IMPACT OF COOPERATIVE LEARNING ON ENGLISH LANGUAGE ACHIEVEMENT AMONG SENIOR SECONDARY SCHOOL STUDENTS IN DELTA STATE, NIGERIA: IMPLICATION FOR COUNSELLING

Asuai Nelson Chukwuyenum, Azukaego Eluemuno Nwankwo, U. Toochi
Dept of Educational Foundations,
University of Lagos, Nigeria.

Corresponding Author: Asuai Nelson Chukwuyenum

Abstract
The study examined the impact of Cooperative learning on English Language Achievement among Senior Secondary School Students in Delta state. Cooperative learning is an instructional program in which students work in small groups to help one another master academic content. The information gathered by the study would assist curriculum experts to review the educational curriculum with the aim of integrating cooperative learning strategies in the school curriculum. Quasi-experimental design was adopted for the study. Multi-stage sampling techniques were applied to generate a sample of 150 students for the study. English Achievement Tests was used for the study. Two hypotheses were formulated for the study and tested at 0.05 level of significance using Analysis of covariance. The study revealed that the participants exposed to Cooperative learning strategies performed significantly higher in English Language than their control group counterparts. The study also revealed that there is no significant interaction effect between gender and the experimental groups. It therefore recommended that in teaching English Language in secondary schools, Cooperative learning strategies should be given emphasis in the curriculum of teachers education so as to improve students’ achievement in English language.

Keywords: cooperative learning, motivational model, cognitive model, English language and gender

INTRODUCTION
The importance of English Language acquisition for proficiency in all school subjects cannot be overemphasized because there is hardly any school subject that the instructions are not written in English Language in Nigerian schools. The importance of this subject may have led the Nigerian Government to make it a compulsory subject in basic education and senior secondary schools as well as a prerequisite for admission into tertiary institutions. Students read, write and express themselves in the any given tasks through the use of English Language. English language involves four skills: speaking, listening, reading, and writing. In Nigeria, English language is one of the core subjects taught at all levels but students seem to shy away from the subject for many reasons, some of which could be phobia, teachers’ attitude towards the teaching of English and students’ negative attitude from the assumption that English language is generally a difficult subject to study. This negative attitude could be reduced if students work together and learn from one another. Cooperative learning is one of the teaching and learning strategies that promotes student-student interaction via working in small groups to maximize their learning and improve performance in any teaching subjects. It is considered suitable to be used in the Thai education system due to the National Education Act (1999) which emphasized cooperation in helping each other to acquire knowledge. (Scaglion, 1992)

STATEMENT OF PROBLEM
In Nigeria, especially at the senior secondary school level, the time allocated to study English is limited to only 6 periods per week which may not be enough to comprehend the rudiments of learning English language. In most cases, it appears that, teachers seem to teach academic content, without teaching strategies to learn them and students, who do not have sufficient working knowledge, usually encounter challenges in tackling English Language problems. As a result, students seem to have little knowledge of how they can best study and learn the subject. Some of the students have problem in mastering the content that teachers teach. Consequently, they do not learn successfully, which may affect their learning outcome. This also led to under achievement in English language in public examinations (Kolawole & Dele, 2002.). There is a gap in research on how to use cooperative learning strategies to enhance reading and comprehension skills to improve performance in English language among secondary school students. It is therefore necessary to use cooperative learning strategies as intervention programmes to address the issues of improving performance in English language.

PURPOSE OF THE STUDY
Specifically, the purpose aimed at:
1. Examine whether there is any significant effect of experimental conditions on post-test scores of English language Achievement test among participants in the two groups.
2. Investigate if there is any interaction effect of English Language achievement test among participants in the experimental groups due to gender.
HYPOTHESES
The following research hypotheses will be tested:
1. There is no significant effect of experimental conditions on post-test scores of English Achievement test among participants in the two groups.
2. There is no significant interaction effect of experimental conditions on post-test scores of English Achievement test among participants in the two experimental groups due to gender.

SIGNIFICANCE OF THE STUDY
Policy makers and curriculum experts in the educational sector would benefit from the study because it will help them review the present educational policy and curriculum with the aim of introducing cooperative learning to improve learning abilities in English Language. The information gathered through this study would help teachers, students, educational psychologists, evaluation experts, institutions, and researchers in education have a better understanding of cooperative learning techniques in teaching English Language, which would help in reducing failure rate in English Language among students.

LIMITATION OF THE STUDY
The study was limited to public senior secondary school two (SS2) students in Kwale educational zone randomly selected from Delta State. The variables considered were English Language academic achievement, Gender and Cooperatives learning strategies.

Working in groups, therefore, is believed to help students develop their skills and competencies in English language which in turn promote communication and trade in the country because people might find it very easy to communicate and do business. Normally, most classes in the world always consist of good students and weak students. The weaker students sit in isolation as they lose confidence in their ability to learn English while the good students interact with their peers. It appears that majority of the students who are weak or shy hardly speak in a large class and they are more comfortable speaking out in smaller groups. The coming together to address a problem in English language helps in complementing each other’s strengths and weaknesses in English language. This is because each student has a different background and ability in English language, which he or she can bring to the group. For example, one student might have a strong vocabulary that can supply to students with a solid background in grammar. Furthermore, poor students will benefit from interaction with better ones and good students will feel proud that they play an important role in helping their weaker classmates. Cooperative Learning seemed to attract a lot of attention and became popular. This conceptual approach is based on a theoretical framework that provides general principles on how to structure cooperative learning activities in a teacher’s specific subject area, curriculum, students, and setting. Teachers can use this approach to stimulate students to acquire the knowledge as well as create interpersonal and team skills. This type of learning approach decreases competitiveness and individualism but increases opportunities to actively construct or transform the knowledge among students. Furthermore, considerable research demonstrates that cooperative learning produces higher achievement and more positive relationships among students. Cooperative learning is an instructional program in which students work in small groups to help one another master academic content (Slavin, 1995). It also involves students working together in pairs or groups, and they share information together in order to achieve learning goals successfully (Brown, 1994). In addition, Kessler (1992) viewed Cooperative learning as a group of students working within-class grouping usually of differing levels of second language proficiency, who learn to work together on specific tasks or projects in such a way that all students in the group would benefit from the interactive experience.” According to Johnson (2005), cooperative learning is a teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject. Each member of a team is responsible not only for learning what is being taught but also for helping teammates learn, thus creating an atmosphere of achievement. Students work through the assignment until all group members successfully understand and complete it. Johnson, Johnson, & Holubec, (1993) developed five basic elements for cooperative learning as: positive interdependence, face-to-face interaction, individual accountability, interpersonal, and small group skills, and processing. Teachers who structure cooperative lessons include each of these elements. Briefly defined:
- Positive interdependence: Students must perceive that they “sink or swim together.”
- Face-to-face interaction: Being physically close to each other promotes interaction. They should be seated eye-to-eye and knee-to-knee.
- Individual accountability: Each group member is responsible for mastering the material.
- Interpersonal and small group skills: Students must be taught the social skills needed for collaboration and be motivated to use them.
- Processing: Students analyze how well their learning groups are functioning and the extent to which students are employing their social skills.

Two theories that support the use of cooperative learning approach in improving students’ performance are motivational model and cognitive model. Motivational model suggested that when students work together towards a common goal, their efforts would be directed towards helping each other learn and succeed (Slavin, 1991). Similarly, cognitive model argued that students must be active learners to enable them to elaborate and explain the material learned to other students in order to retain the information (Witrock, 1978). Gender has been an issue between male and female students in English Language as both compete favourably in the subject. Ching (2011) studied the academic achievement of secondary students in relation with gender and year level and results revealed that significant gender differences exists in academic performance of students.
METHODOLOGY

Research Design
Quasi-experimental pre-test/post-test control group design will be employed for this study. This research design is considered appropriate for use in educational research where it is not possible to randomize subjects (students) into groups. This is to avoid disrupting school activities; consequently, intact classes were used.

Sampling Procedure
Simple random sampling was used to select Kwale Educational Zone out of the 12 Educational Zones in Delta state. Four public Senior Secondary Schools in Delta State were selected through Hat and Draw methods. In selecting the schools all the Senior Secondary schools in Kwale zone were first stratified into three groups- Co-educational, boys’ school and girls’ school. From the list of schools, 2 schools from co-educational were randomly selected as a results of large number of co-educational schools in the zone, 1 school from single boys and 1 school from single girls were randomly chosen using Hat and Draw method. The stratified random sampling technique was used to obtain the initial sample of two hundred and ten (210) students. The stratification was based on school type and gender. The base-line assessment for the study was done by administering the English Language Achievement Tests (EAT) on the students. Only participants whose scores ranged between 0 and 49 were qualified for the main study because they perform below 50% of the total score 100. In this study, 60 participants scored above 50 in EAT while the final sample for the main study was 150 SSII students.

INSTRUMENTATIONS

English Language Achievement Test (EAT)
Parallel form of Multiple Choice item tests and theory in English Language was developed by the researcher using past WAEC question papers from 2006 to 2012. The form consisted of 50-items which attracted 50 marks, each with 4 options and 5 theory questions which attracted 10 marks each. Emphasis was placed on two topics namely: Grammar and Comprehension passage. A test blue print was also developed on these topics to enable the researcher construct test items based on content and behavioral objective of topics under study. The items covered only the topics studied during the training period and it has a high stability co-efficient of 0.77 at 0.05 level of significance when tested during the pilot study. The EAT was used as pre-test to measure the entry behaviour of the students before exposing them to training and the same instrument was used for post test to measure performance after being exposed to training.

Cooperative Learning Method. It is the use of small groups to enable students work together to maximize their own and each other’s learning. The researcher prepares lesson note on topics and infuse cooperative learning (on each topics to be taught Grammar). Classes will be held twice a week and each class will last for 2 periods (80 minutes).

Pre-Training Assessment
- The researcher established rapport with the participants by stating the purpose of the study.
- Administration off all research instruments to the participants for pre-assessment.

Grammar: The researcher introduced and explained the topic (Grammar) to the participants to enable them understand the concept.
- Researcher divided the participants into groups and gave subtasks on Grammar to study intensively.
- Researcher appointed a leader for each group to coordinate their learning activities on the topic.
- Member of groups with the same subtasks come together to discuss about Grammar.
- Members returned to their original groups and taught their mates about the subtasks on Grammar.
- The researcher gave participants room for questions in areas not clear.
- Evaluation: Researcher asked participants in their various groups to solve questions relating to Grammar
- The researcher moved round to see if they are actually working together in solving the problem.
- Participants analyzed the results in groups.
- The various groups later wrote their own conclusion based on the result found.
- The researcher posed problems to the participants on the above topics to assess their team work in solving grammatical problems.
- Researcher collects; mark scripts and explains further on how to answer questions as team members.
- Researcher gave out assignments to the participants on Grammar.

Revision: Researcher reviewed the lessons taught.
Comprehension: The researcher introduced and explained the topic (Comprehension) to the participants to enable them understand the concept.
- Researcher divided the participants into groups and gave subtasks on Comprehension passages to study intensively.
- Researcher appointed a leader for each group to coordinate their learning activities on the topic.
- Member of groups with the same subtasks come together to discuss about Comprehension passages.
- Members returned to their original groups and taught their mates about the subtasks on Comprehension passages.
- The researcher gave participants room for questions in areas not clear.
- Evaluation: Researcher asked participants in their various groups to solve questions relating to Comprehension.
The researcher moved round to see if they are actually working together in solving the problem.
Participants analyzed the results in groups.
The various groups later wrote their own conclusion based on the result found.
The researcher posed problems to the participants on the above topics to assess their teamwork in solving grammatical problems.
Researcher collects, marks scripts and explains further on how to answer questions as team members.
Researcher gave out assignments to the participants on Comprehension.

Revision: Researcher reviewed the lessons taught.

Post Administration of Instruments: The researcher distributed the Instrument to the participants.

- Students answered all the questions posed to them.
- The researcher collects the instruments from the participants for post test.

**TRAINING FOR THE CONTROL GROUP:** The participants were taught the same topics for the same duration as the training group by the researcher but did not receive training on cooperative learning. In addition, normal weekly class tests were conducted and in the eighth week, post tests were administered. The control group was later exposed to training that worked.

**DATA ANALYSIS AND RESULTS**

**Hypothesis One:** There is no significant effect of experimental conditions on post-test scores of English Achievement test among participants in the two groups.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>3158.834(a)</td>
<td>2</td>
<td>1579.417</td>
<td>18.119</td>
<td>.000</td>
<td>.198</td>
</tr>
<tr>
<td>Covariates</td>
<td>434.038</td>
<td>1</td>
<td>434.038</td>
<td>4.979</td>
<td>.027</td>
<td>.033</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>2805.916</td>
<td>1</td>
<td>2805.916</td>
<td>32.189</td>
<td>.000</td>
<td>.180</td>
</tr>
<tr>
<td>Error</td>
<td>12813.999</td>
<td>147</td>
<td>87.170</td>
<td>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>15972.833</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05; df=1 & 147, F-cal=32.18; F-critical=6.81

The ANCOVA results presented in Table 2 shows that for the Experimental condition, the F-value obtained was 32.18 as P-value < 0.05, given 1 and 147 degrees of freedom at the .05 level of significance. This therefore suggests that training on cooperative learning was effective in improving the English Language Achievement of students. Therefore hypothesis 1 was rejected. This also showed that cooperative learning Training had impact on the participants than their Control Group counterparts.

**Hypothesis Two:** There is no significant interaction effect of English Achievement test among participants in the two experimental groups due to gender.

<table>
<thead>
<tr>
<th>Source</th>
<th>Pre-test Mean</th>
<th>SD</th>
<th>Post-test Mean</th>
<th>SD</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Training Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>29.46</td>
<td>4.98</td>
<td>54.22</td>
<td>7.98</td>
<td>24.76</td>
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<tr>
<td>Female</td>
<td>29.57</td>
<td>6.25</td>
<td>55.75</td>
<td>8.54</td>
<td>26.18</td>
</tr>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>29.16</td>
<td>4.89</td>
<td>37.97</td>
<td>7.07</td>
<td>8.81</td>
</tr>
<tr>
<td>Female</td>
<td>29.89</td>
<td>6.40</td>
<td>38.05</td>
<td>7.38</td>
<td>8.16</td>
</tr>
<tr>
<td>Total</td>
<td>29.52</td>
<td>5.63</td>
<td>46.49</td>
<td>7.74</td>
<td>16.97</td>
</tr>
</tbody>
</table>

Evidence from table 3 shows that the male and female participants exposed to Cooperative Training Instructions had mean difference of (24.76 and 26.18), whereas the Control Group had (8.81 and 8.16) for male and females respectively. This shows that female students did better than their male counterpart in both training and control.
group. To determine whether significance difference exist due to gender and experimental conditions, a two way ANCOVA was utilised and results are presented in Table 4.

Table 4 : 2 x 2 ANCOVA Tests of the Effects of Experimental Condition and Gender on Post-test English Achievement Test of Students

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
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<tbody>
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<td>851.758</td>
<td>9.829</td>
<td>.000</td>
<td>.213</td>
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<tr>
<td>Covariates</td>
<td>79.674</td>
<td>1</td>
<td>79.674</td>
<td>0.919</td>
<td>.339</td>
<td>.006</td>
</tr>
<tr>
<td>Gender</td>
<td>530.881</td>
<td>1</td>
<td>530.881</td>
<td>6.126</td>
<td>.041</td>
<td>.041</td>
</tr>
<tr>
<td>ExperimentalGroup</td>
<td>3260.513</td>
<td>1</td>
<td>3260.513</td>
<td>37.624</td>
<td>.000</td>
<td>.206</td>
</tr>
<tr>
<td>ExperimentalGroup * Gender</td>
<td>72.259</td>
<td>1</td>
<td>72.259</td>
<td>.834</td>
<td>.363</td>
<td>.006</td>
</tr>
<tr>
<td>Error</td>
<td>12565.801</td>
<td>145</td>
<td>86.661</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>15972.833</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05; df=1 & 145, F-cal= 6.126; F-critical= 6.810; df=1 & 145, F-cal= 0.834; F-critical= 6.810

Table 4 shows that a calculated F-value of 6.126 for gender was not significant at 0.05 with degree of freedom 1 and 145 because P-value > 0.05, while F-value of 0.834 for interaction between gender and experimental condition was also not significant at 0.05 with degree of freedom 1 and 145 since P-value is > 0.05. Hypothesis two was therefore accepted. It was concluded that the post-test English Language Achievement tests scores of male and female students in the training and control groups does not significantly differ.

DISCUSSION

The findings in hypothesis one showed that there was a significant difference in posttest English Achievement scores between the Training and Control Group. The reason for the difference could be attributed to cooperative learning strategies adopted in the teaching of English language. In support of these findings, Sittilert (1994) examined the effects of Cooperative Integrated Reading and Composition (CIRC) on English reading comprehension and the opinions towards classroom atmosphere of Mathayomsuksa students. 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. Moreover, Moryadee (2001) also did a studied on the effects of cooperative learning using Student Team-Achievement Divisions (STAD) technique on self-efficacy and English learning achievement of Prathomksa students. The results indicated that the students who studied through STAD have a higher self-efficacy after the treatment than before the treatment at the .01 level of significance. Seetape (2003) also done a studied on the effects of cooperative learning on English reading achievement and the students’ behavior towards this learning method used in the English classroom. The results of the study showed that the post-test scores after learning English reading using cooperative learning were higher than the pre-test scores at the .05 level of significance. Most of the samples displayed very good behavior in cooperating in their tasks. Their cooperative behavior had increasingly developed. Some elements of poor behavior had decreased by up to 14.29 percent. Most of the samples displayed very good behavior in cooperating in their tasks. Their cooperative behavior had increasingly developed. Some elements of poor behavior had decreased by up to 14.29 percent.

The findings in hypothesis two showed that there was no significant interaction effect in English language achievement scores between gender and experimental conditions. This can be attributed to the awareness of the importance of the subject by both sexes in the society and that one hardly survives without it. More importantly, because both sex were exposed to cooperative learning strategies in English language. In support of this view, Kaur and Gill (1993) revealed that achievement in English language and total achievement was independent of sex. Wainer and Lukehele (1997) also reported that the reading comprehension test of TOEFL showed essentially no differential functioning by gender. However,. In terms of experimental group, it was found that girls had a higher mean score in academic achievement compared to boys (Vijayalakshmi and Natesan (1992).Also Jie and Fenglan, (2003) did a study on language subscale test, and found out that females had a higher mean in listening comprehension, which contradicted the findings of a male advantage in listening vocabulary (Boyle, 1987). Jie and Fenglan, 2003 also found out that males had a slight advantage in grammar and vocabulary. Begum and Phukan (2001) conducted astudy to analyse the relationship between academic achievement andintelligence in boys and girls. Findings showed that there is a correlation between academic achievement and intelligence of the students and the correlation was greater in case of girls than boys. Yun (2001) investigated gender differences in verbal and mathematical skills among Chineseadolescents and found that the males scored higher than the females. Agarwal (1983) disclosed that females showed a higher reading ability and academic achievement than males. Sunetha and Mayuri(2001) also stated that boys and girls differed significantly in drill, interaction and language. It should be noted that although these differences were statistically significant, they were quite small in value, ranging from .35 to .73

COUNSELING IMPLICATIONS

The traditional way of teaching and learning English Language has not really helped the growth of English
language in the country and the performance of students is not really improving as it ought to be. Students are not able to think critically and their reading and comprehension ability are quite discouraging. It is against this background that it is advocated that the counselor must help both teachers and students to utilize cooperative learning strategies in the teaching and learning English language to build up the students communication skills. The counselor through the process of group counseling needs to bring to the knowledge of the teacher the concept of motivational model and cognitive model because both complement learning outcomes.

CONCLUSION AND RECOMMENDATIONS

1. The results of the study reveal that cooperative learning has increased students' English language reading skill. Therefore, a replication of the study could be conducted with other groups at the graduate or undergraduate levels in other skills such as writing, speaking, or listening. It would be worthwhile to investigate how effective is cooperative learning on other skills so that instructors can use findings for improving and developing their teaching process.

2. As this research is mainly based on STAD model, future research should focus on comparisons between different models of cooperative learning in order to determine if other cooperative learning models are equally effective in producing desired students.

3. For examining students’ cooperative learning behaviors, an observation technique with a particular checklist can be employed by the instructor instead of using an assessment form checked by students themselves.

4. The Ministry of Education and head of schools should ensure that teachers implement the use of cooperative learning to assess their students in schools because it involve team work which is linked to self-direction and boost confidence. This will help the students to communicate their reading and speaking ideas in writing: visually, use English Language vocabulary, notation, and structure to represent ideas, and describe their relationships.

REFERENCES


