

# The Implementation of Project-Based Learning in Enhancing Vocabulary Proficiency

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## Abstract

This study aims to improve the vocabulary and pronunciation skills of seventh-grade English learners at UPTD SMPN 2 Barru by implementing a project-based learning (PjBL) model. Utilizing the Classroom Action Research (CAR) approach, this research unfolds over two cycles, where each cycle includes the phases of planning, execution, observation, and reflective analysis. Data collection involved tests, projects, and observational assessments to gauge student learning outcomes. The findings revealed a notable improvement in the average scores of students, rising from 62.92 in the initial cycle to 80.83 in the subsequent cycle. Furthermore, the proportion of students meeting completion criteria increased from 41.67% in the first cycle to 83.33% in the second cycle. Additionally, there was a marked enhancement in student participation, with learners demonstrating greater activity and confidence when presenting their work to the class. These outcomes suggest that the PjBL approach is effective in fostering student comprehension and engagement in English language learning. This study corroborates earlier research highlighting the advantages of PjBL, particularly in enhancing student motivation, collaboration, and academic performance. Consequently, it is recommended that strategies for implementing PjBL be meticulously crafted to optimize learning potential, cultivate a more conducive learning environment, and elevate students' academic success.

**Keywords:** Project-Based Learning; Vocabulary; Pronunciation Skills

## INTRODUCTION

Language learners frequently view vocabulary acquisition as the most challenging aspect of language learning since it is one of the fundamental communication skills. According to researchers (Feng & Webb, 2019; Grabe & Stoller, 2018; Mokhtar, Rawian, Yahaya, Abdullah, & Mohamed, 2009), having a strong vocabulary is essential for effective communication. In fact, having a large and excellent vocabulary is essential to comprehending the meaning of many English words and paragraphs. Gaining sufficient vocabulary is one of the important factors that improves reading comprehension.

Due to the fact that effective methods for improving students' vocabulary proficiency can be used to identify effective language learning strategies (LLSs) and then teach students how to apply them. As stated by Reed, Petscher, and Foorman (2016), learning a language requires four abilities in order to communicate fully. Students who are proficient in grammar and vocabulary can develop linguistic competence, which is a component of communicative competence (Vaca Torres & Rodríguez Gómez, 2017). Furthermore, it is essential for English language learners to grasp the vocabulary aspect of the language. Moreover, the effectiveness of teaching and learning can be significantly enhanced by incorporating specific characteristics that support the reinforcement of students' vocabulary, thereby facilitating their English proficiency. The researcher of this study focused on vocabulary as a critical element of the English language.

It goes without saying that vocabulary is important while learning a new language. An integral part of every language use is vocabulary (Lin, Liu, Sun, Wong, & Yeung, 2017). For students whose vocabulary does not meet a certain level, interpreting the fundamental aspects of a text can be challenging, thereby limiting their ability to attain a deeper comprehension of the surrounding context. The ability to utilize language effectively requires a strong vocabulary (Aziz & Dewi, 2019). Similarly Vocabulary is a component of language proficiency that lays a significant portion of the groundwork for pupils' language acquisition success, according to Kim (2016). Listening to the radio, watching television, reading, or conversing with native speakers are all examples of language learning opportunities that learners might take use of, yet they often perform below their potential. This is a result of their inability to acquire new words using a thorough vocabulary method.

It is advisable to implement project-based learning as a pedagogical approach. This method allows students to undertake the development, structuring, and completion of a comprehensive project, culminating in a publicly exhibited result, which may take the form of a publication, presentation, or a physical product (Hugerat, 2016). As students create individually meaningful items, project-based learning concentrates on their vocabulary (Vaca Torres & Rodríguez Gómez, 2017). In the words by Sari, et al (2021), Within the context of the 2013 curriculum, project-based learning is advocated as a preferred instructional approach. The implementation of this curriculum underscores the necessity for teachers to function primarily as facilitators in the educational environment. PjBL refers to a methodology that allows "students to plan, plan, and implement long-term projects that produce publicly exhibited outputs such as products, publications, or presentations" (Patton in Riswandi, 2018). Ulrich (2016) asserts that project-based learning is learning by doing. The inclusion of specific terminology that have several definitions and interpretations in the larger literature quickly complicates problem-based learning (Savery, 2015). In layman's words, project-based learning is defined as education that attempts to connect technology to real-world problems that students are familiar with, or with school projects (Refalu and Suriанти, 2021). When it comes to student learning, research on project-based learning generally indicates positive effects in terms of material comprehension, problem-solving ability, motivation, and teamwork skills. The main purpose of this study is to improve students' vocabulary knowledge and ability to pronounce words in English at the Junior High School UPTD SMPN 2 BARRU class VII.3 through the use of the Project-Based Learning (PjBL) paradigm.

Several studies found a demonstrated by an increase in average test scores, the Project Based Learning (PjBL) approach successfully improved the students' capacity to compose brief communications. 22 students (70.96%) passed the first cycle, compared to 7 students (22.58%) who passed the preliminary test. 28 pupils, or 90.32 percent, have satisfied the success criteria by the second cycle. A number of factors contributed to the students' increased writing proficiency, including the teacher's explanations in the classroom and the students' enthusiasm, engagement, and attention by Anam, Muharlisiani, & Sulistyawati (2023). While, according to Nuristiqomah, Risnani, & Wahyuni (2024) discovered that a rise in students meeting minimum writing standards from 22.58% to 90.32% in his research entitled Improving Students' Reading Comprehension Ability and Learning Activeness Using Project-Based Learning Model Assisted by Visual Media.

This study seeks to fill these gaps by examining the implementation of the Project-Based Learning paradigm to enhance vocabulary acquisition and pronunciation skills among junior high school students, particularly in a rural Indonesian school setting. By addressing this gap, the research aims to contribute valuable insights into the practical application of PjBL for vocabulary development in secondary education and offer implications for curriculum design and instructional practices.

## METHOD

Classroom Action Research (CAR) is one of numerous popular research paradigms in the field of education. Classroom action research is scientific research that aims to rectify or evaluate activities. Classroom action research is utilized to increase the learning experience in the classroom. Strengthened by Afandi and Machali (2022), who stated that classroom action research is a type of scientific and methodical study conducted by teachers to improve teaching processes and outcomes. This model serves as the primary reference for a variety of classroom action research models. Kurt Lewin defined each PTK cycle as four steps: (1) planning, (2) acting, (3) observing, and (4) reflecting.

## RESULTS AND DISCUSSION

### Results

The analysis and research findings reflect information derived from data on student learning outcomes attained via the service of the Project Based Learning methodology. The research was divided into two phases, Cycle I and Cycle II. The final test results from these cycles will serve as the analytical foundation for this research endeavor.

### Cycle 1

In Cycle I, the application of the Project Based Learning model did not yield optimal results. This shortfall adversely affected students' comprehension and execution of learning activities. Throughout Cycle I, students received the following scores in Differentiated Learning utilizing the Project Based Learning approach.

**Table 1.** List of Cycle 1 Evaluation Scores

| NO | Student Name | Score |
|----|--------------|-------|
| 1  | ZA           | 50    |
| 2  | ZB           | 85    |
| 3  | ZC           | 60    |
| 4  | ZD           | 80    |
| 5  | ZE           | 60    |
| 6  | ZF           | 20    |
| 7  | ZG           | 80    |
| 8  | ZH           | 75    |
| 9  | ZI           | 60    |
| 10 | ZJ           | 50    |
| 11 | ZK           | 70    |
| 12 | ZL           | 50    |
| 13 | ZM           | 40    |
| 14 | ZN           | 60    |
| 15 | ZO           | 75    |
| 16 | ZP           | 90    |
| 17 | ZQ           | 60    |
| 18 | ZR           | 35    |
| 19 | ZS           | 75    |
| 20 | ZT           | 90    |
| 21 | ZU           | 75    |
| 22 | ZV           | 40    |

|         |    |       |
|---------|----|-------|
| 23      | ZW | 80    |
| 24      | ZX | 50    |
| Average |    | 62,92 |

**Table 2.** Statistics on Students' Mastery Scores on Cycle 1 Tests

| Statistics    | Statistical Value |
|---------------|-------------------|
| Subject       | 24                |
| Ideal Score   | 100               |
| Maximum Score | 90                |
| Minimum Score | 20                |
| Score Range   | 75                |
| Average Score | 62,92             |

The results of English language acquisition after the application of the project-based learning model in Cycle I produced an average score of 62.92 out of a possible 100, as demonstrated in Table 1. A total of 10 students reached the criteria for completeness, representing 41.67% of the cohort, which suggests that a portion of the students has yet to achieve the required proficiency. The students' performance in addressing the questions from Cycle I is detailed in Table 3, which presents the percentage of students who attained learning completeness in the examination.

**Table 3.** Students' Performance

| Score  | Frequency | Presentation | Information      |
|--------|-----------|--------------|------------------|
| 75-100 | 10        | 41,67%       | Complete         |
| <75    | 14        | 58,33%       | Not Finished Yet |
| Amount | 24        | 100%         |                  |

According to the information in the table, the utilization of the Project Based Learning model facilitates student learning, although it is noteworthy that only 41.67% of the cohort, comprising 10 students from a total of 24, successfully met the learning criteria. These results indicate that students have not achieved learning completeness in the first cycle, classically, because only 41.67% of students obtained a score of more than 75, which is still less than the expected percentage of completeness, namely 80%, due to convenience.

## Cycle 2

At this stage, researchers are dedicated to the development of educational tools that aim to enhance the learning experience in classroom environments. In parallel, observation sheets have been formulated to evaluate the application of the Project Based Learning model. The teaching and learning activities for Cycle II were implemented with a group of 24 students at UPTD SMPN 2 Barru, with researchers fulfilling the role of teachers. The instructional process is guided by lesson plans that incorporate modifications made during Cycle I, aimed at avoiding the recurrence of errors or shortcomings identified in Cycle II. Observations are conducted concurrently with the learning activities. During this cycle, learning outcomes are evaluated through daily assessments. Table 4 illustrates the performance metrics of students following the implementation of Project Based Learning in the second cycle, while Table 5 presents a statistical analysis of the mastery scores achieved by students in the assessments of the second cycle.

**Table 4.** List of Cycle 2 Evaluation Scores

| NO | Student Name | Score |
|----|--------------|-------|
| 1  | ZA           | 75    |
| 2  | ZB           | 95    |

|         |    |       |
|---------|----|-------|
| 3       | ZC | 80    |
| 4       | ZD | 90    |
| 5       | ZE | 50    |
| 6       | ZF | 70    |
| 7       | ZG | 70    |
| 8       | ZH | 75    |
| 9       | ZI | 90    |
| 10      | ZJ | 80    |
| 11      | ZK | 90    |
| 12      | ZL | 95    |
| 13      | ZM | 100   |
| 14      | ZN | 50    |
| 15      | ZO | 75    |
| 16      | ZP | 90    |
| 17      | ZQ | 95    |
| 18      | ZR | 75    |
| 19      | ZS | 80    |
| 20      | ZT | 95    |
| 21      | ZU | 75    |
| 22      | ZV | 75    |
| 23      | ZW | 80    |
| 24      | ZX | 90    |
| Average |    | 80,83 |

**Table 5.** Statistics on Students' Mastery Scores on Cycle 2 Tests

| Statistics    | Statistical Value |
|---------------|-------------------|
| Subject       | 24                |
| Ideal Score   | 100               |
| Maximum Score | 100               |
| Minimum Score | 50                |
| Score Range   | 75                |
| Average Score | 80,83             |

In Cycle II, the application of the Project Based Learning model resulted in an average score of 80.83 for English learning, relative to the ideal score of 100, as detailed in Table 4. There were 20 students who completed, with a percentage of 83.33%, which shows that there are still there are some students who haven't finished yet. The students' ability to solve Cycle II questions can be seen in Table 6, which shows the percentage of students' learning completion on the exam.

**Table 6.** Distribution of Cycle 2 Evaluation Scores

| Score  | Frequency | Presentation | Information      |
|--------|-----------|--------------|------------------|
| 75-100 | 20        | 83,33%       | Complete         |
| <75    | 4         | 16,67%       | Not Finished Yet |
| Amount | 24        | 100%         |                  |

Based on the table above, learning completeness reached 83.33%, or 20 out of 24 students. These results show that classical learning mastery in Cycle II increased significantly compared to Cycle I. This happened because students became more motivated to study at the next meeting after the teacher told them that there would be a test at the end of each lesson. Due to their involvement in real-world situations that relate to their experiences, students' motivation and interest in learning have been observed to increase dramatically with this strategy. (Rusdy,

Maftuhah, Asti, Indawan, & Norazmie, 2023; Ali, 2019). After the introduction of the Project Based Learning model, students increasingly comprehend the meanings and aims articulated by the teacher.

### Implementation Results

From the research results in Cycle 1, only 41.67% of the 24 students in the class succeeded in graduating. Meanwhile, in the Cycle II research results table, there were 4 students or 16.67% who had not achieved completion. while 20 students or 83.33% have fulfilled the requirements.

Through the requirement that students work on challenging, open-ended tasks, PBL encourages active engagement. Due to their involvement in real-world situations that relate to their experiences, students' motivation and interest in learning have been observed to increase dramatically with this strategy. (Rusdy, Maftuhah, Asti, Indawan, & Norazmie, 2023; Ali, 2019). All of this can be seen from the enhance in activity or action from first cycle to second cycle.

**Table 7.** Comparison of The Results of Cycles 1 And 2

| Cycle | Acquisition Value |     |       | Completeness |                  |
|-------|-------------------|-----|-------|--------------|------------------|
|       | Max               | Min | Mean  | Complete     | Not Finished Yet |
| I     | 100               | 0   | 62,92 | 10           | 14               |
| II    | 100               | 0   | 80,83 | 20           | 4                |

### Discussion

The findings from the two cycles show a significant improvement in average learning evaluation scores, increasing from 62.92% in Cycle I to 80.83% in Cycle II after correcting errors in the Project Based Learning (PjBL) model. Student completion rates also rose, highlighting PjBL's effectiveness in enhancing comprehension and engagement. (Anam, Muharlisiani, & Sulistyawati, 2023) reported an increase in average student scores from 50 to 71.18 and completion rates from 41.18% to 82.35%, along with improved teacher engagement (76% to 92%) and student participation (71% to 91%). Similarly, (Nuristiqomah, Risnani, & Wahyuni, 2024) noted a rise in students meeting minimum writing standards from 22.58% to 90.32%. This study supports the previous research findings on PjBL's benefits while emphasizing the need for refined implementation strategies to maximize its potential. Thoughtfully designed learning experiences that promote engagement can lead to significant improvements in educational outcomes, enhancing both academic performance and the learning environment.

### CONCLUSION

The findings of this research indicate that the implementation of the Project Based Learning (PjBL) model approximately aids pupils in developing their vocabulary and pronunciation skills in English. This conclusion is drawn from the problem formulation, research results, and subsequent discussion, as well as the researcher's observations that the projects assigned to students align with activities they frequently engage in. The findings from the research conducted over eight meetings indicate a notable improvement in the learning outcomes of the seventh-grade students in class VII 3 at UPTD SMPN 2 BARRU, facilitated by the Project-Based Learning (PjBL) model. This enhancement is evidenced by a significant rise in the regular scores of students' performance, which progressed from a poor classification to an excellent one. Additionally, there has been a marked increase in student engagement, as evidenced by their heightened activity levels and increased confidence when presenting their assignments to the class, as observed during the instructional process.

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