



## Using Problem Based Learning (PBL) in Improving Writing Skill at Boarding School

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### **Abstract**

This study employs a quantitative methodology to assess the influence of Problem-Based Learning (PBL) on the writing proficiency of 30 students in a boarding school setting. The research involves implementing PBL strategies within the writing curriculum and measuring their impact on students' writing abilities through structured assessments. Quantitative data was gathered through pre- and post-tests, evaluating writing samples before and after the PBL intervention. Statistical analysis, such as paired t-tests, was utilized to determine the significance of improvement in writing skills following PBL implementation. The findings aimed to quantifiably demonstrate the effectiveness of PBL in enhancing writing skills among students in a Boarding School at Parepare, providing empirical evidence to support its implementation in educational settings. The result showed that following a six-week implementation of PBL in the writing curriculum, a second assessment was conducted, revealing a significant improvement. The test results indicated an increased average score of 80 out of 100. Utilizing statistical tests like the paired t-test, the analysis showed a highly significant level of improvement ( $p < 0.001$ ), confirming that the enhancement in students' writing skills after applying PBL was more than merely by chance. This highlights that PBL has a significant impact on improving writing abilities among students in Boarding School at Parepare.

**Keywords:** *Problem Based Learning (PBL); Writing Ability; Quantitative Research*

### **Introduction**

For mastering the language especially English, there are four skills that we must understand. The skills are speaking, listening, reading and writing. These skills support each other and cannot be isolated and separated. In this case, researchers focus on speaking ability because it is a basic skill we have to know but people are often wrong in its practice. Speaking is so much a part of daily life that we take it for granted (Thornbury, 2005). The average person produces tens of thousands of words a day, although some people - like politicians - may produce even more than that. So natural and integral is speaking that we forget how we once struggled to achieve this ability - until, that is, we have to learn how to do it all

over again in a foreign language. Speaking is also taught in formal education, especially in high schools of Indonesia. However, the ability of students in speaking is still far from expectation.

Writing proficiency is a crucial skill in education, facilitating communication and critical thinking. However, mastering writing skills remains a challenge, particularly in specific educational settings such as boarding schools or pesantren. These environments often require innovative teaching methods to enhance learning outcomes due to various factors like diverse student backgrounds and instructional limitations. Problem-Based Learning (PBL) has emerged as an effective pedagogical approach fostering critical thinking, collaboration, and problem-solving skills. Its potential to transform the learning experience makes it a promising method to address challenges in enhancing writing skills, especially in environments like boarding schools where students often seek structured guidance in their educational journeys.

Nunan, (2015) underscores the intricate nature of writing, identifying it as a multifaceted process, often recognized as the last language skill to be acquired. Spontaneous writing is a rarity, and the act of producing formal text intended for an audience remains discomfiting for many. Writing is not an innate practice.

Writing, as a form of expression, facilitates effective communication of thoughts, emotions, and perspectives (Ali & Hasanah, 2020; Noviasmy et al., 2023). It not only serves a communicative function but also provides avenues for entertainment and creativity. Its applications in daily life are diverse, encompassing activities as mundane as detailing the process of making a cup of tea. Proficiency in writing cultivates independence, clarity, fluency, and inventiveness. Attainment of these skills enables not only self-comprehension but also comprehension by speakers of the language in question.

English, the primary foreign language taught from senior high school to university in Indonesia, provides a gateway to global understanding. However, despite its prominent place in the curriculum, the outcomes have been suboptimal. A substantial portion of students struggle to engage in basic conversations or compose elementary essays in English (Anggarini et al., 2022; Hasanah & Ali, 2021; T. Hidayati, 2016).

Boarding schools, including or Pesantren, have unique characteristics that may impact the acquisition and development of writing skills. The immersive nature of these institutions, where students reside and study in a communal environment, necessitates teaching approaches that engage students effectively. Additionally, the diverse student population in terms of socio-economic backgrounds, language proficiencies, and prior educational experiences presents a pedagogical challenge in catering to individual learning needs. Therefore, exploring innovative methods like PBL in these settings becomes crucial to adapt to diverse student needs while aiming to improve writing skills holistically.

The existing literature on PBL has predominantly focused on its application in various educational contexts, showcasing its efficacy in promoting problem-solving abilities across disciplines. However, its specific impact on enhancing writing skills, particularly in boarding school environments such as pesantren, remains an underexplored area. Understanding the potential of PBL in fostering writing proficiency within this unique educational setting can offer insights into the effectiveness of this approach and its adaptability across diverse learning environments. This research seeks to bridge this gap by investigating the implementation of PBL specifically tailored to improve writing skills among pesantren students, aiming to offer empirical evidence on the effectiveness of PBL in enhancing writing abilities within this context.

The integration of PBL into the writing curriculum in boarding schools holds promise in addressing the complexities surrounding writing instruction. By shifting the focus from traditional teacher-centered approaches to student-centered learning experiences, PBL offers a framework where students actively engage in real-world writing tasks, fostering a deeper understanding of writing concepts

and strategies. Assessing the impact of PBL on writing skills in pesantren settings involves not only evaluating academic improvements but also understanding the students' perceptions and experiences with this innovative learning method. This research aims to contribute valuable insights into the practical implications of employing PBL to enhance writing skills in boarding schools, shedding light on its potential to improve learning outcomes in diverse educational environments.

## **Material and Method**

### **Material**

Nunan's seminal work (Nunan, 2015) delves into the complexity of writing. Nunan underscores writing's intricate nature, often identifying it as the final skill acquired in language learning. This is due to the multifarious cognitive processes involved, and the discomfort many experiences when producing formal text intended for others. He emphasizes that unlike speech, writing is a displaced form of communication, enabling messages to be transmitted across time and space.

Teaching writing encompasses a multifaceted approach aimed at developing students' ability to communicate effectively through written language. Writing is one of the students' basic needs. Every student must be able to write well, they can at least convey what is on their minds in written form. Not only will help them complete the final project in the form of writing thesis, but they are further expected to develop their ideas through writing that can be read and put to good use by the community (Hasanah & Ali: 2020).

Writing is the deliberate and systematic process of conveying thoughts, ideas, or information using a structured system of language symbols, typically in a visual form, such as on paper or digitally. It involves the expression of thoughts, concepts, narratives, or arguments through the creation of textual content that can be understood and interpreted by others.

At its core, writing encompasses the organization and arrangement of language elements—words, sentences, paragraphs, and beyond—to communicate meaning, convey messages, or evoke emotions. It involves various linguistic components such as grammar, syntax, vocabulary, and style, which collectively form coherent and comprehensible written communication.

Writing serves diverse purposes, including but not limited to:

1. **Informative Writing:** Communicating factual information, explanations, or instructions.
2. **Persuasive Writing:** Convincing or influencing the audience's beliefs, opinions, or actions.
3. **Narrative Writing:** Telling stories, recounting events, or creating fictional or non-fictional narratives.
4. **Expressive Writing:** Conveying personal thoughts, feelings, or emotions in a reflective or artistic manner.

The process of writing often involves planning or prewriting to generate ideas, drafting to put thoughts into words, revising to refine and improve the content, editing for grammar and clarity, and finally, presenting or publishing the written work for an intended audience.

Writing is a fundamental skill across various disciplines and contexts, playing a pivotal role in education, communication, literature, business, academia, and many other facets of human interaction and expression. It serves as a means to preserve and share knowledge, exchange ideas, record history, and foster connections among individuals and societies.

Expository writing is a type of writing that aims to inform, describe, explain, or clarify a specific topic to the reader. It focuses on presenting factual information, providing explanations, and exploring

ideas in a clear, concise, and organized manner. This form of writing doesn't involve personal opinions or emotions but rather emphasizes objective and well-researched content.

#### Characteristics of Expository Writing:

1. **Clarity and Objectivity:** Expository writing maintains a clear and objective tone, avoiding personal biases or emotions. It aims to present information in a straightforward and understandable manner.
2. **Structure and Organization:** It typically follows a structured format, often including an introduction that presents the topic, body paragraphs that elaborate on different aspects with supporting evidence or examples, and a conclusion that summarizes the key points.
3. **Use of Evidence and Examples:** Expository writing relies on evidence, facts, statistics, or examples to support the presented information. These details enhance the credibility and depth of the content.
4. **Logical Transitions and Cohesion:** The flow of expository writing is enhanced by logical transitions between ideas and paragraphs, ensuring a smooth progression of information.
5. **Various Types:** Expository writing can take on various forms, such as:
  - a. **Cause and Effect:** Explaining the relationship between causes and their effects.
  - b. **Comparison and Contrast:** Highlighting similarities and differences between subjects.
  - c. **Problem-Solution:** Presenting a problem and proposing solutions or discussing possible outcomes.
  - d. **Process Analysis:** Describing step-by-step procedures or explaining how something works.

#### Concept of PBL

Problem-Based Learning (PBL) is an instructional methodology that revolves around solving authentic, real-world problems to facilitate learning. Rooted in constructivist principles, PBL shifts the traditional teacher-centered approach to a student-centered model where learners actively engage in solving complex, ill-structured problems relevant to their field of study or real-life situations.

#### Key Elements of PBL Include

1. **Real-World Problems:** PBL starts with presenting students with authentic and challenging problems that reflect situations they might encounter in professional or real-life scenarios. These problems often lack a straightforward solution, requiring critical thinking and inquiry.
2. **Student-Centered Approach:** Students take on an active role in their learning process. They collaborate in small groups or teams, encouraging peer-to-peer learning, discussion, and sharing of ideas. Teachers function as facilitators or guides, supporting and scaffolding the learning process rather than delivering content directly.
3. **Inquiry and Critical Thinking:** PBL stimulates inquiry-based learning, prompting students to ask questions, conduct research, gather information, and analyze data to understand the problem and generate potential solutions. It fosters critical thinking skills, problem-solving abilities, and the application of knowledge in practical contexts.
4. **Interdisciplinary Learning:** PBL often integrates multiple disciplines or subject areas, encouraging students to draw from various fields of knowledge to address the problem. This interdisciplinary approach promotes holistic understanding and application of concepts.
5. **Self-Directed Learning:** PBL nurtures students' autonomy and self-directed learning skills. As they explore the problem, students identify learning goals, seek resources, and manage their learning process, fostering independence and responsibility for their education.
6. **Reflection and Feedback:** Throughout the PBL process, students reflect on their learning experiences, assess their progress, and provide and receive feedback from peers and instructors. This continuous reflection supports metacognition and helps refine understanding.

The PBL process typically involves several stages: problem introduction, brainstorming, hypothesis generation, research and analysis, solution development, and presentation or demonstration of findings. At the end of the process, students not only acquire subject-specific knowledge but also develop critical skills such as collaboration, communication, and problem-solving—skills highly valued in both academic and professional settings.

PBL encourages a deeper understanding of content, fosters the development of higher-order thinking skills, and prepares students for the complexities they might encounter in their future careers or endeavors by emphasizing practical application of knowledge.

### A. Teaching writing by using PBL

- 1. Problem-Centered Approach:** PBL starts by presenting students with real-world or authentic writing problems or scenarios. These could be complex writing tasks resembling challenges they might encounter in academic or professional settings. For instance, crafting a persuasive argument, composing a research-based article, or developing a narrative within a given context.
- 2. Student Engagement and Collaboration:** Students collaborate in small groups to tackle the writing problem. They engage in discussions, research, and brainstorming sessions to explore possible solutions or approaches to the writing task. This collaborative aspect fosters peer-to-peer learning, diverse perspectives, and shared problem-solving strategies.
- 3. Inquiry and Research Skills:** PBL in writing prompts students to inquire, research, and gather information pertinent to the writing task. This involves conducting investigations, collecting data, analyzing sources, and synthesizing information relevant to their writing.
- 4. Application of Writing Process:** PBL encourages students to apply the writing process—prewriting, drafting, revising, editing, and publishing—in solving the writing problem. They develop drafts, revise their work based on feedback and reflection, and refine their writing to meet the requirements of the task.
- 5. Critical Thinking and Reflection:** Throughout the PBL process, students engage in critical thinking as they evaluate different perspectives, solutions, and approaches to the writing task. Reflection on their writing process, peer feedback, and self-assessment plays a crucial role in refining their writing skills.
- 6. Integration of Multiple Disciplines:** PBL in writing often involves integrating multiple disciplines or subject areas. For instance, a writing task might require incorporating historical research, scientific analysis, or sociological perspectives, encouraging students to draw from various fields of knowledge.

### *The Conceptual of Framework*

The steps this research is stated in the following diagram:

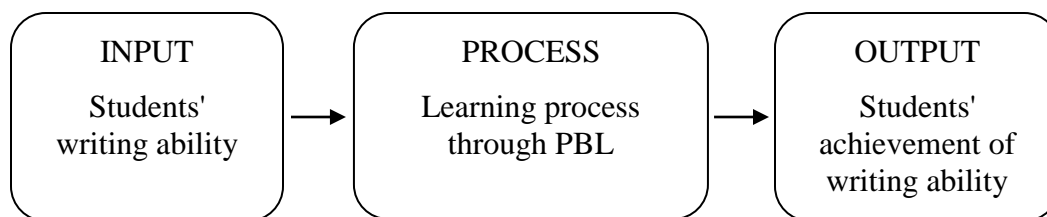


Figure 1. Conceptual Framework

## **Research Method**

This study adopts a quantitative research approach, aligned with the philosophy of positivism. As elucidated by Sugiyono (2013), quantitative research entails the systematic examination of specific populations or samples through randomized sampling techniques, employing research instruments for data collection, and subsequently employing quantitative data analysis to scrutinize predetermined hypotheses.

Drawing from the aforementioned discourse, it is discernible that quantitative research epitomizes an inductive, objective, and scientifically-grounded methodology, wherein data acquired assumes numerical or evaluative forms and is subjected to statistical analysis.

The data collection instrument constitutes a writing task wherein students are tasked with composing an essay elucidating "The benefits of Mobile Phone." The temporal constraint allotted for this endeavor is set at 60 minutes.

The data collection process is delineated through the following sequential phases:

### **a. Pre-test**

The pre-test serves as a diagnostic tool to ascertain students' preliminary proficiency in writing. Administered prior to the commencement of the treatment, the pre-test entails an essay-writing task with a duration of 60 minutes. This assessment endeavors to gauge the baseline level of students' writing competence.

### **b. Treatment**

The research intervention is characterized by a series of six distinct treatment sessions, administered subsequent to the pre-test. The treatment regimen unfolds as a coherent sequence, structured as follows:

#### **1) a) First meeting**

The topic in the meeting is the benefit of TV:

##### **a) Beginning the class (10 minutes).**

1. Say greeting and praying.
2. Mention students' name one by one.
3. Researcher tells the students about the aim of research.

##### **b) Running the class (60 minutes).**

1. The researcher explained exposition text, definition, generic structure and others.
2. The researcher gives the students explanation about essay writing.
3. Students beginning text entry phase
4. Students taking PBL phase
5. After PBL phase, it is followed by review phase and self-assignment
6. The researcher checked the students' assignment.
7. The students collected their task.

#### **c. Closing the class (10 minutes).**

1. The researcher and the student concludes about material.
2. Ending the lesson and say good bye.

#### **2) Second meeting**

The second meeting until six meeting would be given the same treatment.

This treatment protocol recurs over a span of six distinct sessions, each addressing varied topics. The assessment scores for both the pre-test and post-test will be computed utilizing Microsoft Excel 2013, employing a predefined formula embedded within the application. It is emphasized that the automatic calculation must correspond with the manual computation. The efficacy of the treatment can be deemed successful if the t-test value derived from both manual and automatic calculations surpasses the critical t-Table threshold.

## Result and Discussion

### a. The Rate frequency and percentage score on pre-test

Table 1. The Rate frequency and percentage score on pre-test

No	Classification	Score	Pre-test	
			Freq uency	Percenta ge
1	Excellent	96 – 100	0	0%
2	Very Good	86 – 95	0	0%
3	Good	76 – 85	0	0%
4	Fairly Good	66 – 75	3	10%
5	Fair	46 – 65	27	90%
6	Poor	36 – 45	0	0%
7	Very poor	0 – 35	0	0%
<b>Total score</b>			<b>30</b>	<b>100%</b>

Based on the table 4.3.1 above that most of the students were in fair categorized around 27 students (90%). Then, there was 3 students who got fairly good categorized. And not found students who got excellent, very good, good, poor and very poor categorized.

### b. The Rate frequency and percentage score on post-test

Table 2. The Frequency and Percentage of Post-test

No	Classification	Score	Post-test	
			Freq uency	Percenta ge
1	Excellent	96 – 100	0	0%
2	Very Good	86 – 95	4	13.3%
3	Good	76 – 85	20	66.7%
4	Fairly Good	66 – 75	6	20%
5	Fair	46 – 65	0	0%
6	Poor	36 – 45	0	0%
7	Very poor	0 – 35	0	0%
<b>Total score</b>			<b>30</b>	<b>100%</b>

The table 4.3.2 indicated that there were some improving of the students score. There were 4 (13.3%) students who reached very good categorized. Then followed by 20 (66.7%) were good categorized and 6 (20%) students who stand in fairly good categorized. And there was not students who stand in excellent, fair, poor and very poor categorized.

## The Mean Score and Standard Deviation of Writing Ability

The mean score and standard deviation of writing was described on the following table:

Table 5. Mean Score and Standard Deviation of Pre-test and Post-test

Test	Mean Score	Standard Deviation
Pre-test	60.37	3.97
Post-test	80.37	4.90

Based on the table 4.3.3 previously, the mean score of the pre-test was 60.37 while the mean score of post-test was 80.37. The range of the mean score between pre-test and post-test was 20 points. It was proved and it can be assumed that there was an improvement significantly after given treatment for the students of Boarding School at Parepare by applying PBL method in teaching writing ability.

The difference mean score between pre-test and post-test can be seen as following figure:

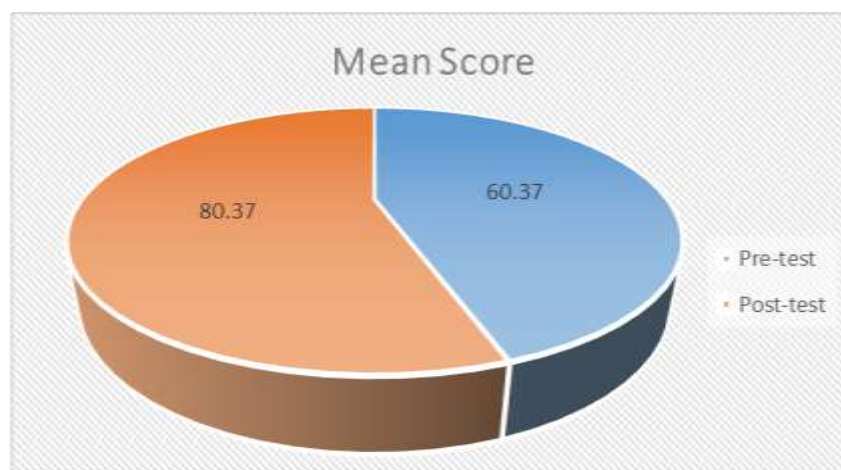


Figure 4.2 Mean Score between Pre-test and Post-test

## T-test Value of the Students in Writing Expository

The t-test of the students' writing in expository text was described through the following table:

Table 6. T-test and T-table Value

VARIABLE	T-TEST VALUE	T-TABLE VALUE
X2 – X1	18.66	2.04

The result of the t-test was 18.66 than t-table value was 2.04. It pointed that the t-test value was higher than the t-table value. The degree of freedom (df) was 30 ( $n-1$  or  $30-1=29$ ), the level of significant ( $p$ ) =0.05, the t-test value = 18.66 and the t-table value = 2.04. This data can be assumed that there was an improvement of the students' score by applying PBL method in teaching writing significantly. It means that the Alternative Hypothesis ( $H_1$ ) was accepted while the Null Hypothesis ( $H_0$ ) was rejected.

## Discussion

Based on previous finding on all writing components, it showed that the students' writing ability of Boarding School at Parepare improved especially in term of content of writing. It was also supported by the students' frequency and rate percentage of the students' pre-test and post-test.



Table 7. The Difference of Students' score in Five Components of Writing

Components of Writing	Mean score		
	Pre-test	Post-test	Improvement
Content	19.30	25.50	6.2
Organization	12.50	17.73	5.23
Vocabulary	13.70	16.83	3.13
Language use	12.47	16.87	4.4
Mechanic	2.40	2.73	0.33
Total	60.37	80.37	20

Based on the result, the highest improvement of components of writing was content. The score improved at 19.30 in pre-test being 25.50 in post-test. So, the improvement was 6.2 point. The lowest was mechanic, it was only 0.33 point. The description of the students' writing in the pre-test and post-test in term of the five components of writing can be seen in the following. The first aspect was content. The classification of the students score in pre-test was fair to poor. Most of the students could not illustrate the topic well. They had limited knowledge of the topic and little substance. They also could not develop the topic well. It was not same in post-test, the students' classification was good to average. In this position, the students could improve the ideas, relevant with the topic but it was still lack detail.

The second aspect was organization. The students' score of organization in pre-test was 12.50. Then, it improved being 17.73 in post-test. The improvement of the score was 5.23 point. The students' classification in post-test was good. The students could organize their writing well but it was still lack of limiting support.

The third aspect was vocabulary. The students' score of vocabulary in pre-test was 13.70 while in post-test was 16.87. The range of the score was 3.13 point. The students' ability of vocabulary was good to average. The students still made some mistake or errors in words/idioms.

The fourth aspect was language use. The students' score of language use in pre-test was 12.47 while in post-test was 16.87. The range was 4.4 points.

The last aspect was mechanics. The students' score in pre-test was 2.40 while post-test was 2.73. The range of the score was 0.33 point. In this aspect the students still made mistake and frequent errors of spelling, punctuation, and capitalization.

After classifying the rate percentage and frequency of students score in pre-test, the researcher found that most of the student's pre-test were classified fair and some of them were por. It was not same with post-test, it has improved being good classification. So, based on this result it can be concluded that the students' writing ability improved after given treatment of PBL.

Referring to the result of the students' writing obtained the stated in finding above, the researcher used t-test in inferential statistic through excel 2013 program to test the hypothesis. Based on the statistic result shown in table 4.3.4, it was concluded the t-test was higher than t-table. So, based on this analyzing through t-test, there was significant different between the score of pre-test and post-test. Thus, the alternative hypothesis (H1) was accepted and the null hypothesis (H0) was rejected. Finally, the researcher states that by applying PBL method in teaching writing is able to give significantly improvement to the students' writing ability.

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