

**THE EFFECTIVENESS OF USING PROBLEM-BASED LEARNING
METHODS IN IMPROVING STUDENTS' READING
COMPREHENSION: A SYSTEMATIC LITERATURE REVIEW**

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Abstract

Reading comprehension is the basis of reading because it seeks to understand the meaning of reading material. One approach to improving students' reading comprehension is to use the Problem-Based Learning (PBL) learning method. This method improves various aspects of reading comprehension, especially by focusing on students' active involvement in the learning process. PBL not only requires students to understand the text literally, but also encourages them to analyze, interpret and relate the information to the real-world context. In this context, PBL improves students' critical thinking skills as they have to solve real problems based on the text read. This learning makes students engage more deeply, so they are not just reading to get information, but also to develop analytical understanding. Research or analysis activities are carried out by collecting article data from national journals that can be accessed through Google Scholar for the last five years (2020-2024) related to the problem under study. Overall, this research shows the effectiveness of PBL in strengthening reading comprehension by integrating independent, collaborative, and contextual learning. PBL also allows students to not only understand the text in depth, but also develop critical thinking and communication skills that are crucial to their academic and professional success.

Keywords: *effectiveness, problem-based learning method, reading comprehension*

Introduction

Reading is an essential ability for students at all levels of school, and it plays a significant part in the teaching and learning process. This is reinforced by (Arisman & Haryanti, 2019), who states that the ability to read is critical for pupils, both throughout their education at various school levels and after they enter the workforce or society. According to Law No. 20/2003 on the national education system, one of the most important skills to develop is reading comprehension. Some individuals

think that reading activities are simple to undertake and master, yet reading is a complicated process that involves a variety of abilities (Rico, 2022). During the learning process, most students struggle to grasp the content they read.

The Problem-Based Learning method is one of the learning approaches that can help students understand and learn more effectively. According to Firmansyah (2015), problem-based learning is an educational method that allows students to study real-world problems to gain knowledge, learn independently, and scientifically integrate academic and real-world settings. Meanwhile, Maryati (2018) argues that Problem-Based Learning (PBL) is a learning strategy that uses real-world situations to teach students critical thinking and problem-solving skills, as well as essential information and concepts from the subject.

In PBL, students are faced with real-world problems that require creative and critical solutions. To solve the problem, they must find and understand a variety of information from texts or readings. This process hones their analytical skills, as students are required to identify the main idea as well as supporting ideas from the readings they research. They learn to assess the credibility of information sources and filter relevant information from those that are not, thus strengthening their ability to critically analyze texts. The importance of contextual understanding is also highlighted in PBL. The problems posed are usually relevant to everyday life or a particular profession, so students can see the connection between the information they read and the real situations they face. This makes the information read more meaningful and memorable. Thus, reading comprehension is not only limited to memorization, but more on how the information is applied in a broader context.

Furthermore, in the process of problem solving, students often have to make inferences from readings that may not convey information explicitly. They are faced with the challenge of interpreting hidden information and constructing arguments based on understanding from multiple sources. This ability to make inferences is critical to understanding complex texts, especially those of an academic or scientific nature. PBL also encourages collaboration between students. By working in groups to find solutions, students have the opportunity to discuss ideas and gain new perspectives from their peers. These discussions deepen their understanding, as they can clarify concepts that they may not fully understand when reading independently.

These interactions not only improve reading comprehension but also build communication and cooperation skills that are crucial in the real world. In addition, PBL helps students connect new information with the knowledge they already have. By utilizing prior knowledge as a foundation, students can build a stronger understanding of the new reading. This approach is in line with constructivism theory, which emphasizes that effective learning occurs when new knowledge builds on old knowledge.

Overall, the Problem-Based Learning Method provides a comprehensive approach in improving students' reading comprehension. By linking the reading to real-life situations, PBL not only strengthens text comprehension, but also ensures that the learning process becomes more relevant and meaningful to students. Through PBL, students not only become better readers, but also critical thinkers and problem solvers who are ready to face challenges in the real world.

Methods

The method used in this article is Systematic Literature Review (SLR). According to Muqtafia et al. (2022), SLR is a method carried out by identifying, assessing, evaluating, and interpreting previous studies found by researchers. This literature study aims to review articles related to the effect of using problem-based learning methods in improving students' reading comprehension, so as to obtain valid and accurate data.

In the process, the researcher conducted a systematic review of articles relevant to the research topic. The literature search was conducted through Google Scholar, focusing on articles published in the last five years (2020-2024) and in accordance with the predetermined selection criteria. The criteria include the relevance of the article to the research topic raised.

In addition, this study used 10 related articles, published in the 2020-2024 timeframe, to support the analysis in the literature survey. The articles were obtained from various academic journals that discuss in-depth reading comprehension through problem-based learning methods. Examples of articles used in this survey can be seen in Table 1 below.

Table 1. Sample Articles

Category	Title	Authors and codes
Journal article	Efforts to Improve Reading Comprehension through the Implementation of Problem-Based Learning in Students of SMP Negeri 5 Padangsidempuan for the Seventh-Nine Class 2022-2023 Academic Year	Dewi, 2023 [A1]
	The Effect of Authentic Problem – Based Learning in Enhancing Reading Comprehension	Sa'diyah, Anwar, & Wardhono, 2020 [A2]
	Improved Exposition Text Reading Ability by Using Problem Based Learning Students in SMP Negeri 3 Lahewa in 2020	Zendrato, 2020 [A3]
	The Implementation of Problem Based Learning Model to Improve Reading Comprehension Achievement	Rosmiyati, 2021 [A4]
	Improving Students' Motivation and Reading Ability in Learning Narrative Text Using Problem Based Learning	Suhendri & Kurniawan [A5]
	Assessing Students' Achievement in Reading Comprehension through Problem Based Learning Model	Addas, Nur, & Larekeng, 2021 [A6]
	The Effect of Problem Based Learning (PBL) and Direct Instruction Method (DIM) on the Students' Achievement in Reading Comprehension at SMA Negeri 1 Dolok Pardamean	Marpaung, 2020 [A7]
	Improving Students' Reading Comprehension by Using Problem-Based Learning Method at XI MIPA 5 SMA Negeri 1 Badegan Ponorogo in Academic Year 2021/2022	Setyaningrum, Indriastuti, & Asiyah, 2023 [A8]
	Improving Students' Reading Comprehension of Narrative Text Through Problem Based Learning	Rianti, 2024 [A10]
	Problem-Based Learning as a Facilitator of Students' Reading Comprehension	Satriani et al, 2021 [A9]

Findings and Discussions

The data presented in Table 1 provides a comprehensive overview of the impact of problem-based learning (PBL) on students' reading comprehension at both junior high school and senior high school levels. The table details the average scores before and after the application of the PBL method across different school grades, offering valuable insights into the effectiveness of this approach.

Table 1. Research Article Data

Article codes	Level of school	Grade	Samples	Average Score	
				Before	After
A1	SMP	VII	31	66,45	86,29
A2	SMP	VIII	32	60,38	75.88
A3	SMP	VIII	21	69	87
A4	SMP	VIII	29	60.43	75
A5	SMP	IX	31	58	80
A6	SMA	X	21	64,68	73,80
A7	SMA	X	20	57,80	79,80
A8	SMA	X	40	50,47	67.07
A9	SMA	X	36	69	80
A10	SMA	XI	30	61,1	80,3

The data reveals a notable improvement in students' reading comprehension following the implementation of the problem-based learning (PBL) method. At the junior high school level, students' average scores on reading comprehension increased from a range of 58-69 before PBL implementation to a range of 75-87 after PBL was applied. Similarly, at the senior high school level, the average scores rose from 50-69 before PBL to 67-80 after PBL. These improvements highlight a marked difference between pre- and post-intervention scores, underscoring the positive effect of PBL on students' reading comprehension at both educational levels.

This substantial increase in students' performance demonstrates the potential of the problem-based learning method to enhance reading comprehension skills. PBL, which emphasizes the development of critical

thinking and problem-solving abilities through active interaction with texts, appears to offer students the tools necessary to engage with and understand reading materials more effectively. This aligns with existing literature on PBL, which suggests that this approach encourages deeper learning by placing students in real-world problem-solving scenarios.

Upon closer examination, the data analysis further reveals that the average increase in scores at the junior high school level ranged from 9 to 18 points, while the senior high school scores showed an increase of 16 to 30 points. This difference in score improvements between junior and senior high schools suggests that older students may have been more equipped to handle the cognitive challenges posed by PBL. Their ability to engage with more complex problem-solving activities and critically analyze the texts likely contributed to the larger improvements observed at the senior high school level. Additionally, the significant rise in scores across both levels implies that PBL can be an effective strategy for fostering deeper comprehension, regardless of the students' grade level. These findings suggest that while PBL is generally beneficial for improving reading comprehension, the level of student development and the complexity of the reading materials may also play a role in determining the extent of improvement. Further research could explore how these factors interact to enhance PBL's effectiveness, offering a more comprehensive understanding of the method's potential across varying educational contexts.

Several studies provide further evidence of the benefits of PBL in improving reading comprehension. Dewi (2023) conducted research that emphasized the effectiveness of PBL when using narrative and descriptive texts as resources. Dewi's study found that students not only improved their ability to understand the content of the text, but also gained the skills necessary to analyze and interpret the information. This result supports the idea that active learning approaches like PBL foster higher-level cognitive processes, enabling students to engage more deeply with reading materials.

Additionally, Rianti (2024) found that PBL significantly improved students' ability to comprehend narrative content. The incorporation of real-world contexts and relevant situations in the learning process helped students connect more effectively with the text, which in turn boosted their understanding of characters, plotlines, and themes. This finding reinforces the notion that context-rich, problem-based activities can engage students more deeply, encouraging them to invest in their learning and making the content more accessible.

Suhendri and Kurniawan (2022) also contributed to this body of evidence by showing that PBL not only enhances reading comprehension but also increases students' learning motivation. Motivated students are more likely to engage actively with reading materials, which results in better comprehension. This suggests that the collaborative, student-centered nature of PBL is not just beneficial for reading comprehension, but also for fostering a more positive attitude toward learning.

Zendrato (2020) further highlighted that PBL's ability to engage students is particularly powerful when applied to expository reading materials. The authentic, real-world problems posed within the PBL framework help students relate to and enjoy reading, thus enhancing their ability to comprehend informational texts. In this way, PBL provides a more dynamic and enjoyable learning experience, which is crucial for fostering long-term interest and mastery of academic content.

Finally, Sa'diyah et al. (2020) echoed these findings by asserting that well-structured PBL can lead to significant improvements in both students' reading comprehension and overall learning motivation. This dual benefit shows that PBL creates an environment where students are not only improving their academic skills but are also becoming more engaged in their education. By making the learning process more relevant and hands-on, students are more likely to develop positive attitudes toward learning and become more proactive in their academic pursuits.

Conclusion

In keeping with the findings of some of the preceding research, it is concluded that adopting problem-based learning (PBL) strategies can enhance students' reading comprehension. Several papers suggest that using PBL greatly improves reading comprehension abilities in the context of diverse text forms, including narrative, descriptive, and exposition. In addition, problem-based learning can boost students' learning motivation. Thus, it is determined that problem-based learning is an excellent learning strategy for enhancing students' reading abilities. The researcher expects that this study will serve as a reference for readers interested in this topic. Furthermore, the researcher recommends that other researchers interested in this topic look into the effectiveness of problem-based learning (PBL) methods in improving reading comprehension in a variety of contexts, educational levels, and problem types, as well as various moderating factors.

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