EFFECTS OF TWO MODELS OF COOPERATIVE LEARNING ON READING COMPREHENSION AND VOCABULARY DEVELOPMENT AMONG SECONDARY SCHOOL STUDENTS IN EKITI STATE

Babalola J. O. Ph. D. & Ojo R. O.
Department of Arts and Language Education,
Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria.

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ABSTRACT
This study investigated the effects of two models of cooperative learning on reading comprehension and vocabulary development among secondary school students in Ekiti State. The research also determined the probable best strategy out of Cooperative Integrated Reading and Composition (CIRC), Student Team-Achievement Division (STAD) and conventional strategies in reading comprehension and vocabulary development. The target population for the study are all the 21,028 Senior Secondary School (SSS) two students in public secondary schools in Ekiti State. The sample of the study was 120 S.S.S. 2 students drawn from six secondary schools in Ekiti State using multi-stage sampling technique. Quasi experimental design was adopted for the study. Reading Comprehension and Vocabulary Achievement Test (RCVAT) was used to collect data. The data collected in this study were subjected to ANOVA, ANCOVA, Post-hoc and Multiple Classification analyses at α = 0.05 level of significance. The findings revealed that STAD strategy was the most effective strategy, followed by CIRC strategy. Based on the findings, it was recommended that English teachers should adopt STAD and CIRC strategies as effective learning models in order to improve students' performance in reading comprehension and vocabulary development.

KEYWORDS: Models, Cooperative Learning, Academic Performance, Reading Comprehension, Vocabulary Development.

Introduction
English is an important language since it serves as language of wider communication in multilingual society. It is taught in all schools from the lowest level to the highest level of education in the country. It is an undisputed fact that teaching a language is a multidimensional task which requires different pragmatic methods and techniques compared with teaching other subjects. One makes an effort to develop and integrate the four basic language skills which are listening, speaking, reading and writing in order to study a language either as a first or second language. However, it is demanding to teach all these skills at once especially when it comes to the pedagogy of foreign language proficiency. This is why reading comprehension and vocabulary development are the basis of learning a foreign language.

Reading is one of the important media for obtaining and encouraging knowledge at all levels of education. Reading is a language competence that aims at enabling the acquisition and development of literacy skills needed for active communication in different contexts. Vocabulary is significant to language and is of great significance to language learners. Words are the structure blocks of a language since they label objects, actions, ideas without which people cannot convey the proposed meaning. Most language teachers and language learners are convinced of the place of vocabulary knowledge in various pedagogical tasks and know that learning English involves acquiring and remembering a large number of words.

The reading ability and vocabulary development of secondary school students keeps falling as this is evident in poor performance of students in Senior School Certificate Examination (SSCE) in English language. The performance of students in 2015 SSCE in English language as announced by West African Examination Council testified to this claim. However, a lot of reasons has been proffered to this downward trend. These include poor teaching methods, lack of qualified teachers, lack of necessary facilities and textbooks, poor communication skills and insufficient knowledge of certain vocabulary (Panitz, 2006). There is therefore the need to investigate this language problem from student-centred perspectives; perhaps cooperative learning as a teaching-learning strategy could increase learning effectiveness and provide learners with the reading skills and vocabulary development.

Cooperative learning (CL) as one of the strategies of effective learning might serve as a suitable and promising strategy that could increase learning efficacy and provide students with the expertise of collaborating, cooperating, sharing and socializing. Cooperative learning may be defined as any classroom learning condition in which students of all levels of performance work together in well-arranged groups toward a share of common goal. Cooperative learning demands that students work together to realise goals which they could not perform independently.
Cooperative learning is a method that employs different learning activities to increase student's understanding of a subject by using a structured approach that involves a series of steps, requiring students to create, analyze and apply concepts (Kagan, 2000). Each member of a team is accountable not only for learning what is taught but also for assisting teammates learn, thus producing environment of achievement. Students work until each group member successfully understands and completes the assignment, thus creating an "atmosphere of achievement" (Panitz, 2006).

Among the reasons for improved academic achievement is that students who are learning cooperatively are more likely to participate in the learning process (Lord, 2001). Gupta & Pasrija (2011) revealed Cooperative Learning as an efficient method to convert students into active learners in classrooms and it makes teaching–learning more satisfying, meaningful, pleasurable and effective. In the field of language, cooperative learning values the interactive view of language, which is known as developed combination of structural and functional views of language. It considers knowledge of suitable use of language and the ability to structure dialogue interactions.

Based on the studies of Maddinabeita (2006), ten cooperative learning models can be summarized as follows: 1) Teams-Games-Tournaments (TGT), 2) Group Investigation, 3) Jigsaw, 4) Team-Assisted individualization, 5) Cooperative Integrated Reading and Composition, 6) Cooperative Learning and Teaching Scripts, 7) Cooperative Learning Structures, 8) Student Teams-Achievement Divisions, 9) Learning Together, and 10) Complex Instruction. Of these, Cooperative Integrated Reading and Composition (CIRC) and Student Teams-Achievement Divisions (STAD) are of particular concern because they are the two models considered in this study.

CIRC is an all-inclusive method of instruction in reading, composition, and spelling for secondary school students. In CIRC Reading, students are taught in reading groups and then return to mixed ability teams to work on a succession of cooperative activities, including partner reading, making guesses, identification of characters, settings, problems and clarifications, summarization, vocabulary, spelling and reading comprehension exercises.

Cooperative Integrated Reading and Composition (CIRC) was developed by Stevens, Madden, Slavin and Farnish in 1987. In this method, different groups work with various reading levels, reading to each other, predicting, practicing spelling and vocabulary. CIRC is a school-based program that aims at reading, writing, and language arts. The three principle package elements are direct instruction in reading comprehension, story-related activities, and integrated language arts/writing instruction. Each student works with another student. These learning teams work cooperatively on program-related activities (Madden, 2004).

Internal structure of CIRC procedure consists of elements such as knowing individuals well, establishing proper groups, using materials suitable for the contents in a proper and orderly manner, supporting groups, encouraging cooperation, group and individual assessment. The teacher is the key actor who realises, controls and supports these phases. The teacher's understanding and knowledge are vital for achieving success in these activities. Skilful performance of reading (silent and oral) comprehension activities as well as vocabulary learning via worksheets organized as per the principles of CIRC technique is proportional to the teacher's guidance and close cooperation (Stevens and Slavin, 2000).

Student Teams-Achievement Divisions (STAD) was developed by researchers at Johns Hopkins University in 1994. In this process, students learn unfamiliar materials in teams but take separate tests weekly to guarantee individual accountability. After the teacher teaches a lesson, students work in teams to make sure that everyone has understood the new material. All students take quizzes, and the scores are matched to their previous test scores.

In STAD, students work in small heterogeneous groups (of five to six members) and help one another to understand the given material. Individual quizzes are given at the end of the week and the best group is rewarded on the basis of individual improvement. The reward is given in diverse forms; their names may be written on the notice board or they may be given certificates at the end of every week. Due to its straightforwardness and practicability, STAD has been the choice of a number of researchers from different fields.

Statement of the Problem

It was noticed by the researcher as an expert in teaching and learning English that Ekiti State secondary school students were somehow weak in reading skills and vocabulary development. This study was as a result of the researcher's notice of the results of students in such area and classroom feedback when teaching students English language in schools. This might be because teachers of English use only conventional methods in teaching language skills (teacher-centred strategy). So, this study is an attempt to
overcome this problem by applying two different models of cooperative learning strategy in teaching reading skill and vocabulary development which depends on students in class more than teachers (learner-centred).

**Purpose of the Study**

The purpose of the study was to investigate the effect of two models of cooperative learning on reading comprehension and vocabulary development among secondary school students in Ekiti State. Specifically, the research determined the difference in the pre-test and post-test mean score of students exposed to CIRC, STAD and conventional strategies of teaching reading comprehension and vocabulary development. The research also determined the probable best strategy out of CIRC, STAD and conventional strategies in reading comprehension and vocabulary development.

**Research Questions**

1. Will there be difference in the pre-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies?
2. Will there be difference in the post - test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies?
3. Will there be difference in the pre-test and post-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies?

**Research Hypotheses**

1. There is no significant difference in the pre-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies.
2. There is no significant difference in the post - test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies.
3. There is no significant difference in the pre-test and post-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies.

**Literature Review**

Cooperative Learning is a part of a group of teaching/learning techniques where students interact with one another to acquire and practice the elements of a subject matter and to meet common learning goals. It is much more than just putting students into groups and hoping for the best (Macpherson, 2007). Panitz (2006) also defines it as a set of processes which help people relate together in order to achieve a specific goal or develop an end product which is usually content specific. It is a learner-centred more than it is teacher centred.

Bolukbas (2011) defines cooperative learning as a process through which students with various abilities, gender, nationalities and different levels of social skills carry out their learning process by working in small groups and helping each other. Wichadee (2012) defined Cooperative learning as one strategy for group instruction which is under the learner centred approach. According to Johnson (2000) cooperative learning is the instructional use of small groups so that students work together to maximize their one another's language learning potentials.

Cooperative learning is one of the most significant strategies of teaching, which seeks to promote cooperation and interaction between students and remove the negative trend of competition among them (Slavin, 2000). At present, there are many cooperative learning techniques and structures available. These methods and structures can be categorized into the following models: (a) Student Teams Achievement Divisions (STADs), (b) Teams-Games-Tournaments (TGTs), (c) Learning Together (LT), (d) Jigsaw Technique (JT), (e) Group Investigation (GI), (f) Team Accelerated Instruction (TAI) and (g) Cooperative Integrated Reading and Composition (CIRC) (Slavin, 2000; Eliks, 2005; Doymus, 2008a). The idea which lies beneath all cooperative learning methods is that students work together to learn and are responsible for one another’s learning as well as their own (Slavin, 2000).

CIRC is a broad approach to instruction in reading, composition and spelling. In CIRC, reading, students are taught in reading groups and then return to mixed ability teams to work on a series of cooperative activities, including partner reading, making predictions, identification of characters, settings, problems and solutions, summarization, vocabulary, spelling and reading comprehension exercises. CIRC provides a structure to help teachers and students succeed in helping all students become effective reader.

Student Teams–achievement Divisions (STAD) was developed by Robert Slavin and his colleagues at the John Hopkins University. STAD has been used in such diverse subjects areas as Maths, Language arts,
Social Studies, and Science. In STAD, students are sorted to four or five member learning teams that are mixed in performance level, gender, and ethnicity. STAD has five major components. These are class presentation, team study, quizzes, individual improving scores, and team recognition (Slavin, 1995). The teaching phase begins with the presentation of materials, usually in a lecture-discussion format. Students should be told what they are going to learn and why it is important. During team study, group members work cooperatively with provided worksheets and answer sheets.

Next, each student individually takes a quiz. Using a scoring system that may range from 0 to 100 points and reflects degree of individual improvement over previous quiz scores, the teacher scores the papers. Each team receives one of three recognition awards, depending on the average number of points earned by the team. For example, teams that has the average score of 50 to 64 improvement points receive a GOOD TEAM certificate. Teams that has the average score of 65 to 79 improvement points receive a GREAT TEAM certificate, and teams that has the average score of 80 to 100 improvement points receive a SUPER TEAM certificate.

The STAD method is most appropriate for teaching well-defined objectives with single right answers, such as Mathematical computations and applications, language usage and mechanics, geography and map skills, and science facts and concepts. However, it can easily be adapted for use with less well-defined objectives by incorporating more open-ended assessments, such as essays or performances (Shaaban & Ghaith, 2005).

Several studies have investigated the effects of CIRC and STAD on English learning. Thupapong (2006) studies the effects of Students Teams–Achievement Division (STAD) learning on English reading achievement and vocabulary development. The respondents were divided into two groups—the experimental group taught by the STAD approach and the control group taught by the teacher's manual for six weeks. The instruments used in this study were reading achievement tests and vocabulary tests. The results revealed that the gained English reading achievement scores of the students taught by the STAD approach were significantly different from those of the students taught by the teacher's manual approach at the level of .05. The gained scores of the high, medium, and low achievers taught by the STAD teaching approach were significantly different from one another, also at the level of .05.

Chen (2007) examines and compares English achievement of junior college students through CIRC, STAD techniques and the traditional whole class method. The results showed that students in CIRC and STAD groups achieved significantly better results on the overall test than traditional method. Chen states that the achievement gains under cooperative learning are attributed to the methods' reward structures and carefully structured interaction.

Sittilert (2004) examines the effects of Cooperative Integrated Reading and Composition (CIRC) on English reading comprehension and the opinions towards classroom atmosphere. The students were divided into two groups – an experimental group and a control group. The researcher taught the experimental group by using the CIRC method and the control group was taught through the teacher's manual method for eight weeks. The researcher used a reading achievement test and a questionnaire asking students' opinion towards classroom atmosphere. The results showed that the English reading comprehension achievement of the experimental group was higher than the control group. The Cooperative Integrated Reading and Composition (CIRC) helped low achievement students improve their ability and the opinions towards classroom atmosphere were positive.

From these studies, it is clearly understood that the more students work in cooperative learning groups, the better they will learn, the easier the retention of the material will be, and the better they will feel about themselves, the class, and their classmates. Hence, this research determined the effects of CIRC and STAD on reading comprehension and vocabulary development among secondary school students in Ekiti State.

**METHODOLOGY**

**Research Design**

This study adopted quasi – experimental pre-test and post-test three group design (two experimental groups and one control group). The homogeneity of students that were used for the study was established by pre-test while post-test after the treatment was used to measure learning outcomes. The pattern of the design is as shown below.

\[
\begin{align*}
O_1 & \times O_2: & \text{Experimental group 1 (CIRC)} \\
O_3 & \times O_4: & \text{Experimental group 2 (STAD)} \\
O_5 & \times O_6: & \text{Control group (Conventional)}
\end{align*}
\]

Where

**Research Paper**
The study consisted of independent variable at 3 levels which are as follows: CIRC, STAD and conventional teaching. The dependent variable is the learning outcome which is the students’ performance in reading comprehension and vocabulary development.

Population and Sample

The targeted population for the study are all the 21028 Senior Secondary School (S.S.S.) two students in public secondary schools in Ekiti State (Source: Ekiti State Teaching Service Commission).

The sample consisted of 120 students drawn from six public secondary schools in Ekiti State. The sample was selected using multistage sampling technique. In stage one, one Senatorial district was randomly selected from the three senatorial districts in Ekiti by balloting. In stage two, two Local Governments were randomly selected from the senatorial district earlier selected. In stage three, three public secondary schools were randomly selected from each of the two local governments chosen for the study. In stage four, 20 students were selected from each of the six schools using stratified random sampling technique. Purposive Sampling technique was used to group the schools into different experimental and control groups.

Instrumentation

Reading Comprehension and Vocabulary Achievement Test (RCVAT) was used to collect relevant data for this study. RCVAT was self-designed by the researcher. It consisted of section A and B, section A consisted of bio-data of the respondents which include the name of the school, identification number and sex. Section B consisted of 40 items test with four options made. The items covered all the topics taught for 4 weeks.

Validation of the Instrument

Reading Comprehension and Vocabulary Achievement Test (RCVAT) was given to experts of Test and Measurement and 2 experienced Senior Secondary School English language teachers. The face and content validity was assured by these professionals to assess the wordings and ambiguity of the test items as well as their coverage. A 60 item pool was created for RCVAT. The pool was composed of standardised examination questions from previous years. After the first draft of the 60 item achievement test was analyzed by experienced English teachers, 20 questions were eliminated by also taking into consideration the subject-related questions.

Test-retest method was used to ascertain the reliability of RCVAT. It was carried out by administering it on 15 students in two schools outside the study area. After a period of two weeks, the instrument was re-administered on the same respondents. Pearson Product Moment Correlation was used to analyze the scores and a reliability co-efficient of 0.83 was obtained.

Experimental Procedure

To carry out the research in the schools, the researcher obtained permission from the authorities of the six schools. The experimental procedures are as follows:

1. Pre-test was conducted on the first day of the first week of implementation. Students in the two experimental groups were informed of the group works required by CIRC and STAD technique. The research assistants explained how the groups would be established, duties would be assigned and the activities would be carried out. Taking into consideration various student characteristics such as sex, achievement, interest, skills, age and culture.

2. On the second day of implementation, preparatory works was carried out in relations to the subject and cooperative learning before actual initiation of CIRC and STAD models. In the scope of the preparatory works, techniques such as questions-answers and brain-storming were adopted and group work activities (such as discussion, deciding on the name of the group, etc.) were carried out.

3. From the third day of the first week, actual teaching started with the different strategies. The researcher assistants checked the group readings in terms of sound articulation, stress application, vocabulary development, intonation manipulation, spelling and punctuation. The students were asked to make corrections whenever required. This process is aimed to develop students’ reading comprehension skills and vocabulary development.

4. In the fourth week of implementation; the research assistant entered the performance exerted by groups in the previous activities on each group’s scoreboard and the most successful group was
awarded prize in the class. Post-test was conducted on the last day of the fourth week of the implementation.

5. Pre-test was conducted for the conventional group in the first week, normal classroom teaching on reading comprehension and vocabulary development took place for four weeks while post - test was conducted on the last day of the fourth week.

RESULTS

The data generated from the instrument were analyzed using inferential statistics. The three hypotheses were tested using Analysis of Variance (ANOVA) and Analysis of Covariance (ANCOVA) at 0.05 level of significance. The results are shown below:

**Hypothesis 1:** There is no significant difference in the pre-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies.

**Table 1:** ANOVA of students pre-test mean scores in reading comprehension and vocabulary development using the three methods

<table>
<thead>
<tr>
<th>Variations</th>
<th>SS</th>
<th>df</th>
<th>Mean Square</th>
<th>F-cal</th>
<th>F-tab</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>13.918</td>
<td>2</td>
<td>6.959</td>
<td>.924</td>
<td>3.07</td>
<td>.172</td>
</tr>
<tr>
<td>Within Groups</td>
<td>881.004</td>
<td>117</td>
<td>7.530</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1618.992</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P < 0.05

Table 1 showed that the F-cal value of 0.924 is less than F-tab value of 3.07 at 0.05 level of significance. The null hypothesis is accepted, showing that there is no significant difference in the pre - test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies. It further indicated that the three groups were homogenous at the commencement of the study.

**Hypothesis 2:** There is no significant difference in the post-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies.

**Table 2:** ANOVA of Students post-test Mean Scores in reading comprehension and vocabulary development using the three methods

<table>
<thead>
<tr>
<th>Variations</th>
<th>SS</th>
<th>df</th>
<th>Mean Square</th>
<th>F-cal</th>
<th>F-tab</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>488.112</td>
<td>2</td>
<td>244.056</td>
<td>24.123</td>
<td>3.07</td>
<td>000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1183.689</td>
<td>117</td>
<td>10.117</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1618.992</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P< 0.05

The result presented in table 2 showed that the F-cal value of 24.123 is greater than F-tab value of 3.07 at 0.05 level of significance, the null hypothesis is therefore rejected. Hence, there is significant difference in the post-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies. In order to investigate the source of the differences observed, Post – hoc analysis (Scheffe) with mean difference was carried out.

**Table 3:** Scheffe Post – hoc test and mean for observed difference in students’ performance in the groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>CIRC</th>
<th>STAD</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRC</td>
<td>30.11</td>
<td>30.11</td>
<td>34.56</td>
<td>22.18</td>
</tr>
<tr>
<td>STAD</td>
<td>34.56</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Conventional</td>
<td>22.18</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

* P < 0.05

In table 3, a significant difference was found between CIRC and STAD in favour of STAD. Also there was significant difference between CIRC and conventional in favour of CIRC. There was difference between STAD and conventional in favour of STAD. The result of post – hoc test also showed that students exposed to STAD performed best. They performed significantly better than their counterparts in other two groups. Also, those exposed to CIRC performed better than those in conventional strategy, which indicate that the conventional strategy group recorded the least performance.

**Hypothesis 3:** There is no significant difference in the pre-test and post-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies.
The result presented in table 4 shows that there is a significant difference in the pre – test and post – test mean scores of students in the groups (CIRC, STAD and conventional) as P= 0.003<0.01<0.05. There is a strong evidence to reject the null hypothesis which states that there is no significant difference in the pre-test and post-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies. This result led to the rejection of the null hypothesis. By implication, there was significant difference in the pre-test and post-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies. In order to find out the most probable effective strategy, Multiple Classification Analysis (MCA) was carried out. The result is shown in Table 5.

Table 5: Multiple Classification Analysis (MCA) of students’ performance in reading comprehension and vocabulary development by treatment

<table>
<thead>
<tr>
<th>Variable + Category</th>
<th>N</th>
<th>Unadjusted Dev’n</th>
<th>Eta²</th>
<th>Adjusted for Independent + Covariate</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental (CIRC)</td>
<td>40</td>
<td>0.58</td>
<td>.86</td>
<td>0.60</td>
<td>.07</td>
</tr>
<tr>
<td>Experimental (STAD)</td>
<td>40</td>
<td>2.81</td>
<td></td>
<td>2.88</td>
<td></td>
</tr>
<tr>
<td>Conventional</td>
<td>40</td>
<td>-3.39</td>
<td></td>
<td>-3.31</td>
<td></td>
</tr>
<tr>
<td>Multiple R</td>
<td></td>
<td></td>
<td></td>
<td>.098</td>
<td></td>
</tr>
<tr>
<td>Multiple R²</td>
<td></td>
<td></td>
<td></td>
<td>.009</td>
<td></td>
</tr>
</tbody>
</table>

The result in Table 5 shows the Multiple Classification Analysis (MCA) of students’ performance in reading comprehension and vocabulary development by treatment. It reveals that, with a grand mean of 28.95, students exposed to STAD had highest adjusted mean score of 31.83(28.95+2.88) than their counterparts in CIRC and conventional with CIRC having 29.55(28.95+0.60) and conventional 25.64(28.95+(-3.31)). This means that STAD strategy was the most effective strategy of teaching reading comprehension and vocabulary development in Ekiti State, Nigeria. Followed by CIRC strategy and the least was conventional strategy. The treatment explained about 86% (Eta² = 0.86) of the observed variance in students’ performance in reading comprehension and vocabulary development.

Discussion

Findings from table 1 revealed that there was no significant difference in the pre-test mean scores of students taught reading comprehension and vocabulary development using CIRC, STAD and conventional teaching strategies. It implies that the students in the three groups are homogeneous at the beginning of this study.

Findings from Table 2 revealed that a significant difference exists in the post – test mean scores of students in reading comprehension and vocabulary development among the three groups (CIRC, STAD and conventional method). This is evident from the fact that students' performance varies from CIRC, STAD and conventional method. Table 3 further revealed a significant difference between CIRC and STAD in favour of STAD; CIRC and conventional in favour of CIRC; and between STAD and conventional method in favour of STAD. The findings showed that students in the STAD group performed better than those in CIRC and conventional methods while students in CIRC group performed better than their counterparts in the conventional method. This agrees with Seweje (2010) that good teaching strategies have the potent to improve cognition of students.

Table 4 revealed a significant difference in the pre-test and post-test scores of students in reading comprehension and vocabulary development among the groups while table 5 revealed that STAD is the most effective strategy. This result agrees with Bolukbas (2011), Chen (2007) and Thupapong (2006) submission that STAD strategy is a very effective strategy that positively affects students’ performance in reading comprehension and vocabulary development.
Conclusion

It can be concluded from the findings of this study are as follows:

- The students in the three groups are homogeneous at the beginning of this study.
- The three strategies (CIRC, STAD and conventional) are effective methods of teaching reading comprehension and vocabulary development.
- STAD strategy is the most effective strategy, followed by CIRC strategy and conventional strategy had the least contribution.
- The three strategies (CIRC, STAD and conventional) have impact on the academic performance of students in reading comprehension and vocabulary development.
- The students exposed to reading comprehension and vocabulary development through STAD strategy performed best followed by CIRC and conventional strategies respectively.

Recommendations

Based on the above findings, it is hereby recommended that English teachers should adopt STAD and CIRC strategy as an effective learning strategy in order to improve student’s performance in reading comprehension and vocabulary development. Teachers should be given adequate orientation through conference and seminars to update their knowledge in the use of CIRC and STAD strategies in teaching. It is quite evident through the outcome of this research that students centred approach coordinated by qualified teachers enhances the best language learning. Therefore, the students should be allowed to operate freely in a natural team atmosphere in order to develop the right language behaviour so that accelerated language learning can be promoted.

REFERENCES