



The Correlation Impact Between Problem-Based Learning and Students Interest When Learning English In Junior High School

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Abstract

This study investigates the correlation between the implementation of Problem-Based Learning (PBL) and students' interest in learning English at the junior high school level. PBL is a student-centered pedagogical approach that engages learners in solving real-world problems to develop critical thinking, collaboration, and communication skills. The primary research question examines whether the application of PBL significantly influences students' interest in English language learning. Employing a quantitative correlational design, the study involved 50 eighth-grade students from a public junior high school in Indonesia. Data were collected through structured questionnaires assessing perceptions of PBL and levels of interest in English learning. The results, analyzed using the Pearson Product-Moment correlation test, revealed a significant positive relationship ($r = 0.630$, $p = 0.000$), indicating that increased implementation of PBL correlates with higher student interest. These findings underscore the potential of PBL to enhance student engagement and motivation. English language educators are encouraged to adopt PBL strategies to foster more meaningful and interactive learning environments.

Keywords: *Problem-Based Learning, Learning Interest, English Language Learning, Junior High School, Correlation.*

Introduction

In today's increasingly interconnected world, the ability to communicate effectively in English has become a vital competency for students. English serves not only as a global lingua franca but also as a gateway to access international education, technology, and career opportunities. Recognizing this, the Indonesian government has included English as a compulsory subject in the national curriculum starting from junior high school. This policy aims to equip students

with the linguistic and cognitive skills necessary to compete and collaborate on a global stage (Nurhadi, 2020).

Despite this curricular emphasis, many students continue to experience significant challenges in English language learning. These challenges are not solely related to grammar or vocabulary acquisition but are often rooted in low motivation, anxiety, and a lack of interest. Traditional instructional models—dominated by teacher-centered methods and textbook-based drills—tend to limit student engagement, resulting in passive learning environments (Schiefele, 1991; Sungur & Tekkaya, 2016). Consequently, students struggle to see the relevance of English to their lives, which hinders both academic achievement and long-term language development.

In response, the 2013 Indonesian curriculum encourages a shift toward active, student-centered pedagogy. Among the recommended strategies is Problem-Based Learning (PBL), a constructivist instructional model in which students collaboratively solve real-world problems to construct knowledge and develop critical competencies. Originally developed in medical education, PBL has since gained traction across disciplines, including language education (Barrows & Tamblyn, 1980; Kök & Duman, 2023). In English classrooms, PBL can take the form of group discussions, project-based tasks, role-plays, or case-based scenarios that promote the use of English in contextually rich and meaningful ways.

One of the anticipated benefits of PBL is its potential to enhance students' interest in learning. Learning interest refers to a student's psychological inclination to engage with academic content both emotionally and cognitively. According to Schiefele (1991), interest is a multifaceted construct comprising individual and situational components. Individual interest develops over time and reflects enduring personal relevance, while situational interest is momentarily triggered by specific features of the learning environment—such as novelty, challenge, or relevance. PBL, by design, incorporates many of these features and may therefore be an effective strategy for nurturing learning interest.

From a motivational perspective, Self-Determination Theory (SDT) developed by Deci and Ryan (1985) offers a compelling explanation for why PBL might impact learning interest. SDT posits that learning environments that support students' basic psychological needs—autonomy, competence, and relatedness—are more likely to cultivate intrinsic motivation. PBL supports autonomy by giving students choice in how they approach problems, promotes competence through scaffolded problem-solving, and enhances relatedness via group collaboration. These elements align closely with the conditions needed to foster deep, sustained interest in learning.

Although the theoretical links between PBL and learning interest are well-established, empirical evidence on this relationship—particularly in the context of junior high school English education in Indonesia—remains limited. Most prior studies have examined PBL's effects on academic performance, critical thinking

skills, or learning outcomes in science and math subjects (Dochy et al., 2013; Fakhriyah, 2021). Very few have explored how PBL shapes students' affective responses—such as enjoyment, curiosity, or persistence—in language learning environments. Furthermore, research that does consider learning interest often focuses on high school or university students, leaving a significant gap at the junior high school level.

Understanding this relationship is crucial, especially as English education at the secondary level becomes more communicative and learner-centered. Junior high school students are at a formative stage in which their attitudes toward learning can significantly influence future academic trajectories. Identifying effective instructional strategies that not only improve performance but also increase emotional investment in the learning process is therefore an urgent priority.

This study seeks to address this gap by examining the correlation between the implementation of Problem-Based Learning and students' interest in learning English at the junior high school level. In doing so, the study contributes to a more comprehensive understanding of how instructional design impacts motivation, and how learning interest functions as a bridge between pedagogical methods and student engagement.

Research Questions:

1. Is there a statistically significant correlation between the use of Problem-Based Learning and students' interest in learning English at the junior high school level?
2. How do specific elements of PBL—such as autonomy, collaboration, and contextual learning—contribute to the development of student interest in English?

The findings are expected to offer practical recommendations for English language educators and policymakers seeking to design engaging, student-centered classrooms. By exploring both the theoretical and practical implications of PBL, this research aims to support the development of more responsive, meaningful, and motivating language learning environments in Indonesian junior high schools.

Literature Review

Interest in learning has been extensively studied due to its significant influence on students' engagement and academic success. According to Rahmat and Pratiwi (2021), interest can be defined as a psychological tendency to focus attention on certain activities or objects due to emotional connections or internal stimuli. Usman (2002) further emphasizes that interest plays a pivotal role in motivating learners to engage in meaningful academic activities. Several scholars have expanded on the psychological basis of interest. Shalahuddin (1992)

considers it as attention embedded with emotional factors that stimulate active behavior, while Darajat (1992), citing Declory, defines interest as an expression of unfulfilled needs.

These foundational theories suggest that interest emerges from both internal psychological drivers and external stimuli, including environmental and experiential factors. To support and foster learning interest, various theoretical models have been proposed. Schiefele's (1991) Interest Theory classifies interest into situational interest—triggered by environmental factors—and individual interest, which is more stable and internalized. He suggests that enhancing situational interest through instructional design can help cultivate deeper, long-term individual interest in learning. Deci and Ryan's (1985) Self-Determination Theory also provides insights into motivation and interest. T

hey differentiate between intrinsic motivation, which arises from enjoyment of the activity itself, and extrinsic motivation, driven by rewards or external pressures. Their research demonstrates that intrinsically motivated learners are more engaged and retain knowledge better, emphasizing the need for engaging and autonomy-supportive educational environments. From a sociocultural perspective, Vygotsky (1987) highlights the importance of social interaction and authentic learning experiences in increasing student interest. His constructivist approach aligns well with collaborative learning strategies, such as Problem-Based Learning (PBL).

Problem-Based Learning (PBL) is a widely recognized instructional model that encourages students to solve real-world problems in collaborative settings. Barrows and Tamblyn (1980) introduced PBL as an approach that stimulates curiosity and promotes critical thinking. Research by Lestari (2019) and Fakhriyah (2021) supports the view that PBL not only improves academic performance but also increases learners' engagement by making learning more meaningful and contextual. In addition, PBL aligns with contemporary educational objectives by encouraging autonomous learning, teamwork, and reflective thinking (Huriah, 2017; Kök & Duman, 2023). However, studies also point out its limitations—such as implementation complexity in large or diverse classrooms (Rerung, 2019; Liu Sheng, 2023).

Various strategies have been identified to enhance learning interest. These include cognitive techniques such as connecting learning materials to real-life contexts (Nurhadi, 2020), affective strategies like positive reinforcement (Deci & Ryan, 1985), and social approaches including group discussions (Hmelo-Silver, 2004). These techniques are often integrated within PBL environments to maximize student engagement. In conclusion, a growing body of literature confirms that fostering students' learning interest requires a combination of psychological insight, instructional design, and interactive learning strategies. The integration of motivational theories and active learning models like PBL provides a robust framework for improving educational outcomes.

Method

This study employed a quantitative correlational research design to examine the relationship between the implementation of Problem-Based Learning (PBL) and students' interest in learning English at the junior high school level.

3.1 Participants

The participants consisted of 50 eighth-grade students from a public junior high school in Indonesia. They were selected using a stratified random sampling technique to ensure balanced representation based on gender and academic performance. Inclusion criteria required students to be enrolled in the school during the academic year 2023/2024, have completed at least one semester of English instruction, and demonstrate consistent attendance (minimum 80%). Students who had not experienced PBL or had identified learning difficulties were excluded.

3.2 Instruments

Data were collected using two structured questionnaires. The first, the PBL Implementation Questionnaire, measured students' perceptions of how frequently and effectively PBL strategies were used in their English classes. A sample item includes: "I am encouraged to solve problems with my classmates during English lessons." The second, the Learning Interest Questionnaire, assessed students' levels of emotional and cognitive engagement with English learning, adapted from Schiefele's (1991) interest framework. A sample item is: "I look forward to English class because the activities are interesting." Both instruments were reviewed by subject matter experts to ensure face and content validity. A pilot study involving 10 students (not part of the final sample) was conducted to evaluate the clarity and reliability of the questionnaires. Results indicated strong internal consistency, with Cronbach's Alpha values exceeding 0.80 for both instruments.

3.3 Procedure

The study was conducted between January and April 2024. Prior to data collection, the researcher obtained formal approval from school administrators and informed consent from both students and their parents. The PBL approach had been implemented by the English teacher throughout the first semester, involving tasks such as group discussions, role-playing, collaborative presentations, and real-world problem-solving scenarios relevant to students' lives. Data collection took place in March 2024. Students completed the questionnaires during regular class sessions under supervision. Participation was voluntary and anonymous, and each session lasted approximately 45 minutes.

3.4 Data Analysis

Descriptive statistics were used to summarize participant demographics and overall questionnaire responses. The primary analysis employed the Pearson Product-Moment Correlation to assess the relationship between PBL implementation and students' interest in English learning. Prior to analysis, assumptions of normality and linearity were tested using the Shapiro-Wilk test and

scatterplot inspection. A significance threshold of $p < 0.05$ was applied, and the strength of correlation was interpreted using Sugiyono's (2021) classification guidelines.

3.5 Ethical Considerations

All research procedures adhered to ethical standards. Participants were informed of their right to withdraw at any time, and data confidentiality was strictly maintained. Information was collected solely for academic purposes and anonymized prior to analysis.

Results and Discussion

This section presents the results of the data analysis and discusses the findings in relation to the research questions and existing literature. The analysis includes descriptive statistics, correlation analysis, and interpretation of the results within theoretical and practical contexts. The discussion also highlights the study's implications, limitations, and suggestions for future research.

4.1 Participant Demographics

The final sample consisted of 50 eighth-grade students (25 male and 25 female) from a public junior high school in Indonesia. The average age of participants was 14.2 years ($SD = 0.5$), and all students had completed at least one semester of English instruction. Students came from two different classes, representing a range of academic performance levels.

4.2 Descriptive Statistics

Descriptive statistics were calculated for both variables: PBL implementation and students' interest in learning English. The mean score for PBL implementation was 78.4 ($SD = 6.2$, range = 65–90), while the mean score for learning interest was 81.6 ($SD = 7.5$, range = 60–95). These values suggest that both variables were generally high among participants, as shown in Table 1

Table 1. Descriptive Statistics for PBL Implementation and Student Interest

Variable	Mean	SD	Min	Max
PBL Implementation	78.4	6.2	65	90
Learning Interest	81.6	7.5	60	95

These results indicate that both PBL implementation and learning interest levels were relatively high among participants. The standard deviations suggest that students' responses were moderately consistent, with some variation in how PBL was perceived and how interested students felt about learning English. The relatively narrow range of scores implies that most students shared similar experiences with PBL and interest levels, which supports the suitability of using a correlational approach in the next analysis.

4.3 Assumption Testing

Prior to correlation analysis, the assumptions of normality and linearity were examined. The Shapiro-Wilk test showed non-significant results for both variables ($p > 0.05$), indicating normal distribution. Scatterplot inspection confirmed a linear relationship between PBL implementation and learning interest, supporting the use of the Pearson correlation test.

4.4 Correlation Analysis

The results showed a statistically significant positive correlation between PBL implementation and students’ interest in learning English, $r = 0.630$, $p < 0.001$. This correlation falls within the moderate to strong range based on Sugiyono’s (2021) interpretation scale. A 95% confidence interval for the correlation coefficient was calculated as $[0.42, 0.77]$, confirming the robustness of the finding. The full correlation results are presented in Table 2.

Table 2. Pearson Correlation Between PBL Implementation and Student Interest

		Problem Based Learning	Learning Interest
Problem Based Learning	Pearson Correlation	1	0,630
	Sig. (2-tailed)		0,000
	N	50	50
Learning Interest	Pearson Correlation	0,630	1
	Sig.2 (2-tailed)	0,000	
	N	50	50

The results in Table 2 indicate a moderate to strong positive correlation between the implementation of Problem-Based Learning (PBL) and students’ interest in learning English, with a Pearson correlation coefficient of $r = 0.630$. This suggests that students who perceived greater use of PBL techniques in the classroom also tended to report higher levels of interest in English learning. The correlation is statistically significant at $p < 0.001$, and falls within the moderate-to-strong range based on Sugiyono’s (2021) scale. While this does not imply a causal relationship, it provides evidence that more active, student-centered instructional strategies such as PBL are associated with enhanced emotional and cognitive engagement. These findings support the practical value of implementing PBL in language education to foster student motivation.

4.5 Discussion

The findings of this study suggest a meaningful relationship between the use of Problem-Based Learning and students’ interest in learning English at the junior high school level. This supports the hypothesis that more effective PBL implementation is associated with increased student motivation and participation.

The moderate-to-strong correlation aligns with previous research (Lestari & Aini, 2019; Suparman, 2020) that highlighted PBL's role in enhancing engagement and learning outcomes in English classrooms.

These results are also consistent with Interest Theory (Schiefele, 1991), which emphasizes the importance of situational interest triggered by meaningful learning contexts. PBL provides such contexts through real-world problem-solving, allowing students to see the relevance of English in daily life. Moreover, the findings align with Self-Determination Theory (Deci & Ryan, 1985), which argues that motivation is enhanced when autonomy, competence, and relatedness are supported—principles directly embedded in the PBL framework.

From a practical perspective, this study offers several implications. Teachers should be encouraged to adopt PBL strategies in English instruction, including problem-solving tasks, collaborative group work, real-world case studies, and student-led projects. Administrators and curriculum designers should consider providing training and resources to support PBL-based instruction in secondary schools.

Despite these positive findings, several limitations must be acknowledged. First, the sample size was relatively small and drawn from a single school, which limits the generalizability of the results. Second, the study relied on student self-report data, which may be influenced by social desirability bias. Third, while the correlation was significant, no causal relationship can be inferred from this design. Future studies should consider experimental or longitudinal designs to better explore causal links between PBL and student interest.

Future research could also examine whether specific elements of PBL—such as student autonomy or problem authenticity—are more influential than others in promoting interest. Additionally, subgroup analyses based on gender, academic level, or prior English achievement may reveal more nuanced relationships.

In conclusion, the study provides evidence that the implementation of PBL is positively associated with junior high school students' interest in learning English. These results support the continued development of interactive, problem-based instructional methods in language education and offer practical guidance for improving student engagement in English classrooms.

Conclusion

The correlation impact between Problem-Based Learning (PBL) and students' interest in learning English in junior high school reveals several key findings. There is a significant positive correlation between the use of Problem-Based Learning (PBL) and students' interest in learning English. PBL engages students actively through real-world problem-solving, fostering intrinsic motivation and curiosity. PBL methods improve student engagement by making lessons more interactive and relevant. Students are more likely to participate actively when they see the practical application of the language skills they are learning. PBL promotes student

autonomy and collaboration, giving learners a sense of ownership over their learning process, which contributes to sustained interest and motivation in studying English.

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About the Author(S)

Risna is an undergraduate student in the English Education Department at Mulawarman University. This article is part of her first research project, focusing on student learning interest and the implementation of Problem-Based Learning (PBL) in classroom settings. The author has a growing interest in educational research and language teaching methodologies.

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