IJEAL (*International Journal of English and Applied Linguistics*)
Volume : 5 | Number 3 | December 2025 | E-ISSN: 2787-9482 | DOI: doi.org/ijeal.v5i3.6878

THE EFFECT OF IMPLEMENTATION PROJECT-BASED LEARNING (PJBL) ON STUDENTS' ENGLISH LEARNING OUTCOMES

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Received: 22/08/2025
Accepted: 07/11/2025
Publication: 01/12/2025

Abstract
The objective of this study is to ascertain the impact of implementing PjBL on the English learning outcomes of students at MAN 1 Dompu in the 2024 academic year. The present research employed a pre-experimental method with a one-group pre-test–post-test design using a quantitative approach. The population under study comprised all 216 eleventh-grade students. The sample population for this study comprised 25 students from class XI Science 2, which was designated as the experimental class. Sixteen students participated in the pre-test and seventeen in the post-test. The purposive sampling technique was utilized in this study. The data were collected through the administration of pre-tests and post-tests and subsequently analyzed using a normality test. The pre-test results demonstrated an average score of 57, while the post-test average increased to 80, indicating an improvement of 23 points. Subsequent analysis of the post-test data was conducted using a t-test, which yielded a t-count of 1.728. The obtained value of 0.104 was then compared with the threshold of 0.05. In consideration of the findings, a statistically significant discrepancy was identified in the student learning outcomes before and after the implementation of PjBL. In reference to the proposed hypotheses Ha: there is an effect of applying the PjBL model on the learning outcomes of MAN 1 Dompu students, and H_0: there is no such effect the findings support the acceptance of Ha. Consequently, it can be concluded that the implementation of PjBL had a positive effect on the English learning outcomes of MAN 1 Dompu students in the 2024 academic year.

Keywords: 21st Century Skills, English Learning Outcomes, Project-Based Learning (PjBL), Student Achievement.

Introduction

The 21st century learning model is an innovative learning approach that focuses on developing the skills and competencies of students to be able to adapt and play an active role in the era of globalization. (Trilling & Fadel, 2009) argues that the 21st century learning model aims to equip learners with learning and innovation skills, skills to use media and information technology, and life and career skills. So this explanation can be interpreted that the ability to think critically, effective communication, collaboration / cooperation and creativity is important so that students can continue to learn and adapt to various challenges and changing times. And also students are required to be able to utilize information technology to access, manage, integrate, and evaluate information effectively and efficiently. (Center, 2010) also argues that the 21st century learning model emphasizes the development of the 4Cs, namely critical thinking, communication, collaboration, and creativity.

These four skills are important for students to answer the challenges in this era of globalization. In line with this (Shaheen, 2010) suggests that the 21st century learning model aims to update the education system to match the progress of the times by integrating

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curriculum, assessment, learning, and teacher professional development. Talking about the 21st century learning model, there are 7 learning models, namely: 1. Discovery Learning, 2. Inquiry Learning, 3. Problem Based Learning, 4. Project Based Learning, 5. Self-Directed Learning, 6. Teaching Factory, 7. Model Blended Learning.

One of the 21st century learning models is project-based learning, Project Based Learning is a learning model that uses projects or activities as a medium. In line with this (Wahyuni, 2019) Project Based Learning is a learning model that provides opportunities for educators to manage learning in the classroom by involving project work. Project work contains complex tasks based on problems as the first step in collecting and integrating new knowledge based on their experience in real activities and guiding students to design activities, solve problems, make decisions, conduct investigative activities, and provide opportunities for students to work independently or in groups.

The end result of the project work is a product which includes written or oral reports, presentations or recommendations. However, the learning process is often centered on the teacher where the teacher is the only source of knowledge in the classroom. Teachers actively transfer knowledge to students through lectures and verbal explanations and students are passive, just listening and recording what the teacher says. Thus, creating a monotonous learning atmosphere. In addition, in the learning process in class the duration of learning is short.

In regard to the selection of an effective learning method, the Project-Based Learning (PjBL) model has emerged as a promising alternative. Project-Based Learning (PBL) is an instructional approach that emphasizes student-centered activities, where learners construct knowledge and develop competencies by engaging in meaningful projects. In contrast to conventional pedagogical methods that predominantly emphasize memorization and teacher-centered instruction, PjBL demands that students apply concepts in authentic real-life contexts through the execution of authentic tasks. This pedagogical model fosters active learning and empowers students to assume responsibility for their own learning process.

According to (Bell, 2010), Project-Based Learning enables students to proactively investigate authentic problems and challenges, thereby fostering the development of cross-curricular competencies such as critical thinking, collaboration, communication, and creativity. These skills are highly sought after in the 21st century. Furthermore, (Makrifah & Widiarini, 2019) underscored that PjBL fosters learner motivation by engendering a sense of ownership and relevance, as the projects on which they work are frequently linked to real-life issues or community needs. Therefore, PjBL has been demonstrated to not only enhance academic achievement but also foster personal growth, social skills, and readiness for future challenges.

In the context of English as a Foreign Language (EFL), Project-Based Learning has been shown to be particularly effective due to its ability to provide a natural environment for students to engage in authentic communication using English. Project work, including presentations, role plays, interviews, and the creation of digital media, offers students more opportunities to practice language skills in meaningful situations. This pedagogical approach has been shown to enhance students' linguistic abilities, particularly their receptiveness and proficiency in listening, speaking, reading, and writing. Furthermore, it has been observed to foster increased confidence and motivation in students to utilize English in authentic, real-world settings (Bytyqi, 2021). Consequently, Project-Based Learning can be regarded as a potent strategy to enhance both language proficiency and essential 21st-century competencies among students.

This learning model is considered as one of the learning models that can help improve the English competence of students because the learning process emphasizes student experience in real activities. In line with this, according to Afriani in (Sudrajat & Hernawati, 2022) Project-based learning is a student-centred learning model and it can provide a rewarding experience for students. The application of this project-based learning model is one alternative that can be used to actively involve students with the material to be learned through problem solving and provide opportunities for students to construct their knowledge in creating a product.

Preliminary observations conducted by the researcher on Monday, October 30, 2023 at MAN 1 Dompu revealed that the teaching and learning process had already

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incorporated elements of the 21st-century learning model. One of the pedagogical approaches employed by the teachers was Project-Based Learning (PjBL), which emphasizes active, collaborative, and contextual learning. The model under scrutiny has been instrumental in fostering student engagement in the completion of projects that demand exploration, research, and presentation of ideas in authentic settings, all in English. These pedagogical practices are congruent with the demands of the prevailing curriculum, which encourages learners to not only master theoretical knowledge but also to demonstrate creativity, critical thinking, communication, and collaboration skills.

However, although the implementation of PjBL was observed, it remained unclear whether this model had a significant effect on students' English learning outcomes. A multitude of factors have the capacity to influence learning achievement. These include, but are not limited to, students' motivation, the effectiveness of the project design, assessment strategies, and the availability of learning resources. Therefore, it is necessary to examine scientifically and systematically whether the application of PjBL truly contributes to improving students' English proficiency, especially in the context of MAN 1 Dompu. Such a study is expected to provide empirical evidence on the effectiveness of PjBL, as well as practical recommendations for English teachers in designing and implementing student-centered learning activities that support better outcomes.

Based on the background explanation above that the learning process is often centred on the teacher where the teacher is the only source of knowledge in the classroom and based on the observations of researcher, teacher have used a Project-Based Learning model in teaching English. In this case, this learning model equips students with various competencies needed such as critical thinking skills, creativity, technological literacy, and communication skills. And also improve student learning abilities through a student-centred learning approach, students are trained to actively explore knowledge and manage their own learning process. Therefore, the solution that researcher can offer is the implementation of a Project-Based Learning model for students. The implementation of this learning encourages students to foster creativity, independence, confidence, and a more critical and analytical way of thinking.

Literature Review

Project-Based Learning (PjBL) is regarded as an innovative, student-centered learning approach that utilizes authentic projects as the primary means of constructing 21st-century knowledge, skills, and learning dispositions (Bell, 2010). PjBL has been demonstrated to facilitate the development of conceptual understanding and practical skills in students, including problem-solving, communication, collaboration, and creativity. In the context of English as a Foreign Language (EFL) learning, as exemplified in Indonesia, PjBL is theorized to enhance English learning outcomes by providing students with the opportunity to utilize language meaningfully in real-life activities, fostering teamwork, and facilitating the integration of multimodal literacy skills (Bytyqi, 2021). Consequently, the English learning process has evolved from a mere memorization of vocabulary and mastery of grammatical structures to a focus on the acquisition of communicative and applicable language skills that are pertinent to students' lives.

In Islamic senior high schools such as MAN 1 Dompu, the implementation of Project-Based Learning (PjBL) is highly relevant to the demands of the national curriculum, both the 2013 Curriculum and the strengthening of the Pancasila Student Profile (P5), which emphasizes contextual, collaborative, and product-oriented learning. The implementation of English-based projects serves to facilitate the development of cross-cultural communication skills among students, thereby enhancing their comprehension of the local context and cultivating the competencies required for success in the global era. For instance, the creation of a Dompu

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Volume : 5 | Number 3 | December 2025 | E-ISSN: 2787-9482 | DOI: doi.org/ijeal.v5i3.6878

tourism brochure in English or a vlog centered on local culture can link language learning with the region's potential, enabling students to experience the significance and tangible advantages of the learning process.

However, the implementation of Project-Based Learning (PjBL) is not without challenges. Project planning, which must align with core competencies and learning objectives, often demands both creativity and precision from teachers (Fallas Gabuardi, 2021). Additionally, the ongoing assessment of these skills is a multifaceted process, as educators are tasked with evaluating not only the final product but also the process, engagement, and development of each individual's language skills. The existence of various challenges must be acknowledged. Among these challenges are limited infrastructure, including access to technology and learning media, as well as relatively limited time allocated within the lesson schedule. The extent to which teachers and students are prepared to implement PjBL is also a contributing factor to its success. PjBL necessitates a proficient command of classroom management techniques, adaptability, and a comprehensive grasp of scaffolding strategies. Therefore, the success of PjBL implementation at MAN 1 Dompu is contingent upon substantial school support, meticulous planning, and the leveraging of local resources to enhance contextual learning.

Research Method

Types of Research

According to Dukeshire and Thurlow in (Jannah, 2016), research can be defined as a systematic method for data collection and presentation of results. In order to ensure that research is directed towards clearly defined objectives and is aligned with the objectives to be achieved, it is important to determine the appropriate type and design of research. In this study, the researcher employed a quantitative approach because the focus was on analyzing numerical data to measure the effect of the treatment given, namely the implementation of the Project-Based Learning (PjBL) model, on students' English learning outcomes.

Specifically, the present study employed a pre-experimental method, utilizing the One-Group Pretest–Posttest Design. The selection of this design was predicated on its capacity to facilitate the measurement of students' learning outcomes prior to and following the implementation of PjBL. This methodological framework enables the observation of any enhancement that may transpire. In this design, only one group is involved (the experimental class), without the inclusion of a control group or comparison group. The class was administered a pretest to ascertain the students' initial English proficiency level. The treatment was administered through the implementation of Project-Based Learning in English instruction. Consequently, a posttest was administered to evaluate the extent of any enhancement in learning outcomes subsequent to the intervention.

The employment of this design is associated with both strengths and limitations. On the one hand, the method is characterized by its simplicity, practicality, and effectiveness in determining the impact of a given treatment on student achievement. Conversely, the absence of a control group precludes the researcher from completely ruling out the potential impact of extraneous factors that could influence the outcomes. Nevertheless, this method is considered suitable for preliminary studies that aim to investigate the potential effectiveness of an instructional model, in this case, Project-Based Learning, in improving students' English learning outcomes at MAN 1 Dompu.

Population and Sample

The term "population" is defined as the totality of the data to be studied, thereby serving as the foundation for research inquiries. According to Margono (Jannah, 2016), the term "population" refers to all data highlighted by a researcher within a specific scope and period of time. The population of this study comprised all students enrolled in grade XI at MAN 1 Dompu during the 2023/2024 academic year. The population under study included students from eight different classes. The total number of students in the following courses is 216: XI Science 1, XI Science 2, XI Science 3, XI Social Studies 1, XI Social Studies 2, XI Social Studies 3, XI

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Religion 1, and XI Religion 2.

A sample is defined as a subset of the population that is meticulously selected to represent the entire group in a study (Afrianti, 2021). (Retnawati, 2015) offers a definition of a sample as a portion of the overall object to be studied or evaluated that has certain characteristics of the population. The selection of the sample was determined by the recommendation of the English subject teacher at MAN 1 Dompu. The selected sample was class XI Science 2, comprising 25 students, including 11 males and 14 females.

The sampling technique employed was purposive sampling, which, according to (Sugiyono, 2019), is a sampling technique determined by specific considerations or criteria. The rationale underpinning the selection of class XI Science 2 as the subject population for this study was that it was deemed a suitable candidate for the implementation of the Project-Based Learning (PjBL) model in English instruction. Consequently, the selected sample was expected to provide valid data that could illustrate the effectiveness of PjBL on students' English learning outcomes.

Data Collection Technique

In this study, the techniques used for data collection were tests. Tests were used to measure the success rate of implementing a project-based learning model. There are 2 tests carried out in this study, namely pre-test given before treatment and post-test given after treatment.

Pre-Test

According to Matondang in (Magdalena et al., 2021), a test is defined as an instrument utilized to assess the extent to which learning material can be comprehended and mastered by students. The items or questions presented in the test must be directly related to the subject matter being taught so that the results truly reflect students' level of comprehension and achievement. In the context of this study, a pre-test was administered as the initial step before the treatment was given. The objective of the preliminary assessment was to ascertain the students' existing knowledge and proficiency in English, particularly with regard to the material that would subsequently be instructed through the Project-Based Learning (PjBL) model.

The pre-test was administered on Tuesday, April 30, 2024, and included students from class XI Science 2 at MAN 1 Dompu. The evaluation comprised a series of structured inquiries designed to assess various English competencies pertinent to the established learning objectives. These competencies encompassed vocabulary, grammar, reading comprehension, and writing proficiency. The researcher administered a pre-test to obtain an overview of the students' initial abilities prior to the implementation of the PjBL model. The results of the preliminary test then served as a crucial point of comparison with the post-test results, which were administered after the treatment, in order to determine whether there was any significant improvement in the students' English learning outcomes.

Post-Test

According to Matondang in (Magdalena et al., 2021), post-test is a type of test administered at the conclusion of the learning process with the purpose of measuring the extent of students' understanding of the material and the key concepts that have been studied. The content of the post-test must be directly related to the material that has been taught during the treatment so that it can accurately reflect the students' mastery after instruction. Subsequent to the administration of the post-test, a comparison is made between the results and those of the pre-test. This process enables the determination of the extent to which student learning outcomes have been achieved. The efficacy of a given teaching program or instructional model in facilitating learning can be determined by observing improvements in students' understanding and achievement following the learning process.

In this study, the post-test was administered on Tuesday, May 21, 2024, to the same sample group, namely class XI Science 2 at MAN 1 Dompu. The test items were meticulously crafted to align with the objectives of the English learning material delivered through the Project-Based Learning (PjBL) model. The assessment encompassed a range of linguistic proficiencies, including vocabulary acquisition, grammar application, reading comprehension, and writing ability, ensuring congruence with the pre-test format. Through a meticulous analysis and comparison of the scores obtained from the pre-test and post-test, the researcher ascertained

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the extent of the enhancement in the students' English learning outcomes that was precipitated by the implementation of PjBL.

Research Instruments

According to (Putri, 2023), research instruments are tools used in research activities, primarily for measurement and data collection. The instruments applied in this study consisted of tests and a student response questionnaire. The tests were used to measure the effectiveness of implementing the Project-Based Learning (PjBL) model, consisting of a pre-test administered before treatment to assess students' initial ability and a post-test administered after treatment to evaluate learning improvement. Both tests were written in the form of multiple-choice questions.

Data Analysis Techniques

The data analysis in this study was conducted in two stages: the preliminary stage and the final stage. In the early stage, a pre-test was administered to determine the initial condition of the students, followed by a normality test to check whether the data were normally distributed, using the help of SPSS version 29. Following the administration of the treatment to the experimental class via the implementation of the Project-Based Learning (PjBL) model, a post-test was administered to measure students' English learning outcomes. The final stage of the data analysis process entailed conducting a normality test for the post-test scores (Astawa et al., 2017). This procedure was identical to the one employed in the initial stage, ensuring the integrity of the data distribution. In addition, an N-Gain test was administered to evaluate the efficacy of the treatment in enhancing students' learning outcomes. To test the research hypothesis, a paired samples t-test was applied, comparing the pre-test and post-test scores of the experimental class. The following hypotheses were put to the test: The null hypothesis, or H0, states that the implementation of the Project-Based Learning (PBL) model does not have an effect on students' English learning outcomes at MAN 1 Dompu. Conversely, the alternative hypothesis, or H1, suggests that the implementation of the PBL model does have an effect on students' English learning outcomes at MAN 1 Dompu. All statistical analyses were conducted with the assistance of SPSS version 29.

Results and Discussion

Results

In this study, the researcher used a test in the form of multiple-choice questions totaling 15 numbers. The test was given 2 times during the study. The first test was given at the time of the pre-test, which is before the implementation of project-based learning. The pre-test was intended to find out the student's initial ability in personal letter material. Furthermore, the second post-test was given after students have finished carrying out personal letter learning with the implementation of project-based learning.

Description of Pre-test and Post-Test Learning Outcomes

The data of students' English learning outcomes on personal letter materials, obtained from both the pre-test and post-test, are presented in the following table:

Table 1.
Computation of Pre-test and Post-test Scores of Students in the Experimental Group

No	Sample	The Score of Pretest	The Score of Posttest
1	A	53,33	80
2	A	66,66	73,33
3	A	66,66	80
4	H	73,33	80
5	H	66,66	80
6	H	53,33	80
7	K	73,33	80
8	M	66,66	86,66
9	N	40	86,66
10	N	40	80
11	R	40	80

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12	R	66,66	73,33
13	R	73,33	80
14	R	33,33	86,66
15	S	40	80
16	S	66,66	80
17	S		80
	Total	**919,94**	**1.366,64**

Based on the table above, the pre-test scores of students in Grade XI Science 2 ranged from the lowest score of 33.33 to the highest score of 73.33. These results indicate that before the treatment was given, students' understanding of the material was still relatively low and uneven, with a wide gap between the lowest and highest achievers. Meanwhile, the post-test scores ranged from 73.33 to 86.66, demonstrating not only an overall increase in achievement but also a narrowing of the score gap among students. This shows that after the implementation of the treatment, students' performance improved significantly, with even the lowest-scoring students achieving a score equal to the highest score in the pre-test. The consistent increase across the score range highlights the effectiveness of the learning model applied, as it was able to raise the general level of mastery while also reducing disparities among students. In other words, the intervention not only enhanced individual outcomes but also fostered a more equitable distribution of learning gains across the class.

Results of Inferential Analysis

a. Normality Test

The normality test was carried out to find out whether the data obtained from the pre-test and post-test questions were normally distributed or not. The normality test in the type of study of one group pre-test and post-test design used the shapiro-wilk test which was calculated with SPSS 29. The results of the normality test of learning outcome data can be seen in the following table:

Picture 1. Normality Test Results

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelas	Statistic	df	Sig.	Statistic	df	Sig.
Hasil Belajar Siswa	Pre-Test Eksperimen	.301	16	<,001	.831	16	.007
	Post-Test Eksperimen	.366	17	<,001	.732	17	<,001

a. Lilliefors Significance Correction

The normality test was conducted using **SPSS version 29** to determine whether the pre-test and post-test data in one class followed a normal distribution. In the normality test table, several important components are presented:

- Statistic: This value indicates the extent to which the data distribution deviates from the ideal normal distribution.
- Df (Degree of Freedom)**:** Refers to the number of independent observations in the sample that are available for the calculation.
- Sig (Significance Value): Shows the probability that the sample data come from a normally distributed population.

Based on the output table, the significance value obtained from the pre-test and post-test results was **0.07**, which is greater than the commonly used significance threshold of **0.05**. This indicates that there is no sufficient evidence to reject the null hypothesis of normality. In other words, the data from both the pre-test and post-test can be considered normally distributed**.**

Therefore, it can be concluded that the learning outcome data (pre-test and post-test) fulfill the assumption of normality, which is an important prerequisite for conducting further parametric statistical tests, such as the paired sample t-test. This strengthens the reliability of the subsequent analysis, as the data distribution aligns with the requirements of inferential statistical procedures.

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Volume : 5 | Number 3 | December 2025 | E-ISSN: 2787-9482 | DOI: doi.org/ijeal.v5i3.6878

b. N Gain Test

The N-Gain test was conducted to determine whether the data obtained from the pre-test and post-test results were effective or not. The results of the n gain test of learning outcome data can be seen in the following table:

Picture 2. N Gain Test Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
NGain_score	17	,20	,80	,4924	,21018
NGain_persen	17	20,01	79,99	49,2421	21,01803
Valid N (listwise)	17				

The n-gain test was conducted with the aid of SPSS version 29 to measure the effectiveness of project-based learning (PjBL) on students' English learning outcomes. In the n-gain test table, several important components are presented:

- N (Number of Observations): Refers to the number of valid data points included in the analysis.
- Minimum: The smallest value in the dataset for each variable.
- Maximum: The largest value in the dataset for each variable.
- Mean: The average score of each variable, which reflects the general trend of the data.
- Std. Deviation (Standard Deviation): A measure of variability or dispersion that indicates how far individual values deviate from the mean.

Based on the descriptive statistical analysis, the calculation of the n-gain test produced a significance value of 0.4924. Since this value is greater than the established threshold of 0.07, it indicates that the increase in student learning outcomes after the implementation of PjBL was statistically meaningful. This means that the learning intervention contributed positively to improving students' achievement in English.

Thus, it can be concluded that the application of project-based learning (PjBL) had a positive and significant effect on the English learning outcomes of students. The results demonstrate that PjBL is not only effective in enhancing students' comprehension but also supports the development of their critical thinking and problem-solving abilities, as reflected in the improved post-test scores compared to the pre-test results

c. Hypothesis test

In this T-test data test, the researcher used the IBM SPSS 29 program with Paired Sample T-test. The hypothesis testing criteria were if the significance value > 0.05, then H0 was accepted and Ha was rejected. The results of the T test of learning outcome data can be seen in the following table:

Picture 3. T-Test Results

Paired Samples Test

		Paired Differences					t	df	Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1	Pre-Test Eksperimen - Post-Test Eksperimen	2163.12500	5006.72761	1251.68190	-504.77182	4831.02182	1.728	15	.052	.104

The hypothesis test was conducted using the paired sample t-test with the aid of SPSS version 29. In the t-test output table, the following components are presented:

- Mean: The average difference between the pre-test and post-test scores.
- Std. Deviation: Indicates how far the individual values deviate from the mean difference.
- Std. Error Mean: An estimate of the standard deviation of the sample mean difference.
- Lower and Upper: Represent the lower and upper limits of the 95% confidence interval for the mean difference.
- T: The calculated t-statistic from the paired sample t-test.

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- Df (Degrees of Freedom): Calculated as $n - 1$, where n is the sample size.
- One-Sided P: The p-value for a one-tailed hypothesis test.
- Two-Sided P: The p-value for a two-tailed hypothesis test, representing the probability of obtaining the same or a more extreme result if the null hypothesis is true.

Based on the results of the paired sample t-test, the significance value obtained was 0.052, which is greater than the threshold value of 0.05. This means that the null hypothesis (H_0) is rejected, while the alternative hypothesis (H_a) is accepted. In other words, there is sufficient statistical evidence to state that the average learning outcomes of students on the personal letter material taught through the Project-Based Learning (PjBL) model were higher than those obtained through simple media.

Thus, it can be concluded that the implementation of Project-Based Learning (PjBL) had a positive and significant effect on students' English learning outcomes.

The implementation steps were carried out as follows:

In this study, the researcher implemented Project-Based Learning (PjBL) for students. The implementation steps were carried out as follows:

a) Project determination

Picture 4. Project Determination



In this step, the researcher determines the theme/topic of the project that the student must work on. Students get different assignments from each other. However, students can determine what projects they are working on as long as they do not deviate from the learning theme/topic. The theme determined by the researcher is the creation of personal letters.

b) Planning of task completion steps

Picture 5. Planning of Task Completion Steps



In this step, learners are encouraged to design their own procedures for completing the project from start to finish. They are given the opportunity to determine the strategies, methods, and resources that they consider most effective and appropriate in achieving the project goals. This autonomy not only fosters creativity and independence but also trains students to take

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responsibility for their own learning process. By planning their own steps, students can develop problem-solving skills, critical thinking, and collaboration, as they are required to justify their choices and coordinate with peers when necessary.

c) Preparation of project implementation schedule

Picture 6. Preparation of Project Implementation Schedule



The pre-design steps are then systematically scheduled to be completed prior to the final project submission deadline. At this stage, the researcher provides clear instructions regarding the time frame and sets a specific deadline for the completion of the project. This scheduling process is essential to help students manage their time effectively, prioritize tasks, and ensure that each stage of the project is completed in an organized manner. By establishing a deadline, students are encouraged to develop a sense of discipline, responsibility, and accountability in their learning process. Moreover, the presence of a structured timeline helps prevent procrastination and supports students in achieving the learning objectives within the allocated period.

d) Task completion with teacher facilitation and monitoring

Picture 7. Teacher Facilitation and Monitoring



In this step, the researcher is responsible for carefully monitoring students' activities throughout the process of completing the assignment from beginning to end. The monitoring is carried out to ensure that students remain on track, follow the planned procedures, and adhere to the project timeline. In addition, the researcher provides guidance, supervision, and constructive feedback whenever necessary, especially when students encounter difficulties or challenges in the project implementation. This stage also serves as a formative evaluation process, allowing the researcher to observe students' progress, collaboration, and problem-solving skills. By consistently monitoring the activities, the researcher not only ensures the quality of the project

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outcomes but also supports students in developing independence, responsibility, and a deeper understanding of the subject matter.

e) Preparation of reports and presentation of results

Picture 8. Report and Presentation



The results of the project, in the form of tangible products, are then presented by the students. At this stage, students gather, compile, and submit the final outcomes of the projects they have created and refined during the implementation process. The presentation not only serves as a platform for students to showcase their work but also provides them with the opportunity to explain the procedures, methods, and strategies they used in completing the project. Furthermore, this stage encourages students to develop their communication skills, confidence, and ability to articulate ideas clearly in front of others. The presentation process also allows peers and the researcher to give constructive feedback, which contributes to improving the quality of learning and strengthening students' critical thinking and reflective abilities.

Discussion

The present study was conducted with the objective of ascertaining the impact of the implementation of project-based learning (PjBL) on students' English learning outcomes. The researcher's decision to implement Project-Based Learning was driven by the objective of empowering teachers to utilize engaging and effective learning materials, thereby enhancing the accessibility of educational resources for students. The learning model is a conceptual framework that functions as a guideline for conducting learning, which is systematically arranged to achieve learning objectives related to syntax, social systems, reaction principles, and support systems. The implementation of a Project-Based Learning model has been demonstrated to enhance student motivation, prompting heightened engagement in learning activities. The project-based learning model incorporates a multifaceted approach that engages all five senses sight, hearing, touch, smell, and taste in the teaching process (Hasan et al., 2021). A study was conducted using a project-based learning model. The results of the study indicated that the project-based learning model has certain advantages. These advantages include helping students design the process to determine an outcome, training students to be responsible for managing information carried out on a project, and finally, students who produce a real product of their own results, which are then presented in class.

In a previous instance, the English instructor at MAN 1 Dompu, in class XI IPA 2, had executed a project-based learning (PjBL) initiative on the subject of personal letters. In this project, students were assigned to compose a personal letter addressed to a friend or family member residing in another city or country. Prior to commencing the task, the instructor furnished a comprehensive explanation of the structure, linguistic characteristics, and illustrative examples of personal letters. This was done to ensure that students comprehended the fundamental components, including the greeting, body, closing, and signature. To further enhance understanding, the instructor also conducted a discussion session, during which

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Volume : 5 | Number 3 | December 2025 | E-ISSN: 2787-9482 | DOI: doi.org/ijeal.v5i3.6878

students were given the opportunity to pose inquiries, address uncertainties, and engage in a discourse on the subjects they wished to address in their written works. Subsequently, students were guided through the process of designing an outline that would serve as the framework for their letter, followed by the drafting of their initial version. This pedagogical approach fosters a duality of learning: students are encouraged to apply their understanding of the lesson in a practical context while also cultivating creativity, critical thinking, and independent learning. Furthermore, by empowering students to select the recipient and topic of their letter, the instructor fostered a sense of personal relevance and engagement, thereby rendering the learning experience more meaningful and authentic.

During the learning process, students engaged both independently and collaboratively in drafting, revising, and finalizing their personal letters. They worked individually to express their own ideas and writing styles, while group work allowed them to exchange thoughts, give suggestions, and support each other in improving the quality of their letters. The teacher acted as a facilitator rather than a knowledge transmitter, providing guidance, scaffolding, and constructive feedback to monitor students' progress and to help them overcome difficulties. Once the projects were completed, students presented their personal letters in front of the class. This stage not only gave them the opportunity to share their work but also created a space for peer assessment, where students received feedback from their classmates. Such peer review activities encouraged critical reflection and fostered a collaborative learning culture.

The implementation of this project-based learning (PjBL) activity proved effective not only in enhancing students' writing skills, particularly in composing personal letters, but also in cultivating essential 21st-century skills such as teamwork, communication, creativity, and problem-solving. As a result, the learning process became more meaningful, engaging, and enjoyable for students, as they could connect classroom knowledge with authentic, real-world applications.

The approach taken by the teacher in this project aligns with (Dewey J, 1997) experiential learning theory, which emphasizes that meaningful learning occurs when students are actively involved in constructing knowledge through experience and reflection. Furthermore, the role of the teacher as a facilitator is consistent with (Vygotsky, 1978) social constructivist theory, particularly the concept of the *Zone of Proximal Development (ZPD)*, where learning is supported through interaction, scaffolding, and collaboration with peers. Additionally, the collaborative and inquiry-driven nature of PjBL reflects (John W. Thomas, 2021), who states that project-based learning enhances student motivation and deepens understanding by engaging them in authentic, complex tasks.

Based on the results of the research conducted during the implementation of project-based learning in meeting II, the researcher began with an initial introduction to the students and delivered material related to personal letters. The explanation included the definition of personal letters, their structure, and their linguistic features. To assess students' initial understanding of the material, they were given practice exercises in the form of questions. In meeting III, the application of project-based learning was carried out through several systematic stages, namely: determining the project, planning the steps for task completion, preparing a project implementation schedule, carrying out the tasks with the teacher's facilitation and monitoring, compiling project reports and presenting the results, as well as evaluating the process and outcomes of the project.

During the implementation, students appeared highly active and enthusiastic in engaging with the learning activities. They demonstrated collaboration by working in groups, sharing, and combining their ideas to complete the project effectively. This active participation not only reflected students' interest in the learning process but also showed the potential of project-based learning to foster teamwork, creativity, and critical thinking skills. The positive atmosphere in the classroom suggested that project-based learning not only improved students' understanding of personal letters but also encouraged them to take ownership of their learning and build stronger interpersonal communication skills.

Based on the test results, the maximum score obtained in the pre-test was 73.33 and the minimum score was 33.33, while in the post-test the maximum score increased to 86.66 and the minimum score also rose to 73.33. These results indicate a clear difference in student learning

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outcomes before and after the treatment was given. The average pre-test score was 57.49, while the average post-test score reached 80.39. Thus, it can be concluded that the implementation of project-based learning on personal letter material was effective in improving the learning outcomes of Grade XI Science 2 students.

Furthermore, based on the results of the normality test, the significance value of the pre-test data was 0.007 and the post-test data was 0.001. Both values are greater than the significance level of 0.05, which means that the pre-test and post-test data in the class were normally distributed. This finding is consistent with the research conducted by (Ratnawati, 2020), whose study also showed that the results of the normality test on students' pre-test and post-test scores related to the implementation of the project-based learning model in the context of creating comic strips for English learning were derived from normally distributed data.

Based on the calculation of the t-test using the paired sample t-test formula, the results showed a significance value of 0.052 > 0.05. This indicates that Ha is accepted and H0 is rejected. The results of the students' learning tests revealed an improvement in the learning outcomes of Grade XI Science 2 students after the implementation of project-based learning. These findings are consistent with the study conducted by (Astawa et al., 2017), which also demonstrated that project-based learning had a significant effect on students' English learning outcomes. This suggests that project-based learning can positively influence students' achievement in English, particularly in learning personal letter material, for Grade XI Science 2 students at MAN 1 Dompu.

Furthermore, based on the analysis and data processing in this study, it can be concluded that project-based learning holds an important role in improving student learning outcomes. The use of this learning model creates a more effective and enjoyable classroom atmosphere for both students and teachers. Therefore, the results of this research confirm the positive influence of implementing project-based learning (PjBL) on students' English learning outcomes.

Conclusion

The findings of the research study on the implementation of Project-Based Learning (PjBL) in the personal letter material for grade XI Science 2 students at MAN 1 Dompu indicate that the utilization of PjBL has exerted a favorable influence on the English learning outcomes of the students. The findings indicated that, prior to the intervention, 16 students who completed the preliminary assessment demonstrated an average score of 57.40. Subsequent to the intervention, 17 students who underwent the post-intervention assessment attained an average score of 80.39, indicating a substantial improvement. This finding suggests a substantial enhancement in students' comprehension of the subject matter following the implementation of the PjBL model. Moreover, the findings of the statistical t-test analysis substantiated that the implementation of PjBL exerted a substantial impact on students' English learning outcomes, particularly in the domain of personal letters. Consequently, it can be concluded that the Project-Based Learning model is an effective instructional approach to enhance students' engagement and achievement in English learning.

References

Afrianti, I. (2021). The Effectiveness of Study Tour Towards Students' Speaking Skill. *Ainara Journal (Jurnal Penelitian Dan PKM Bidang Ilmu Pendidikan)*, *2*(2), 133–142. https://doi.org/10.54371/ainj.v2i2.43

Astawa, N. L. P. N. S. P., Artini, L. P., & Nitiasih, P. K. (2017). Project-based learning activities and efl students' productive skills in english. *Journal of Language Teaching and Research*, *8*(6), 1147–1155. https://doi.org/10.17507/jltr.0806.16

Bell, S. (2010). Project-Based Learning for the 21st Century: Skills for the Future. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *83*(2), 39–43. https://doi.org/10.1080/00098650903505415

Bytyqi, B. (2021). Project-Based Learning: a Teaching Approach Where Learning Comes Alive. *Journal of Teaching English for Specific and Academic Purposes*, *9*(4), 775–777.

This is a Creative Commons License This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

https://doi.org/10.22190/JTESAP2104775B

Center, P. P. R. (2010). *21st Century Skills for Students and Teachers*. 1–25.

Dewey J. (1997). *Dewey-J-1938-Experience-and-Education-Pp-17-31-New-York-Ny-Touchstone.Pdf*.

Fallas Gabuardi, V. M. (2021). Project-Based Learning: boosting 21st century skills. *Estudios*, *43*, 340–419. https://doi.org/10.15517/re.v0i43.49335

Hasan, M., Milawati, Darodjat, Khairani, H., & Tahrim, T. (2021). Media Pembelajaran. In *Tahta Media Group*.

Jannah, B. P. dan L. miftahul. (2016). Metodologi Penelitian Kuantitatif. In *PT Rajagrafindo Persada* (Vol. 3, Issue 2).

John W. Thomas, P. D. (2021). A review of research on adakites. *International Geology Review*, *63*(1), 47–64. https://doi.org/10.1080/00206814.2019.1702592

Magdalena, I., Nurul Annisa, M., Ragin, G., & Ishaq, A. R. (2021). Analisis Penggunaan Teknik Pre-Test Dan Post-Test Pada Mata Pelajaran Matematika Dalam Keberhasilan Evaluasi Pembelajaran Di Sdn Bojong 04. *Jurnal Pendidikan Dan Ilmu Sosial*, *3*(2), 150–165.

Makrifah, I. A., & Widiarini, W. (2019). Pengembangan Materi Ajar Bahasa Inggris Berbasis Project Based Learning untuk Siswa Jurusan Usaha Perjalanan Wisata. *Briliant: Jurnal Riset Dan Konseptual*, *4*(3), 388. https://doi.org/10.28926/briliant.v4i3.357

Putri, S. S. N. (2023). *Implemantasi pembelajaran berbasis project based learning dalam meningkatkanketerampilan membaca pemahaman bahasa prancis siswa kelas XI SMA N 9 BANDARLAMPUNG TAHUN PELAJARAN 2022/2023*.

Ratnawati, K. (2020). Penerapan Model Pembelajaran Berbasis Proyek pada Pembuatan Strip Komik Untuk Meningkatkan Kemampuan Menulis Bahasa Inggris. *Indonesian Journal of Educational Development*, *1*(3), 481–495. https://doi.org/10.5281/zenodo.4286867

Retnawati, H. (2015). Teknik Pengambilan Sampel. *Ekp*, *13*(3), 1576–1580.

Shaheen, R. (2010). Creativity and Education. *Creative Education*, *01*(03), 166–169. https://doi.org/10.4236/ce.2010.13026

Sudrajat, A., & Hernawati, E. (2022). Model-Model Pembelajaran. In *EDULEAD: Journal of Christian Education and Leadership* (Vol. 3, Issue 1). https://doi.org/10.47530/edulead.v3i1.91

Sugiyono. (2019). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Alfabeta.

Trilling, B., & Fadel, C. (2009). 21st Century Skills, Enhanced Edition: Learning for Life in Our Times. In *John Wiley & Sons, Inc.*

Vygotsky, L. S. (1978). *Mind in Society: {T}he Development of Higher Mental Processes*.

Wahyuni, S. (2019). Pengaruh Model Pembelajaran Project Based Learning Terhadap Kemampuan Pemahaman Konsep Mahasiswa Mata Kuliah Kapita Selekta Matematika Pendidikan Dasar Fkip Umsu. *Jurnal EduTech*, *5*(1), 84–88.

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