

EFFECTS OF COOPERATIVE AND PROBLEM SOLVING STRATEGIES ON SENIOR SECONDARY SCHOOLS STUDENTS' ACADEMIC ACHIEVEMENT IN ECONOMICS IN ANAMBRA STATE, NIGERIA

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ABSTRACT

This study investigated the effects of cooperative and problem solving strategies on senior secondary schools students' academic achievement in Economics in Anambra State, Nigeria. To achieve the aims of the study, three research questions were raised and three corresponding hypotheses were formulated and tested at 0.05 level of significance. The design of the study was the quasi-experimental research design which adopted pre-test, treatment and post-test of non-equivalent group procedures. The population is 76,542 SSI – III students in all the 263 public secondary schools in Anambra State. The sample consisted of 125 senior secondary two (SS II) Economics students using purposive and cluster sampling techniques were used. The instrument used for the collection of data for this study was a researcher developed achievement test titled, Economics Achievement Test (EAT) which contained 30 items of multiple choice questions. The instrument was validated by three research specialists. Reliability coefficient of 0.85 was obtained using Kuder-Richardson 20 statistic (KR-20). The experiments and administration of pretest and posttest lasted for 6 weeks with the aid of four research assistants who were the regular Economics teachers in the selected schools. Afterwards, the researcher marked and scored the scripts and the computed scores were used for data analysis. Research questions were answered using mean and standard deviation. Analysis of Covariance (ANCOVA) was used to test the hypotheses at a 0.05 level of significance. The result revealed that both cooperative and problem solving strategies are effective in the improvement of students' achievement in Economics. It was also revealed that male and female students achieved slightly the same scores when taught Economics using cooperative and problem solving strategies, but the difference between their mean scores was not significant. It was recommended among others that since the use of cooperative and problem solving strategies in teaching have been found to enhance achievement in Economics, teachers should be encouraged to employ these instructional methods more in the teaching of the subject.

Keywords: Academic Achievement, Cooperative teaching strategy, Economics, Gender and Problem solving strategy

INTRODUCTION

Economics is one of the elective subjects studied at senior secondary school level as prescribed by the National Policy of Education. It is one of the core social science subjects that students are required to pass at credit level in order to qualify for admission into tertiary institution to pursue social science courses. The study of Economics according to Onye and Ajuzie (2018) enables citizens to study, identify and proffer solutions to the basic problems of the society such as scarcity, inflation, unemployment, devaluation among others. It is a subject that contributes to the development of knowledge and help individual or groups of individual(s) to build up body of economic principles and equip them with tools of economic analysis which enables individual to understand current issues and problems confronting society. According to National Educational Research Development Council (2008), the objectives of secondary school Economics curriculum include to: understand basic economics principles and concepts as well as the tools for sound economic analysis, contribute intelligently to discourse on economic reforms and development as they affect or would affect the generality of Nigeria among other objectives. The achievement of these laudable objectives of Economics can be measured through students' academic achievement in the subject.

Academic achievement basically is the competence a person has in an area of content. This competence is as a result of many intellectual and non-intellectual variables. A good academic achievement record of students is an index of an effective educational system. It is the tangible result of the quantity and quality of knowledge attained. It is the ripe fruit of slow and steady cultivation of knowledge and skills. Chukwu (2017) explains that academic achievement of student is the ability of the student to study and remember facts and being able to communicate his knowledge orally or in written form even in an examination condition. Students' academic achievement in Economics in secondary schools seems to have been consistently poor in both internal and external examinations. This ugly situation has been confirmed by the Chief Examiners' Report of West African Examinations Council (WAEC) (2024) which attributed poor students' achievement in Economics to lack of qualified teachers to handle the subject, poor teacher's method of presenting the content of the curriculum to students. Many researchers have also identified several other factors that are responsible for this ugly situation, and some of these factors on a broad-scale include government-related, society-related, school-related, teacher-related and even student-related factors. More importantly, many researchers such as Ibe, (2013); Orimogunje, Oloruntegbe and Gazi (2010); Olorundare, 2011; and Sabiru (2014) have independently attributed that teachers' poor instructional methods, lack of organization skills and inadequate exposure to instructional strategies and inadequate experiences of teachers (Olorundare, 2011) are some factors responsible for students' poor achievements. In understanding the level of students' academic achievement in Economics, the moderating variable used in this study is gender.

Gender refers to the apparent commonality in the relationship between male and female in terms of academic achievement in a school setting. Bello (2016) contends that human is either male or female, provided with either masculine or feminine qualities. Gender is one of the factors that might affect students' achievement in solving Economics problems. Gender is defined by Gupta, Pasrija and Kavita (2015) as a psychological term describing behaviour and attributes expected of individuals on the basis of being born either a male or a female. Changeiywo (2012) on the embrassive nature of gender observes that, it is a cultural construct writing developed by society to distinguish the roles, behaviours, mental and emotional characteristics between male and female. Dike and Abimbola (2010) assert that gender is obvious from birth and children are socialized very early into appropriate sex-typed-occupations. Gender from the above, is the societal meaning assigned to male and female with a particular role that each should play. This is verifiable because, there is a general belief among Nigerians that males are superior to females in terms of physical physique, cognition, logical reasoning and even in their learning outcomes (Anigbogu, 2012). Gender differential valuation of male and female has been viewed as an integral part of the educational process and the development of the male and female personalities. This is so because it is the biased role expectation of culture and society ascribed based on being males or females. Filgona and Sababa (2017) in a study on gender role stereotypes and career choice of secondary school students observed that boys showed interest on brain tasking careers while girls were more interested on subjects that do not require much brain work. The academic achievement of male and female students varies especially when different teaching strategies are employed.

Teaching strategies are activity-based strategies systematically designed and developed by the teachers to positively enhance the students' learning skills. Adediran, Orukotan, and Adeyanju (2015) attest that instructional strategies are all the things the teachers uses to aid the learners in their learning process; they are the means used to bring about effective teaching and learning. Teaching strategies are chosen or manipulated in the class by the teacher base on the situation on ground. Ofodu (2012) stresses that teachers are expected to have a repertoire of strategies that would make class control possible, learning active and participatory since learners learn at different rates and ways. Amongst all the methods or strategies designed and developed by Economics teachers is the lecture method which is outdated, teacher-centered and does not require active participation from the students. This is also known as the traditional teaching method and still applied by teachers in this 21st century. Presently, there are other

strategies that require students' participation while their teachers monitor the processes such as strategies are the cooperative and problem solving strategies.

Cooperative learning strategy is the ability of students to work together in small groups to achieve a common goal. Cooperative strategy refers to teaching approaches in which students are divided into small groups by the teacher and then work together to help one another learn academic content. Cooperative learning, according to Ochuenwike and Anugwo (2020), is a collection of approaches in which students work together in small groups and assist one another in achieving learning objectives. Cooperative strategy encourages students to draw on their individual experiences to create a common product. This means that cooperative learning allows students to shape ideas, modify them by listening and contributing as a group asked questions, express doubt, and jointly design and implement plans. In a related study, Ubi and Udeh (2022) who investigated the efficacy of cooperative learning strategy on senior secondary school students (SSII) achievement in literature in English in Abakaliki Education Zone of Ebonyi State, Nigeria found that cooperative learning enhanced significantly the achievement of students more than the conventional method. Similarly, Agah and Ezekiel (2021) who investigated the effect of the cooperative learning approach on students' academic achievement in Mathematics in senior Secondary Schools in Mubi Educational Zone, Adamawa State found that there was no significant gender difference in the students taught Mathematics using Cooperative learning strategy in the study area.

Problem solving teaching strategy consists of using generic or adhoc methods in an orderly manner for finding solutions to problems. It is the key to success and has been regarded as the most significant aspect of human behaviour. It also plays an important role in the academic achievement of students and has received broad public interest as an important competency in modern societies. Akinwumi and Falemu (2017) assert that problem-solving is a systematic approach that reviews learning competencies, comprehending and composing, critical and creative thinking, these features are most important dimensions of thinking and learning in regardless of the acknowledgment of the importance of developing problem-solving skills. Akuma (2018) avers that problem solving instructional strategy enables teacher and the student to bridge the gap between a problem and a solution by using information (knowledge) and reasoning. The use of problem solving strategy as an innovative means of teaching Economics seems to accelerate students' academic achievement. Empirically, Ayeni (2022) who investigated the effects of experiential learning and problem-solving strategies on academic performance of Biology students at senior level in some senior secondary schools located in south-west Nigeria found that after exposure of experimental group to experiential learning, problem solving strategies, their performance was high compare to their counterparts in control group. Again, Abdurahaman, Usman, Olorukooba and Bichi (2016) who investigated the impact of problem-solving and discovery strategies on attitude, retention and academic performance in genetic concepts among secondary school students in Zaria, Nigeria found that gender did not show any difference in performance in all the two teaching strategies.

Cooperative and problem solving teaching strategies are necessary in the delivery of Economics instructions as they help to equip the students with skills now and when they further their studies. Based on the experiences gathered from scholarly works on these teaching and learning approaches, evidences showed that the both strategies are successful when applied in teaching of subjects like Chemistry, Accounting, Physics, Social Studies, Basic Science amongst others in secondary schools across Nigeria. Many researches show that different abilities have been used in learning. The results show that sometimes cooperative and problem solving abilities are successful with particular task of students but sometimes are not. Also, several studies have been conducted on students' academic achievement as dependent on several factors such as gender, socio-economic background, teaching method in various subject matters but little or no research has been done in relation to Economics. Researchers have come out with varied results complementary to each other, and sometimes contradicting each other. Thus, in the present study attempt will be made in the direction of exploring the effects of cooperative and

problem solving strategies on senior secondary schools students' academic achievement in Economics in Anambra State, Nigeria.

Statement of the Problem

Academic achievement of students in both internal and external examinations in senior secondary school Economics is persistently low and has been a source of worry to students, teachers, and the society at large. The West African Examination Council (WAEC) Chief Examiner's Report (2024) in Anambra State observes that a nationwide academic performance of Economics students for the past five years indicated that: 23.28% passed in 2020, 23.12% in 2021, 18.11% passed in 2022, 13.47% in 2023 and 19.42% in 2024. The results so far showed that the percentage of students who passed Economics in WAEC is significantly lower than those who failed. The persistent increase in poor performance of senior secondary schools students in Economics is a clear cut indication that the issue needs to be urgently addressed. The decline shown in the previous results also reflects the overall performance of Economics students in senior secondary schools in Anambra State as part of the nation. This increase in poor academic achievement in Economics could be as a result of non-utilization of appropriate teaching approaches. Thus, one way to avert this consistent failure could be to employ an effective teaching and learning approaches. Consequently, this study asked whether cooperative and problem solving strategies could be effective in the improvement of students' academic achievement in Economics. The pursuit of the answer to the above question is the problem of this study.

Scope of the Study

The geographical scope of the study covered all the public senior secondary schools students in Anambra State. Gender was considered as a moderating variable in this study, as the researcher compared the academic achievement of male and female students. That is, the researcher tried to find out the influence of gender on the achievement of students in Economics as well as the treatment by gender interaction effect on students' academic achievement in Economics. The content scope of Economics achievement for this study was restricted to: population, labour market, distributive trade, money, inflation, utility, theory of demand and supply.

Purpose of the Study

The general purpose of this study was to investigate the effects of cooperative and problem solving strategies on senior secondary schools students' academic achievement in Economics in Anambra State, Nigeria. Specifically, the study aimed to:

1. ascertain the effect of cooperative and problem solving strategies on students' academic achievement in Economics as measured by their mean scores in the pre-test and post test,
2. examine the effect of cooperative strategy on male and female students' academic achievement in Economics as measured by their mean scores in the post test only, and
3. determine the effect of problem solving strategy on male and female students' academic achievement in Economics as measured by their mean scores in the post test only.

Research Questions

The following research questions were formulated in line with the purpose to guide the study:

1. What is the effect of cooperative and problem solving strategies on students' academic achievement in Economics as measured by their mean scores in the pre-test and post test?
2. What is the effect of cooperative strategy on male and female students' academic achievement in Economics as measured by their mean scores in the post test only?
3. What is the effect of problem solving strategy on male and female students' academic achievement in Economics as measured by their mean scores in the post test only?

Hypotheses

The following null hypotheses were formulated and tested at a 0.05 level of significance:

Ho₁: The effect of cooperative and problem solving strategies on students' academic achievement in Economics as measured by their mean scores in the pre-test and post test is not significant.

Ho₂: There is no significant difference between the effect of cooperative strategy on male and female students' academic achievement in Economics as measured by their mean scores in the post test only.

Ho₃: The effect of problem solving strategy on male and female students' academic achievement in Economics as measured by their mean scores in the post test only is not significantly different.

Method

The design of the study was the quasi-experimental research design which adopted pre-test, treatment and post-test of non-equivalent group procedures. Ukozor, Onah, Ekwonye and Ogomaka (2021) affirm that quasi-experimental design is a design in which participants are not randomly assigned to the groups. The population is 76,542 SSI – III students in all the 263 public secondary schools in Anambra State. The sample consisted of 125 senior secondary two (SS II) Economics students. Purposive and cluster sampling techniques were used. Senior secondary school class two (SS II) Economics students were used in the study. The choice of SS II class was because they were matured enough after SS III that might be busy preparing for their final examination, while it was perceived that SSI are not yet fully abreast about the various concepts of Economics. The researcher purposively chose SSII Economics class and clustered them into two groups of experimental group I and experimental group II. In specifics, 61 students in the experimental group I, and 64 in the experimental group II. Male and female students made up the sample size (28 male and 33 female students in the experimental group I, and 30 male and 34 female students in the experimental group II).

The instrument used for the collection of data for this study was a researcher developed achievement test titled, Economics Achievement Test (EAT). The EAT was used to elicit the academic achievement of students in Economics as a subject both at pre-test and post-test which contained 30 items of multiple choice questions with four options (letters A to D) each, out of which only one option is the correct answer. Each test item is allocated one mark and this gave a total of 30 marks. The instrument was validated by three research specialists, two in Economics Education and one in Measurement and Evaluation, from Imo State University, Owerri. Reliability coefficient of 0.85 was obtained using Kuder-Richardson 20 statistic (KR-20). Four lessons note were prepared, each on teaching Economics via Cooperative learning strategy and Polya's problem-solving strategy. Four regular Economics teachers from the selected schools and classes for the experimental groups were enlightened separately for 5 days. The enlightenment sessions drilled them on the content, methodology and the procedural design of the study. At the end of the training, the teachers were assigned to group each based on the sessions. Teaching started immediately after the pre-test in each of the classes. Four of the research assistants taught the experimental groups using cooperative learning strategy and problem solving strategy. The researcher monitored the teaching at all the stages. Teaching lasted for six weeks at the end of which post test was administered to all the groups. The EAT was administered, as the post-test. Strict examination conditions were observed during post-testing. The EAT used for the pre-test, was administered to the subjects as the post-test. The same procedure and conditions was used while conducting the pre-test was adopted. The researcher marked and scored the scripts and the computed scores were used for data analysis.

Research questions were answered using mean and standard deviation. Analysis of Covariance (ANCOVA) was used to test the hypotheses at a 0.05 level of significance. The rationale behind the choice of ANOVA was that it adjusts for covariates, providing a more nuanced understanding of variables' interactions. **Decision Rule:** The hypotheses decision rule was based on the calculated F-cal against the tabulated F-tab. In this case, if the F-calculated is greater than the F-tabulated, the hypothesis was rejected but if otherwise, it was accepted. But in the case of using SPSS, the rejection of the hypotheses was based on the comparison of the SPSS p-value or significance level in the output directly

with the chosen 0.05 alpha level of significance. When the p-value is equal to or less than the chosen alpha, reject the null hypothesis, if otherwise, accept the null hypothesis.

Result

Research Question One: What are the pre-test and post-test mean scores of students taught Economics using cooperative and problem solving strategies?

Table 1: Pre-test and post-test mean scores of students taught Economics using cooperative and problem solving strategies. Where: Sample Size (n), Mean ($\bar{X}$), and Standard Deviation (SD) at pre-test and post-test

Test	Pre-test			Post-test	
Groups	n	$\bar{x}$	SD	$\bar{x}$	SD
Cooperative strategy	61	11.82	1.008	21.49	2.592
Problem solving strategy	64	11.59	0.971	21.92	2.908

Analysis in table 1 shows the result with respect to research question 1 indicating the pre-test and post-test mean scores of students taught Economics using cooperative and problem solving strategies. It was shown in the table that students who were taught Economics with cooperative strategy had posttest mean score of 21.49 and the standard deviation stood at 2.592. On the other hand, the students that were taught Economics with problem solving strategy had posttest mean scores of 21.92 with a standard deviation of 2.908. The increase in the mean scores of the two groups indicated that both cooperative and problem solving strategies are effective in the improvement of students' achievement in Economics.

Hypothesis One:

H₀₁: There is no significant difference between the mean scores of students taught Economics using cooperative and problem solving strategies.

Table 2: ANCOVA F-test Analysis for the Test of Hypothesis 1

Tests of Between-Subjects Effects						
Dependent Variable: Post Test						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	
Corrected Model	25.403 ^a	2	12.701	1.691	.189	
Intercept	609.783	1	609.783	81.195	.000	
Pre_Test	19.626	1	19.626	2.613	.109	
TeachingStrategies	3.540	1	3.540	.471	.494	
Error	916.229	122	7.510			
Total	59868.000	125				
Corrected Total	941.632	124				

a. R Squared = .027 (Adjusted R Squared = .011)

Table 2, shows the result of the analysis with respect to hypothesis 1 for the significant difference between the mean achievement scores of students taught Economics using cooperative and problem solving strategies in the pre test and post test. The result on the table indicated that the F-calculated (F-cal) value is low at 0.471. The calculated p-value of 0.494 is greater than 0.05 level of significance. Thus, since the calculated p-value is greater than 0.05 level of significance, the researcher accepted the null hypothesis and rejected the alternative. The result concluded that there is no significant difference between the mean scores of students taught Economics using cooperative and problem solving strategies.

Research Question Two: What are the pre-test and post-test mean scores of male and female students taught Economics using cooperative strategy?

Table 3: Pre-test and post-test mean scores of male and female students taught Economics using cooperative strategy. Where: Sample Size (n), Mean ($\bar{X}$), and Standard Deviation (SD) at pre-test and post-test

Test		Pre-test		Post-test	
Cooperative teaching strategy	n	x	SD	x	SD
Gender					
Male	28	11.79	1.067	21.50	2.715
Female	33	11.85	0.972	21.48	2.526

Table 3, shows the result of the analysis with respect to research question 2 indicating the pre-test and post-test mean scores of male and female students taught Economics using cooperative strategy. The result presented showed that male and female students that were taught Economics with cooperative strategy had post-test mean achievement scores of 21.50 and 21.48 respectively. The scores in the distribution are homogenous because there is a slight difference between the mean scores as indicated by the low standard deviation. The result from the above table showed that both male and female students achieved slightly the same scores when taught Economics using cooperative strategy.

Hypothesis Two:

Ho₂: There is no significant difference between the mean scores of male and female students taught Economics using cooperative strategy at pretest and posttest.

Table 4: ANCOVA F-test Analysis for the Test of Hypothesis 2

Tests of Between-Subjects Effects						
Dependent Variable: Post Test						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	
Corrected Model	11.590 ^a	2	5.795	.858	.429	
Intercept	307.677	1	307.677	45.564	.000	
Pre_Test	11.586	1	11.586	1.716	.195	
Gender	.002	1	.002	.000	.985	
Error	391.656	58	6.753			
Total	28579.000	61				
Corrected Total	403.246	60				

a. R Squared = .029 (Adjusted R Squared = .005)

Table 4, shows the result of the analysis with respect to hypothesis 2 on the significant difference between the mean scores of male and female students taught Economics using cooperative strategy at pretest and posttest. The result on the table indicated that the F-calculated (F-cal) value is low at .000. The calculated p-value of 0.985 is greater than 0.05 level of significance. Since the calculated p-value is greater than 0.05 level of significance, the researcher did not reject the null hypothesis thereby concluding that there is no significant difference between the mean scores of male and female students taught Economics using cooperative strategy.

Research Question Three: What are the pre-test and post-test mean scores of male and female students taught Economics using problem solving strategy?

Table 5: Pre-test and post-test mean scores of male and female students taught Economics using problem solving strategy. Where: Sample Size (n), Mean ($\bar{X}$), and Standard Deviation (S) at pre-test and post-test

Test		Pre-test		Post-test	
Problem solving strategy	n	$\bar{x}$	SD	$\bar{x}$	SD
Gender					
Male	30	11.70	0.915	22.43	2.738
Female	34	11.50	1.022	21.47	3.017

In Table 5 was the result of the analysis with respect to research question 3 indicating the pre-test and post-test mean scores of male and female students taught Economics using problem solving strategy. The

result presented showed that male and female students that were taught Economics using problem solving strategy had post-test mean achievement scores of 22.43 and 21.47 respectively. The scores in the distribution are homogenous because there is a slight distance between the mean scores and standard deviation. The result from the above table showed that both male and female students achieved slightly the same scores when taught Economics with problem solving strategy.

Hypothesis Three:

H₀₃: There is no significant difference between the mean scores of male and female students taught Economics using problem solving strategy at pretest and posttest.

Table 6: ANCOVA F-test Analysis for the Test of Hypothesis 3

Tests of Between-Subjects Effects						
Dependent Variable: Post Test						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	
Corrected Model	25.487 ^a	2	12.743	1.533	.224	
Intercept	314.136	1	314.136	37.786	.000	
Pre_Test	10.714	1	10.714	1.289	.261	
Gender	17.320	1	17.320	2.083	.154	
Error	507.123	61	8.313			
Total	31289.000	64				
Corrected Total	532.609	63				

a. R Squared = .048 (Adjusted R Squared = .017)

Table 6, shows the result of the analysis with respect to hypothesis 3 for the significance of the significant difference between the mean scores of male and female students taught Economics using problem solving strategy at pretest and posttest. The result on the table indicated that the F-calculated (F-cal) value is high at 2.083. The calculated p-value of 0.154 is greater than 0.05 level of significance. Since the calculated p-value is greater than 0.05 level of significance, the researcher did not reject the null hypothesis thereby concluding that there is no significant difference between the mean scores of male and female students taught Economics using problem solving strategy.

Discussion of Findings

The result revealed that both cooperative and problem solving strategies are effective in the improvement of students' achievement in Economics. It was further established that there is no significant difference between the mean scores of students taught Economics using cooperative and problem solving strategies. This finding is a proof that the cooperative and problem solving strategies are potent in the improvement of students' achievement in Economics. The reason for this effectiveness is because cooperative strategy permits work in a classroom to be carried out in a friendly manner with the teacher as the motivating spirit and the students gladly do most of the work, while a student with effective problem solving ability can be identified through their use of wide range of strategies in tackling their problems, has good arithmetic skills, high self confidence, checks answers for reasonableness and able to understand the problem and solve it with critical and analytical skills. Students with these skills exhibit high problem solving ability and are able to attempt any type of difficulties faced by them. In this respect, cooperative and problem solving strategies seem to have the components to motivate teacher and students to develop cooperative work and strategic ways of tackling their problems mainly aiming at the students to perceive and understand all the necessary stages required to arrive at logical conclusion. Corroborating the results, Ubi and Udeh (2022) found that cooperative learning enhanced significantly the achievement of students more than the conventional method. Similarly, Ayeni (2022) found that after exposure of experimental group to experiential learning, problem solving strategies, their performance was high compare to their counterparts in control group.

The result also revealed that male and female students achieved slightly the same scores when taught Economics using cooperative strategy, but the difference between their mean scores was not significant. This finding showed that the cooperative strategy do not significantly favour one group over another. This also means that the application is gender friendly. This finding has proved that gender denomination does not predict one's achievement as far as leaning of Economics using cooperative strategy is concerned, rather it is socially ascribed roles, responsibilities and opportunities associated with women and men, as well as the hidden power structures that govern relationships between them. Thus, it is a parallel and socially unequal division into masculinity and femininity. This finding agrees with Agah and Ezekiel (2021) who found that there was no significant gender difference in the students taught Mathematics using Cooperative learning strategy in the study area.

Also, the result showed that male and female students achieved slightly the same scores when taught Economics with problem solving strategy, but the difference between their mean scores was not significant. This finding indicates that the problem solving strategy do not significantly favour one group over another. The result is a proof that male and female students derive pleasure in the use of problem solving strategy and also wished that such strategy is used to teach other Economics topics. In tandem to the findings, Abdurahaman, Usman, Olorukooba and Bichi (2016) found that gender did not show any difference in performance in all the two teaching strategies.

Conclusion

The study concluded that cooperative and problem solving strategies are potent in the improvement of students' achievement in Economics. This is so because it allows the students to learn in pairs or small groups and makes them responsible for each other's as well as their learning in public senior secondary schools in Anambra State.

Recommendations

Based on the findings and implications of this study, the following recommendations were made:

1. Since the use of cooperative and problem solving strategies in teaching have been found to enhance achievement in Economics, teachers should be encouraged to employ these instructional methods more in the teaching of the subject.
2. Teachers should divide students in large classrooms into smaller groups so that they can participate in discussions and then report their findings to their teacher in class.
3. Ministry of education in conjunction with relevant departments should regularly organize workshops, exhibitions, seminars, and conferences for Economics teachers to update the knowledge of the teachers on effectiveness of cooperative and problem solving strategies and their usage.

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