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## **Effect of the Cooperative Learning Strategy on Study Habit of Senior Secondary School Students in Ogun State, Nigeria**

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**Abstract:** This study sought to investigate the effect of cooperative learning strategy on SSS students using experimental research design. The study involved the experimental and control groups of learners who were taught through the cooperative and conventional learning approaches respectively. Study Habits Inventory (SHI) was used to elicit responses from the participants. Data was treated through the independent sample t-test which helped to test two hypotheses. The analysis started by comparing the mean score of the experimental and the control groups prior to treatment. After the treatment, the mean scores of the two groups were tested again to determine whether the cooperative approach had any effect on the students' learning habit. The study concluded that cooperative teaching and learning approach is an effective means in improving learners' study habit as compared to the conventional teaching and learning approach. Based on the conclusions, the study recommends that teachers should use the cooperative teaching and learning approach in order to enhance the learning achievement of the students and in particular in order to improve the learner's study habits. Moreover, teachers should be trained on the use of various forms of cooperative learning strategy. This will further make it easier for the adoption and use of the strategies.

**Keywords:** Study Habit, Cooperative Learning strategy, Analysis of Covariance

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### **Introduction**

Cooperative learning is an educational strategy that attempts to divide classroom activities into social and intellectual learning opportunities. Gillies (2021) describes

cooperative learning as an instructional pattern that can assist learners to acquire academic content and social skills in small-groups. Students engage in cooperative learning when they collaborate in small groups to accomplish a

common objective. Students can benefit from one another's knowledge by having open dialogues. Higher success for both students and groups can result from cooperative learning. Students may teach one another new things and support each other in excelling since they have different degrees of proficiency and personal talents.

In cooperative learning, students assist one another in fostering strong interpersonal interactions. Students' motivation is increased when they are given a practice using skills like arguing their position and talking with others. Hence, the successful performance of students during and after secondary education is dependent on their learning abilities, study skills and habits developed and employed by the students in order to gain maximally from the teaching and learning process. But this does not always come easily, naturally or by chance. Students need to be taught how to develop themselves through cooperative learning, for, without good study habits, a student will find it difficult to succeed academically. Good study habit has been the major predictor of effective learning and good academic performance (Jafari, Aghaei & Khatony, 2019).

Students with unhealthy study habits that persist during their secondary school days may experience difficulties during their post-secondary school days. They will often find it difficult to complete bigger tasks at work, handling complex issues and weightier assignments and/or responsibilities when they are relatively independent of parents and teachers. Moreover, when students leave school and start working immediately after high school, the poor study habits that lingered during school catch up them. And this translates into poor work habits, procrastination, poor time management, poor organization and inability to complete assigned tasks within stipulated time.

Clearly, study habits are among the most essential learning aspects that have a significant impact on students' academic performance. They also have a significant impact on the quality of education (Ebele & Olofu, 2017). As addressed by Sakirudeen and Sanni (2017), students cannot be expected to learn everything needed about a subject or a career simply from what is taught and learned with their teachers in the classroom setting alone. It is the combination of what is taught and learned in the classroom and out of the classroom that makes up students' study habits. Rabia, Mubarak, Tallat and Nasir (2017) opined that study habits involve buying out time which is scheduled, dedicated and uninterrupted to apply oneself to learning. Thus, a study habit is a collection of study techniques and

skills that describe an individual's behavior in connection to studying (Jafari, Aghaei & Khatony, 2019). In other words, study habits are behaviors and abilities that can boost motivation and turn studying into a productive activity with high returns, resulting in increased learning. Hence, if study habits are weak, the chain of learning will be seriously distorted with adverse consequences.

Despite the growing heralding of the significance of good study habit for academic and career excellence, many students still find it difficult to study effectively, resulting in increased levels of dropouts, academic dishonesty and vices that transcend from the academic world to the workplace and the society at large. There are several reports about the consistently high rate of students' substandard academic performance in internal and external examinations. For instance, figures from the study done by Ojukwu (2016) demonstrate that every year when the West African Examination Council (WAEC) issues its yearly results, student performance, particularly in the science courses, is dismal.

As found in Simon (2015), attempts adopted several interventions to improve students' study habits. At the end of his findings, the author introduced the study skill training as a means to improve the study habits of secondary school students. Alade and Kuku (2017) who researched on the impact of frequency of testing on study habits and achievement in mathematics among secondary school students in Ogun State, Nigeria recommended that frequent testing enforces preparations for classes, note taking and participation as well as consistent rehearsals on the part of students. However, despite the aforementioned research and a host of many not mentioned in this work, the problem of bad studying habits continues to be a menace in education. As a result, the researchers having studied strategies used in sports and health to improve students' cognitive skills and habits namely Self-Regulated Learning and Cooperative Learning Strategies considered adopting one of the strategies to investigate how it could improve the study habit of secondary school students.

The learning strategy used in this study is cooperative learning which is described as a teaching style in which students participate in the learning process in order to understand and gain topic knowledge (Slavin, 2013). Members' cooperation is eminent to the survival of any given

society for no man is an island. To survive as a group, there is a need for individuals to come together to design its survival strategy which every member should be ready to key into as a supporting factor. In the same way, to build a formidable study habit, ability to control individual emotions is not all that is required. Interaction within one's cognitive environment is highly essential. Consequently, a number of studies have been conducted on cooperative learning strategies to improve academic achievement of students.

Karali and Aydemir (2018) revealed that cooperative learning had a significant effect on the academic achievement of students in mathematics studying in the 4th grade in the Battalgazi district of Malatya connected to the Ministry of National Education in the spring semester of 2015-2016. Trivino and Andrea (2016) also used the cooperative learning strategy to improve students' social performance and enrich students' academic level. A study conducted by Gull and Shehzad (2015) on the effect of cooperative learning on students' academic achievement revealed that cooperative learning activities had a favorable impact on academic achievement of students in some selected education subjects. However, few of these studies have investigated on the relationship between study habits and cooperative learning strategy.

According to the US Department of Education (2006), cooperative learning is a progressive way of teaching; it is a teaching strategy in which small groups of learners with different or varying abilities enhance their understanding through different learning activities. Each member of the group takes active part not only in learning but also in assisting group members to learn, thereby leading to higher achievements. It is therefore viewed as a teaching method in which a group of students with varying abilities come together to brainstorm and share knowledge in order to achieve a common goal.

Trivino and Andrea (2016) centered their attention on the utilization of cooperative learning as a method for raising students' academic level and social performance. The impact of cooperative and competitive learning styles on the English vocabulary growth of Iranian EFL intermediate learners was also explored in research by Fekri (2016). Both studies revealed that the cooperative learning technique significantly increases students' learning capacity. Furthermore, cooperative learning has been proposed by many educators to

be implemented in classrooms to produce lifelong learners and critical thinkers (Lunenburg, 2011). For example, a research work done by Chatila and Husseiny (2017) revealed that thinking skills can be improved through cooperative learning. Johnson, Johnson & Smith (2014) further revealed that cooperative learning allows students to communicate actively with each other. This study sought to answer the following two research questions which called for hypotheses testing in order to determine the role of cooperative learning toward improvement of leaning habits:

1. Is there a significant difference between the experimental and control groups in the level of study habits before the treatment?
2. Is there a significant difference between the experimental and control groups in the level of study habits after the treatment?

## **Methodology**

### **Research Design**

This study made use of the quasi-experimental design. This design made it possible to establish the role of cooperative learning approach toward students study habit. The analysis of data therefore involved the experimental and the control groups. The experimental group was taught through the cooperative learning approach while the control group was taught through the conventional approach which did not engage the learners into the cooperative learning.

### **Population and Sampling**

The population consisted of 32 Senior Secondary Schools 1 (SSS1) in the Ogun East Senatorial District out of 348 senior secondary schools. SSS1 students were considered appropriate because they were at their transition stage from Junior to senior school. Multistage random sampling technique was used as follows. A simple random sampling technique was used to select one Senatorial District (Ogun East Senatorial District) out of three (3) Senatorial Districts in the Ogun State. Then two (2) Local Government Areas (LGAs) among the nine were selected through balloting. The next stage involved the selection of two co-educational Secondary Schools through balloting. The researchers thereafter used the Study Habit Inventory (SHI) on a total of One Hundred and forty-five (145) students (The treatment group) and One Hundred and Sixty-Five (165) students in the control group. The median score was taken and those who fell below the

median score were selected for the study. Thus, as many as one hundred and twenty (120) students were selected but only 114 participated.

### Instrumentation

Study Habits Inventory used in this study was developed by Bakare (1977). It consists of 45 test items which include 29 negatively worded items and 16 positively worded items. The inventory had eight sections with a five-point Likert-type scale with possible responses ranging from 1=Almost Never to 5 =Almost Always.

### Validity and Reliability

Validity of the instrument was ensured by a group of experts who went through it against the hypothesis under investigation. To ensure reliability, the instrument was administered to a group of students twice, with a time interval of three weeks. The reliability index yielded was 0.83 which is acceptable reliability.

### Statistical Treatment of Data

Data was treated through the independent sample t-test which helped to test the two hypotheses. The analysis started by comparing the mean score of the experimental and the control groups prior to treatment. After the treatment, the mean scores of the two groups were tested again to determine whether the cooperative approach had any effect on the students' study habit.

### Phase One: Pre-treatment Session

The researchers personally visited the two schools used for the study. The necessary permission was obtained from the school authorities. The researchers met with the participants in the two schools to get acquainted with them. Purpose of the study was discussed and students were told that the training would cover six sessions of about 60 minutes each. Their confidentiality was assured and they were free to withdraw at any time without any penalty. Participants were encouraged to attend regularly and punctually. In this stage, learners in

both groups were given a test to determine their initial study habits. The mean scores for the two groups were compared and it was found that the mean scores were similar.

### Phase Two: Treatments Stage

The experimental group received training using a cooperative learning strategy. The researchers gave the class a summary of the cooperative learning technique developed by Rally Robin, which would be used in conjunction with the direct teaching method to teach a selection of civic education topics. The participants were matched into 12 groups of 5 individuals each. A topic was given to each group based on the fundamentals of civic education. Each group member was required to participate equally, regardless of individual disparities in talents and to present his or her results to the group. On the other hand, participants in the control group, was taught through the conventional teaching method which did not engage learners into cooperation during the teaching and learning process.

### Phase Three: Evaluation

The third stage involved the testing of the mean scores for the two groups after the intervention in order to determine whether the cooperative learning approach had any effect toward the students' study habits.

### Findings and Discussion

This section presents the results of the study. Data was analyzed using the independent sample t-test to determine the difference between the experimental and the control group before and after the treatment. The experimental group had 61 members while the control group had 53 members.

**Research Question 1:** Is there a significant difference between the experimental and the control groups in the level of study habits before the treatment?

**Table 1: Group Statistics for Pre-test**

	Treatment Group	N	Mean	Std. Deviation	Std. Error Mean
PRE-TEST	Experimental Group	61	129.69	14.334	1.835
	Control Group	53	128.47	10.929	1.501

This research question yielded a null hypothesis which stated that there is no significant difference between the experimental and the control groups in their level of study habits before the treatment. The hypothesis was tested through the independent

sample t-test in order to determine the mean scores and standard deviations of the two groups before the intervention took place. As indicated in table 1, the mean score for the experimental group was 129.69 with the standard deviation of 14.334 while

the mean score for the control group was 128.47 with the standard deviation of 10.929.

On the other hand, the Levene's Test for Equality of Variances in table 2 indicates the Sig of .609 which is greater than the critical value, leading us to accept the null hypothesis by maintaining that there is no

significant difference between the experimental and the control groups in the level of study habits before the treatment. Therefore, the two groups were homogeneous in nature, meaning to say, they had similar study habit abilities prior to the treatment.

**Table 2: Pre-test Levene's Test for Equality of Variances**

		Levene's Test for Equality of Variances		t-test for Equality of Means			95% Confidence Interval of the Difference			
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Pre-test	Equal variances assumed	4.925	.028	.504	112	.615	1.217	2.416	-3.570	6.004
	Equal variances not assumed			.513	110.219	.609	1.217	2.371	-3.482	5.916

**Table 3: Group Statistics for Post-test**

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Post-Test	Experimental	61	143.75	15.321	1.962
	Control	53	133.23	20.512	2.818

**Table 4: Post-test Levene's Test for Equality of Variances**

		Levene's Test for Equality of Variances		t-test for Equality of Means			95% Confidence Interval of the Difference			
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post-Test	Equal variances assumed	3.603	.060	3.129	112	.002	10.528	3.365	3.861	17.195
	Equal variances not assumed			3.066	95.234	.003	10.528	3.433	3.712	17.343

**Research Question 2:** Is there a significant difference between the experimental and control groups in the level of study habits after the treatment?

This research question yielded a null hypothesis which stated that there is no significant difference between the experimental and the control groups in the level of study habits after the treatment. The hypothesis was tested through the independent sample t-test in order to determine the mean scores and standard deviations of the two groups after the intervention. As indicated in table 3, the mean score for the experimental group was 143.75 with the standard deviation of 15.321 while the mean score for the control group was 133.23 with the standard deviation of 20.512.

On the other hand, the Levene's Test for Equality of Variances in table 4 indicates the Sig of .002 which is lesser than the critical value, leading us to reject the null hypothesis by maintaining that there is a significant difference between the experimental and the control groups in the level of study habits after the intervention. The experimental group which was taught through the cooperative learning approach had significantly greater achievement as compared to the control group which was taught through the conventional teaching approach. Therefore, the cooperative learning approach had a positive impact on the development of study habits.

The finding corroborates with Tran, Nguyen, Van De, Soryaly and Doan (2019) who reported that students who were instructed using lecture-based teaching had lower scores on the post-tests of

resource management and cognitive-metacognitive strategies than the students who were instructed using cooperative learning approach. The finding is consistent with that of Adeyemi and Cisse (2016) which concluded that the cooperative learning strategy was more effective than individualistic learning strategies in improving student's achievement in map reading and interpretation. Furthermore, the study by Klang, Karlsson, Kilborn, Eriksson and Karlberg (2021) showed that the intervention had a substantial impact on students' performance in both general problem-solving and geometry-specific problem-solving.

## Conclusions and Recommendations

### Conclusions

Based on the findings, the study concludes that cooperative teaching and learning approach is an effective means in improving learners' study habit as compared to the conventional teaching and learning approach. This conclusion was based on the fact that students who were taught through the cooperative learning approach had significantly higher mean scores than those students who were taught through the conventional learning strategy which did not involve the cooperation among learners in the process of teaching and learning.

### Recommendation

Based on the conclusions, the study recommends that teachers should use the cooperative teaching and learning approach in order to enhance the learning achievement of the students and in particular in order to improve the learner's study habits. Moreover, teachers should be trained on the use of various forms of cooperative learning strategy. This will further make it easier for the adoption and use of the strategies.

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