



## EFFECTS OF PROJECT-BASED METHOD ON BASIC EIGHT STUDENTS' ATTITUDE AND PERFORMANCE IN VOCABULARY ACQUISITION IN GBOKO LOCAL GOVERNMENT AREA

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### **Abstract**

*The purpose of the study was to find out whether the use of project-based learning (PBL) strategy to teach vocabulary would make Basic Eight students to achieve more in vocabulary acquisition. The study also sought to find out whether students' attitude towards vocabulary acquisition would improve with the use of project-based strategy. Two research questions were raised and answered. Also two hypotheses were postulated and tested at 0.05 levels of significance. The study adopted quasi-experimental, pre-test, post test, non –equivalent, non-randomized research design. A sample of 85 Basic Eight students of Government Day Secondary School Buter, Gboko was obtained from a population of 3641 using random sampling technique. Data were collected using Vocabulary Achievement Test (VAT) and Students' Attitude towards English Learning Questionnaire consisting of 12 items and a four point scale (ranging from strongly agree to strongly disagree) to test attitude of students towards language skills. Data were analysed using mean and standard deviation to answer research questions while Analysis of Covariance (ANCOVA) was used to test the hypotheses. Findings revealed that there is a significant difference in the mean achievement scores of students taught vocabulary acquisition using project-based learning (PBL) and those taught using conventional method. The findings also revealed a significant difference in the mean attitude rating of students taught vocabulary acquisition using project-based learning PBL and those taught using conventional method in favour of the experimental group. The study recommends amongst others that teachers should find a way of providing more targeted support to students by involving vocabulary games that involve peer collaboration to teach vocabulary.*

**Keywords:** Vocabulary, project-based learning, attitudes

## Introduction

The English language as the official language in Nigeria also serves as the language of education, commerce, media, as well as judiciary and so on. This means that for anyone to advance academically and subsequently get a prestigious employment, one has to be proficient in the language. According to Ruteri (2023) vocabulary is one of the fundamental parts of language, which means its learners need to have a good grasp of active vocabulary in order to enhance their use of the other language skills. Sinatra, Zygouris-Coe and Passinger (2011) explain that knowledge of vocabulary meanings affect children's abilities to understand and use words appropriately while listening, speaking, reading and writing. This implies teaching and learning of the other language skills will be impossible without vocabulary. This is why Nowak (2023) emphasises on vocabulary as one of the most important features with which language proficiency can be estimated. Research proves that a well developed vocabulary equips an individual with tools for success in different spheres such as academic performance, ability to communicate and career opportunities.

Vocabulary refers to the total set of words in a language or in a person's knowledge of a language. Vocabulary could also be explained as a group of words used by a particular person or group of words in a particular language or field of knowledge. Vocabulary helps students to understand and respond accordingly when reading or spoken to. Payne (2024) informs that the term vocabulary comes from the Latin *vocabulum*, meaning designation or name.

There are two major types of vocabulary known as active and passive vocabulary. According to Payne (2024) active vocabulary includes the words an individual understands and uses frequently and accurately in speaking and writing. Passive vocabulary on the other hand, includes words an individual recognizes and may understand in context but hardly uses in communicating with another person.

Students of English need to be thoroughly equipped with appropriate vocabulary so as to express themselves while speaking or writing. A major concern of vocabulary research has been to find the most effective way of expanding learner's

lexical knowledge Sanchez (2015). The author informs further that vocabulary is acquired in two major ways known as intentional (direct) and incidental (words that occur in context) indirect. Schemitt (2010) maintains that vocabulary is achieved through extensive reading exposure which is also part of incidental acquisition. Other word learning strategies include dictionary use, morphemic and contextual analysis.

Gamification is also one of the strategies teachers can use to teach new words. Graves (2000) opines that, if teachers can get students interested in playing with words and language then they can be halfway to creating a sort of word conscious students who will make words a life time interest. Spell-quiz (2021) collaborates that using interesting activities, could help to enhance students' performance in vocabulary acquisition.

Vocabulary being a very important skill of language needs to be given utmost attention. There are however many obstacles to its acquisition. Researchers have been able to come out with reasons students lack adequate vocabulary to include: teaching methods, lack of qualified teachers, inappropriate or inadequate instructional materials, Kannan, Vijayaragava, Shin, Suganathan and Praveena (2015) lack of teaching facilities, large class size, non-development of reading habits by students, limited social interactions, lack of engagement with what one reads, not actively practicing the words learned in context and low exposure to language environment. Others include lack of reflectivity and impulsivity.

A teaching strategy could enhance or mar students' success at achieving the vocabulary skill. Nowak (2023; Ochogwu, 2014) inform that learning is hindered when teachers use inappropriate strategy such as focusing on the problem instead of the potential. This means teachers should encourage students by making them to build asset-based thinking that they all have abilities or capacity to learn a new concept. Subsequently, such students would seek to understand their strength. The teacher would then pay attention to students' difficulties so as to help them build a wider vocabulary.

Large class size is also another obstacle that could hinder students' achievement in vocabulary acquisition (Olaoye, 2023). Babalola and Awe

(2021) explain that class size has a strong effect on students' performance academically. This is because the teacher may not be able to effectively manage the class and give feedback. According to Ty-Computers (2018) teachers generally prefer smaller classes in order to easily identify students' needs so as to provide individual attention. Ty-Computers (2024) expatiates that grouping students in pairs during instruction in language classes increases their proficiency and subsequently, performance. In project-based learning students are grouped in pairs and are made to learn from each other and that boosts their morale which could lead to higher performance.

The amount of social interaction of students could also account for students' lack of success at acquiring the vocabulary skill. Sun (2019) found that micro-social factor such as the amount of interaction a student has with his peers could mar or enhance his vocabulary acquisition. This could be interpreted to mean that students could be made to learn from each other. If teachers use a strategy that makes students work at a task in pairs, it would make them to achieve more.

Lack of experience also hinders vocabulary acquisition. Andari (2023) explained that children exposed to a lot of reading materials earlier in life have little problems with vocabulary acquisition which means students with little experience, experience more obstacles to mastering new words. None development of reading culture by students causes hindrances to vocabulary acquisition (Orkaa, 2020). This is to say that as a student reads a tasking material, he gathers vocabulary that would enhance his other language skills. This means the amount or volume of literature one reads could be commiserating to the amount of vocabulary one accumulates. Several studies however reveal that many EFL students have low interest in reading and as such are not able to acquire enough vocabulary so as to function well linguistically in the society (National Geographic Learning, 2024). Meanwhile two studies by Santi, Kholipa, Putri, and Mujiono (2021) reported that reading performs a dominant role in vocabulary acquisition.

Practice makes perfect. In many instances, students do not practice learnt words in context and so are not able to make them part of their

active vocabulary. This is sometimes due to a smaller amount of time allotted on the time table which leaves very little time for adequate practice of vocabulary activities (Akujiobi & Chukwu, 2012). Kimsesiz and Koncak(2017) informs that using a variety of activities can help the students to get familiar with new words especially those that may be more difficult to grasp conceptually. Lastly, lack of proper resources such as textbooks, dictionaries and story books as well as facilities such as language laboratories and furniture may hinder learning of new words.

It can be rightly concluded that taking care of the obstacles would help facilitators and students to do their best and the subsequent outcome would be higher performance of students in vocabulary acquisition. This is because the numerous obstacles cause performance of students in English both at internal and external examinations to record mass failure. For instance resultsof West African Senior Secondary School Certificate (WASSCE) 2020 showed that only 39.82% of candidates scored 5 credits including English and Mathematics (WAEC Chief Examiner's Report, 2020). This is an indication that over 60% of the candidates were not successful as their performance was not up to the standard of expectation. It could then be rightly inferred that for this group of students, their academic career came to a halt. Many reasons account for this failure. For instance, Otache 2020 informs that some students admitted in schools lack basic vocabulary that would help them function maximally in the language because they had little or no exposure to books and a wealth of rich and supportive oral language experiences. Without adequate vocabulary students are not able to comprehend read texts so as to write summaries which form part of WASSCE test. Students' performances are also affected when they cannot use words that are synonymous to the other as is usually required. All these, culminates into failure of students in English at both internal and external examination. Perhaps, the use of appropriate vocabulary could have helped to enhance the other language skills which would have resulted to higher performance in the subject. The questions then are, 'would the use of project-based learning (PBL) as an instructional strategy help students to comprehend a text better

so as to write more accurate summaries during exams? Would good grasp of vocabulary help students to write using synonyms so as to avoid monotony? Would adequate vocabulary help a learner to carry out a conversation fluently using the right register and not confusing the listener? Would the use of PBL strategy help students to develop a positive attitude towards language classes accounting for higher performance?

Performance means the effective use of the needed skills knowledge and competences. Academic performance has been defined as grade point average, standardized test scores and educational aspirations and attainment (Farlo & Matjasko, 2012). The authors further explain that other recent studies have defined academic performance as grades, academic attitudes (liking school or wanting to attend school) and academic aspirations. Academic performance has also been defined as the extent to which a student, teacher or an institution has been able to meet their set educational goals (Govindarajoo, Selvarajoo & Ali, 2022). Academic performance is measured through the process of examination, tests or continuous assessments. Factors such as individual differences, learning styles amongst others have been linked to enhanced academic performance. Other non-cognitive factors such as attitude and determination also enhance performance.

Performance should reflect achievement based on the resources used by the institution. Pinteá and Achim (2013) inform that in an institution or organisation, performance should be measured in consonant with the institution's aim. All of which must be considered in the achievement of operation. Alexander (2015) informs that while competence is having a good knowledge of a language, performance involves doing something with the language which allows a more accurate measure of learners' language proficiency. In project based learning, students are constantly made to work on their own or in pairs to arrive at solution to given tasks. This is why PBL could be considered an instructional strategy that could enhance vocabulary acquisition when used.

Considering students different capabilities, it becomes necessary for a teacher to use a strategy that will cater for individual differences so as to

enhance students' performance in vocabulary acquisition. The project based learning (PBL) is a meaningful way to create a student centered activity and maximize students' engagement because it is an interactive strategy.

Project-based learning is beneficial because when effectively used, it helps students to improve their attitude towards interacting with others in language lessons. According to Inceoglu (2011) a strategy employed by the teacher could affect students' attitude either way. PBL also helps students to develop team work and problem-solving skills along with the ability to communicate effectively with others (Love, 2021). The collaborative nature of projects also reinforces the social and emotional programmes enabling students to achieve more.

Other benefits of PBL are that, with this strategy, students with low income parents also make great achievements as they learn with peers who may be from more advantageous homes economically and therefore have access to more sources (Stroupe, DeBarger & Warner, 2017). PBL students are intrinsically motivated because of the autonomy they experience (doing things on their own with the teacher only serving as the facilitator) (McCarthy, 2010). This makes students to purposefully work diligently to master an assignment. Buck Institute for Education explains that with PBL, students engage deeply with target contents thereby becoming more focused which then culminates into long term retention.

In project-based method, teachers make provision for open-ended questions, a challenge or problem for students to research and respond to or solve. This means questions are raised and students seek for answers. At the end there is feedback from peers or teachers which helps the students to revise and retain what has been learnt. In summary, a challenging problem or question, sustained inquiry, authenticity, student voice and choice, reflection, critique and revision are all elements of PBL. Researchers have found PBL, an interactive strategy, to be very useful in teaching vocabulary. This is in agreement with Ochogwu (2014) who found that interactive methods enhance learning more than conventional methods. Adedokan (2011) informs that when a teacher fails to take into cognizance

the dynamic nature of the language curriculum so as to use interactive strategies, lessons become boring. The Project-based learning, an interactive strategy of learning English, has been developed as a result of sustained research (Boss, 2017). Abdo (2020) found that project-based learning (PBL) method helps students gain knowledge by requiring them to work for an extended period of time to investigate a complex problem or question and to find solutions. Zakaria and Hashim (2019) found that PBL helps to facilitate learners' vocabulary acquisition. Love (2021) also found that project based learning provides an opportunity for students to engage deeply with the target content, making the students to acquire long term retention. Other scholars like (Vander Ark and Liebtog, 2018; Sari 2019 ; and Shafaei, Poorverdi & Parvizi, 2007) also found PBL a useful strategy for teaching vocabulary acquisition.

Many other scholars have also found the project based learning approach as one of the strategies that can improve learners' learning motivation, problem solving skills, team work, communication skills and subsequently performance (Zhang & Ma, 2023). For instance, Arochiman, Margana, Ashadi, Achmad and Nugrahaen, (2022) found that project-based learning enhances performance in linguistic aspects such as vocabulary knowledge, grammatical conventions and punctuations. As a new student centered teaching approach, project-based learning directly points to the goal of cultivating 21<sup>st</sup> century skills especially higher order thinking skills and higher order occurs based on problem solving; a challenging problem (Andriyani & Anam, 2022). Problem-based learning motivates students to continuously explore on a given task thereby promoting higher order thinking (Zhang & Ma, 2023). Higher order thinking skill is necessary for language students to achieve higher performance.

Aniani (2023) investigated the effectiveness of project-based learning in enhancing students understanding abilities in the context of English language learning with eight grade students at a Junior high school in Surabaya, East Java. The findings revealed a positive influence of project-based on students' understanding levels. This suggests that project based learning is an effective

21<sup>st</sup> century strategy for teaching language skills because of engagement in practical tasks. This means, as vocabulary acquisition is also one of the language skills, using project-based strategy to teach it could enhance students' performance in that aspect.

Many more studies have proven PBL to be student-centered and therefore effective in causing educational achievements. For instance, Poonpon (2018) investigated the role of project-based learning and effects on learning of language skills. The findings revealed that learners reading, writing, speaking as well as vocabulary knowledge and translation skills improved. This shows that PBL activities allow students to integrate language skills and content knowledge to complete given tasks. This is because PBL being child-centered, during class activity, students majorly work independently or in groups with the teachers serving as facilitators. In agreement with the above statement, Harini (2021) emphasizes that the role of the teacher in PBL is that of facilitator whose major duty is to assign and guide the students on how to carry out given tasks, after which he gives feedback to them. Giving feedback to students as a group or individual could help students to have a better attitude to language lessons as that might serve as a motivator.

Attitude, another variable of this paper is an essential factor in learning the language skills. How an individual looks at a certain subject is what is termed attitude. According to Oiseth, Jones and Maza (2022) attitude could be portrayed in an individual when he or she expresses favour or disfavour towards a person, place, thing or event. A student who has a positive attitude towards language learning would make more progress in it (Yaman, 2014). On the contrary, a negative attitude towards language learning would hinder progress of students and consequently, academic performance. An attitude is a positive or negative feeling an individual has about an object or idea (Sa'ad and Usman, 2014). Okpala, (2023) informs that attitude of a learner towards language learning is important to students mastery of the subject and subsequently performance. This means students need to develop a positive behavior towards learning of language skill by being available in the class and

fully participating in the activities so as to make much progress in it. This is because people develop favourable attitude towards things that aid or reward them (Kara, 2009). However many students behavior towards language lessons is not encouraging. For instance, some play truancy, refuse to participate actively during lessons and refuse to explore and collaborate with others on given tasks. Fakeye (2010) found that major reasons students perform poorly in English language in Nigeria at National Examinations has to do with negative attitude towards the subject. It is therefore of utmost importance to use strategies that would probe students interest so that those with a negative attitude towards English would think better about the subject and begin to play active roles in language lessons. Zhang & Ma (2023) found that project-based learning positively contributed to students' achievement, affective attitudes and thinking skills.

Teachers' attitude also hinders learning in a language class. Najumba (2013) found that teachers' negative attitude towards innovation and use of instructional strategy leads to poor performance. This is so because as Adebileje (2017) explains, if language is not properly taught, its users cannot function in it properly. This means, a teacher with a positive attitude would vary his strategies and use numerous activities to enhance students understanding of a concept. Rocha (2017) researched on the effects of project-based learning on students reading ability and intercultural communicative competence of university students in Thai and found amongst others a significant correlation between reading ability and intercultural attitudes.

In summary, Poonpon (2018) says that PBL is both process and product as students have the opportunity to use many skills (problem solving, creativity, teamwork and language). Problem based learning activities could be characterized thus:

- Focusing on content learning rather than on specific language patterns
- Is student centered so the teacher serves as facilitator or coach
- Encourages collaboration among students
- Leads to authentic integration of language

skills and processing of information from multiple sources

- Allows learners to demonstrate their understanding of content knowledge through end product (e.g. an oral presentation, stage performance, bulletin board display, stage performance and
- Bridges using English in class and using English in real life situations.

The project-based learning is an instructional strategy which makes provision for a platform whereby students are allowed to carry out projects by being creative, critical thinkers and collaborators. Students are tasked to also work independently on given assignments by referring to books, articles after which they document and present the report (Jagatap, 2024).

Using the project-based learning (PBL) strategy to teach vocabulary would therefore, greatly improve students' performance. There are many PBL activities that would enhance students' vocabulary acquisition. Miranda (2021) informs that one of such activities is *wordmaps*. In this activity a primary word is suggested by the teacher and the students assigned to draw five or more lines extending from the primary word and then to brainstorm, find and fix the words related to it. For instance, the word 'kitchen' has *utensils, cutleries, stove, fridge, beverages* and so on that can form part of the map.

*Wordwizard* is another PBL activity. The idea here is for students to choose a word they think they need in their vocabulary and then proceed to find innovative ways of teaching the rest of the students about it (define, say which part of speech it is, number of syllables in it, synonyms of the word) and finally, using the word in a sentence (Miranda, 2024). From this activity, students could learn many words from their peers before the lesson is over.

Another PBL exercise that enhances students' vocabulary acquisition is '*word beyond the classroom*'. According to Smith (2017) a teacher intending to use this activity, instructs students to say the words they have encountered outside which has already been learnt and used in the class as word of the week. This is done in such a way that only the words accompanied with pictures, or found on fliers, newspaper or magazine are

considered. These help the students not just to be conversant with the meaning but to also learn to use it in context. This activity aside from enhancing vocabulary acquisition also helps in changing students attitude from non readers to avid readers so as to get words that will make them part of the class next time.

Another PBL activity used in teaching vocabulary acquisition is *vocabulary journalizing*. Santi, Kholipa, Putri & Mujiono, 2021 inform that students are encouraged to use a jotter each, and possibly arrange the pages alphabetically so as to enter found words in such a way that it would enhance understanding and revision. Using the jotter, students could make sketches as well as find synonyms or antonyms of the new words. It is expected that, with this arrangement, students would easily retain words they have acquired because they have researched and found all they could about the word. This could help to improve their attitude towards language lessons and subsequently performance.

This study hangs on two theories: the constructivist theory by Jean Piaget (1973) and reinforcement theory by Skinner (1938). A theory is set of accepted beliefs or organized principles that explain and guide analysis. Constructivism believes that learning is a journey of discovery of information (Jumaat, Tasir, Abd Halim & Ashari (2017). This could mean students' knowledge is built when the learners ask questions, investigate, interact with others and reflect on their experiences. These make the teacher to look at students as people with experience upon which more knowledge could be built. The struggle of the learner could be minimized through the assistance of the facilitator and more knowledgeable peers. The Project-based learning (PBL) method hangs on the constructivist theory of learning because PBL is often referred to as 'hands on learning' as it involves authentic learning situations.

Skinner's reinforcement theory (1938) has the following four key points. (1) Behaviour is a function of consequences. This could be interpreted to mean that you reap what you sew. For instance, a student who works hard has higher performance. (2) If behaviour is rewarded positively, there is a tendency for it to be repeated. (3) A negative behaviour leads to negative

reinforcement. For instance, a student who did not express his ideas well in an essay will earn few marks. (4) Punishment. Punishment is usually imposed to discourage negative behaviour. Skinner's reinforcement theory is relevant to this study because teachers often look for strategies that would change or reinforce students' attitude towards achieving a higher performance.

### **Purpose of the study**

The purpose of the study was to investigate the effect of project-based method on Junior Secondary School students' achievement in vocabulary and also to find out the attitude of students towards learning English Language. The specific objectives were to:

- i. Ascertain the mean attitude rating of students taught vocabulary using Project-based Learning (PBL) and those taught using conventional method
- ii. Determine the difference in the mean achievement scores of students taught vocabulary using Project-based Learning (PBL) and those taught using conventional method

### **Research Question**

The following research questions were raised to guide the study:

- i. What is the difference in the mean attitude rating of students taught vocabulary using Project-based Learning (PBL) and those taught using conventional method?
- ii. What is the difference in the mean achievement scores of student taught vocabulary using Project-based Learning (PBL) and those taught using conventional method?

### **Hypotheses**

- i. There is no significant difference in the mean attitude rating of students taught vocabulary using Project-based Learning (PBL) and those taught using conventional method?
- ii. There is no significant difference in the mean achievement scores of students taught vocabulary using Project-based Learning (PBL) and those taught using conventional method?

**Method**

**Research Design**

The researchers employed a pre-test, post-test quasi-experimental design. Emaikwu (2019) affirms that quasi-experimental design allows the use of intact classes so as to avoid disruption of regular school programme and allows treatment to be meted on only one of the groups randomly sampled (Dinardo, 2008). The target population of the study comprised 3041 Junior Secondary School students in Gboko Local Government Area of Benue State, 2023/2024 academic session. The choice of Junior Secondary II for the study was due to the observation the researchers made that the students performances in English has been repeatedly poor due to lack of adequate vocabulary in the language. The sample for the study was randomly selected. That ensured that each school stood a chance of being selected. The sample comprised 85 JSS II students in two intact classes, all of Government Day Secondary School, Buter, Gboko town. The experimental group was made up of 40 students while the control group had 45 students.

Instruments for the study were Vocabulary Achievement Test (VAT) and Students' Attitude towards English Lessons Questionnaire (SATELQ). The VAT comprised of 30 words expected to be part of basic vocabulary students encounter in their immediate environment (home and school) such as utensils, cutleries, sponge, detergents, beverages, stove, staff-room, library, laboratory, principal, exam-hall, football, debate, subject, English, Mathematics, computer, girl, teacher and so on. The SATELQ constructed by

the researcher consisted of two parts 'A' and 'B'. Part 'A' elicited personal information from respondents while section 'B' sought information on students' attitude towards English lessons. Section 'B' consisted 12 items. Opinions on the items were elicited using a 4 point scale, strongly agree (4 points), agree (3 points), disagree (2 points) and strongly disagree (1 point). The respondents circled the option which reflected their level of agreement or otherwise with the statements in the questionnaire. The experimental group was taught vocabulary acquisition using PBL activities known as word maps, vocabulary journalizing, word wizards and words beyond the classroom while the conventional group was taught vocabulary using teacher drills, dictionary use and repetition. Teachers assigned words and asked students to find the meaning in the dictionary or the teacher gave the meaning and asked students to repeat until the meaning were memorized. The instruments were administered before and after treatment. Mean and standard deviation were used in answering the research questions, while analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 levels of significance.

**Results**

Research Question: 1

What is the difference in the mean attitude rating of students taught vocabulary using Project-based Learning (PBL) and those taught using conventional method

**Table1: Mean and Standard Deviation of Mean Performance Score of Students Taught Using Project Based Method and Those taught Using Conventional method.**

Method		N	Pre-test		Post-test		Mean gain
x	SD	x	SD				
Project Based method		45	2.98	1.58	15.61	3.82	12.63
Conventional method		41	2.83	1.50	14.55	3.39	11.72
Mean Difference							0.91

Table 1 shows the mean performance scores of students taught using Project Based Method and those taught using conventional method. The table shows that 45 students were taught using Project Based Method while 41 students were

taught using conventional method. The table reveals that the mean performance scores of students taught using Project Based method was 2.98 with a standard deviation of 1.58 at pre-test. Their post test score was 15.69 with a standard



deviation of 3.82. The mean performance scores of students taught using conventional method was 2.83 with a standard deviation of 3.39. Table 1 further show that the mean gain of students taught using Project Based Method was 12.63 and that

those taught using conventional method was 11.72. The mean difference between the two groups was .91 in favour of students taught using Project Based Method.

**Research Question 2:**

What is the difference in the mean achievement scores of students taught vocabulary using Project-based Learning (PBL) and those taught using conventional method?

**Table2:** Mean and Standard Deviation of Achievement scores of students taught vocabulary using Project based method and those taught using conventional method.

Method		N	Pre-test		Post-test		Mean gain
x	SD	x	SD				
Project Based method		45	23.84	4.55	44.40	5.08	20.56
Conventional method		41	23.83	4.29	41.76	5.00	17.93
Mean Difference							2.91

Table 2 shows the mean achievement scores of students taught vocabulary using project-based method and those taught using conventional method. The table shows that students were taught vocabulary using project-based method and conventional method. The table also reveals that the mean achievement scores of students taught Vocabulary using project based method was 23.84 with a standard deviation of 4.55 at pre-test. Their post test score was 44.40 with a standard deviation of 5.08 while the mean achievement scores of students taught vocabulary using

conventional method was 23.83 with a standard deviation of 4.29 at pre-test. Their post test score was 41.76 with a standard deviation of 5.00. Table 2 further shows that the mean gain of students taught vocabulary using Project based method was 20.56 and those students taught vocabulary using conventional method had a mean gain of 17.93. The mean difference between the scores of students taught Vocabulary using Project based method and conventional method was 2.63 in favour of students taught Vocabulary using Project based method.

**Hypothesis Testing**

**Hypothesis I**

There is no significant difference in the mean attitude rating of students taught vocabulary using project-based method and those taught using conventional method?

**Table3:** ANCOVA on Mean performance Scores between Students Taught Using Project Based Method and those Taught Using Conventional Method.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	122.888 <sup>a</sup>	2	40.963	3.301	.023	.080
Intercept	1023.212	1	1023.212	82.460	.000	.420
Pretest	85.809	1	85.809	6.915	.010	.057
Method	34.807	2	17.403	1.403	.250	.024
Error	1414.570	83	12.409			
Total	28328.000	86				
Corrected Total	1537.458	85				

Table 3 reveals that  $F(1, 117) = 1.403$ ;  $p = 0.024 < 0.05$ . Since the p value (0.002) is less than the alpha level (0.05), the null hypothesis is not accepted. This implies that there is significant difference in mean attitude rating between students taught using project method and those

taught using conventional method. Thus, based on evidence from data analysis, there is significant difference between the mean attitude rating scores of students taught vocabulary using project based method and those taught using conventional method the in favour of the experimental group.

**Hypothesis: 2**

There is no significant difference in the mean achievement scores of students taught vocabulary acquisition using project-based Learning (PBL) and those taught using conventional method.

**Table 4:** ANCOVA on Mean Achievement Scores of Students Taught Vocabulary using conventional Method.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta
Corrected Model	208.777 <sup>a</sup>	2	104.386	3.477	.035	
Intercept	4168.576	1	4168.576	138.866	.000	
Pretest	58.806	1	58.806	1.959	.165	
Method	149.639	1	149.639	4.985	.028	
Error	2491.555	83	30.019			
Total	162748.000	86				
Corrected Total	2700.326	85				

R Squared = .077 (Adjusted R Squared = .055)

Table 4 reveals that  $f(1, 85) = 4,985$ ;  $p = 0.028 < 0.05$ . Since the p value (0.028) is less than the alpha level (0.05), the null hypothesis is not accepted. This means there is a significant difference in the mean achievement scores of students taught vocabulary using Project-based learning (PBL) and those taught using conventional method. This implies that there is significant difference in mean achievement scores between students taught vocabulary using project based learning method and those taught using conventional method. Thus, based on evidence from data analysis, there is significant difference between the mean achievement scores of students taught vocabulary using project based learning method and those taught using conventional method.

method and those taught using conventional method. This finding agrees with Duman and Yavuz, (2018) who found a significant difference between the experimental group's pre-test scores in favour of the post test. There was also a significant difference between the experimental and control groups' post-test results in favour of the experimental group. This could be as a result of peer involvement (which served as a motivator) in learning since isolation is not the best way to help students learn and grow together. Also, the students were allowed to choose words they thought they needed to gather their vocabulary and taught the rest of the class about such words. Choosing their words of interest made the project personal to each student and because each child taught a different word, learning became child-centered. The students' attitude towards vocabulary acquisition became more positive as they learnt and retained more words.

**Discussion of Findings**

This section discusses the findings of this research on the effects of using the project-based method on students' attitude and achievement in vocabulary. The first finding reveals that there is a significant difference in the mean attitude rating of students taught vocabulary using project-based

Findings also revealed a significant difference in the mean achievement scores of Students taught vocabulary using Project-based Learning (PBL) and those taught using teacher drills. This finding is consistent with Barr and Chinwonno

(2016) whose study revealed a significant increase in students' performance when Project-based activities were used in vocabulary instruction. The authors also found a significant correlation between English vocabulary acquisition ability and students' attitudes. This could be because the integration of text, talk, and games played important roles in motivating students towards a better attitude which ultimately, led to achievement of positive results. The participants believed that project-based instructional strategy helped them to improve their vocabulary usage and communicative competence. Particularly, their attitude towards English lessons changed for the better. This was because by participating in project-based learning model, students were able to construct their own knowledge and reflect upon their learning projects. Another research by Udu, Lanshima and Nyitse (2024) on the use of Project-based learning method and effect on SS1 Students' performance in reading comprehension in Benue State also found significant improvement in students' performance in reading comprehension after intervention. Jagatap(2024) carried out a study on project-based (PBL) in teaching English Language vocabulary. The students were arranged in groups and assigned vocabulary tasks (defining, finding synonyms, and finding part of speech the word belongs to). The study also found that the use of PBL improved students' vocabulary knowledge and communication abilities. This could be because working in groups rendered the classroom atmosphere more friendly and autonomous so students exhibited a better attitude by contributing interactively and that helped them to retain more words.

### Conclusion

The demand on vocabulary knowledge intensifies throughout the primary and secondary school years, especially in regard to print. The study carefully examined the effect of project-based learning (PBL) as a strategy and its effects on vocabulary acquisition and attitude of JSS2 students. This was necessitated by the researcher's concern over many problems students have with lack of adequate vocabulary, leading to mass failure in English when they write their BECE. Findings revealed that those who were exposed to

the project-based method performed better in English vocabulary than those who did not receive intervention. The attitude of the students also improved towards English lessons as was reflected in the results. Kemaloglu-er & Sahin (2022) found that using PBL in a language class increased students' interest and their language proficiency improved. This means the project-based method affects students' attitude and subsequently, performance in vocabulary acquisition positively.

### Recommendations

Based on the findings of the study, the following recommendations were made:

- i. Teachers should use instructional strategies that would give students various opportunities to connect new words to related words, analyze words, understand multiple meaning, and use words actively in authentic ways.
- ii. Both teachers and students should be passionate about words by immersing themselves in the language so as to come in contact with words from different fields. This could be done by assigning tasking tasks on vocabulary to students such as finding new words and teaching it in the class to boost retention.
- iii. Students should change their negative attitude towards language lessons to a positive one by fully getting involved and participating in vocabulary games and activities both within and outside the classroom.
- iv. Teachers should find a way of providing more targeted support to students by involving vocabulary games that could involve peer collaboration to work at a given task.

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