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The Effectiveness Of Project-Based Learning In Improving Reading Comprehension Of 7th Grade Students Junior High School At Sumbawa Besar

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Abstract

This study aimed to determine the effectiveness of Project-Based Learning (PjBL) in improving students' reading comprehension among seventh-grade students Junior High School at Sumbawa Besarin the 2025/2026 academic year. The study employed a mixed-methods approach using a quasi-experimental design with a control and an experimental class, each consisting of 32 students selected through purposive sampling. Quantitative data were collected through pre-test and post-test reading comprehension tests, while qualitative data were obtained through semi-structured interviews. The data were analyzed using normality tests, homogeneity tests, an independent samples t-test, and thematic analysis. The results showed that the data were normally distributed and homogeneous, and the independent samples t-test produced a significance value of 0.001 < 0.05, indicating that Project-Based Learning significantly improved students' reading comprehension. The qualitative findings also revealed increased engagement,

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motivation, vocabulary development, and collaboration among students. Therefore, Project-Based Learning is recommended as an effective approach to enhance students' reading comprehension and create more active learning experiences.

Keywords: Project-Based Learning; Reading Comprehension; Descriptive Text; Mixed Methods.

INTRODUCTION

The rapid development of English language education has increased the demand for instructional approaches that can integrate conceptual understanding, critical thinking, and active student participation in the learning process. Although literacy plays an important role in supporting students' academic achievement, reading instruction can become less effective when it relies mainly on conventional methods without incorporating interactive and contextual learning activities (Grabe & Stoller, 2019). In response to these challenges, Project-Based Learning (PjBL) has gained attention as an approach that encourages students to learn through investigation, collaboration, and the resolution of problems related to real-life situations (Boss & Larmer, 2018). Unlike conventional teaching approaches, PjBL gives students a more active role in the learning process by allowing them to explore texts independently and use the information they obtain to complete meaningful projects. Through direct engagement with reading materials, students are encouraged not only to understand the content but also to connect what they read with the tasks they are working on. In this way, reading instruction goes beyond recognizing words or understanding their literal meanings. It also involves students' ability to identify implicit information, interpret meaning, and critically use information from texts in relevant contexts.

One of the important areas in the English curriculum for seventh-grade students at a junior high school in Sumbawa Besar is the ability to understand descriptive texts. Mastering this type of text is important because it helps students develop basic knowledge of language structures, enrich their vocabulary, and strengthen their ability to understand and interpret information at the early secondary school level. Descriptive texts are also closely related to students' everyday communication, making them relevant not only from a pedagogical perspective but also in practical contexts. However, teaching descriptive texts in the classroom still requires an approach that can effectively combine the delivery of learning materials with meaningful student participation. Such an approach is needed to ensure that students remain actively involved and that the learning process achieves its intended outcomes.

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Classroom observations show that the reading comprehension of seventh-grade students is still inconsistent and has not yet reached the expected level. Although most students are able to understand the literal meaning of a text, many of them experience difficulties when they are asked to identify the main idea, make inferences, or analyze the meaning of a text more deeply. This situation indicates that conventional, teacher-centered instruction has not been fully effective in developing students' reading abilities. The limited involvement of students during learning activities and their lack of strategies for thinking critically about texts appear to be among the factors contributing to these difficulties. Therefore, there is a need to explore more interactive learning approaches that can encourage students to participate actively and develop their reading comprehension skills. In English language learning, reading comprehension is particularly important because it reflects not only students' ability to understand written texts but also their capacity to use and interpret language in different contexts.

In language education, students' reading comprehension can be affected by several factors that develop throughout the learning process. One of the main factors is the instructional model used by teachers. Project-Based Learning (PjBL), for example, involves students in meaningful tasks that require collaboration, investigation, and problem solving (Boss & Larmer, 2018). Students' engagement and motivation are also important because their level of interest and involvement can influence how they approach and understand a text, particularly when the material contains more complex information. In addition, the development of Higher-Order Thinking Skills (HOTS) helps students move beyond simply remembering information by encouraging them to analyze, interpret, and evaluate what they read. These factors are closely connected and can contribute to the development of students' reading comprehension when they are effectively incorporated into the learning process.

Previous studies have shown that Project-Based Learning (PjBL) can contribute to improving students' reading comprehension (Carrell & Eisterhold, 2018). However, much of the existing research has been conducted in urban schools where digital facilities and learning resources are generally more accessible. This leaves a gap in understanding how PjBL works in schools located in regional areas, where students may have different levels of literacy and teachers may face limitations in accessing digital learning resources, such as at a junior high school in Sumbawa Besar. In addition, many previous studies have mainly relied on quantitative assessments conducted at the end of the learning process. As a result, there is still limited qualitative evidence explaining how students experience PjBL and what aspects of the learning process contribute to the development of their reading comprehension. Exploring these processes

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may provide a more complete understanding of the role of PjBL in improving the reading comprehension of seventh-grade students.

This research gap highlights the need to examine the effectiveness of PjBL using a Sequential Explanatory Mixed-Methods Design. Based on constructivist theory, this study quantitatively investigates the effectiveness of PjBL in improving the reading comprehension of seventh-grade students at a junior high school in Sumbawa Besar and qualitatively explores its implementation, students' perceptions, and challenges. The findings are expected to contribute to ELT research and provide practical guidance for developing effective literacy-focused instruction.

LITERATURE REVIEW

Project-Based Learning

Project-Based Learning (PjBL) is a student-centered instructional model that organizes learning around complex, authentic tasks based on challenging real-world problems (Thomas, 2000). Rather than relying on passive memorization, PjBL actively engages learners in problem-solving, inquiry, and product creation, effectively fostering critical thinking and analytical capabilities (Jundi et al., 2024; Imbaquingo et al., 2003). Rooted in constructivist learning theory, PjBL posits that knowledge is actively constructed by learners through direct engagement and hands-on experience rather than mere transmission from the teacher (Karaduman & Gultekin, 2007). The implementation of PjBL relies on core principles that drive meaningful learning outcomes. Crucially, projects must be authentic and contextually relevant; in language education, this entails tasks requiring deep text processing such as compiling an English mini-magazine to solve a meaningful problem (Smith et al., 2022). Such real-world relevance helps learners recognize the practical utility of reading skills, fostering a positive attitude toward instruction (Tseng et al., 2011). Furthermore, PjBL emphasizes the principle of "learning by being" (Calalb, 2023), requiring students to navigate group dynamics, manage time, and practice self-regulation throughout the collaborative process. Sustainably implementing these principles also necessitates continuous professional support for teachers, ensuring they can effectively facilitate inquiry-driven classrooms (Miller et al., 2021).

Translating PjBL principles into effective classroom practice requires structured pedagogical facilitation (Mergendoller & Thomas, 2005). Successful PjBL execution depends on four interconnected instructional strategies: rigorous project planning, systematic time management facilitation, accessible scaffolding, and structured reflection (Ahmad, 2021). These

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strategies enable lower-secondary students to break down complex assignments into manageable milestones, building independence and academic ownership. Additionally, establishing a supportive classroom culture is essential for guiding task allocation, peer collaboration, and conflict resolution (Pusztai Kovácsné, 2021). Proper initial orientation, clear performance criteria, and the integration of digital tools enhance information access and student engagement (Beckett & Slater, 2018). Incorporating external resources and authentic evaluation methods such as rubrics and reflective self-assessments ensures comprehensive feedback on both learning processes and final products (Sah et al., 2025). Ultimately, integrating these instructional elements transforms traditional language lessons into dynamic environments that nurture 21st-century skills alongside literacy development (Himmi et al., 2025).

Reading Comprehension

Reading comprehension is an interactive, constructive process in which learners actively engage with written text to derive meaning by synthesizing linguistic knowledge, prior experience, and cognitive strategies (Ahmadi et al., 2013; Jundi et al., 2024). Within the Simple View of Reading framework, comprehension is operationalized as the product of two foundational components: decoding, which entails the mechanical recognition and fluency of written symbols, and language comprehension, which involves semantic, syntactic, and contextual processing (Hoover & Gough, 1990). Effective reading instruction thus requires a balanced development of both components, utilizing complementary strategies such as skimming for global ideas, scanning for specific details, and conducting intensive text analysis to cultivate flexible reading proficiency (Alyousef, 2005; Nuttall, 1996). In Indonesian lower-secondary ELT contexts under the *Kurikulum Merdeka*, teaching reading extends beyond literal decoding to foster Higher-Order Thinking Skills (HOTS) and holistic character traits aligned with the *Profil Pelajar Pancasila* (P5) through active learning models like Project-Based Learning (Darmayanti et al., 2024).

Evaluating student reading development necessitates valid, reliable, and multidimensional assessment frameworks that measure a full spectrum of sub-skills, ranging from basic text perception and vocabulary recognition to higher-level inferential reasoning and textual summarization (Brown, 2004). To capture these diverse dimensions, educators deploy a combination of task formats, including multiple-choice and cloze tests for reliable vocabulary and main idea measurement, short-answer and matching tasks for structural and detail analysis, scanning tasks for rapid information retrieval, and summary tasks for global text synthesis (Brown, 2004). When integrated into project-based learning environments, utilizing this varied array of

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assessment tasks ensures a comprehensive, holistic evaluation of both the reading process and its instructional outcomes in lower-secondary classrooms (Brown, 2004; Darmayanti et al., 2024).

Descriptive Text

Descriptive text is a fundamental genre in EFL instruction that aims to depict specific people, places, objects, or events in a systematic and vivid manner, allowing readers to experience the subject sensorily rather than through sequential narrative (Derewianka, 2016; Sukma et al., 2020). Beyond presenting factual descriptions, effective descriptive writing evokes emotional and imaginative responses through rich sensory details and adjectives (Purnomo & Wijayanti, 2019). Structurally, the genre progresses from an initial *identification* phase, introducing the subject, to a detailed *description* phase specifying physical and non-physical attributes (Knapp & Watkins, 2005). Linguistically, descriptive texts rely on the simple present tense to establish timeless facts, linking verbs to convey relational states, action verbs to add dynamism, and elaborate noun phrases to specify qualities (Gerot & Wignell, 1994; Hyland, 2004; Kosasih, 2021). Classified across spatial, temporal, and impressionistic types (Kane, 2000), descriptive text serves essential educational, communicative, and aesthetic functions, acting as a foundational entry point for lower-secondary learners to build observational accuracy and expand specialized vocabulary (Nurhayati, 2018; Wulandari & Suryanto, 2021).

To maximize reading comprehension of descriptive texts, Project-Based Learning (PjBL) offers a structured, multi-stage instructional framework that grounds text analysis in active, authentic inquiry (Bender, 2012; Jalinus et al., 2017). The implementation process systematically progresses through seven key stages: formulating expected learning outcomes, establishing core concept understanding, conducting technical skill training, designing contextual project themes, developing structured project proposals, executing project tasks, and presenting project reports (Jalinus et al., 2017). Within a reading context, teachers act as facilitators who conduct continuous monitoring and check-ins to ensure that project execution directly reinforces text processing and inferential analysis (Bender, 2012). By seamlessly integrating these procedural stages with authentic reading tasks, 7th-grade students transition from passive readers to active investigators, utilizing descriptive text analysis at every phase from initial research to final project presentation (Bender, 2012; Jalinus et al., 2017).

Previous Studies

Empirical research consistently underscores the efficacy of Project-Based Learning (PjBL)

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in enhancing students' English reading comprehension and learning motivation across secondary EFL contexts. Local studies in Indonesia (Indriani & Marlina, 2020; Khotimah et al., 2021) demonstrate that PjBL outperforms conventional teaching methods by shifting instruction toward active engagement, collaborative inquiry, and authentic text application. Similarly, international studies in EFL settings, such as Chen and Yang (2022) in Taiwan, reveal that PjBL fosters critical engagement and deeper textual analysis beyond passive memorization. Collectively, these studies confirm that integrating project work into reading instruction promotes both cognitive literacy development and positive affective responses among lower-secondary learners.

Despite these promising findings, existing literature presents several critical empirical and methodological limitations. Methodologically, previous studies rely heavily on short-term quantitative evaluations such as pre-test and post-test scores without providing in-depth qualitative evidence to explain *how* and *why* specific PjBL procedures facilitate reading comprehension (Chen & Yang, 2022; Indriani & Marlina, 2020; Khotimah et al., 2021). Furthermore, many studies omit detailed contextual factors, teacher implementation challenges, and long-term skill retention, leaving its adaptability in resource-constrained regional environments such as public junior high schools in Sumbawa Besar insufficiently documented. To address these fundamental literature gaps, the present study utilizes a *Sequential Explanatory Mixed-Methods Design*. By integrating quantitative experimental measurement with qualitative inquiry, this study not only quantifies the impact of PjBL on 7th-grade students' reading comprehension but also uncovers the underlying classroom dynamics, student perceptions, and implementation challenges within a specific regional EFL context.

METHOD

Research Design

This study employed a Sequential Explanatory Mixed-Methods Design (QUAN → QUAL) to systematically evaluate the impact of Project-Based Learning (PjBL) on ELT reading comprehension and uncover the underlying mechanisms of its effectiveness (Creswell, 2009). The research was executed in two consecutive phases: a quantitative experimental phase followed by a qualitative exploratory phase. The initial quantitative phase utilized a quasi-experimental pre-test–post-test non-equivalent control group design to establish statistical causality between the intervention and student achievement. Subsequently, the qualitative phase gathered descriptive narrative data to explain and elaborate upon the quantitative trends (Creswell, 2009).

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Table 1 The Design of Quantitative Method

Group	Pre-Test	Intervention (5 Sessions)	Post-Test	Qualitative Phase
Experimental ($n = 32$)	Reading Test (35 items)	Project-Based Learning (PjBL)	Reading Test (35 items)	Semi-Structured Interviews ($n = 6$)
Control ($n = 32$)	Reading Test (35 items)	Conventional Method	Reading Test (35 items)	-

Source: Data Result, 2026

Participants and Sampling Strategy

The target population comprised all seventh-grade students Junior High School at Sumbawa Besaracross ten intact classes ($N = 256$). Sampling was conducted in two distinct phases corresponding to the mixed-methods framework:

a) Quantitative Phase: Two intact classes ($N = 64$) were selected via convenience sampling based on curriculum alignment, equivalent instructional time, and homogenous baseline English proficiency (verified through prior academic records). Class VII.1 was assigned as the Experimental Group ($n = 32$), while Class VII.2 served as the Control Group ($n = 32$). Both cohorts were taught by the same certified English instructor to control for teacher variability.

b) Qualitative Phase: Purposive sampling was used to select six participants from the Experimental Group based on their post-test performance spectrum (two high-, two medium-, and two low-performing students). This stratification ensured a representative range of perspectives regarding the implementation process (Creswell, 2009).

Data Collection & Instruments

Data collection integrated both quantitative measurement tools and qualitative inquiry protocols:

a) Reading Comprehension Test: A 35-item multiple-choice test was developed to assess student mastery of descriptive texts, specifically measuring main idea identification, explicit detail retrieval, inferential reasoning, vocabulary in context, and text organization. Content validity was verified against the learning outcomes of the *Kurikulum Merdeka* syllabus. Instrument reliability was established through pilot testing on a non-sample cohort, yielding a Cronbach's alpha ($\alpha > 0.60$) confirming internal consistency.

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b) Semi-Structured Interviews: An open-ended interview guide was designed to explore student perceptions, collaborative dynamics, learning engagement, and instructional challenges during the PjBL intervention. Interviews were audio-recorded, transcribed, and member-checked to ensure data trustworthiness.

Data Analysis Procedure

Quantitative and qualitative data were analyzed sequentially before being integrated:

a) Quantitative Analysis: Pre- and post-test scores were processed using SPSS. Normality was verified via the Kolmogorov-Smirnov test ($p > 0.05$), and homogeneity of variance was confirmed using Levene's test ($p > 0.05$). Between-group statistical significance was determined using an Independent-Samples t-test ($\alpha = 0.05$). Practical significance was evaluated using Cohen's d effect size formula:

$$d = \frac{M1 - M2}{SDpooled}$$

Where $d \approx 0.2$ denotes a small effect, $d \approx 0.5$ a medium effect, and $d \geq 0.8$ a large effect (Cohen et al., 2018).

a) Qualitative Analysis: Interview transcripts were analyzed using thematic analysis (Creswell, 2009) to identify recurrent patterns related to student engagement, cognitive strategies, and project execution.

b) Mixed-Method Integration: Quantitative outcome measures and qualitative narrative themes were synthesized at the interpretation stage, allowing qualitative findings to directly contextualize and explain the statistical results.

RESULT

The Effectiveness of PjBL in Improving Students' Reading Comprehension (Baseline Equivalence and Normality)

Prior to the intervention, baseline reading comprehension levels were assessed across both cohorts using a 35-item multiple-choice test. As summarized in Table 1, the pre-test Mean scores of the Experimental Group ($M = 57.44, SD = 19.43$) and the Control Group ($M = 54.88, SD = 21.69$) were comparable, demonstrating equivalent initial reading proficiency.

Data distribution and variance assumptions were evaluated using SPSS. The Shapiro-Wilk test for normality confirmed that pre-test scores for both experimental ($p = 0.485$) and control ($p = 0.498$) groups were normally distributed ($p > 0.05$). Similarly, post-test normality

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assumptions were fulfilled ($p = 0.072$ and $p = 0.566$, respectively). Additionally, Levene's Test for Equality of Variances yielded $F(1,62) = 3.575, p = 0.063$, confirming homogeneity of variance ($p > 0.05$) and validating the use of parametric inferential statistics.

Table 2 Descriptive Statistics for Pre-Test and Post-Test Reading Scores

Group	Phase	n	Mean
Experimental	Pre-Test	32	57.44
	Post-Test	32	73.63
Control	Pre-Test	32	54.88
	Post-Test	32	57.66

Source: Data Result, 2026

Efficacy of Project-Based Learning (PjBL)

Following the 5-session intervention, the Experimental Group (taught via PjBL through a mini-zine creation project) achieved a post-test mean of 73.63 ($SD = 14.73$), representing a 16.19-point gain. Conversely, the Control Group (taught via conventional instruction) demonstrated a modest gain of 2.78 points, reaching a post-test mean of 57.66 ($SD = 21.65$). Furthermore, the narrower standard deviation in the experimental group (14.73 vs. 21.65) reflects greater consistency in post-intervention reading performance.

Table 3 Independent-Samples t-Test and Effect Size Analysis

Outcome	Mean Diff.	t	df
Post-Test Comparison	15.96	3.450	62

Source: Data Result, 2026

To determine statistical significance, an Independent-Samples t-test was conducted on post-test scores. As detailed in Table 3, the analysis revealed a statistically significant difference between groups, $t(62) = 3.450, p = 0.001$, leading to the rejection of the null hypothesis (H_0). To measure practical significance, Cohen's d effect size was calculated:

$$d = \frac{73.63 - 57.66}{18.52} = 0.86$$

With a Cohen's d value of 0.86, the PjBL intervention demonstrated a large and educationally meaningful effect on seventh-grade students' reading comprehension performance in descriptive texts.

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The Implementation of PjBL in Improving Students' Reading Comprehension (Qualitative Findings)

Post-test semi-structured interviews with six purposively selected experimental-group students (two high, two average, and two low achievers) provided qualitative context for the quantitative gains. Thematic analysis yielded seven key insights into student experiences during the Project-Based Learning (PjBL) intervention: (1) positive affective engagement, as designing mini-zines replaced rigid instruction with enjoyable, creative learning; (2) increased reading frequency, driven by the authentic need to curate content; (3) enhanced text comprehension, particularly in identifying main ideas and structural details; (4) contextual vocabulary acquisition over rote memorization; (5) peer collaboration, which served as a crucial cognitive support system for lower achievers; (6) boosted intrinsic motivation stemming from product ownership; and (7) resilience through challenges, as time constraints and vocabulary hurdles were mitigated by peer support and teacher scaffolding.

Integrating these findings demonstrates that PjBL significantly drives 7th-grade students' descriptive text comprehension ($t = 3.450, p = 0.001, d = 0.86$), corroborating prior EFL research (Chen & Yang, 2022; Indriani & Marlina, 2020; Khotimah et al., 2021). The primary mechanism underlying these gains is a pedagogical shift from passive decoding to task-driven textual analysis. Creating authentic artifacts provided a genuine purpose for deploying active strategies like skimming and scanning. Grounded in Vygotsky's socio-cultural theory (1978), the collaborative structure enabled peer scaffolding for struggling readers. Crucially, this mixed-methods synthesis fills a key literature gap by illustrating how PjBL operates in regional public secondary schools, identifying heightened reading frequency, contextual vocabulary growth, and peer problem-solving as the primary conduits of reading literacy development.

DISCUSSIONS

Effectiveness of PjBL in Improving Students' Reading Comprehension

The quantitative findings confirm that Project-Based Learning (PjBL) significantly improves secondary EFL students' reading comprehension. The post-test analysis demonstrated a statistically significant advantage for the experimental group over the control group ($t = 3.450, p = 0.001$), accompanied by a large effect size ($d = 0.86$). This indicates that creating a mini-zine yielded not only statistical significance but also meaningful educational gains. Rooted in constructivist and socio-cultural learning theories (Karaduman & Gultekin, 2007; Vygotsky, 1978), PjBL transformed passive reading into active, task-driven textual analysis (Thomas, 2000). The

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authentic demand of producing a tangible artifact provided a clear communicative purpose for reading (Smith et al., 2022; Tseng et al., 2011), while collaborative group dynamics provided critical peer scaffolding for lower-achieving students to navigate complex English texts.

These results validate previous empirical studies in EFL contexts (Chen & Yang, 2022; Indriani & Marlina, 2020; Khotimah et al., 2021), confirming PjBL's superiority over teacher-centered instruction. Crucially, this study advances the existing literature by employing a *Sequential Explanatory Mixed-Methods Design*. While prior research focused primarily on pre/post-test scores, this study integrates quantitative outcomes with qualitative narrative evidence to explain *how* and *why* PjBL operates successfully demonstrating that heightened reading frequency, contextualized vocabulary acquisition, and collaborative problem-solving serve as the primary drivers of reading comprehension gains in regional public secondary schools.

The Implementation of PjBL in Improving Students' Reading Comprehension

The qualitative insights clarify the mechanisms underlying the observed reading gains during Project-Based Learning (PjBL) implementation. Grounded in constructivist principles (Karaduman & Gultekin, 2007), PjBL fostered active cognitive and affective engagement, transforming passive reading into goal-directed textual analysis. Creating a mini-zine provided an authentic communicative purpose, increasing both student motivation and reading frequency as learners actively sought, comprehended, and synthesized descriptive information (Smith et al., 2022; Tseng et al., 2011). Furthermore, peer collaboration served as a critical socio-cultural support system (Vygotsky, 1978). Group discussions enabled peer-assisted scaffolding, helping low-achieving students navigate complex syntax and unfamiliar vocabulary while fostering shared accountability.

Although students encountered minor implementation challenges such as time management constraints, task division issues, and vocabulary hurdles these obstacles did not detract from the intervention's success. Instead, they functioned as authentic problem-solving opportunities that promoted self-regulation and collaborative resilience. Ultimately, these qualitative findings validate the quantitative outcomes, demonstrating that PjBL is effective not only in elevating standardized reading scores but also in enriching the overall pedagogical process through authentic task engagement, peer interaction, and enhanced learner agency.

CONCLUSIONS

This study concludes that Project-Based Learning (PjBL) was effective in improving the

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reading comprehension of seventh-grade students at Junior High School at Sumbawa Besar, particularly in learning descriptive texts. The quantitative findings showed that students in the experimental group achieved a higher post-test mean score than those in the control group (73.63 compared to 57.66), with a statistically significant difference ($p = 0.001$) and a large effect size (Cohen's $d = 0.86$), indicating that the improvement was not only statistically significant but also practically meaningful. The qualitative findings further explain this improvement by showing that PjBL encouraged students to engage more actively with texts, increased their motivation, and provided opportunities to apply information through the creation of a mini-zine. Group discussions and peer support also helped students clarify difficult content, expand their vocabulary, and become more confident in understanding English texts. Although students experienced difficulties with time management, task distribution, and unfamiliar vocabulary, these challenges became part of the learning process and encouraged the development of collaboration and self-management skills. Overall, the integration of quantitative and qualitative findings demonstrates that the effectiveness of PjBL lies not only in improving students' reading scores but also in creating a more active, meaningful, and collaborative reading experience, suggesting that PjBL is a promising approach for teaching reading comprehension in junior high school contexts.

REFERENCES

Abdullah Jundi, Lalu Thohir, Agus Saputra, & Lalu Nurtaat. (2024). The correlation between the studentsâ€TM reading habits and motivation toward their reading comprehension at the eighth grade of SMPN 13 Mataram. *Jurnal Pendidikan, Sains, Geologi, Dan Geofisika (GeoScienceEd Journal)*, *5*(3), 600–604. https://doi.org/10.29303/goescienceed.v5i3.422

Ahmad, M. (2021). Management of project-based learning model at Sekolah Alam Junior High School. AL-ISHLAH: Jurnal Pendidikan, 13(2), 1152–1159. https://doi.org/10.35445/alishlah.v13i2.486

Alyousef, H. S. (2006). Teaching reading comprehension to ESL/EFL learners. Journal of Language and Learning, 5, 63–73.

Beckett, G. H., & Slater, T. (2018). Project-Based learning and technology. The TESOL Encyclopedia of English Language Teaching, 1–7. https://doi.org/10.1002/9781118784235.eelt0427

Bender, W. N. (2012). Project-based learning: Differentiating instruction for the 21st century (1st Edition). Corwin Press.

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Boss, S., & Larmer, J. (2018). Project-Based Learning: Sustaining the Doing, Supporting the Learning. PBLWorks (Buck Institute for Education).

Calalb, M. (2023). The constructivist principle of learning by being in physics teaching. Athens Journal of Education, 10(1), 139–152. https://doi.org/10.30958/aje.10-1-8

Carrell, P. L., & Eisterhold, J. C. (1983). Schema theory and ESL reading pedagogy. TESOL Quarterly, 17(4), 553. https://doi.org/10.2307/3586613

Cohen, L., Manion, L., & Morrison, K. (2017). Research Methods in Education. https://doi.org/10.4324/9781315456539

Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches. Sage.

Darmayanti, A., Nugroho, D. Y., & Atikah, C. (2024). Penguatan Profil Pelajar Pancasila dengan implementasi kebijakan Merdeka Belajar. Journal of Education Research, 5(3), 2573–2581. https://doi.org/10.37985/jer.v5i3.1018

Derewianka, B. (2016). Exploring How Texts Work (2nd edition). Primary English Teaching Association Australia.

Gerot, L., & Wignell, P. (1995). Making sense of functional grammar: An introductory workbook. Antipodean Educational Enterprises.

Grabe, W., & Stoller, F. L. (2019). Teaching and Researching Reading (3rd edition). Routledge.

Himmi, N., Armanto, D., & Amry, Z. (2025). Implementation of Project-Based Learning (PJBL) in Mathematics Education: A systematic analysis of international practices and Theoretical Foundations. Science Insights Education Frontiers, 26(2), 4305–4321. https://doi.org/10.15354/sief.25.or699

Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. Reading and Writing, 2(2), 127–160. https://doi.org/10.1007/bf00401799

Imbaquingo, A., & Cárdenas, J. (2023). Project-based learning as a methodology to improve reading and comprehension skills in the English language. Education Sciences, 13(6), 587. https://doi.org/10.3390/educsci13060587

Jalinus, N., Nabawi, R. A., & Mardin, A. (2017). The seven steps of Project Based Learning model to enhance productive competences of vocational students. Proceedings of the International Conference on Technology and Vocational Teachers (ICTVT 2017). https://doi.org/10.2991/ictvt-17.2017.43

Kane, T. S. (2000). The Oxford Essential Guide to Writing. Berkley Books.

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Karaduman, H., & Gultekin, M. (2007). The Effect of Constructivist Learning Principles-Based Learning Materials to Students' Attitudes, Success and Retention in Social Studies. Turkish Online Journal of Educational Technology (TOJET), 6(3), 98–112.

Melani, Bq., Willian, S., Apgrianto, K., & Lail, H. (2021). Vocabulary coverage and reading comprehension of university EFL learners. Proceedings of the Thirteenth Conference on Applied Linguistics (CONAPLIN 2020), 65–71. https://doi.org/https://doi.org/10.2991/assehr.k.210427.011

Miller, E. C., Severance, S., & Krajcik, J. (2021). Motivating teaching, sustaining change in practice: Design principles for teacher learning in project-based learning contexts. Journal of Science Teacher Education, 32(7), 757–779. https://doi.org/10.1080/1046560x.2020.1864099

Nur Pratiwi, A., Prasetyo, D., Arifuddin, I., Alfiani, I., Faridah Azahra, A., Destiana Sari, M., Intan P, H., Setia L, K., Wahyuningtyas, D., & Ramadhanti, S. (2020). Kegiatan literasi sebagai upaya meningkatan Minat Dan kemampuan berbahasa Siswa Kelas 1 SD Muhammadiyah Plus Malangjiwan. Buletin Pengembangan Perangkat Pembelajaran, 1(2). https://doi.org/10.23917/bppp.v1i2.11777

Nurhayati, D. A. W. (2018). Peningkatan kemampuan menulis teks deskriptif. Jurnal Pendidikan Bahasa, 7(1), 50–62.

Nuttall, C. (1996). Teaching reading skills in a foreign language. Heinemann.

Purnomo, A., & Wijayanti, S. (2019). Analisis kesulitan menulis descriptive text. Jurnal Penelitian Pendidikan, 15(2), 28–40.

Reza Ahmadi, M., Nizam Ismail, H., & Kamarul Kabilan Abdullah, M. (2013a). The importance of metacognitive reading strategy awareness in reading comprehension. English Language Teaching, 6(10). https://doi.org/10.5539/elt.v6n10p235

Reza Ahmadi, M., Nizam Ismail, H., & Kamarul Kabilan Abdullah, M. (2013b). The importance of metacognitive reading strategy awareness in reading comprehension. English Language Teaching, 6(10). https://doi.org/10.5539/elt.v6n10p235

Sah, F., Naura Sasikirana, H., & Pujiani, T. (2024). The implementation of project-based learning in developing 21st Century skills in EFL class. Jadila: Journal of Development and Innovation in Language and Literature Education, 4(4), 257–272. https://doi.org/10.52760/jadila.v4i4.797

Setyawan, Ig. D. A. (2020). Petunjuk Praktikum Uji Normalitas & Homogenitas Data dengan SPSS. Politeknik Kesehatan Surakarta.

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Smith, K., Maynard, N., Berry, A., Stephenson, T., Spiteri, T., Corrigan, D., Mansfield, J., Ellerton, P., & Smith, T. (2022). Principles of problem-based learning (PBL) in STEM Education: Using expert wisdom and research to frame educational practice. Education Sciences, 12(10), 728. https://doi.org/10.3390/educsci12100728

Thomas, J. W. (2000). A Review of Research on Project-Based Learning. Autodesk Foundation.

Tseng, K.-H., Chang, C.-C., Lou, S.-J., & Chen, W.-P. (2011). Attitudes towards science, technology, engineering and mathematics (STEM) in a project-based learning (pjbl) environment. International Journal of Technology and Design Education, 23(1), 87–102. https://doi.org/10.1007/s10798-011-9160-x

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