



# Cooperative Learning and Students' Performance in English Language in Port Harcourt Metropolis

**Queen Dickay**

Department of Curriculum Studies and Instructional Technology  
Faculty of Education  
Ignatius Ajuru University of Education, Nigeria

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## Abstract

This study investigated cooperative learning on students' performance among junior secondary school students in Port Harcourt Metropolis. Two research objectives, two research questions and two null hypotheses guided the study. The study adopted quasi-experimental non-randomized control group design. The population of the study comprised all Junior Secondary School Three (JSS3) Students in Public Schools in Port Harcourt Metropolis. The sample for the study consisted of 120 students in Junior Secondary three (JSS3) drawn through multi-stage sampling technique. The instrument for data collection was designed by the researcher titled "cooperative learning and students' performance in English language" (CLSPLEL) questionnaire. The method of data collection involved administering pre-test to both the experimental and control group. Descriptive statistics (mean scores and standard deviation) were used in answering the research questions, while Analysis of Covariance (ANCOVA) was used in testing the hypotheses at 0.05 level of probability. The result of the study showed that: there is significant difference of the mean performance scores of students in English Language when taught with cooperative learning and those taught with discussion method. Based on the findings of the study, recommendations were made while suggestions for further studies were stated.

**Keywords:** Cooperative Learning, Students Performance, English Language, Port Harcourt Metropolis, Nigeria.

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## INTRODUCTION

Education is seen or considered as the bedrock of every development in a given society. It is also the best legacy any society can provide for their citizenry. Obviously, no society or nation will develop and advance her standards of living without properly equipping the citizens with the relevant skills, knowledge, abilities and requisite attitudes to form efficient work-force in all sectors of their economy. As noted by Enueme in Soji (2012), education is referred to as the acquisition of behavioural characteristics such as skills, attitudes, beliefs, tastes, ability to reason rationally, knowledge and all other traits which will enable one to

adjust and interact effectively with other individuals in a society. Education is the essential core to push the country securely to the next century hence, good or quality education needs to be realized or achieved. Teachers use of lecture method encourages memorization and focusing only on the course content and cannot develop students in all aspects. Thus, children and young people have not yet been developed to their full potentials and have not cultivated the desired characteristics such as curiosity, analysis thinking, logical solution, disciplines and honesty. Moreover, teachers usually give lectures focusing on the content and the subjects, but not the students. This kind of teaching cannot help students learn to face problems and solve them in their real lives (The Office of the National Education Committee, 2002).

Moreover, cooperative learning is an appropriate way to solve such problem because it tends to motivate learners to learn to work together with friends to meet the course objectives. This method will help learners to do different types of activities in smaller groups, such as negotiations, conversations, exchanging ideas in groups or open learning that gives them more opportunities to search for, discover and find answers to existing problems. Collaborative efforts among students' result in a higher degree of accomplishment by all participants as opposed to individual, competitive systems in which many students are left behind. Competition fosters a win-lose situation where superior students reap all rewards and recognition and mediocre or low-achieving students reap none. In contrast everyone benefits from a collaborative learning environment. Students help each other and in doing so build a supportive community which raises the performance level of each member (Kagan, 1986). This in turn leads to higher self-esteem in all students and also fosters a higher level of performance by students. Their critical thinking skills increases and their retention of information and interest in the subject matter improves. When students are successful, they view the subject matter with a very positive attitude because their self-esteem is enhanced. This creates a positive cycle of good performance building higher self-esteem which in turn leads to more interest in the subject and higher performance yield. Students share their success with their groups, thus enhancing both the individual's and the group's self-esteem.

Language is an important part of human for communication. In reality, language is a means of conveying ideas, mind, opinions and feelings. Language is used by people in a particular country. It means that people from various countries have different languages. However, to maintain the communication among people from different countries, it has been agreed to use only one international language that is the English language. English is spoken in most International events and it is used as the medium of information flow in science, technology, and culture as well. Thus, it is not surprising that the teaching of English Language is carried out in many parts of the world. Language learners should be given insight into the place and function of various language items and skills in listening, speaking, reading, and writing activities; that is, in real communication situation. Among these skills, reading is the fundamental skill.

Since the conventional teaching methods persistently used by English Language teachers cannot provide solution to the difficult English Language concepts which manifests in perennial poor students' performance, the researcher therefore consider it necessary to study the influence of cooperative learning and performance in English Language. This instructional strategy has been found effective in overcoming other instructional problems such as large class size in Biology and performance among special needs individuals in mathematics (Igbo, 2004). It might therefore not be out of place to investigate the influence of cooperative learning strategy on students' performance in English language in an attempt to improve their performance in English language.

## **Statement of the Problem**

Poor students' performance in English Language is alarming inspite of the fact that, many research has been carried out to ameliorate the poor situation. Many instructional approaches have been proffered by psychologists like Brunner, Paget, Gagne, Ausubel for improved performance in English language and other sciences. Njoku (2005) and Amaefula (2012) strongly believed that the instructional approach adopted by English Language teachers in teaching English language is to a large extent responsible for the observed consistent poor performance in English Language. The conventional teaching methods lack student's cooperation and interaction required for effective learning of the English Language concepts. Sufficient students' cooperation and interactions are needed for learning and transfer of learning in English language concepts, which are mainly hard, and abstract. Such cooperation and interaction are found in the cooperative learning strategy. This work therefore, intends to investigate the influence of cooperative learning strategy on students' performance in English Language.

## **Research Questions**

The study sought to answer to the following questions.

- What is the influence of cooperative learning on students' performance in English Language?
- What is the influence of cooperative learning on students' performance in English Language (between Experimental and Control Group Boys' schools)?

## **Research Hypotheses**

The following null hypotheses were tested at  $p < 0.05$  level of significance

- **HO<sub>1</sub>**: There is no significant difference between the mean performance scores of students in English Language taught with cooperative learning and those taught with discussion method.
- **HO<sub>2</sub>**: There is no significant difference on the mean performance score of male secondary school students in English Language taught with cooperative learning and those taught with discussion method.

## **REVIEW OF RELATED LITERATURE**

### **Theoretical Framework**

#### **Gagne's Theory of Hierarchal Learning**

According to Gagne (1977) all learning cannot be explained by just one theory. As a result, he attempted to evolve a theory or model of learning involving different learning processes at different levels, yet building on work of classical and operant conditioning. This means that new learning occurs through combining of previously acquired and recalled learned entities as well as upon their potentialities for transfer. Consequently, rate of cognitive development does not depend on innate readiness; rather the rate of cognition of simple pre-requisite skills (Ngwoke, 2010). Gagne categorized learning into eight different types in a hierarchical order that each type of learning is a pre-requisite for a successful kind of higher learning, in order

of increasing complexity. Gagne's formulation is, therefore, an attempt to bring together in one theoretical framework some basic concepts of learning and cognitive theories. Gagne's cognitive theory could be applied by English language students in solving problems. The cognitive theories emphasize structure, organizing and sequencing information to facilitate optimal processing. Cognitive theories also conform to learning from concrete to abstract, simple to complex concepts and topics. Gagne's theory is relevant to studies on cognitive level and cognitive development (Lorchugh, 2006). However, these cognitive theories are relevant to this study because students could use the experience acquired from this theory in problem solving.

This theory is relevant to this study because cooperative learning is developed from Gagne's theory. In addition, the theory emphasizes problem-solving which is also addressed by cooperative learning method. The theory therefore is appropriate for this study.

## **CONCEPTUAL REVIEW**

### **Teaching**

Rather (2012) defined teaching as an interactive process primarily involving classroom talk, which take place between a teacher and the student and the society or curriculum. It is a professional activity which requires experience, maturity and subject matter specialization.

Yoakum and Simson (2012) explained that, teaching is the means whereby the experienced members of the group guide the immature and infant members in their adjustment of life. From the above definitions, it can be concluded that teaching has multi-meanings however, each of those definition refers to teaching as activities that are designed and performed to produce change in learners' behaviour. Rather (2012) listed the following as characteristics of teaching:

- Teaching is an interactive process: It is with the help of this interaction, that the learners become active in any learning process;
- Teaching is both formal and informal: This explains that teaching may occur formally or informally. Formal means where we have an organized system with a definite purpose. It is planned, systematic, definite and deliberate. Informal system means where we have no organized system and it is unplanned. Unsystematic, incidental and indefinite. Both formal and informal ways help us in achieving the desired goals of teaching and learning;
- Teaching is both art as well as science: Teaching is not everybody's cup of tea. It is an art which is favourite of the selected few. A teacher can never teach unless he is learning. So it is a profession which requires blood, sweat and tears;
- Teaching is not one- sided: Any teaching whether formal or informal in which only the teacher remains active and learner simply silent spectators is not good teaching. Both the teacher and the learner have to be fully active, face to face with each other and this interaction makes teaching learning process an effective and successful one;
- Teaching is not an independent activity: It is a social process. It takes place in some social setup, where the teacher aims at improving the behaviour of the individual or some social group. Good teaching always prepares the individual to become cultured and socially acceptable in order to render good service to the whole humanity;
- Teaching is a planned activity: Good teaching is well planned and well prepared activity. It is organized in a systematic way. Before teaching take place, a teacher prepares and plans his lesson in advance. He collects all information from different sources like books, journals, references etc. In order to make his teaching a successful one, a lot of work,

research and thinking is done before going into the classroom. He thinks of different methods in order to make his teaching and learning more attractive and effective; and

- Teaching is diagnostic and remedial: Good teaching is diagnostic and remedial in the sense that the teacher first knows exactly the abilities, capacities and interest of these pupils. He knows the individual differences of the learners in order to select suitable teaching materials, methods, audio and visual aids, academic environment to be involved in the teaching process. He used the diagnostic technique in order to know the difficulties and problems of learners and then accordingly he suggests suitable remedial measures in order to remedy those difficulties and deficiencies.

Teaching as a profession has a general rule or formulas which are applied to make teaching and learning easy, interesting and understandable to the learner. These principles, tenets or general rule are called maxims of teaching.

### **Academic Performance**

Collins English Dictionary (2009) defined performance as something that has been accomplished especially by hard work or through an invested effort. Meanwhile, the most accepted criterion for measuring good teaching is the amount of students learning that occurs. Teachers' effectiveness is about students' learning. As a teacher he is armed with ways that he/she can use to present content and skills that will increase performance in the students. The theories that you have learnt as a teacher must be applied in the classroom. The learning that took place is assessed or evaluated not only for the learners benefit but also for the teacher to evaluate his or her own work.

At the end of a lesson or group of lessons, the teacher needs to get feedback on what he/she has achieved. This feedback comes with the help of a tool generally known as performance test. The record of students' academic activities in the test is known as performance. Performance is something that an individual accomplishes. It could be a big goal or small goal after investing an effort. Abonyi (2003) added that academic performance is the effect of learning that occurred under partially known and controlled conditions. It determines what the individual can do at that particular time as a result of learning that has taken place.

Ochoma (2015) defined cognitive performance as a creative and innate ability a learner acquires during teaching and learning processes in order to perform well in examination. Cognitive performance and meaningful learning are strongly linked. She maintained that collaborative learning is one way to help students learn English Language more meaningfully especially as it builds up student analogical thinking process.

### **Cooperative Learning**

Cooperative learning occurs when students work in small groups to help each other learn. Cooperative learning groups vary in size, although four is a typical number of students. Geoscience (2007) explained that cooperative learning is an organized and structured way to use small groups to enhance student learning and interdependence. In cooperative learning, students are given a task, better known as an assignment, and they work together to accomplish this task. Gillies (2016) noted that each individual has responsibilities and is held accountable for aiding in the completion of the assignments; therefore, success is dependent on the work of everyone in the group.

## **Cooperative Learning Approaches**

Several approaches are utilized in cooperative learning. These approaches are discussed in this section. One of the approaches used in cooperative learning is called student-teams-performance divisions (STAD). In this approach, students are placed in small groups or teams. The class in its entirety is presented with a lesson and the students are subsequently tested. Individuals are graded on the team's performance. Although the tests are taken individually, students are encouraged to work together to improve the overall performance of the group. STAD involves team recognition and group responsibility for learning in mixed-ability groups (Slavin, 2009).

Slavin (2009) created jigsaw II, a modified version of jigsaw I, whereas jigsaw I consists of teams of six, jigsaw II usually has teams of four or five. All team members study the entire lesson rather than one part and individual scores are combined to form an overall score, as in STAD. After they have studied the entire lesson, students become expert on one aspect of the lesson, then students with the same topics meet in expert groups to discuss them. Subsequently, they return to their teams and help other members of the team learn the material. In this approach, each member become an expert on his or her assigned portion and teaches the other members of the home group (Slavin & Tanner, 2001).

Cooperative learning also involves cooperative scripting. In this approach, students work in reciprocal pairs, taking turns summarizing information and orally presenting it to each other. One member of the pair presents the material. The other member listens, monitors the presentation for any mistakes and gives feedback. Then the partner becomes the teacher and presents the next set of material while the first member listens and evaluates it.

## **Models of Cooperative Learning**

There are dozens, if not hundreds, of different cooperative learning methods, and the most popular examples of the present day were primarily developed through the efforts of Elliot Aronson, David De Vries, David W. Johnson, Roger T. Johnson, Spencer Kagan, Nancy Madden, Shlomo Sharan, Robert Slavin, and Noreen Webb. Some of the strategies discussed in this review are: Cooperative Integrated Reading and Composition (CIRC), Group Investigation (GI), Jigsaw I, Jigsaw II, Student Team Performance Divisions (STAD), Teams-Games-Tournament (TGT) and Students-Teams-Reading-Writing (STRW).

### **Cooperative Integrated Teaching and Composition (CIRC)**

In the CIRC model, students are assigned to reading groups of 8-15, as well as pairs or triads within each reading group. After a story is introduced to the class, partners read silently, then take turns reading aloud. Halfway through the story, students are given questions on story-structure and related concepts. Students are also given lists of difficult words to practice with their partners, and an additional list of words to look up in the dictionary; students are expected to paraphrase the definitions and incorporate them into their speaking vocabulary. After reading the story and discussing it in their groups, students retell the main parts with their partners. Students also pretest each other on spelling at the beginning of each week, then spend the remainder of the week helping each other master the words. The structure is fairly open to teacher interpretation, and it incorporates direct instruction, pair work, and large group work. Tests have shown that comprehension, vocabulary, and spelling skills were improved through this method when compared to only frontal instruction.

## **Group Investigation (GI)**

In this model, developed by Yael and Shlomo Sharan, students form interest groups to plan and implement an investigation, then synthesize their findings into a presentation given in front of the class. The teacher's general role is to let students know where they can find resources. The four I's, or four main components, are investigation, interaction, interpretation, and intrinsic motivation. There are six main steps: First, the teacher presents a multi-faceted problem to the class, and students choose an interest group. Groups plan and carry out their investigations. Groups plan their presentations and then present. Finally, investigations and presentations are evaluated by teachers and students.

## **Jigsaw I**

Jigsaw was developed by Elliot Aronson at the University of Texas and later adapted by Robert Slavin. Students are assigned to groups of five or six members, and then academic material is presented in text form. Each student is responsible for learning a part of the given material. Members from each group form an expert group and meet to study and learn more about the topic. Then the expert members return to the original group and share their findings. After this meeting, students take quizzes individually. High-scoring teams and individuals are then given recognition (Arends, 2013).

## **Jigsaw II**

This version of the Jigsaw method was Slavin's extension to Aronson's model. As in Aronson's model, students are responsible for mastering their own portion of the material, and experts are responsible for teaching their material to the rest of the home group. The difference between this model and the original is that the experts take an expertise test before returning to their home group's (Sharan, 2010). Then, after instruction, students are tested individually, and team scores are produced based on performance relative to previous group performances. This is known as "equal opportunity scoring," and it may or may not be the final evaluation for the students. Group recognition is then given based on total academic performance.

## **Student-Teams-Reading-Writing (STRW)**

This is developed by Robert in 2012. Student-Teams-Reading-Writing (STRW) is an integrated approach to cooperative learning for early adolescents in language arts. The program comprises cooperative methods and a variety of other features: a literature anthology of high-interest material; explicit reading comprehension instruction; integrated reading, writing, and language arts instruction; and a writing process approach to language arts. Students work in heterogeneous learning teams and follow a routine of teacher presentation, team practice, independent practice, peer pre-assessment, and individual assessments that form the basis of team scores (U.S. Department of Education, 2011).

## **Student Team Performance Divisions (STPD)**

It was developed by Slavin and his colleagues at Johns Hopkins. This is probably the simplest and most straightforward cooperative learning approach. The teacher presents material or text, and heterogeneous student teams of four or five members work together to master the material. Students take individual quizzes regularly, and each individual is given an

improvement score based on past averages. Both individual and team scores with the most improvement are then recognized (Arends, 2013).

### **Teams-Games-Tournament (TGT)**

TGT was designed for use in upper-elementary and secondary school classrooms. Students are divided into four-member heterogeneous teams, each representing the academic range of the classroom. The students play instructional games, based on relevant academic material, which reinforce knowledge of concepts or skills. Academically comparable students from each team compete individually with students from other teams in tournaments designed with content from the lesson they have been studying. Scores are reported at the team and individual level, but grades are given to the teams.

There are other mixed-method variations of cooperative learning that will be discussed as the work progresses. Some are based on ability-grouping, while others are based on heterogeneous grouping. Methods not described in detail here will be further described later in the work. Additionally, the language of formal research and cooperative methods are often interchangeable. Often, the words group and team are used synonymously, while other times the word group is used to refer to the sum of the teams or the sum of the individuals participating in the study. Finally, the student age group primarily addressed in this paper is secondary level, meaning grades 7-9. There are a few studies included that are outside of this grade range which are included either to support or to contextualize the paper. Studies involving students not in the 7-9 age range are relevant in that they can either lend to or detract from general cooperative learning methods.

### **Discussion Method and Students Academic Performance**

A discussion is an activity that involves a group of people with the intention to put together their ideas, knowledge and opinions concerning a subject in a cooperative endeavour to learn from each other. Thus a debate, in which people are concerned with making points against each other in order to destroy the view of rivals, is not a discussion. Real discussion is not a process in which people seek an intellectual liquidation of their opponents, neither is it a session in which members of a class make a series of separate speeches, quite often repetitive but quite unrelated to each other. Also, to be distinguished from true discussion are the various types of question and answer periods whether they are basically questions from the student or the other way round.

When learners are grouped, a member of the group is selected to be the leader/moderator of the discussion. It is assumed that everybody has something to contribute to the topic under discussion and so learners are expected to participate actively to the topic under discussion. Teacher can as well decide to use the pattern that obtains in discussion method to deliver his lesson. In this case, there is flow of communication from the teacher to the learners and vice versa, and even amongst learners. The role of the teacher becomes that of a moderator. Both parties i.e the teacher and the learners, learn from each other. It is necessary that the learners have fore knowledge of what is being discussed. This implies that the topic for discussion should be given to the learners before time, to enable them prepare so that they can participate in the discussion.

**The Implementation of discussion method:** The leader introducing the topic calls for contributions from the debaters or the class. The rapporteur jots down points, and the leader ensures that the main points of the discussion are noted by the rapporteur. Meanwhile the leader emphasizes the positive points. At the end of the discussion there is a summary for the



class to copy. Having taken the summary, the leader evaluates the contributions. In a discussion within a classroom setting, the leader of the adult class jots down the major points. The instructor takes over control of the class where the discussants may be going wrong.

**The Role of the teacher in discussion method:** The instructor or teacher should ensure that he does not do too much talking in a discussion because there is much temptation to do so. When the instructor is the leader, after a learner has made a comment, instead of answering the learner, the instructor shall pause a little to see whether anyone else would like to say something. The instructor should not be afraid if there are pauses or moments of silence in the discussion. Such moment provide time for thinking and allows the less talkative members of the class to speak. He should guide the class so that the purpose of the discussion is accomplished. The leader must constantly evaluate the progress of the discussion. If the discussion seems to be drifting away from the main subject, he must know at what time and how to bring it back to the subject of the discussion. Participants should be given a stipulated time to discuss.

Thus, it is useful to put down major points as they are brought out, and they should be written on the board as a summary. Ochoma (2015) identify the following benefits of the discussion methods:

It promotes interaction, active participation and sharing of ideas amongst the learners, the teacher and the learners, thereby enabling them to learn from one another.

- It helps in building confidence in the participants (i.e the learners). As individual learners participate in the discussion, confidence is built in them and their speaking ability is enhanced.
- As learners express themselves, areas of weaknesses can be diagnosed. Such weaknesses are immediately taken care of.
- As individual learners share their various opinions, learners will come to terms with the fact that there can be no single correct answer to every question. This will help in enlarging their horizon.
- It motivates learners to want to lean the subject matter so that they can contribute to the discussion. This will lead to high achievement rate.
- It can improve teacher-student human relationship and understanding and also student-student relationship.

Ochoma (2015) identify the following disadvantages of the discussion methods:

- The discussion could be monopolized by an individual or group of individual learners, thereby making the other members of the group learn very little.
- In a situation where the requisite or basic knowledge is lacking, this method may not yield the desired benefit as members of the group will not be able to contribute to the discussion. This will amount to waste of time.
- Discussants could deviate from the issue under discussion if the group leader or the teacher as the case may be, does not properly guide the line/order of discussion. If this happens, the essence of the discussion might be defeated.
- There is the tendency of some teachers imposing their own view on the group. This is usually done in a situation whereby the ideas raised are not in consonant with the teacher's views. He thus rejects ideas raised by the learners and imposes his on them.

- It is not good for younger learners. When used for younger learners for instance, pupils in junior classes e.g primary one three. Learning will not take place, at most, little learning might take place. This is because learners under this category do not have the prerequisite knowledge or background to carry on with such discussion, and moreover, they cannot yet think at abstract level.
- It can be time-consuming. A lot of time is needed as individual learners will have to contribute to the discussion.

## **Empirical Review**

In a study where Junior Secondary Students were taught social studies in Nigeria, those taught through cooperative learning approach performed better than their counterparts who were taught through the traditional teaching approach Adeyemi, (2008). Aronson (2002) reports that elementary students taught through Jigsaw cooperative learning approach learnt material faster and performed significantly better on examinations than a control group of students learning the same material through regular teaching methods.

Effandi and Zanaton (2007) further reports that an experimental group of students who were instructed through cooperative learning approach showed significantly higher scores in a mathematics performance test and problem solving skills than a control group that was instructed through the traditional lecture method. Over 500 research studies back the conclusion that cooperative learning produces gains across all content areas, all grade levels, and among all types of students including special needs, high achieving, gifted, urban, rural, and all ethnic and racial groups (Ho et al., 2007).

Adeyemi (2008) conducted a non-randomized quasi-experimental study to investigate the effects of an individual accountability method of cooperative learning, on social studies performance among 150 Nigerian students ages 11-15. The experimental group of students were put into groups of five and presented with instructional packages containing instructions and content to complete a task. The author does not specifically describe the academic content but states that it was related to social studies. The control group was taught via conventional lecture. The treatment lasted four weeks, and students were taught for three periods of 35 minutes each week. The investigator and three research assistants handled all treatment conditions.

## **METHODS**

This research work examined cooperative learning strategy on English Language academic performance among students. To achieve the objectives of this study, this chapter discussed the research design, the population, sample/sampling technique, and the research instruments used for the study. It also described the procedures for data collection and data analysis.

### **Research Design**

The research design adopted quasi-experimental non-randomized control group design. Quasi-experimental design can be used when it is not possible for the researcher to randomly sample the subject and assign them to treatment groups (Borg, 2007). Subjects in this group were pre-tested on the dependent variables (Academic Performance) and then exposed to different treatment levels. In this case the experimental group was exposed to Cooperative learning while the control group was exposed to lecture teaching method. The subjects in both experimental and control groups were thereafter post tested after the application of

different treatment levels. The design also consisted of moderator variables of gender at two levels (male and female).

### **Area of the Study**

The area of the study is Port Harcourt Metropolis. Port Harcourt Metropolis is the capital city of Rivers State, one of the states in South-South, Nigeria. Port Harcourt has witnessed the influx of people into the area due the presence of hydrocarbon industry. Port Harcourt in time past was called the garden city due to its cleanliness and beautiful serene.

The area is part of Obio/Akpor, Port Harcourt City, Oyigbo Local Government Area, Eleme Local Government Area and Ikwerre Local Government Area. There are several educational institutions in the Port Harcourt Metropolis. Three Universities: University of Port Harcourt, Ignatius Ajuru University of Education and Rivers State University are located in the area, thirty-one public secondary schools, private secondary schools and numerous public and private secondary schools which are well populated. The junior secondary schools were used for the study. There are 24,567 students in junior secondary schools in the area. Also, there are one thousand eight hundred and thirty teachers in public secondary schools in the area. The area is well known to the researcher and this form part of the resolve to use this area for the study.

### **Population of the Study**

The target population for this study comprised of all JSS3 English Language students in all public educational system in Junior Secondary Schools in Port Harcourt Metropolis. There were 24,567 students in public Junior Secondary Schools in Port Harcourt Metropolis, Rivers State (UBE, Board, 2017).

### **Sample and Sampling Technique**

Six secondary schools were drawn for the study (two male, two female and two co-educational) through a stratified random sampling technique. In each of the three school types, ie (male, female and co-educational), one school was assigned to the treatment and the other to the control group so that for the six schools, three schools (one male, one female and one co-educational) was assigned to the treatment group while the remaining three schools was assigned to the control groups. This was achieved through a simple toss of coin. In each of the six schools all the intact classes of JSS3 English language class was used for the study. The sample of the study therefore consisted of 120 students (40 male students, 40 female students and 40 students from co-educational schools).

### **Instrument for Data Collection**

The instrument used for this study is English Language Performance Test (ELPT). The ELPT is a 60 multiple type objective test with correction option and four distracters. It has two sections: A and B. Section A sought for personal information of the students with respect to name of student, name of the school, gender (sex) and date of the test. Section B consisted of forty (6) multiple choice items.

The researcher and research assistants taught the groups (A & B) for the period of ten weeks. The researcher taught group A with cooperative learning method (experimental group) and group B with discussion method (control group).

## Validity of the Instrument

The researcher's supervisor and two experts validated the instrument for data collection. One of the expert was a curriculum specialist while the other was an expert in measurement and Evaluation. The experts determined the face validity of the instruments. They vetted the instrument in terms of the appropriateness of the items of the instruments, clarity of language and adequacy of the number of items. All their corrections and comments were incorporated into the final form of the instruments.

## Reliability of the Instruments

The ELPT of 40 items was first administered to 40 students and the scores were collected, recorded and kept. After two weeks' interval, the same ELPT in a different paper colour and rearrangement of items were administered to the same students and their scores were collated, recorded and kept. Thereafter the two separate set of scores were correlated using Pearson Product Moment Correlation (PPMC) in a test re-test method to ascertain the reliability coefficient of the instrument, ELPT.

## Method of Data Analysis

Research questions were answered using mean scores while hypotheses were tested using Analysis of Covariance (ANCOVA) using pretest scores as covariates at 0.05 as covariate to test the stated hypotheses at .05 alpha levels. ANCOVA was used because it allows data obtained from an experimental study involving intact groups to be tested when the researcher is not sure that the intact groups are homogenous in their academic performance.

## PRESENTATION AND ANALYSIS OF DATA

This section presented the data generated from the study. The data was generated from the 180 Junior Secondary School Students. The data was generated through the use of cooperative teaching and students' performance in the English Language Performance Test. The presentation and analysis of data was based on the research questions and null hypotheses earlier stated in the study.

### Research Question One

What is the influence of cooperative learning on students' performance in English Language?

Table 1: Mean and SD of Students Performance in English Language by the Experimental and Control Group.

Group	n	Pre-test			Post-test	
		$\bar{x}$	SD	$\bar{x}$	SD	
Experimental	60	46.13	3.14	62.16	3.34	
Control	60	43.59	5.18	44.93	3.86	

Data in Table 1 indicated the sample size of both the experimental and control group (20 each in the male, female and co-educational schools), the mean performance in English Language of the experimental and control group and the standard deviation in the pre-test and post-test. The mean pre-test score for experimental group is 46.13 while the standard deviation is 3.14.

Also, the mean pre-test score of the control group is 43.59 while the standard deviation (SD) is 5.18. On the other hand, the mean post-test score for the experimental group is 62.16 with a standard deviation of 3.34. In addition, the mean post-test score of the control group is 44.93 with a standard deviation of 3.86. The post-test mean scores of students' English Language performance for the experimental group taught by the cooperative teaching method ( $\bar{x} = 62.16$ ,  $SD = 3.34$ ) while that of the control group taught with discussion method are ( $\bar{x} = 44.93$ ;  $SD = 3.86$ ). Data in Table 1 shows that the mean post-test performance score ( $\bar{x} = 62.16$ ) of the experimental group is greater than the mean post-test performance score of the control group ( $\bar{x} = 44.93$ ). The difference in the mean post-test score of the experimental and control group is attributed to the treatment (cooperative learning). The finding of this research question show that cooperative learning positively affects students' performance in English language.

### Research Question Two

What is the influence of cooperative learning method on students' performance in English Language between experimental and control group boys' schools?

Table 2: Mean and standard deviation (SD) of experimental and control group in English Language among male students

Group	n	Pre-test		Post-test	
		$\bar{x}$	SD	$\bar{x}$	SD
Experimental	20	36.81	3.42	58.06	3.84
Control	20	35.96	3.86	38.64	4.68

Data in Table 2 shows the sample size of both experimental and control group. Data in Table 2 shows that the mean performance scores of male students (Boys schools) in the experimental and control groups in the pre-test are ( $\bar{x} = 36.81$  and  $\bar{x} = 35.86$ ) while the standard deviation are ( $SD = 3.42$  and  $SD = 3.86$ ) respectively. Also, the mean performance scores of male students (Boys schools) in the experimental and control groups in the post-test are ( $\bar{x} = 58.06$  and  $\bar{x} = 38.64$ ) while the standard deviation of the post-test are ( $SD = 3.84$  and  $SD = 4.18$ ) respectively. Data in Table 3 shows that the mean performance score ( $\bar{x} = 58.06$ ) of the experimental group is greater than the mean post-test performance score of the control group ( $\bar{x} = 38.64$ ). The difference in the mean post-test scores of the experimental and control group is attributed to the treatment (cooperative learning). The standard deviation (SD) is a measure of the spread of male students' score in the experimental and control group.

### Hypothesis One

There is no significant difference of the mean performance scores of students in English Language when taught with cooperative learning and those taught with discussion method.

Table 3: ANCOVA summary table of the experimental group and control group

Sources of Variation	Covariate Sum of Squares	Dependent Variables	SPxy	ASSY'	Adf	ASm	F	Remark
Between	1850.8	896.93	1282.4	229.21	2	114.61	40.49	Significant
Within	293.6	418.40	237.6	158.67	56	2.83		
<b>Total</b>	<b>2144.4</b>	<b>1315.33</b>	<b>1520</b>	<b>337.88</b>	<b>58</b>			

Data in Table 3 revealed that the calculated F ratio is 40.49 while the critical F ratio is 3.15 at 0.05 level of significance. Since the calculated F ratio (40.49) is greater than the critical F ratio (3.13) at 0.05 level of significance, the null hypothesis is rejected while the alternate hypothesis is accepted. The finding of this null hypothesis is that the teaching methods differ significantly in influencing students' performance in English Language.

### Hypothesis Two

There is no significant difference on the mean performance score of male secondary school students' post-test scores in English Language taught with cooperative learning and those taught with discussion method.

Table 4: Independent-sample t-test analysis of mean difference in the post-test scores of experimental and control groups.

Group	n	$\bar{X}$	SD	Df	Cal-t	Sig(2-tailed)	Level of significance
Experimental	20	58.06	3.84				
Control	20	38.64	4.18	38	15.291	0.00	0.05

Data in Table 4 indicates that independent sample t-test was used in testing this null hypothesis. The post-test mean scores of male students sampled for the study in the experimental group taught with the cooperative learning was ( $\bar{x} = 58.06$ ;  $SD = 3.84$ ) and that of the control group taught with discussion method was ( $\bar{x} = 38.64$ ;  $SD = 4.18$ ). Data in Table 7 shows that the mean for the experimental group ( $\bar{x} = 58.06$ ) was greater than that for the control group ( $\bar{x} = 38.64$ ). The difference between these two post-test mean scores was significant  $t(38) = 15.291$ ,  $p < 0.05$  in favour of the experimental group which revealed that the performance of experimental group was significantly better than the control group. As such, cooperative learning positively affects students' performance in English Language.

## DISCUSSION

The findings of research question one (Table 1) shows that cooperative learning positively affects students' performance in English Language in Port Harcourt Metropolis. The mean of post-test performance score of the experimental group is greater than the mean post-test performance score of the control group. This finding shows that cooperative learning is useful as it enables the learners to be faster as they work in group. When the finding was subjected to Analysis of Covariance (Table 3), the finding of the null hypothesis is that the teaching methods differ significantly in influencing students' performance in English Language. This finding is in agreement with Effandi and Zanaton (2007) that the students who were instructed through cooperative learning approach showed significantly higher scores in a Mathematics Performance Test and problems solving skills than a control group that was instructed through the traditional lecture method.

The findings of research question two (Table 2) shows that cooperative learning positively affects the performance of male students (boys' schools) in English Language in Port Harcourt Metropolis. The mean of post-test performance score of the experimental group among male students (Boys' schools) is greater than the mean post-test performance score of the control group.

## **CONCLUSION**

Significant differences in students' academic performance in English Language were found between experimental and control groups. It was found that students' academic performance in English Language was affected by exposure to the cooperative learning. Students seem to prefer learning English Language by sharing knowledge. They feel contented when they can function effectively in the group work. Based on the findings of the study, the researcher concludes as follows;

Cooperative learning enhances and affects positively the academic performance of junior secondary school three students in Port Harcourt Local Government Area.

Cooperative learning positively affects the academic performance of male junior secondary school three (JSS3) students in Port Harcourt Local Government Area.

Cooperative learning positively affects the academic performance of female junior secondary school three (JSS3) students in Port Harcourt Local Government Area.

## **Recommendations**

Based on the findings of the study, the researcher recommends as follows:

- Principals and schools Board should organize seminars, workshop and talkshop for teachers on cooperative learning method.
- On the job training on the use of cooperative learning method should be regularly given to teachers.
- Teachers should enroll for in-service-training programmes to enable them upgrade the capacity on the use of cooperative learning method.
- The employment of teachers should not be politicized to ensure that teachers with the requisite knowledge and skills in the utilization of various methods of teaching are employed.
- The inspection and supervision of teachers should be strengthened so that teachers will apply the right teaching methods in their teaching.

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