International Journal of Education, Management Sciences and Professional Studies (IJEMPS)
Vol. 1 Issue 3 (AS) PRINT *ISSN:3115-5065* || E-ISSN:3115-5545
URL: https://journals.iempsglobal.org/index.php/IJEMPS

CO-OPERATIVE LEARNING STRATEGY AND SENIOR SECONDARY SCHOOL STUDENTS' PERFORMANCE IN ECONOMICS IN OBIO/AKPOR LOCAL GOVERNMENT AREA

Dr. Blessing Beke Macauley
Department of Curriculum Studies and Instructional Technology
Ignatius Ajuru University of Education
blessing.macauley@iaue.edu.ng
08032823117

Abstract

The study centered on Co-operative Learning Strategy and Senior Secondary School Students' Performance in Economics in Obio/Akpor Local Government. Two objectives, two research questions and two null hypotheses guided this study. The work utilized randomized pre-test and posttest quasi- experimental design to obtain data. The population consist of 6,134 senior secondary two Economics students in 20 public senior secondary schools. Three schools were selected using purposive sampling while three intact classes were randomly selected through randomized sampling technique. All the students in the intact classes formed the sample size 302. Evaluation instrument tagged EPTBTEA were utilized to obtain data. Test-retest technique was utilized to establish a reliability coefficient of 0.75 through PPMC. Mean and standard deviations were used to evaluate data from respondents, while ANCOVA was used to test the null hypotheses at 0.05 level of significance. Results exposed that students taught with jigsaw 1 performed better than those not given the treatment. When gender was exposed to the treatment also revealed that male student performed better than their female counterpart. In light of the findings the study recommends that Instructors must receive on the use of cooperative learning strategies particularly jigsaw 1 in teaching concepts in Economics.

Keywords: Cooperative Learning Strategy, Economics, Secondary School, Student's Performance

Introduction

Everyone acknowledges the importance of education in the growth of a country. Education is a tool for bettering people's lives and society as a whole. The eminence of a person's life is determined by a lifelong process. The National Policy on Education (FRN, 2014) of the Nigerian government states that "education is an instrument for national development; to this end, the formulation of ideas, their integration for national development and the interaction of

persons and ideas are all aspects of education." In traditional civilization, learning was informal and spontaneous, and education was a responsibility of every adult member of the community. Each adult member has a duty to provide their children with a range of abilities. Teaching children the skills necessary to integrate into society's social and economic structures was a burden placed on parents. In contemporary culture, a child's education is given to a qualified individual known as a teacher. Programs in a formal education system are thoughtfully and meticulously designed to address societal needs (Mba, 2003).

Teachers are the most significant determinant in kids' academic performance in the classroom and long-term success in life, according to research. To support this argument, Victor-Ishikaku (2015) asserted that a teacher's obligation extends beyond the school grounds and has the power to shape or ruin a student's future. Teachers are ultimately accountable for the success or failure of any educational institution. The curriculum is said to be implemented by teachers as part of a country's educational program. Teachers must be extremely skilled and successful since their role is so important and demanding.

According to (Achuonye & Ajoku, 2013), the efficiency of a teacher is vital to his or her capacity to pilot classroom affairs in such a way that learning aim is reached. The traits of a teacher include the abilities, conduct, and mindset that allow them to carry out their responsibilities in a way that guarantees the achievement of learning goals. Effective teachers possess a variety of talents, such as communication, listening, flexibility, subject-matter expertise, teaching methodology expertise, and student understanding. When pupils are evaluated, the results of their education and learning are clearly visible.

Economics is taught at secondary school level. According to the Federal Republic of Nigeria, secondary education is the second level of our educational system but it is today the third level. In Nigeria, secondary education is defined as the teaching pupils get after elementary school but before to tertiary education. Grammar schools, secondary schools, colleges, and high schools are the four main types of secondary education establishments. Formal school age starts at age 11 or 13 and finishes at age 18 (Mba, 2003). As a social science course offered at the secondary school level, it uses theories to evaluate data rather than the pure scientific approach. Like other scientific disciplines, economics uses theories and observations, but it does not employ experiments.

Literature Review

Co-operative learning Strategy

Although cooperative learning was first employed in English education in the eighteenth century, it was still discouraged and unutilized in America and Europe in the middle of the 1960s due to the emphasis on individual learning and competitiveness. Nonetheless, it is now the most favored method of instruction and learning (Gillies 2016; Johnson & Johnson, 1999). Cooperative learning strategies come in a variety of forms. Jigsaw Technique (Jigsaw 1&11),

Think Pair, Brain Writing, Daily Discussion Question, Breakout Group Discussion, Peer Review, and Scaffolding are some of the several forms (Vergroesen, 2020).

When dividing students into smaller, diverse groups to collaborate on a learning activity, the cooperative learning technique is frequently helpful. It promotes the creation of knowledge via social interaction and helps students comprehend the emotions of others as well as build on their own understanding. In addition to academic achievement, cooperative learning has been demonstrated to enhance self-efficacy, built-in motivation, administrative skills, understanding, easiness for variety, attitudes of reception, and even instruct presence (Odoh, 2013). Consequently, these methods of tutoring have been recommended as an essential way of increasing students' self-efficacy and engagement (Schunk, 2016).

The Concept Economics

Economics is the study of human behavior, which is intricate and dynamic. Like other academic disciplines like mathematics, physics, literature, etc., it has its own vocabulary and method of thinking. Demand, supply, elasticity, market structure, pricing theory, etc. are some of its languages. As one cannot become a mathematician overnight so is the Economist. Students need to be able to communicate in the language of economics. It takes certain practical skills and performance-based comprehension of the subject to learn how to think like an economist. The persistent decline in students' performance in economics has raised the important topic of whether learning strategies directly affect students' performance in the subject. Every facet of our daily lives is impacted by the social science of economics. It is impossible to overstate the significance of the topic.

We may use our few resources more effectively, comprehend how an economy functions as a whole, set priorities appropriately, and more with the aid of economics. A successful and efficient teaching and learning process is necessary to obtain excellent performance in the courses. Understanding the subject of economics depends on teachers' ability to motivate and engage students using various learning strategies.

Experiential learning theory by David Kolb (1974)

Experiential learning theory focuses on the idea that the best way people learn is by having actual experience. It also emphasizes on experience that emanates from cognition, environmental factors and emotions influences the learning process. Experiences help learners recall and retain knowledge and ideas. Kolb was influenced by other great theorist like Kurt Lewin, Jean Piaget, John Dawey and he published his learning model in 1974. Kolb, Rubin and Mclntyre (1974) cited in Armstrong (2004) identified a learning circle consisting of four stages. These stages are as follows- concrete experience, reflective observation, abstract concept and active experiment.

Despite teacher's best efforts, it is frequently challenging to include every student in a classroom due to the enormous class sizes in government secondary schools, even though teacher-centered education is successful and extensively employed in the classroom at all

levels. The researcher has noticed that students are not very interested in the subject of economics. Walking out of class when their Economics instructor arrives and the high prevalence of exam malpractice during internal and external exams, such as senior secondary certificate exams, are examples of this conduct. Furthermore, the subject Economics is becoming more popular among secondary school students and research has proven that students who sit for Economics examination in WEAC, NECO or GCE have not improved significantly. This is evident in WEAC's Chief Examiner's yearly report of 2016-2021 which shown that there was no substantial improvement in the learners performance on the West African School Certificate Economics test in Nigeria despite the importance of Economics in national development and He advised that all topics should be properly taught.

Following these unfavorable events, the researcher is faced with concerns such as: What are the difficulties in teaching and studying economics as a social science topic in Rivers State's Obio/Akpor Local Government Area? Are there no competent teachers for the subject Economics? Is teaching and learning strategy a factor in the difficulties associated with teaching and learning economics? These inquiries serve as the driving forces for the current study, which aims to determine if a cooperative learning approach may enhance students' economic performance. The study focuses on how cooperative learning strategies affect students' economics performance in Rivers State's Obio/Akpor Local Government Area

The actual purpose of this study is to compare the performance means of students taught economics utilizing jigsaw 1[[cooperative learning strategies and discussion technique in public senior secondary schools in the Obio/Akpor Local Government Area of Rivers State. The specific objectives of this work are to:

1. ascertain the difference in the performance mean score of economics students in public senior secondary schools in the Obio/Akpor Local Government Area of Rivers State who were trained using the Jigsaw I method and those who were trained using the discussion technique.
2. Find out how the performance mean score of economics students in public senior secondary schools in the Obio/Akpor Local Government Area of Rivers State differs between those trained using the Jigsaw II method and those trained using the discussion technique.

The subsequent research questions were created to direct the investigation:
1. In public senior secondary schools in the Obio/Akpor Local Government Area of Rivers State, how do the mean performance scores of economics students trained using Jigsaw I and those trained using the discussion method differ?

2. In public senior secondary schools in Rivers State's Obio/Akpor Local Government Area, how do the mean performance scores of pupils trained economics using Jigsaw II and those trained using the discussion method differ?

Ho1: There is no discernible disparity between the mean performance score of Economics students trained with jigsaw I and those trained with Discussion Method in Public Senior Secondary Schools in Obio/Akpor Local Government Area of Rivers State.

Ho2: There is no discernible disparity between mean performance score of Economics students trained with jigsaw and those trained with Public Senior Secondary schools in Obio/Akpor Local Government Area of Rivers State.

Methodology

A quasi-experimental design is used in this study. In particular A randomized group pre-test and post-test design was used in the investigation. The population of the research consists of six thousand one hundred and thirty-four (6,134) Senior Secondary Two (SS2) Economics students from twenty (20) public senior secondary schools in the Obio/Apkor Local Government Area of Rivers State. The researcher employed both a deliberate sampling method and a simple random sample approach. Purposeful sampling was used to choose three of the twenty public senior high schools in the target group. After that, a second SS2 arm for an unbroken class at a school was selected using simple random selection. The total number of students from the three courses makes up the study's sample size, which is 302.

Each group's student was selected using a distinct, simple random selection technique. For experimental group 1, the sample size N = 95 consists of 36 male and 59 female students. With 42 male and 63 female students, the sample size for experimental group 2 is N = 106. The control group includes a sample size of N = 102, with 56 female and 46 male students. The "Economics Performance Test on Basic Tools for Economics Analysis" is an evaluation instrument included in the Senior Secondary School two Economics syllabus. It was specifically created to be an objective test, sometimes known as a multiple-choice test. The instrument consists of only portion A. In Section A, twenty objective multiple-choice questions were scored based on their kind. The evaluation instrument was awarded sixty points in total. The legitimacy of the instruments was evaluated by the study supervisor and two other specialists from the Curriculum and Instructional Technology department. Experts in secondary school economics received copies of the assessment instrument for review and revision.

This was ascertained using the test-and-retest method. The evaluation instrument was presented to twenty SS2 students who were not part of the research sample. The same respondents were administered the instrument once more without any form of intervention two weeks later. After gathering their responses, the findings were sent to Pearson Product Moment Correlation Statistics at the significant level of 0.75. The dependability coefficient indicates that EPTBTEA is reliable in measuring what it is intended to measure. Descriptive statistics such as mean and standard deviation were used to analyze the data in order to answer the research questions. Analysis of Covariance (ANCOVA) and relevant statistical tools from the SPSS were then used to test the hypotheses at the 0.05 level of significance. The researcher used ANCOVA to analyze the null hypothesis that was stated in the first chapter of this study. The pretests of the students were used as a covariate. The sensitivity of the main effect and interaction tests was enhanced by the addition of a covariate having a strong correlation with the outcome variables, which reduced the error.

Results

Research Question 1: In public senior secondary schools in the Obio/Akpor Local Government Area of Rivers State, how do the mean performance scores of economics students trained using Jigsaw I and those trained using the dialogue technique differ?

Table 1: Mean and SD of Economics Students trained with Jigsaw 1 and dialogue technique

Group		Pre-test		Post-test		Mean gain
	n	Mean	Std	Mean	Std	
Jigsaw 1 (Exp Group)	95	10.90	3.81	44.05	5.76	33.15
Control Group (CG)	102	11.15	3.88	29.40	5.42	18.25
Total	**196**					

Table 1 reveals that the mean scores at pre-test stage of students taught with jigsaw I was (10.90) and SD of (3.81), while students taught with dialogue technique had a mean score of (11.15) with a SD of (3.88) This shows that the student groups in the pretest stage had similar ability. In contrast, the traditional group (control group) had a mean score of 29.40 and a matching SD of 5.42 at the post-test stage, whereas students trained using the jigsaw had a mean score of 44.05 and a SD of 5.76. This shows that students who were trained using the Jigsaw I and the dialogue technique, respectively, gained an average of 34.15 and 18.25. This suggests that because of the cooperative learning intervention, students trained using the Jigsaw I (experimental group) outperformed the conventional group (control group) in the post-test stage.

Research Question Two: In public senior secondary schools in Rivers State's Obio/Akpor Local Government Area, how do the mean performance scores of pupils trained economics using Jigsaw II and those trained using the dialogue technique differ?

Table 2: Mean and SD of Economics Students trained with Jigsaw 11 and dialogue technique

Group		Pre-test		Post-test		Mean gain
	n	Mean	Std	Mean	Std	
Jigsaw 11 (Exp Group)	105	11.01	3.85	48.16	5.79	37.15
Control Group (CG)	102	11.15	3.88	29.40	5.42	18.25
Total	**208**					

Table 2 reveals that the mean scores at pre-test stage of students trained with jigsaw II was (11.01) and a SD of (3.85) while learners trained with conventional technique (control group) had a mean score of (11.15) with a SD of (3.88). This demonstrates that, during the pretest stage, the students' abilities are equivalent. In contrast, the traditional group (control group) had a mean score of 29.40 and a matching SD of 5.42 at the post-test stage, whereas s learners trained using the Jigsaw 11 had a mean score of 48.16 and a SD of 5.79. This shows that students who were trained using the Jigsaw II and the dialogue technique, respectively, gained an average of 37.15 and 18.25. Thus, it demonstrates that, students who were trained using the Jigsaw II (experimental group) outperformed the conventional group (control group) on the post-test.

Hypothesis One: There is no discernible disparity between the mean performance score of Economics students trained with jigsaw I and those trained with dialogue technique in Public Senior Secondary Schools in Obio/Akpor Local Government Area of Rivers State.

Table 3: ANCOVA Results of Economics Students Taught with Jigsaw 1 and Discussion Method

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	10501.028	2	5250.514	167.414	.000	.634
Intercept	28239.192	1	28239.192	900.411	.000	.823
Pretest	.282	1	.282	.009	.925	.000
Group	10493.649	1	10493.649	334.592	.000	.634
Error	6052.972	193	31.363			
Total	276654.000	196				

The F-value of 334.592 and P-value of 0.000<0.05 (less than) the selected level of significance between 1 and 196 degrees of freedom are shown in Table 3 of the ANCOVA findings. As a result, the null hypothesis is rejected, which is why the p-value is significant at the 0.05 level. This suggests that in public senior secondary schools in the Obio/Akpor Local Government Area of Rivers State, the mean performance of economics students taught using the Jigsaw I cooperative learning technique and those trained using the discussion method differs drastically.

Hypothesis Two: There is no discernible disparity between mean performance score of Economics students trained with jigsaw and those trained with Public Senior Secondary schools in Obio/Akpor Local Government Area of Rivers State.

Table 4: ANCOVA Results of Performance of Economics Students Taught with Jigsaw 11 and dialogue Method

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	16778.289	2	8389.144	268.840	.000	.724
Intercept	32550.402	1	32550.402	1043.116	.000	.836
Pretest	.152	1	.152	.005	.944	.000
Group	16770.848	1	16770.848	537.442	.000	.724
Error	6397.019	205	31.205			
Total	332408.000	208				

The F-value of 537.442 and P-value of 0.000<0.05 (less than) the selected level of significance between 1 and 208 degrees of freedom are shown in Table 4 of the ANCOVA results. As a result, the null hypothesis is rejected, which is why the p-value is significant at the 0.05 level. This suggests that in public senior secondary schools in the Obio/Akpor Local Government Area of Rivers State, the mean performance of economics students trained using the Jigsaw II cooperative learning technique and those trained using the discussion method differs drastically.

Discussion of Findings

Performance of students' trained with jigsaw 1 and those trained with dialogue technique

From table 1, the result showed higher performance of experimental group 1(students taught with jigsaw1) with (33.15) as compared with individuals in the control group who received instruction using a traditional technique (18.25). Additionally, the ANCOVA from hypothesis 1 showed an F-value of 334.592 and a P-value of 0.000<0.05 (less than) the selected level of significance between 1 and 196 degrees of freedom. P-value is less than the 0.05 threshold because the null hypothesis, which claimed that there was no considerable disparity between the mean performance of economics students taught using Jigsaw 1 and those taught using the discussion technique, was rejected. This is in agreement with (Oluwatosin 2019) who noted that the teaching method of economics teachers which are discussion, problem solving, question and answer method, demonstration and role play methods which is not learners friendly as compared to cooperative learning strategy.

Performance of students' trained with jigsaw 1 and those trained with dialogue technique

From table 2, Students' taught with jigsaw 11 had a mean score (48.16) and SD of 5.79, whereas the control group, which received instruction via a traditional technique, had a mean score of 29.40 and a SD of 5.42. This shows that students who were trained using the traditional

approach and the Jigsaw II had mean gains of 18.25 and 37.15, respectively. This outcome demonstrates that students who were trained using Jigsaw 11 performed better than those who were trained using the conversation technique. Additionally, the ANCOVA data from table 4.7 show an F-value of 590.158 and a P-value of 0.000<0.05 (less than) the selected level of significance between 1 and 106 degrees of freedom. Therefore, the null hypothesis, which claims that there is no discernible difference between the performance mean score of economics students trained using the Jigsaw II and those trained using the dialogue approach, is rejected. In affirmation to the statement of Okolie et al, (2014) that asserted that most times Economics teachers teach without using variety of teaching methods that are not often employed by teachers. Therefore, the treatment in the form of jigsaw 11 cooperative learning strategy made the students at performed better.

Conclusion

This study focused on Cooperative Learning Strategies and Economic Academic Achievement of Senior Secondary School Students in Rivers State's Obio/Akpor Local Government Area. Economics students in experimental groups 1 trained with Jigsaw 1 cooperative learning methodologies. The results are shown below; students who were taught using Jigsaw 1 out performed those who were trained using the dialogue technique. This demonstrates that the Jigsaw 1 cooperative learning method improves students' academic performance more than the dialogue method. These cooperative learning strategies utilizes the four learning styles and requires certain teaching skills for its effectiveness. Such skills required include communication skill, use of example skill, Questioning skill, Set-induction skill, Closure skill, and Re-enforcement skill.

Recommendations

Sequel to the results, the subsequent commendations were made:

1. Government and school authorities ought to make sure that class size is at most 1:50 in Senior Secondary schools and they must disabuse the combination of two to three arms in a class by b uilding more schools and classroom.
2. Curriculum planners should integrate Cooperative learning strategies in daily lessons, since it has proven to enhance students' academic performance.
3. At the senior secondary level, curriculum designers ought to make economics a key topic.

References

Achuonye, K.A. & Ajoku,L.I. (2013).*Foundations of curriculum development and instruction.* Pearl Publishers.

Achuonye, K. A., Ezekoka, K., & Ifegbo, C. (2019). *Instructional design: Theory and practice.* Liu House of Excellence Ventures.

Ajoku, L.I. (2006) *Foundations of educational research and statistics*. Pearl Publishers.

Armstrong, M. (2004). *Human resource management practice.* Kogan Page Limited

Federal Republic of Nigeria (2014). *National policy on education*. NERDC Press.

Gillies, R. (2016) Cooperative learning review of research and practice. *Australian Journal of Teacher Education, 41*, 39-51.

Johnson, R.T. & Johnson, D.W. (1986). Action research: Cooperative learning in the sciences classroom. *Science and Children,24*, 31-32.

Mba, T. N. (2003). *Curriculum development: Concept and process.* Crystal Publisher.

Odoh, C. O. (2013). Effect of cooperative instructional strategy on student's achievement in senior secondary school chemistry. *Journals of Research in Curriculum and Teaching,7*(1), 583-589.

Oluwatosin, I. A. (2019) *Implementation issues in secondary education curriculum in Nigeria: Problems and prospects.* Logic gate Publishers.

Vergroesen, L.L. (2020) *Online collaborative learning strategies to keep engaged while at home*. http//www.eduflow.com.

Victor-Ishikaku, E. (2015). *Teaching skills handbook for trainee-teachers*. Calebest Publishers

Schunk, D. H. (2016) Verbalization and children's self-regulated learning. *Educational Psychology, 2*(1), 347-369.

WAEC (2016-2021). *Chief examiners' report*. WAEC