOCIAL STUDIES IN IBADAN, NIGERIA**

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### **Abstract**

*This study investigated the relative effects of jigsaw and team game tournament learning strategies on junior secondary school students' performance in Social Studies in Ibadan, Oyo state. Using gender and scoring ability as moderating variables, a quasi-experimental, non-randomized and non-equivalent pre-test and post-test control group design of 3 x 3 x 2 factorial design was adopted for the study. The sample was randomly selected from three secondary schools in Ibadan North, Ibadan South West and Ibadan South East local government areas of Oyo state where one intact classroom was used for each of the treatment and control groups. The two treatment groups were taught Social Studies using the jigsaw and team game tournament learning strategies, while the control group was taught the same subject using conventional learning strategy. Three researcher-designed instruments (Jigsaw, Team Game Tournament and Conventional Instructional Packages) were validated and used. A coefficient value of 0.75 was obtained for the Social Studies Performance Test (SSPT) using Kuder Richardson-21. All the three groups were taught the same contents within four weeks. At the end of the 4-week treatment periods, Social Studies Performance Test (SSPT) was again administered to the students in the three groups as post-test. The post test scores were subjected to Analysis of Covariance (ANCOVA) to test the null hypotheses generated for the study. Scheffe test was conducted to establish the direction of the results. The findings showed that: (i) the students taught using team game tournament and jigsaw learning strategies performed better than their counterpart taught using the conventional learning strategy; (ii) students taught using team game tournament learning strategy performed better than students taught using jigsaw learning strategy-  $f(2,89) = 10.552; p < .05$ ; Based on these findings, it was recommended that social studies teachers should use learning strategies to promote and encourage social interaction, active engagement in learning, learning by experience and self-motivation among Social Studies students.*

## **Introduction**

Social Studies is one of the core subjects at the Upper Basic level 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 (NPE) (2004), one of the goals of the Nigerian Education is the development of individuals into sound and effective citizens. Social Studies as a discipline is aimed at achieving the NPE goal because it involves the integration of the individual into the community. Abdulahi (2006) explained that Social Studies program helps students understand themselves in terms of their relationship to the world they live in. It is a problem solving approach discipline through which human beings study and learn about problems of survival in their environment. According to Ajitoni (2005), 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 school; and improve time on task.

Ezegbe (2000) opined that if Social Studies is effectively taught, it has the potentials to influence the intellectual, social development and personal growth of the youths. Yusuf (2004) explained that the purpose of intellectual dimension of Social Studies is to introduce the students to mode of critical thinking involved in decision-making. He further added that the purpose of Social Studies education is to prepare citizens who will perpetuate and improve societies while that of personal education is to help the youth to sort out the confusion of the social world.

Participatory learning can be defined as an interactive approach to learning. It is a group learning process. It is an integrated activity approach to learning that combines social investigation, educational work and action. It is based on real-life experiences, incorporates dialogues between and among teachers and students, and critically analyses the structural, organizational and systematic causes of problems (Sims, 1992). In such a program, the learners are involved in problem-solving, commonly in small groups where they work together with peers. They choose their own pace and make decisions about how learning is structured, including where and when it takes place (Ajitoni, 2005).

The goals of Participatory Learning are not only to increase knowledge and skills but also to provide the bases for problem-solving activities after teaching sessions might have ended. Its ultimate goal is fundamental to structural transformation and the improvement of the lives of those involved. Central to Participatory learning is its role of strengthening the awareness in people of their own abilities and resources and its support in mobilizing or organizing such (Sims, 1992).

Yusuf (2004) explained that Social Studies teachers are 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 toward meaningful, integrative, value-based, challenging and active instruction. Towards this end, various

learning strategies have been developed to enhance effective teaching-learning process. Among the strategies aimed at meeting the principles of constructivism are Jigsaw and Team Game Tournament (Ogundiran, 2012).

The Jigsaw Learning Technique was first developed and implemented by Elliot Aronson (1978). In the jigsaw classroom, the day's lesson is divided into several segments, and each student who is in one of the several jigsaw groups (of three to five students each), is assigned to learn about one segment of the written material (Hanze & Berger, 2007). Before giving the report of their topic to their jigsaw group, students meet first with other students who have been assigned the same segment (one from each jigsaw group) in a temporary "expert" group. Together, the experts research their segment, discuss and clear up questions with one another. Finally, the jigsaw groups reconvene and each student in each group acts as a tutor to the group on their special topic.

Teams Games Tournament (TGT) is one of the team learning strategies designed by Robert Slavin. He found that TGT increased basic skills, students' achievement, positive interactions between students, acceptance of mainstreamed classmates and self-esteem. Students learn in class and they can be taught traditionally, in small groups, individually, using activities, etc. The Heterogeneous Study Teams review the materials; then students compete in academically Homogeneous Tournament Teams. Students bring between 2 and 6 points back from their tournament to their study teams. Points are summed up and normalized (for a group size of 4). It should be noted that the tournament is based on material often for which there is a specific correct answer.

Game based learning uses competitive exercises, either by pitching students against one another or getting them to challenge themselves in order to motivate them to learn better (Presky, 2003). Games often have a fantasy element that engages players in a learning activity through a story line. In order to create a truly educational game, the instructor needs to make sure that learning the material is essential to scoring and winning.

The lecture or didactic method is a teaching strategy in which the teacher makes a verbal presentation of ideas to the students; the students are passive while the teacher is active throughout the lesson (Ogundiran, 2012). The students receive these ideas meaningfully or by rote. The bulk of the knowledge students gain in school basically involves information about the content areas. Teachers attain the "fountain of knowledge" position and usually pass on these pieces of information to the students through the lectures or didactic method. The lecture method exemplifies the process of "one way communication" (Ajitoni, 2005).

In the lecture method class, the teacher has thought of everything and there is neither need nor opportunity for the students to work out any arrangement of their own. In order to create a condition of order in the classroom, it is essential that every rule laid down should be adhered to rigidly, unremittingly. The acme of good discipline is reached when the conditions of order are preserved automatically, without thought or judgment on the students' part. In other words, a classroom that is well disciplined has the coronations of good order reduced to habit.

Ajitoni (2005) asserted that the only educational activity that could possibly go on for the children in such a place would be listening. The attitude of listening means complacency, passivity, and absorption. In his view, such a relationship, and teacher - student relationship, which allows only for such an attitude on the part of the child, must of necessity limit both achievement and development.

The most outstanding characteristic of students in the school consists of the differences among them. This is because students differ in mental ability, gender, rate of growth, background of experience, interest, development, social and emotional maturity and in many other characteristics which influence the students' performance in social studies (Yusuf, 2004).

However, scoring ability of the students was found to play a major role in the performance of these students. Scoring ability is related to intelligence, scoring ability levels of students show their scholastic aptitude and this goes a long way in determining the performance of students. High scoring ability students do perform better than low scoring ability students. Aremu (1998) found out that students with different scoring ability levels respond differently to situations and perform differently, depending on the types of methods and materials used for the subject of instruction. In effect, it is essential to use appropriate teaching method and learning strategy to enhance the performance of students with varying scoring ability levels in Social Studies. Based on this background, this research was undertaken to investigate the relative effects of Jigsaw and Team Game Tournament learning strategies on Junior Secondary School students' performance in Social Studies.

### **Statement of the Problem**

Performance of Social Studies students in most secondary schools has been increasingly fluctuating and not encouraging especially at credit and distinction levels. Relatively, there should be a constant improvement in the performance of the students in the subject. Appropriate instructional strategy is a pre-requisite to efficiency of teaching. The professional obligation of the teacher is to employ effective and conducive approaches of stimulating, motivating and managing the learners in the classroom setting. The extent to which teachers do this is the direct measure of the effectiveness of the strategies employed. Dumas (2003), Jaiyeola (2004), Ojedokun (2001), Okam (2000) and Omosehin (2004) emphasized the importance of appropriate learning strategies if the laudable objectives of Social Studies are to be achieved. There is therefore the need for more dynamic and pragmatic learning strategies to reflect the ever-changing nature of our society. This study therefore, undertook to investigate the relative effects of Jigsaw and Team Game Tournament learning strategies on junior secondary students' performance in Social Studies.

### **Research Hypotheses**

The following hypotheses were formulated and tested in the study:

Ho: 1. There will be no significant difference in the post-test performance scores of students taught using Jigsaw, Team Game Tournament and Conventional learning strategies in Social Studies at the J. S. S. level.

Ho: 2. There will be no significant difference in the post-test performance scores of low, average and high scoring ability level of students exposed to Jigsaw, Team Game Tournament and Conventional learning strategies in Social Studies at the J. S. S. level.

### **Methodology**

This study employed a 3 x 3 x 2 quasi – experimental, non-randomized and non-equivalent pre-test and post- test control group design. The learning strategies were used as treatment at two levels (jigsaw and team game tournament learning strategies) with one control group (conventional learning strategy) scoring ability at three levels (high, medium and low scoring abilities) and gender at two levels (male and female).

The population for this study comprised all Junior Secondary Schools Social Studies students in Oyo State. The target population in the study includes all the Junior Secondary School II Social Studies Students in Oyo State. Three intact classes in Ibadan South East, Ibadan South West and Ibadan North Local Government areas participated in this study. The local government areas were selected using purposive sampling technique because they have schools possessing the criteria set for the study. A sample of one secondary school each in Ibadan South East, Ibadan South West and Ibadan North West Local Government Areas were used. The three local government areas were selected as sample to eliminate interaction effect among students.

The sample consisted of male and female Social Studies students as long as they are in JSS II and are regular at school. These schools were selected on the basis of the following criteria:

- (a) Acquisition of necessary facilities for teaching Social Studies;
- (b) Possession of qualified Social Studies teachers who are University graduates (at least first degree);
- (c) The schools are co-educational in nature, that is male and female constitute the learners.
- (d) The schools operate on the admission requirements as directed by Oyo State Government.
- (e) Availability of the Social Studies curriculum and curriculum materials such as textbooks, relevant instructional materials, etc.

The three learning strategies were randomly assigned to three schools using the Lucky dip or dip-hat method. The name of each of the three groups, i.e. Experimental Group 1 was

exposed to Jigsaw Learning Strategy; Experimental Group 2 was exposed to Team Game Tournament Learning Strategy and the Control Group was exposed to the Conventional Strategy.

### **Instrumentation**

The study used the following instruments to gather information from the samples:

1. Evaluation Instrument (Social Studies Performance Test - SSPT).
2. Teaching instruments which included the contents of (1) Culture, Science and Technology, (2) Social Issues and Problems and (3) Communication and how they are taught in each group.
3. Instructional packages for the three groups: Jigsaw Instructional Package (JIP), Team Game Tournament Instructional Package (TGTIP) and Conventional Instructional Package (CIP).
4. Scheme of work and lesson notes prepared by the researcher

### **Data Analysis Techniques**

Inferential statistics used is Analysis of Covariance (ANCOVA) which was applied to determine the effect of the variables (Jigsaw and Team Game Tournament learning strategies; academic ability and gender) on Junior Secondary II students' performance in social studies. Multiple Classification Analysis (MCA) was used to describe the performance of the groups and the Duncan post-hoc was carried out where the main effects of treatment and scoring ability were significant.

### **Results**

#### **Hypothesis One**

**There will be no significant difference in the post-test performance scores of students taught using Jigsaw, Team Game Tournament and Conventional learning strategies in Social Studies.**

Table 1 presents the summary of the result of Analysis of Covariance carried out on the data.

**Table 1: Analysis of Covariance for Pre-Test and Post-Test Scores of Students Taught Using Jigsaw, Team Game Tournament and Conventional Learning Strategies in Social Studies**

		<b>Hierarchical Method</b>				
		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Squares</b>	<b>F</b>	<b>Sig.</b>
POST SCORE	Covariates	PRE SCORE 1433.862	1	1433.862	74.600	.000
Main Effects	TREATMENT	405.625	2	202.813	10.552	.696
	Model	1839.487	3	613.162	31.901	.000
	Residual	1652.969	87	19.221		
	Total	3492.456	89	39.241		

Table 1 shows that there is significant effect of treatment on students' post-test performance in Social Studies  $f(2,89) = 10.552$ ;  $p < .05$ . This means that there is significant difference in the post-test performance of students taught using the Jigsaw, Team Game Tournament and Conventional learning strategies in Social Studies. On the basis of this finding, hypothesis one was rejected.

The source of the significant main effect of treatment on students' performance was traced using the Duncan pair-wise comparisons as post hoc tests.

This is shown in Table 2 below.

**Table 2: Duncan Post-hoc Test Showing the Pair-wise Significant Difference in the Performance of Students in the Treatment and Control Groups**

<b>LEARNING STRATEGIES</b>					
<b>LEARNING STRATEGIES</b>	<b>N</b>	<b>X</b>	<b>EXPERIMENTAL GROUP 1</b>	<b>EXPERIMENTAL GROUP 2</b>	<b>CONTROL GROUP</b>
Jigsaw	30	30.37	*		*
Team game Tournament	30	30.37		*	*
Conventional	30	25.63	*	*	

\*Significant at  $p < .05$

Results of Duncan post-hoc test in Table 2 shows that each of the three possible pairs of groups differs significantly one from another. For instance, the performance of students exposed to Jigsaw learning strategy ( $x = 30.33$ ) differs significantly from the performance of students taught using Team Game Tournament learning strategy ( $x = 30.77$ ). The performance of social studies students taught using Team Game Tournament learning strategy was also significantly different from the performance of students exposed to Conventional learning strategy ( $x = 25.63$ ). There is also a significant difference between students' performance across Jigsaw and Conventional learning strategies. These show that every comparison done by pairing the treatment groups and control group resulted in significant difference. Hence, all the pairs contributed to the observed significant difference.

### Hypothesis Two

**There is no significant difference in the post-test performance scores of low, medium and high academic ability students taught using Jigsaw, Team Game Tournament and Conventional learning strategies in Social Studies.**

Table 3 presents the summary of the result of the Analysis of Covariance carried out on the data.

Table 3: ANCOVA for Pre-Test and Post-Test Scores of Students Taught Using Jigsaw, Team Game Tournament and Conventional Learning Strategies based on Scoring Ability Levels in Social Studies

<b>Hierarchical Method</b>							
			<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Squares</b>	<b>F</b>	<b>Sig.</b>
POST SCORE	Covariates	PRE SCORE	1433.862	1	1433.862	60.842	.000
Main Effects	SCORING ABILITY		31.834	2	15.917	.675	.512
	Model		1465.695	3	488.565	20.731	.000
	Residual		2026.760	86	23.567		
	Total		3492.456	89	39.241		

Table 3 shows that there is no significant main effect of scoring ability on students' post-test performance scores in Social Studies  $f(2, 89) = .675; p > .05$ . Hypothesis two is therefore, not rejected. This implies that the adjusted post-test performance scores of students of low, average and high scoring ability levels in the study do not differ significantly.



**Table 4: Multiple Classification Analysis (MCA) Showing the Direction of the Difference in the Pre-Test and Post-Test Scores of Students Taught Using Jigsaw and Team Game Tournament Learning Strategies based on Scoring Ability Levels in Social Studies.**

**Grand mean = 28.92**

Variables + Category	N	Predicted Mean		Deviation		Eta	Beta
		Unadjusted	Adjusted For Factors And Covariates	Unadjusted	Adjusted for Factors and Covariates		
LEARNING STRATEGIES Low	30	29.8000	29.7025	.8778	.7803		
Average	31	28.8710	28.7958	-5.13E-02	-.1265		
High	29	28.0690	28.2502	-.8553	-.6720	.113	.096
<b>R =</b>							<b>.648</b>
<b>R Square =</b>							<b>.420</b>

Table 4 revealed that students with low scoring ability had higher adjusted post-test mean score ( $x = 28.92 + .78 = 29.70$ ), their counterparts with average scoring ability had adjusted post-test mean score ( $x = 28.92 - .13 = 28.79$ ), while the counterparts with higher scoring ability had adjusted post-test score ( $x = 28.92 - .67 = 28.25$ ). These differences are however not statistically significant.

### Discussion of Findings

The finding of this study that students taught using team game tournament and jigsaw learning strategies performed better than those students taught using the conventional learning strategy supports the findings of researchers like Adebileje (2001), Box and Little (2003), Dansareau, (2004) and Onyejekwe (2003).

Results also showed that the students taught using jigsaw learning strategy performed better than those exposed to conventional learning strategy, although not as high as team game learning strategy. This implies that the scores of the students in the two experimental groups (jigsaw and team game tournament) were significantly different in their mean scores from the score of students in control group after treatment. Specifically, they recorded higher scores than the scores of students in control group. This result is consistent with the finding of Box and Little (2003) who observed that students exposed to team game tournament and jigsaw learning strategies performed better than their counterparts that were exposed to conventional learning strategy.

The finding of the study that students taught using team game tournament learning strategy which is competitive in nature performed better than their counterparts in jigsaw learning strategy which is cooperative in nature, is in agreement with earlier findings of Dansareau (2004), Maitland and Goldman (2005) and Sowunmi (2007).

This finding also revealed that the treatment groups are effective in enhancing performance of students in social studies. The finding agreed with Webb (1982) who recorded uniformity in the performance of the uniformed and mixed ability groups in his study conducted to find out the effects on group compositions. The finding of this study also tallies with Johnson and Johnson (1990) who had found that no difference existed when children work together with mate of equal, low and high scoring ability. Furthermore, the finding is also in line with Abdulahi (2006) who worked on mixed scoring ability.

### **Conclusion**

This study has contributed to knowledge in the area of strategies that can be employed in the teaching and learning of Social Studies. It shows that team game tournament learning strategy (competitive in nature) provided room for interaction and enhanced students' performance in Social Studies.

### **Implications**

This finding would have implications for teaching and learning of Social Studies in schools. There is an indication that the performance of students in Social Studies would be greatly improved if they are exposed to a variety of learning strategies. In addition, the sharp increase in the enrolment of students coupled with the shortage of qualified Social Studies teachers and inadequate instructional materials in many secondary schools affect students' performance in the subject. Team Game Tournament learning strategy could be explored to replace the Conventional learning strategy commonly used. This would provide opportunity for the students to interact among themselves constructively and also provide a more productive learning environment that will stimulate students towards higher academic performance.

### **Recommendations**

The following recommendations are made based on the findings of this study:

- 1) Social studies teachers should make use of learning strategies that will promote and encourage social interaction, active engagement in learning, discovery learning, learning by doing, learning by experience and self-motivation in Social Studies.
- 2) Teacher education in Nigeria should be geared towards preparing Social Studies teachers to use appropriate learning strategies after training to promote effective teaching and learning.
- 3) Social Studies teachers should give equal opportunities to male and female students in classrooms in order to develop their potentials.

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