

## THE IMPLEMENTATION OF THE PROBLEM BASED LEARNING MODEL TO IMPROVE STUDENTS' PROBLEM-SOLVING SKILLS IN ENGLISH LEARNING AT JUNIOR HIGH SCHOOL

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**Abstrak** - Penelitian ini bertujuan untuk menganalisis pengaruh penerapan Problem Based Learning (PBL) terhadap keterampilan pemecahan masalah Bahasa Inggris siswa di SMP. Subjek penelitian terdiri dari 28 siswa dengan tingkat kemampuan awal Bahasa (KAB) tinggi, sedang, dan rendah. Setelah mengikuti pembelajaran berbasis PBL, siswa diuji dengan tes yang menilai kemampuan mereka dalam memahami teks, menyusun kalimat, menyelesaikan tugas kontekstual, dan mengaplikasikan kosakata secara tepat. Hasil penelitian menunjukkan bahwa PBL memberikan pengaruh positif pada semua tingkat KAB. Siswa KAB tinggi mampu memahami masalah, merancang strategi pemecahan, dan mengeksekusi jawaban secara tepat. Siswa KAB sedang menunjukkan peningkatan signifikan melalui diskusi kelompok dan bimbingan guru, sedangkan siswa KAB rendah, meski mengalami kesulitan awal, tetap menunjukkan perkembangan melalui scaffolding guru dan interaksi teman sebaya. Rata-rata skor seluruh kelas mencapai 72,55, menunjukkan efektivitas PBL dalam meningkatkan keterampilan pemecahan masalah lintas tingkat kemampuan.

**Kata kunci:** Problem Based Learning, pemecahan masalah, Bahasa Inggris, SMP, keterampilan berpikir tinggi

**Abstract** - This study aims to analyze the effect of Problem Based Learning (PBL) on English problem-solving skills of junior high school students. The subjects consisted of 28 students with high, medium, and low initial language ability (ILA) levels. After participating in PBL-based learning, students were assessed through tests measuring their ability to understand texts, construct sentences, solve contextual tasks, and apply vocabulary accurately. The results indicate that PBL positively impacts all ILA levels. High-ILA students were able to understand problems, design solution strategies, and execute answers accurately. Medium-ILA students showed significant improvement through group discussions and teacher guidance, while low-ILA students, despite initial difficulties, gradually progressed with teacher scaffolding and peer interaction. The class average score reached 72.55, demonstrating the effectiveness of PBL in enhancing problem-solving skills across different ability levels.

**Keywords:** Problem Based Learning, problem-solving, English, junior high school, higher-order thinking skills

### 1. INTRODUCTION

English is an important subject in junior high school as a foreign language (EFL) that supports global communication. One of the main goals of English learning is to develop students' abilities in understanding texts, writing, speaking, and critical thinking using the foreign language (Apoko et al., 2023; Genesee & Upshur, 2016). Problem-solving skills in English are an essential competence because students are not only required to memorize rules but also to apply language strategies to solve contextual tasks, such as understanding texts, writing logical sentences, or composing dialogues based on specific situations (Sari & Wardhani, 2020; Purnomo et al., 2024; Rao, 2019).

Observations at SMP Negeri 1 Payung indicate that many students face difficulties in solving English problems that slightly differ from the examples provided by the teacher. This suggests that their problem-solving skills are not yet optimal. One learning model believed to

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improve these skills is Problem-Based Learning (PBL) (Mutanga, 2024; Umar & Ko, 2022; Tanaka, 2023).

PBL places students in authentic problem situations, allowing them to construct knowledge, develop higher-order thinking skills, and build independence and self-confidence (Jaya et al., 2019; Puspitasari, 2020). The syntax of PBL consists of five stages: problem orientation, problem formulation, individual and group investigation, solution development and presentation, and evaluation of both the process and the problem-solving results (Jaya et al., 2023; Lee, 2023).

The implementation of Problem-Based Learning (PBL) in English learning at junior high school has great potential to enhance students' problem-solving skills. English, as an essential subject, functions not only as a medium for global communication but also as a means to develop critical thinking, creativity, and comprehensive academic skills (Ardena & Fatimah, 2021; Widiastuti et al. 2023). One of the main challenges in English learning is to develop students' ability to not only master language rules but also apply language strategies contextually in solving various problems, such as understanding text meaning, composing logical sentences or paragraphs, and constructing dialogues according to specific situations. Field observations show that many students still struggle with English problems that differ from the teacher's examples, indicating that their problem-solving skills are not yet optimal (Guerrettaz et al., 2021; Carter, 2023).

In the context of English learning, the implementation of PBL can cover various types of materials, ranging from narrative, descriptive, to expository and argumentative texts, enabling students not only to practice writing and reading but also speaking, listening, and critical thinking skills (Littlewood, 2013; Yang et al., 2024). For example, when facing a narrative text, students may be presented with critical questions about the plot or characters and then asked to formulate solutions or interpretations using appropriate English. Similarly, in descriptive or expository texts, PBL allows students to identify logical errors or missing information and then correct them through group discussions and presentations. Through this process, students not only master linguistic aspects, such as grammar and vocabulary, but also cognitive aspects, such as analysis, synthesis, and evaluation of information, significantly improving their problem-solving skills (Jonassen, 2011; Nobutoshi, 2023; Wood et al., 1976).

Therefore, the application of PBL in English learning in junior high schools is expected to be an effective strategy for developing students' problem-solving skills, especially when adjusted according to their initial ability levels—high, medium, and low. This learning model not only emphasizes achieving language competence but also equips students with critical, collaborative, and independent thinking skills, which are essential for young people facing academic challenges and real-life situations in the era of globalization (Ummah, 2019; Rosli & Azman, 2025). Thus, PBL contributes significantly to creating a more meaningful, interactive English learning experience that focuses on the comprehensive development of students' thinking and problem-solving abilities.

## **2. METHOD**

### ***2.1 Type of Research***

This study used a pre-experimental method with a one-shot case study design (Sugiyono, 2021; Arikunto, 2009). This design was chosen to investigate the effect of Problem Based Learning (PBL) on students' English problem-solving skills without a control group.

## **2.2 Population and Sample**

- Population: All seventh-grade students at SMP Negeri 1 Payung.
- Sample: Class VII C consisting of 28 students, selected purposively based on uniform learning experience and readiness to participate in PBL.

## **2.3 Research Variable**

- Independent Variable (X): Problem Based Learning (PBL) instructional model.
- Dependent Variable (Y): Problem-solving skills in English learning.

## **2.4 Student Grouping Based on Initial English Ability (KAB)**

- High: Students can comprehend texts, construct sentences, and complete English tasks effectively.
- Medium: Students have moderate ability and occasionally require guidance from teachers or peers.
- Low: Students have difficulty understanding texts and constructing sentences, needing intensive guidance.

## **2.5 Research Procedure**

- Determine KAB categories through initial observation, previous test scores, and English reading and writing abilities.
  - Conduct PBL-based learning, including:
    - Orienting students to contextual English problems.
    - Searching for information and conducting group discussions.
    - Designing problem-solving strategies and executing tasks.
    - Presenting results and evaluating by teachers and peers.
- Administer English problem-solving tests to assess students' ability in text comprehension, sentence/paragraph construction, and context-based task completion.

## **2.6 Research Instrumen**

- English Problem-Solving Test: Includes text comprehension questions, sentence construction tasks, contextual problem-solving, and appropriate vocabulary application.
- Teacher Observation: Monitors student engagement and independent thinking during PBL activities.

## **2.7 Data Analysis Technique**

Descriptive qualitative analysis was employed, including:

- Calculating average scores per KAB category
  - Determining highest and lowest scores
  - Calculating standard deviation
- The results were analyzed to evaluate students' problem-solving skills and the effectiveness of PBL in English learning.

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**Table 1. Classification of Students Based on KAB**

<b>KAB Category</b>	<b>Number of Students</b>	<b>Percentage (%)</b>	<b>Description</b>
High	4	14.29	Students can comprehend texts and construct sentences effectively.
Medium	20	71.42	Students have moderate ability and occasionally need assistance.
Low	4	14.29	Students face initial difficulties and need intensive guidance.
<b>Total</b>	28	100	Entire research sample.

### **3 RESULT AND DISCUSSION**

#### **3.1 Result**

##### **3.1.1 Number of Students and KAB Categorization**

The research sample consisted of 28 students from Class VII C at SMP Negeri 1 Payung.

**Table 1. Initial English Ability (KAB)**

<b>KAB Category</b>	<b>Number of Students</b>	<b>Percentage (%)</b>
High	4	14.29
Medium	20	71.42
Low	4	14.29
<b>Total</b>	28	100

##### **3.1.2 English Problem-Solving Test Results Based on KAB**

**Table 2. Test Results Based on KAB**

<b>KAB Category</b>	<b>Number of Students</b>	<b>Mean Score</b>	<b>Highest Score</b>	<b>Lowest Score</b>	<b>Standard Deviation</b>	<b>Description</b>
High	4	85.50	92	80	5.07	Students can solve English problems effectively, understand texts, and construct complex sentences independently.
Medium	20	72.40	84	60	6.85	Students show moderate ability; some require group discussions to complete tasks.
Low	4	60.75	66	55	4.57	Students face initial difficulties; teacher guidance and peer interaction help comprehension.
<b>Total</b>	28	72.55	92	55	8.19	The overall class average falls into the "good" category, indicating the overall effectiveness of PBL.

**Table Description:**

- The mean scores show the level of English problem-solving skills for each KAB category.
- The highest and lowest scores indicate the variation in student ability.
- The standard deviation shows the score distribution and consistency of ability within each category.
- Overall, PBL effectively enhances problem-solving skills across all levels of initial English ability.

**3.2 Discussion**

Based on the results of the study, the implementation of Problem Based Learning (PBL) had a positive effect on students' mathematical problem-solving abilities. The key points of the discussion are as follows:

**3.2.1 Effectiveness of PBL for High KAB Students**

Students with high KAB (14.29%) achieved an average score of 85.50, classified as very good. They were able to understand problems, design strategies, and complete English tasks independently. These results align with Polya's theory, which emphasizes the importance of problem comprehension and strategic planning in problem-solving (EF-EPI, 2024).

**3.2.2 Development of Medium KAB Students**

The majority of students (71.42%) were in the medium category, with an average score of 72.40 (good). Group discussions in PBL helped correct procedural errors and expand critical thinking approaches. This finding who stated that PBL enhances higher-order thinking skills through collaborative learning.

**3.2.3 Advancement of Low KAB Students**

Students with low KAB (14.29%) had an average score of 60.75 (fair). Although they faced initial difficulties, peer interaction and teacher guidance during the PBL process helped them gradually understand the problems. This is consistent with Vygotsky's scaffolding concept, which emphasizes guidance to support skill development.

**3.2.4 The Role of PBL IN Enhancing Problem-Solving**

PBL guides students through sequential problem-solving stages: understanding the text, designing language-use strategies, executing solutions, and evaluating results. This process fosters independent thinking, creativity, and analytical skills. PBL also reduces reliance on teacher-provided examples, allowing problem-solving skills to develop more optimally.

**4 CONCLUSION**

Based on the research results, the implementation of Problem Based Learning (PBL) has been proven effective in improving English problem-solving skills of Class VII C students at SMP Negeri 1 Payung. Students with high initial English ability (KAB) demonstrated excellent performance (average score 85.50), those with medium KAB showed significant improvement (72.40), and students with low KAB made progress despite facing difficulties (60.75). The class average of 72.55 (good category) indicates the effectiveness of PBL in developing English problem-solving skills across different levels of initial ability.

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PBL is recommended as an English learning model because it promotes independent thinking, creativity, and analytical skills, while also preparing students to tackle more complex English problems in the future.

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