

**EFFECT OF COLLABORATIVE LEARNING STRATEGY ON STUDENTS'
ACADEMIC ACHIEVEMENT IN ENGLISH LANGUAGE COMPREHENSION IN
SENIOR SECONDARY SCHOOLS IN ABIA STATE**

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Abstract

This study investigated the effect of collaborative learning strategy on students' academic achievement in English language comprehension in senior secondary schools in Abia state. The study which adopted a quasi-experimental, pretest posttest non-equivalent control group research design was carried out in Umuahia zone of Abia State. A sample of 96 Senior Secondary (SS) II students was drawn from two public secondary schools in Umuahia metropolis using multistage sampling procedure. Data were collected using a 33-item multiple choice English Language Comprehension Achievement Test (ELAT). The instrument was subjected to face and content validation using three experts in curriculum and instruction, Measurement and Evaluation and one secondary school English Language teacher. The internal consistency aspect of the reliability of the instrument was determined using Kuder Richardson (K-R₂₀) formula which yielded an index of 0.76 indicating that the instrument was highly reliable. The experiment lasted for six weeks and was carried out with the assistance of the regular English Language teachers in the sampled schools. The ELAT was used to collect data for both Pre-Test and Post-test. The data collected were analyzed using mean and standard deviation to answer the two research questions that guided the study, while the Analysis of Covariance (ANCOVA) was used to test the null-hypotheses had increasing effect on the students' academic achievement in English Language Comprehension at 0.05 level of significance. The results among others showed that collaborative learning strategy, having recorded higher mean gain than those in control group. It also showed that collaborative learning strategy had more increasing effect on the male students' academic achievements in English language Comprehension than on the female students. Based on the findings, the study recommended among others that English language Comprehension teachers should be encouraged to use the method regularly while teaching in order to improve students' achievement in the subject.

KEY WORD: Collaborative, Learning, Strategy, Comprehension, English Language.

Introduction

Education is a fundamental right for everyone and a key to the future of any nation. It is a social responsibility geared towards providing access to quality education for everyone. National Policy on Education of the Federal Republic of Nigeria (2013), stipulates that post basic education which is the senior secondary school has her goals to include among others; to develop and promote Nigerian languages, art and culture in the context of world's cultural heritage. In order to achieve this objective at the senior secondary school level, one of the subjects that is being offered is English Language. English Language is a common language for communication and that makes it a core-subject which every student whether in arts, vocational, social sciences, commercial and pure sciences must offer (Nlebem, 2011). English Language is equally ranked among the prerequisite subjects because there is no course that will require a student to study without English Language (Morgan, 2013). This then implies that a good knowledge and mastery of the subject is expected of all students. A student who is deficient in this subject may not do well in the academic work, both in oral and written examinations. It also implies that English Language is used as the medium of instruction and in learning other subjects in all Nigerian educational institutions (Obiji, 2021). Equally no student is qualified for admission into the Nigerian Universities and other tertiary institutions without scoring a credit pass in it at the Senior Secondary School Certificate Examination (SSCE) conducted by the West African Examination Council (WAEC) and the National Examination Council (NECO). This makes English Language the greatest colonial heritage and an instrument for the survival of Nigeria as a nation.

A good knowledge of English Language is a pre requisite for the study of Arts and Literary courses. This importance gave rise to the objectives of English Language as stipulated in the English Language curriculum which include: building upon the English Language skills developed at the Upper Basic Education classes, developing the skills of listening, speaking, reading and writing to enable the students undertake higher education without problems (Oladunjoye, 2016). To achieve these objectives, it is important that English language teachers should use innovative teaching methods that can improve English language teaching in order to make the subject more interesting and easier for the students to understand (Olatunji & Kolawale in Obiji 2021). How far these objectives are been achieved is also related to

students' academic achievement in English language especially in the content areas such as reading comprehension among others.

Academic achievement is the outcome of learning experience. That is, the extent to which a student, teacher or institution has achieved their educational goals. Academic achievement is commonly measured by examination or continuous assessment but there is no general agreement on how it is best tested, but it intends to measure systematic education and training towards a conventionally accepted pattern of skills or knowledge (Obiji. 2021). According to Adediwura and Tayo in Obiji (2021), academic achievement is designated by test and examination scores or marks assigned by the subject teachers. Unfortunately, the academic achievement of the students in English Language have not been encouraging over 5 years now, as the number of students who possess five 'O' level credits including English language is not encouraging. This has hindered good number of students from securing admission into tertiary institutions. For instance, WAEC results analysis for these years 2017 to 2022 indicated the percentages of students who passed during these years with five credits in English Language as reported 29.45% and 25.99% respectively (WAEC, 2017; 2018; 2019; 2021 & 2022). However, in Abia State, 58.90% of the students made P7-F9 in West African Senior Secondary School Certificate Examination (WASSCE) in 2017 while 57.4% of the students made P7-F9 in 2022. All these go a large extent to reveal that reading for comprehension is a major problem that should be addressed in secondary schools (Nwaoba, 2018). The weaknesses of the candidates were traced to inability to read, comprehend and answer the questions correctly (Obi, 2023). Apart from poor academic achievement of students arising from the weakness in areas such as; reading comprehension and summary (WAEC Chief Examiner Report, 2018).

To curb this challenge that have over the years the focus on the abysmal failure English language in West African Senior Secondary Certificate Examinations, National Examination Council (NECO) and Joint Admission and Matriculation Examination (JAMB), some programmes were adopted. Examples includes several conferences and workshops organized with a view to addressing the problem of reading comprehension in secondary schools (Ene in Nwaoba, 2018). As a result, a number of strategies have been recommended for teaching so that students can comprehend what they read. These include: Close Instructional Approach (Ene, 2012); English for Academic Purpose – EAP (Oluikpe, 2014); Enquiry-Discovery method (Ekpo, 2016); Use of ICT in the classroom (Olorundare, 2016). All these recommended approaches look quite interesting in their theoretical orientations, but evidence showed that despite these efforts, English language achievements at the senior levels of education in Nigeria

particularly the study area (Abia State), have not improved to satisfactory level, as could be seen from the WAEC (2018 -2019) Chief Examiners' reports. Along this line, Adepoju and Oluchukwu (2011) stressed that the poor achievement in English language is largely due to poor teaching strategies and methods employed by practicing teachers.

Teaching methods are the instructional strategies or techniques that a teacher can adopt to meet the various learning objectives. Ogbo (2021) defined teaching method as the technique used by a teacher to deliver content of the subject matter to the learner based on predetermined instructional objectives in order to impact change on the learners' behaviour. Nkechukwu (2023) sees teaching method to include the principles and methods used by teachers to enable students learn.

Collaborative learning is a way of instruction where small groups of students work jointly to enhance their own knowledge and share knowledge with other peers. It is group learning activity arranged in such a way that learning is based on the socially structured share of knowledge between learners in groups in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others (Oluikpe, 2010). In this system of learning, Nkechukwu (2023) noted that after researching and developing their ideas, each individual or small group of four or five students then has the responsibility to teach it to the rest of the group. Along this line, the study on the effect of collaborative learning strategy on students' academic achievement and retention in English Language comprehension in senior secondary education is timely, considering the fact that this subject is taken to be one of the two major courses among students of both art and science dominated courses in the Senior Secondary School Examination.

Secondary School education is vocational and academic, universal and compulsory for all Nigerian children (Federal Republic of Nigeria, 2013). The goal of secondary school is to enable students to acquire knowledge and skills which will prepare them for useful living within the society. In specific term, secondary school education is geared towards giving learners opportunity to discover and develop their potentials in life (Nkechukwu, 2023). Higher retention rates of students at this level of education is directly correlated with system of instructional delivery. Where the poor achievement of students was attributed to the traditional method used in presenting instruction. Also, in the senior secondary education, several subjects are offered for the better completion of the secondary education and to fit well in the society and among these subjects, English is one (FRN, 2013).

Statement of the problem

English language is a core subject in secondary school and every student is expected to obtain at least a credit pass in order to be eligibly qualified for admission for any course in the higher institution. It is also the common language of communication in Nigeria across the various ethnic groups. In spite of the importance of this subject as one of courses having the basic requirement for admission into the tertiary education, and preparation of learners for full participation and functioning members of the society, the students' performance in the subject has been relatively poor. Though, it seems that the subject English language has not been properly taught as is the evidence of massive failure and poor academic achievements of students in English language in different external examination in Nigeria, both WAEC and NECO for many years now.

This challenge of inconsistency in progression of students' achievement in English language, perhaps, is suspected to be related to methods employed in teaching the subject. Several efforts, such as schools allocating more time on the time table for the teaching of English Language, engaging the services of professionals, parents organizing coaching programme for the students, yet the problem persists. It therefore, becomes worrisome to ascertain whether or not some innovative teaching methods such as collaborative learning had an effect on academic achievement of students' in English language. In the light of the above, the problem of this study put in a question form was: Can collaborative teaching and learning strategy effect a change on SS 2 students' achievement and retention in English language in Abia State?

Purpose of the study

The purpose of this study was to investigate the effect of collaborative learning strategy on senior secondary school students' academic achievement and retention in English Language comprehension. Specifically, the study sought to;

1. determine the effect of collaborative learning strategy on students' academic achievement in English language comprehension;
2. find out the mean achievement scores of male and female students taught English language comprehension using collaborative learning strategy;

Research Questions

The following research questions were raised to guide the study;

1. What is the effect of collaborative learning strategy on students' academic achievement in English language comprehension?
2. What are the mean score of male and female students taught English language comprehension using collaborative learning strategy?

Hypotheses

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

H0₁: Collaborative learning strategy has no significant effect on the mean achievement scores of students taught English language Comprehension.

H0₂: Gender has no significant effect on students' academic achievements in English language Comprehension when taught using Collaborative learning strategy.

Scope of the study

This study was delimited to identifying effect of collaborative learning strategy on students' academic achievement in English language in Abia State. Specifically, the study was delimited to only public senior secondary class two (SS II) students using two intact schools in Umuahia North zone of Abia State. The independent variables in this study include collaborative learning strategy, gender and gender groupings, while the dependent variables were achievement and retention in reading comprehension. Comprehension tests were drawn from passages in Intensive English for Senior Secondary Schools 2, covering such disciplines as humanities, social sciences and sciences, because these were the areas that had been identified as presenting difficulty to the students, due to the volume of materials to be read (WAEC Chief Examiners' Report, 2012-2016). The target population was chosen because it was expected that most students at that level of education tend to have mastered some aspects of English language concepts. Thus, SS2 students participated out of interest, ability and convenience. The schools made up of co-educational schools and comprised of male and female students. The average age of the SS 2 students is 16 years.

Methodology

The study employed a quasi-experimental research design with non-randomised, non-equivalent pre-test and post-test control group design using intact classes. The purpose of the design was to determine cause and effect, and involves an intervention controlled by experiments (Mcmillan & Schumachar, 2010). The study is set to investigate the effect of collaborative learning strategy and lecture method on senior secondary school students' academic achievement and retention in English Language comprehension. There is one

experimental group and one control group. Group A consists of the treatment group while group B represent the control group. The experimental group was assigned collaborative learning strategy as the means of teaching while group B was the control group using the conventional method to measure the effect of collaborative learning strategy on SS2 students' academic achievement in English Language comprehension in secondary schools in Abia State. The sample size for this study was 96 SS2 English language students comprising 38 males and 58 females. The experimental group is 50 students comprising of 18 males and 32 females, while the control group comprised of 46 students made up of 26 males and 20 females. The sampling was drawn using multistage sampling technique. Purposive sampling was used to select one education zone (Umuahia education zone) from the three education zones in Abia State because of its proximity to the researcher. Purposive sampling was also used to select one local government out of the 17 local government areas (Umuahia North). The purposive sampling technique were used to select two schools (Ndume Otuka community secondary schools and Afara Technical secondary schools) which are co-educational public secondary school since the study compared such variables such as gender of the students. The data collected from the students were analyzed using mean and standard deviation to answer the research questions, while the Analysis of Covariance (ANCOVA) was used to test the null-hypotheses at 0.05 level of significance. The internal consistency aspect of the reliability of the instrument was determined using Kuder Richardson (K-R₂₀) formula which yielded an index of 0.76 indicating that the instrument was highly reliable.

Research Question 1

What is the effect of Collaborative learning strategy on students' academic achievements in English language Comprehension?

The data for answering research question 1 were analyzed with mean and standard deviation and results presented in the Table 4.1.

Table 4.1: Pretest and Posttest mean scores of students taught English language Comprehension using Collaborative learning strategy

Groups	Pretest			Post test		Mean gain scores
	N	\bar{X}	SD	\bar{X}	SD	
CLS	50	16.17	2.44	26.09	2.85	9.92
Lecture	46	16.26	2.51	18.55	2.95	2.29
Effect						7.63

Data in Table 4.1 showed that the students taught English Language Comprehension using Collaborative learning strategy had a Pretest mean of 16.17 with standard deviation of 2.44 and a Posttest mean of 26.09 with standard deviation of 2.85, while lecture method group had a Pre-

test mean of 16.26 with standard deviation of 2.51 and a posttest mean score of 18.55 with the standard deviation of 2.95. The result also showed that the Collaborative learning strategy group had a mean gain of 9.92 while those of the lecture method group had a mean gain of 2.29. This showed that Collaborative learning strategy had higher effect of 7.63 on the students' academic achievement in English language Comprehension, over those in the lecture method (Control) group. A corresponding hypothesis that addressed the above research question is:

Hypothesis 1

Collaborative learning strategy has no significant effect on the mean achievement scores of students taught English Language Comprehension.

The data for testing hypothesis 1 were analyzed with ANCOVA and the results presented in Table 4.2.

Table 4.2: Analysis of Covariance (ANCOVA) of Effect of Collaborative learning strategy on the mean achievement scores of Students Taught English language Comprehension

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	6237.1095	2	3118.555	77.931	.000
Intercept	3214.103	1	3214.103	80.318	.000
Pretest	2669.444	1	2669.444	66.708	.000
Group	821.308	1	821.308	20.524	.004
Error	3521.467	88	40.017		
Total	227408.28	90			
Corrected Total	14268.721	89			

Table 4.2 showed that a significant Probability (P)-value of 0.004 was obtained. Since the Probability-value of 0.004 is less than 0.05 alpha level, the null hypothesis of no significant effect was rejected. Therefore, Collaborative learning strategy has significant effect on students' academic achievements in English language Comprehension.

Research Question 2

What is the effect of Collaborative learning strategy on Male and Female students' academic achievements in English language Comprehension?

The data for answering research question 2 were analyzed with mean and standard deviation and results presented in the Table 4.3.

Table 4.3: Pretest and Posttest mean scores of Male and Female Students taught English language Comprehension Using Collaborative learning strategy.

	Pretest	Post test
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Gender	N	\bar{X}	SD	\bar{X}	SD	Mean gain scores
Male	18	16.26	2.69	26.23	2.78	9.97
Female	32	16.07	2.71	25.59	2.83	9.52
Effect						0.45

Data in Table 4.3 showed that male students taught English language Comprehension using Collaborative learning strategy had Pretest mean score of 16.26 with standard deviation of 2.69 while the female had a pretest mean of 16.07 with standard deviation of 2.71. Similarly, the posttest mean score of male and female students were 26.23 and 25.59 with standard deviation scores of 2.78 and 2.83 respectively. The table further showed that the male students had a mean gain of 9.97 while their female counterparts had a mean gain of 9.52 indicating that Collaborative learning strategy had more increasing effect of 0.45 on the male students' academic achievements in English language Comprehension over the female students. A corresponding hypothesis that addressed the above research question is:

Hypothesis 2

Gender has no significant effect on students' academic achievements in English language Comprehension when taught using Collaborative learning strategy.

The data for testing hypothesis 2 were analyzed with ANCOVA and the results presented in Table 4.4.

Table 4.4: Analysis of Covariance (ANCOVA) of Achievement scores of Male and Female Students taught English language Comprehension using Collaborative learning strategy

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	8218.622 ^a	2	4109.311	45.744	.000
Intercept	3433.209	1	3433.209	38.218	.000
Pretest	4437.412	1	4437.412	49.397	.000
Gender	668.887	2	67.113	0.747	.263
Error	4311.942	48	89.832		
Total	761325.956	50			
Corrected Total	6812.344	59			

The data in Table 4.4 revealed that a significant P-value of 0.263 was obtained which is greater than 0.05 level of significance. This however means that the null hypothesis stated was not rejected. Therefore, gender has no significant effect on students' academic achievements in English language Comprehension. In other words, there is no significant difference between the mean achievement scores of male and female students taught English language Comprehension using Collaborative learning strategy. Collaborative teaching strategy had a

Posttest achievement mean score of 26.23 and 25.59 with standard deviations scores of 2.78 and 2.83 respectively while they had a retention mean scores of 31.01 and 30.15 with standard deviation scores of 2.84 and 2.88 respectively. For the lecture method (control group), the male and female students had a Posttest achievement mean scores of 18.61 and 18.49 with the standard deviation scores of 2.79 and 2.68 respectively while they had retention mean scores of 19.78 and 19.55 with standard deviation scores of 2.85 and 2.77 respectively. This showed that both male and the female students taught English comprehension using Collaborative teaching strategy recorded higher mean retention scores than their counterparts in the lecture (control group) method. This implies that there is no interaction effect of gender and methods on the mean retention of students taught English Language Comprehension.

Discussion of findings

The discussion of findings was carried out sequentially based on the research questions and hypotheses that guided study.

The study revealed that Collaborative learning strategy had an increasing and significant effect on the students' academic achievement in English language Comprehension than the use of lecture method group. The result specifically showed that the differences between the mean achievement scores of students taught using the two methods of teaching was significant. In other words, students taught English Language Comprehension using Collaborative learning strategy recorded higher mean achievement than their counterpart taught using the lecture method. This result agreed with Okoye (2013) who while comparing Collaborative learning strategy and the conventional teaching method, maintained that Collaborative learning strategy had significant increase in students' performance than the traditional chalk and board method. The study equally agreed with Manoranja (2015) who in his previous and separate related studies showed that Collaborative learning strategy was more effective to enhance students' academic achievement in school subjects than the use of the conventional teaching method. The difference in the effectiveness of the two teaching methods could be based on their specific characteristics which according to Akpoghol, Ezeudu, Adzape and Otor (2016) stated that while in the lecture method, the teacher does all the talk while the students listen and copy note displayed on the chalkboard after the lesson which do not encourage much learning. This however showed the effectiveness of Collaborative learning strategy over the lecture method in the teaching and learning process.

Result of the study further showed that Collaborative learning strategy had more increasing effect on the male students' academic achievements in English language Comprehension than on the female students. The result implied that the male students had higher mean achievements than their female counterparts when taught English language Comprehension using Collaborative learning strategy. The result agreed with Isaq (2015) who carried out similar studies and found among others that male students taught different school subjects Collaborating learning strategy were able to outperform their female counterparts. It implies that the male students who were exposed to the Collaborative learning strategy recorded higher mean achievements than females. The result further showed that there was no significant difference between the mean achievements of male and female students taught English language Comprehension using Collaborative learning strategy. This implies that there was no wide difference between the achievements of the two gender in English language comprehension when taught using collaborative learning strategy. In other words, the both the male and the female students taught using Collaborative learning strategy performed well in English language comprehension. This result supported similar study by Gambari, Olugbemi and Yusuf (2013) which revealed no significant difference between male and female performance in English language when taught using computer supported co-operative learning instruction.

The result further showed that there was no significant interaction effect of gender and methods on students' academic achievements in English language Comprehension. The result implied that the variations in their performances were not as a result of their gender but as a result of the methods that were used in the study. In other words, the enhanced achievement recorded by both gender was as a result of the instructional methods used and not the because of their gender. The results supported the Peklaj (2013) who carried out a similar study and found out among others that there was no significant interaction effect between students' academic achievement and their gender when taught Mathematics. The results further corroborated Koc (2013) who in a similar study discovered that there was no significant interaction effect of gender and method on students' academic achievement English language. This results affirmed the effectiveness of instructional methods or strategies used in teaching in enhancing students' academic achievements instead of their gender.

It was found from the study that Collaborative learning strategy had an increasing and significant effect on the students' mean retention in English language Comprehension than the use of lecture method. Specifically, the students taught English language Comprehension using

Collaborative learning strategy had higher mean retention than their counterparts taught using lecture method. In other words, students exposed to Collaborative learning strategy were able to retain more concepts taught in English language Comprehension than their counterparts in the lecture or conventional groups. The result agreed with Abakpa (2010) who maintained that carefully implemented collaborative learning lessons help to increase students' achievement and retention ability in any subject of their interest. The results also agreed with Gambari, Olugbemi and Yusuf (2013) who found from a similar study that students taught using Framing instructional strategy recorded higher mean retention than their counterparts taught using conventional teaching method. The result is not surprising as students will learn better and remember higher the activity they took parts in which Collaborative learning strategy portrays. According to David (2019), students can hardly move from one level of learning of English language to other if they cannot retain previously learned concepts.

Result of the study revealed that Collaborative learning strategy had more increasing effect on the male students' mean retention in English language Comprehension than on the female students. The result implied that the male students retains more concepts in English language Comprehension than their female counterparts when using Collaborative learning strategy. The result agreed with Ene (2012) who discovered from a similar study that male students had higher mean retention than female Geometry. Also, the study supported the earlier study by Gambari, Olugbemi and Yusuf (2013) which indicated that male students had slightly higher mean retention than their female counterparts in mole concepts. The slight increase in the retention recorded by the male students could be due the fact that male students always show domineering characteristics in activities that involve team work for both male and female students such as the collaborative learning strategy. Their domineering and active participation might have helped them not only to learning better but equally retain what were learnt for future usage. The results further showed that the difference in the mean retention of male and female students taught English language comprehension using collaborative learning strategy was not significant. This however, implied that both gender improved in their mean retention as the difference between their retention was not so wide. The result agreed with Idoko (2012) who opined that no significant gender differentiation will occur in the retention of male and female students in any school subject where the two gender are well-taught with an experienced teacher with appropriate teaching method. The result also agreed with the earlier findings of Gambari, Olugbemi and Yusuf (2013) who found out in a similar study that there was no significant

difference between the mean retention of male and female students taught mole concepts using framing concepts.

Finally, the result showed that there was no significant interaction effect of gender and methods on students' mean retention in English language Comprehension. The result implied that differences or variations that occurred in the retentions were not as a result of their gender but due to the methods used. The result corroborated with that of Ene (2012) who discovered in his previous study that there was no significant difference the mean retention of male and female students exposed or taught Geometry aspect of Mathematics.

Conclusion

Based on the findings of the study, it could be concluded that Collaborative learning strategy had increasing and significant effect on the students' academic achievement and retention in English language Comprehension respectively than those in the lecture method (Control) group. That Collaborative learning strategy method had more increasing effect on the male students' academic achievements and retention in English language Comprehension than on the female students respectively. It could also be concluded that there was no significant interaction effect of gender and methods on students' academic achievements and retention in English language Comprehension respectively.

Recommendations

Based on the findings and conclusion drawn from the study, the following recommendations were made:

1. Since the Collaborative learning strategy has been found to be effective in promoting achievement of students in the English language Comprehension, English language Comprehension teachers should be encouraged to use the method regularly while teaching in order to improve students' performance in the subject.
2. Teachers' Training tertiary institutions should popularize the use of the Collaborative Learning Strategy in teaching different school subjects to enhance students' better performance in those subject.
3. Teachers should ensure that they use the learning strategy to teach the aspects of English language comprehension where students regularly show gender bias in their academics.

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