Journal of General Education and Humanities
Vol. 3, No. 2, May 2024, pp. 133 - 142, https://doi.org/10.58421/gehu.v3i2.215
ISSN 2963-7147

The Use of Problem Based Learning In Developing Writing Skills of Grade VII Students of MTS Al-Khairaat Tondo

Riska Sri Wulandari[1], Hastini Hastini[2]
[1,2]English Education Study Program, Teacher and Education Faculty, Tadulako University, Indonesia

Article Info

Article history:

Received 2024-02-18
Revised 2024-03-13
Accepted 2024-03-19

Keywords:

Developing
Problem Based Learning
Writing Skill

ABSTRACT

This research is intended to prove that Problem-Based Learning can develop the writing skills of grade VII students of MTs Al-Khairaat Tondo. The study employs a quasi-experimental research design to assess the impact of PBL on students' abilities in writing procedure text. The researcher chose VII B and VII C Class as the sample for the study by using purposive sampling. The data were analyzed statistically to determine the significant difference in the student's achievement before and after treatment. The results show the T-counted value of 5.95, surpassing the critical T-table value of 2.045. Consequently, the research hypothesis is accepted, signifying that implementing problem-based learning significantly contributes to developing writing skills among Grade VII students at MTS Al-Khairaat Tondo in constructing procedure text.

Corresponding Author:

Hastini
English Education Study Program, Teacher and Education Faculty, Tadulako University
Email: tini_firhansyah@yahoo.com

1. INTRODUCTION

Teaching writing skills is a crucial aspect of Indonesian lessons, as it plays a pivotal role in students' academic success. Graham et al. [1] emphasize the significance of writing in supporting students' achievements both within and outside the academic setting. As highlighted by the study, writing activities enhance students' reading abilities by reinforcing the materials taught.

Various studies, including those by Utin Faradila, Salim, and Imran [2] and Rohman, Rasna, and Darmayanti [3], underscore the importance of writing instruction in enabling students to generate and expand their knowledge base. Erizal [4] further elucidates that through writing exercises, students acquire the ability to articulate their ideas, opinions, thoughts, and emotions, thereby fostering the development of critical thinking and creativity.

Despite its significance, learning to write is often perceived as tedious by students, leading to suboptimal development of their writing skills and interests [5]. However,

writing offers a platform for students to organize and express their diverse knowledge, whether through essays, articles, scientific reports, news pieces, short stories, poems, and more [6].

Creating engaging and enjoyable learning experiences can motivate students, enhancing their learning efficiency [7]. The ultimate aim of writing instruction is for students to comprehend and effectively express their captured thoughts, ideas, opinions, messages, and emotions in written form [8]. Through these efforts, students enhance their writing skills and develop a deeper understanding and appreciation of written expression's power.

Within Curriculum 13, a significant issue was identified concerning seventh-grade students facing challenges in writing. The primary difficulties revealed through direct engagement with students were a lack of motivation in learning and limited English vocabulary. The researcher proposes implementing problem-based Learning (PBL) to address these challenges and enhance writing skills. PBL is a student-centred method where students engage with a subject by collaboratively solving problems. This involves interacting with peers and instructors to arrive at solutions or clarify issues. Through PBL, students develop skills in critical thinking, information acquisition, and sharing knowledge. They build a collective understanding of the subject in ways that are personally significant to them [9]. Project-Based Learning (PBL) has traditionally used specialists within the investigative phase. As learners delve into educational topics, they frequently recognize the importance of specialized knowledge and may pause group activities to seek expert advice [10]. The choice of PBL recognizes the inadequacy of traditional teaching methods in addressing specific writing challenges, aiming to enhance motivation and critical thinking skills aligned with the broader goals of Curriculum 13.

Problem-based learning is a student-centred approach where students work in groups to solve real-world problems, promoting higher-order thinking skills, interdisciplinary Learning, and Independent Learning. In developing English skills, mainly writing, PBL can be implemented alongside procedure text, which explains how to perform a task. Integrating daily activities related to the materials, such as teaching procedure text using "how to make a glass of orange juice," makes learning more relevant and engaging for students. This approach helps improve writing skills and encourages active participation and constructive thinking.

Several studies have explored the impact of problem-based Learning (PBL) on students' writing skills. Nafisah, Setianingsih Qomariyah's study [11] focused on twelfth-grade students at SMAN 1 Gunungsari, employing a one-group pretest-posttest design. Results indicated a significant improvement in writing skills for students exposed to PBL compared to traditional methods.

Glean's study [12] investigated PBL's effect on seventh-grade students' descriptive text writing at SMP Negeri 2 Tebing Tinggi. Utilizing an experimental design, the research demonstrated a substantial increase in the writing ability of students who underwent PBL. The study recommended integrating PBL into teaching processes to enhance descriptive text-writing skills.

Mairani's classroom action research [13] addressed students' writing difficulties, particularly in descriptive text, at SMAN 6 Kerinci. The PBL process involved presenting real-life problems, fostering group discussions, conducting research, drafting, composing reports, presenting findings, and collaborative evaluation. Results showed a significant improvement in students' writing skills, with test scores increasing from 63.1 to 84.19 after two cycles.

Ramadhania [14] explored the impact of PBL on tenth-grade students' writing narrative text at SMKS 11 Serunting 2 Bengkulu. The quasi-experimental research revealed a significant difference in achievement between students taught with PBL and those who were not. The writing test adopted by PARCC indicated a significant positive effect on the writing ability of tenth-grade students.

Although some studies touch upon the integration of PBL with writing genres like descriptive text and narrative text, there is a lack of emphasis on using PBL in teaching procedure text. This is significant because procedure text involves specific linguistic features and structural elements that may benefit from the problem-solving approach of PBL.

Problem-Based Learning (PBL) is a student-centric approach designed to enhance motivation, critical thinking, and metacognitive abilities in educational methodologies. According to Abidin [15], PBL aims to cultivate meaningful learning experiences and foster independence, maturity, and self-confidence among students. As a facilitator, the teacher guides students through real-life problem scenarios and promotes positive social attitudes [16]. Oon-Seng Tan's definition [17] underscores PBL's organization around problems, emphasizing their centrality in learning. Graaff and Kolmos [18] note that PBL often utilizes real-life problems selected and adapted to meet educational objectives. The teacher's role in PBL, as described by Duch et al. [19], transforms into that of a facilitator who nurtures students' problem-solving, language, and literacy skills.

Implementing PBL involves selecting relevant topics or materials with identifiable problems that students can actively solve [20]. Ibrahim and Nur's [21] steps for PBL include orienting students to the problem, organizing learning tasks, guiding experiences, developing and presenting work, and analyzing and evaluating the problem-solving process. The benefits of PBL, as highlighted by Oon-Seng Tan [17], include improved knowledge transfer, concept integration, intrinsic motivation, and overall learning skills. PBL's emphasis on real-world competencies aligns with the demands of the contemporary educational landscape.

Transitioning from educational theories to writing, PBL plays a pivotal role in developing students into independent and self-regulated learners, with teachers acting as facilitators [20]. Understanding the writing process becomes crucial, with elements such as grammar, vocabulary, organization, and coherence coming into play [22]. Writing involves crafting coherent paragraphs with unity and coherence, aided by transitional signals for effective communication.

Moving specifically to procedure text, PBL emerges as a valuable model in teaching this genre. PBL can develop students’ writing ability, improving their capacity in procedural text, which involves social function, schematic structure, and linguistic features

[23]. PBL's integration of real-life experiences aligns seamlessly with the purpose of procedure text, which is to show readers how to achieve a goal through a sequence of steps. The use of PBL in teaching procedure text, as endorsed by the 2013 Curriculum, facilitates an engaging and effective teaching and learning process. This way, PBL bridges the gap between theoretical knowledge and practical application, creating a holistic educational experience for students.

The research aims to investigate the effectiveness of PBL in developing the writing skills of grade VII students and seeks to answer the research question: "Can the use of problem-based learning develop the writing skills of grade VII students of MTs Al-Khairaat Tondo?" The objective is to prove that PBL can enhance these students' writing skills. It is hoped that the findings of this research will contribute to the existing body of knowledge on effective writing instruction methods for seventh-grade students. By demonstrating the positive impact of Problem-Based Learning (PBL) on writing skills, this study aims to provide valuable insights for educators and policymakers. The results are expected to inform curriculum development efforts, leading to more engaging and effective teaching practices in Indonesian schools. Ultimately, the research seeks to empower students with the necessary skills to excel academically and express their ideas effectively through writing.

2. METHOD

This research uses a quantitative approach to investigate the effects of problem-based learning methodologies in teaching writing procedure text. The research design involves a pre-test and post-test format within a quasi-experimental group setting, with one group receiving the treatment (experimental group) and another serving as a comparison (control group). The goal is to analyze whether PBL impacts the students' English learning outcomes compared to traditional teaching methods.

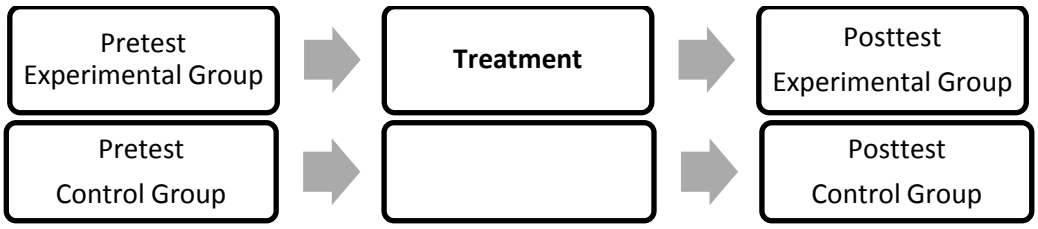

Figure 1. Flow of The Research

3. RESULTS AND DISCUSSION

In this research, there are two kinds of test results: the results of the pre-test and the results of the post-test. The pre-test result was used to determine the basic knowledge of the student’s writing skills before treatment. The result post-test was used to determine the students’ writing skills after the treatment. The researcher then analyzed the results to determine a significant difference in the students’ writing skills.

3.1. The Result of The Research

3.1.1. Experimental Class

The outcome of the deviation between the initial pre-test and subsequent post-test scores within the experimental class presents an in-depth examination of the student's writing proficiency before and after the intervention was administered. This data serves a crucial role in grasping the distribution of the deviation scores, offering valuable insights into the degree of enhancement or decline in the students' writing abilities. The mean deviation score is a gauge for the average alteration in writing skills observed among the students in the experimental class. Simultaneously, the standard deviation and range of deviation scores furnish details about the breadth of the score distribution, enriching our understanding of the overall shifts in performance among the students.

Table 1. The result of the Deviation Pre-test and Post-test of Experimental Class

No.	Student's Initials	Students' Standard Scores		Deviation $(y_2 - y_1)$	Square Deviation $(y_2 - y_1)^2$
		Post-Test (y_2)	Pre-Test (y_1)		
1	A	73	27	46	2116
2	ADA	67	40	27	729
3	ARA	80	60	20	400
4	D	60	47	13	169
5	DP	60	33	27	729
6	F	73	40	33	1089
7	FNS	60	53	7	49
8	NS	80	53	27	729
9	NSM	73	33	40	1600
10	PA	93	60	33	1089
11	R	73	33	40	1600
12	SA	67	53	14	196
13	SL	60	33	27	729
14	TJ	73	60	13	169
15	W	73	40	33	1089
16	SUW	87	47	40	1600
Total deviation (sigma x)				440	14082
Mean Deviation				27.50	880.13

3.1.1. Control Class

The analysis of the deviation results between the initial pre-test and subsequent post-test scores within the control class offers a comprehensive examination of the student's writing proficiency before and after the implemented intervention. The table contains pertinent details such as the student count within the control group, the average deviation score, the standard deviation, and the span of deviation scores. These particulars play a crucial role in deciphering the dispersion of the deviation scores, shedding light on the extent of advancement or regression in the students' writing abilities. The average deviation score represents the typical alteration in writing skills observed among the

students in the control class. Concurrently, the standard and range of deviation scores provide insights into the breadth of the score distribution, enhancing our comprehension of the overall performance shifts among the students.

Table 2. The result of the Deviation Pre-test and Post-test of Control Class

No.	Student's Initials	Students' Standard Scores		Deviation ($y_2 - y_1$)	Square Deviation $(y_2 - y_1)^2$
		Post-Test (y_2)	Pre-Test (y_1)		
1	A	53	40	13	169
2	ADA	53	33	20	400
3	ARA	33	33	0	0
4	D	40	53	-13	169
5	DP	53	40	13	169
6	F	40	33	7	49
7	FNS	60	40	20	400
8	NS	53	33	20	400
9	NSM	53	40	13	169
10	PA	60	33	27	729
11	R	60	27	33	1089
12	SA	53	40	13	169
13	SL	60	40	20	400
14	TJ	60	27	33	1089
15	W	53	40	13	169
Total deviation (sigma x)				232	5570
Mean Deviation				15.47	371.33

3.1.2. Testing Hypothesis

The t-value provided important information about the significance of the difference between the control and experimental classes and allowed the researchers to determine if the treatment significantly impacted the students' writing skills. The t-value is then compared to a critical t-value from a t-distribution table with degrees of freedom equal to the number of values in the sample minus 1. If the calculated t-value is greater than the critical t-value, the difference between the two sets of values is considered significant. The researcher computed the t-counted to find out the significant difference between the control class and experimental class as follows:

$$t = \frac{Mx - My}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{Nx + Ny - 2}\right)\left(\frac{1}{Nx} + \frac{1}{Ny}\right)}} \quad (1)$$

$$t = \frac{27.50 - 15.47}{\sqrt{\left(\frac{1982 + 1981{,}74}{16 + 15 - 2}\right)\left(\frac{1}{16} + \frac{1}{15}\right)}} \quad (2)$$

$$t = \frac{12.03}{\sqrt{\left(\frac{3963.74}{29}\right)(0.0625 + 0.0666)}} \quad (3)$$

$$t = \frac{12.03}{\sqrt{(136.68)(0.1291)}} \quad (4)$$

$$t = 5.95 \quad (5)$$

A hypothesis was tested to determine whether the treatment was successful or not. If the t-counted is higher than the t-table, the hypothesis is accepted. In other words, the application of problem-based learning is practical. On the contrary, the hypothesis is rejected if the t-counted is lower than the t-table. Based on the t-distribution table, the researcher finds the critical t-value to be approximately 2.045. This means that for a t-test with 29 degrees of freedom and a 95% or 0.05 confidence level, the critical t-value is approximately 2.045. While the result of the data analysis showed that the T-counted was 5.95, the researcher concludes that the T-counted (5.95) was higher than the T-table (2.045). It means that the research hypothesis is accepted. In other words, using problem-based learning to develop the writing skills of grade VII students of MTs Al-Khairaat Tondo is practical.

3.2. Discussion

This study investigates the effectiveness of problem-based Learning (PBL) in enhancing students' writing skills. The researcher conducted an experiment with control and experimental classes, calculating deviation and square deviation for each class. A t-test revealed a significant difference, with a t-count of 5.95, exceeding the t-table value of 2.045, affirming the efficacy of PBL.

Several related studies support PBL's effectiveness in writing skill development. Notably, Nafisah [11], Glean [12], and Mairani [13] demonstrate positive impacts on students' writing abilities. These findings collectively endorse PBL as a valuable method for fostering creativity, motivation, and writing improvement.

Building on this, PBL proves effective in crafting procedure texts. PBL facilitates the easy sharing and exchange of ideas among students, fostering an environment where they are more active participants in their learning process [24]. Additionally, PBL encourages students to explore various learning resources to address the challenges and cultivate a positive attitude towards learning. The treatment involved engaging activities, beginning with making fried noodles and progressing through topics like making tea, fried bananas, fruit ice, cassava pudding, and meatballs. Students actively participated, creating procedural texts, engaging in class discussions, and providing feedback. PBL facilitated collaboration, critical thinking, and reflection, aligning with Masholekhatin et al. [16], promoting peer discussions, and enhancing writing skills.

PBL's real-life problem-solving approach encourages connections between writing and practical applications, reinforcing procedure text relevance [18]. As students progress, they become confident, independent writers with critical thinking and organizational skills. The implementation of PBL significantly develops students' ability to write well-structured and coherent procedure texts, offering clear and accurate instructions [19].

Since Problem-Based Learning (PBL) is structured around student-centered and student-directed approaches aimed at promoting transfer and cognitive [25], it is imperative that the learning setting aligns with these objectives. The text begins by examining environment design, underlining the significance of designing for inquiry and delving into various question types. However, a more in-depth exploration of the PBL process is necessary, emphasizing the transition from teacher-centred to student-centred

learning, distinguishing between student-centred and student-directed approaches, and highlighting their crucial roles in a successful PBL curriculum. While the distinctions between problem-based learning and inquiry learning environments may seem subtle, a discussion of both models is warranted to establish a shared understanding of these constructs [24].

The effectiveness of a PBL program relies heavily on the quality of the tutor and the appropriateness of the task, as well as the type and level of scaffolding provided [26]. The selection and design of scaffolds within the environment are influenced by learners' existing frameworks of the concepts and skills pertinent to the presented problem. Thus, the text was anticipated to include a discussion on scaffolding, the facilitator's role, and strategies for transitioning the teacher's role in natural classroom settings, which unfortunately was omitted.

PBL has long integrated experts into the inquiry process. As learners delve into learning issues, they often recognize the necessity of expert knowledge and may pause the group process to consult an expert. However, while expert knowledge may involve elements of direct instruction, it should not be conflated with embedding direct instruction into the process. A discussion elucidating this distinction and offering guidance on structuring the environment for easy access to expert knowledge would have been valuable.

4. CONCLUSION

The research has successfully shown the effectiveness of Problem-Based Learning (PBL) in enhancing students' writing skills, particularly in writing procedure texts. Through an experiment comparing a control class to an experimental class, The results show the T-counted value of 5.95, surpassing the critical T-table value of 2.045. Consequently, the research hypothesis is accepted, signifying that implementing problem-based learning significantly contributes to developing writing skills among Grade VII students at MTS Al-Khairaat Tondo in constructing procedure text. Schools and educators can consider adopting Problem-Based Learning as an effective teaching method for improving students' writing skills. Further research is suggested to delve into the long-term effects of PBL on writing skills and to explore its broader application as a teaching technique.

REFERENCES

[1] S. Graham, A. Capizzi, K. Harris, M. Hebert, and P. Morphy, “Teaching writing to middle school students: A national survey,” *Read. Writ.*, vol. 27, pp. 1015–1042, Jul. 2014, doi: 10.1007/s11145-013-9495-7.

[2] I. 2020 Fadillah, U. M., Salim, I., & Imran, “Upaya Guru dalam Mengembangkan Keterampilan Berpikir Kritis Siswa melalui Powerpoint pada Pembelajaran Sosiolog,” *J. Pendidik. dan Pembelajaran Khatulistiwa*, vol. 9, no. 7, 2020.

[3] H. Purichia, “Problem-Based Learning: An Inquiry Approach,” *Interdiscip. J. Probl. Learn.*, vol. 9, Oct. 2014, doi: 10.7771/1541-5015.1522.

[4] A. Asnita and E. Gani, “Pengaruh Penggunaan Model Discovery Learning Terhadap Keterampilan Menulis Teks Eksplanasi Siswa Kelas Viii Smp Negeri 20 Padang,” *Pendidik. Bhs. Indones.*, vol. 9, p. 23, Feb. 2020, doi: 10.24036/108260-019883.

[5] N. H. R. W. A. T. Hasnanto, “Pengembangan Media Pembelajaran Gambar Berseri Berbasis Pop-Up

Book Untuk Meningkatkan Keterampilan Menulis Narasi Bahasa Indonesia," *TERAMPIL J. Pendidik. dan Pembelajaran Dasar*, no. Vol 7, No 1 (2020): TERAMPIL, pp. 59–66, 2020.

[6] R. Riana and S. Setiadi, "Penerapan Model Pembelajaran Kooperatif Teknik Mind Mapping Dalam Meningkatkan Keterampilan Menulis Karangan Narasi Ekspositoris Pada Mata Pelajaran Bahasa Indonesia Peserta Didik Kelas Xii Smk Swadaya, Semarang," *J. Din. Sos. Budaya*, vol. 18, p. 109, Nov. 2017, doi: 10.26623/jdsb.v18i1.562.

[7] A. Kamel and A. Mahmoud, "The Effect of Using Discovery Learning Strategy in Teaching Grammatical Rules to first year General Secondary Student on Developing Their Achievement and Metacognitive Skills," *Int. J. Innov. Sci. Res.*, vol. 5, no. 2, pp. 146–153, 2014.

[8] R. A. S. Owon, "Pengembangan Bahan Ajar Menulis Berbagai Jenis Teks Bertema Kearifan Lokal Sikka bagi Siswa SMP," *JINoP (Jurnal Inov. Pembelajaran)*, vol. 3, no. 1, pp. 528–541, 2017.

[9] E. T. Christiansen, L. Kuure, A. Morch, and B. Lindstraom, *PROBLEM-BASED LEARNING FOR THE 21st CENTURY New Practices and Learning Environments*. Denmark: AALBORG UNIVERSITY PRESS, 2013.

[10] D. Llewellyn, "Problem-Based Learning: An Inquiry Approach," *Sci. Child.*, vol. 44, no. 9, p. 63, 2007.

[11] B. Z. Nafisah, T. Setianingsih, and S. S. Qomariya, "The Use Of Problem Based Learning On Students'writing Skill," *J. Ilm. Mandala Educ.*, vol. 8, no. 4, 2022.

[12] S. P. Glean, "The Effect of Problem Based Learning on Students' Ability in Writing Descriptive Text at Grade VII Students of SMP Negeri 2 Tebing Tinggi," *Explor.*, 2022.

[13] R. Mairani, "Improving Students'writing Skill Using Problem-Based Learning," *Dialect. Lit. Educ. J.*, vol. 7, no. 2, pp. 71–81, 2022.

[14] R. R. Merisa, "The Effect Of Problem Based Learning On Student Ability In Writing Narrative Text (Quasi Experimental Research at Tenth Grade Students of SMKS 11 Serunting 2 Bengkulu in Academic year 2018/2019)." IAIN BENGKULU, 2020.

[15] J. Abidin, "Learning System Design in the Context of Curriculum 2013," *Bandung PT Refika Aditama*, 2014.

[16] P. R. Sultoni, A. T. Rahmaningsih, and N. Miranti, "The use of the Problem Based Learning as a Model of Learning in Improving Results," *Proceeding ICEHOS*, vol. 1, no. 1, pp. 96–102, 2021.

[17] O. S. Tan, *Problem-based Learning and creativity*. Cengage Learning Asia, 2009.

[18] E. Graaff and A. Kolmos, "Characteristics of Problem-Based Learning," *nternational J. Eng. Educ.*, vol. 19, pp. 657–662, Jan. 2003.

[19] B. Duch, G. D., and D. Allen, "The Power of Problem-Based Learning," Jan. 2001.

[20] R. I. Arends, *Learning to teach*. McGraw-Hill Companies, 2012.

[21] M. Ibrahim and M. Nur, "Pengajaran berdasarkan masalah." Surabaya: University Press, 2000.

[22] J. Mathews-Aydinli, "Problem-based learning and adult English language learners," *Retrieved Novemb.*, vol. 17, p. 2012, 2007.

[23] V. Salsabila, "The Implementation of Project-Based Learning In Teaching Writing of Procedural Text," *J. JOEPALLT (Journal English Pedagog. Linguist. Lit. Teaching)*, vol. 6, Jul. 2018, doi: 10.35194/jj.v6i1.384.

[24] M. A. Ghufron and S. Ermawati, "The Strengths and Weaknesses of Cooperative Learning and Problem-based Learning in EFL Writing Class: Teachers and Students' Perspectives," *Int. J. Instr.*, 2018.

[25] A. C. Barrows, H., & Kelson, *Problem-based learning: A total approach to education*. Springfield, Illinois.: Southern Illinois University School of Medicine, 1995.

[26] C. E. Hmelo-Silver, R. G. Duncan, and C. A. Chinn, "Scaffolding and achievement in problem-based and inquiry learning: A response to Kirschner, Sweller, and Clark (2006)," *Educ. Psychol.*, vol. 42, no. 2, pp. 99–107, 2007, doi: 10.1080/00461520701263368.

 https://doi.org/10.58421/gehu.v3i2.215