

The Implementasion of Problem Based Learning the Improve Students' Narrative Writing Skills at SMA N 12 Banda Aceh

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Abstract

Writing is one of the most challenging productive language skills for English as a Foreign Language (EFL) students because it requires learners to generate ideas, organize information, apply appropriate grammatical structures, and communicate meaning effectively. Many Indonesian senior high school students continue to experience difficulties in developing narrative texts due to limited vocabulary, poor text organization, low motivation, and teacher-centered instructional practices. This study aimed to investigate the effectiveness of Problem-Based Learning (PBL) in improving students' narrative writing skills at SMAN 12 Banda Aceh. The study employed a quantitative pre-experimental design using a one-group pretest-posttest approach involving 23 tenth-grade students selected through purposive sampling. Data were collected using writing tests administered before and after the implementation of the PBL model and were analyzed using descriptive statistics and a paired-samples t-test with IBM SPSS Statistics version 21. The findings revealed a substantial improvement in students' writing achievement. The mean pretest score increased from 37.39 to 81.30 in the posttest. Furthermore, the paired-samples t-test indicated a statistically significant difference between the pretest and posttest scores ($t = -10.721$, $p < 0.001$), confirming that the implementation of PBL significantly improved students' narrative writing skills. The findings suggest that Problem-Based Learning promotes active learning, collaborative problem-solving, critical thinking, and meaningful writing experiences that contribute positively to students' writing performance. Therefore, PBL is recommended

Keywords: Problem-Based Learning, narrative writing, writing skills

Abstrak

Menulis merupakan salah satu keterampilan berbahasa produktif yang paling menantang bagi siswa pembelajar bahasa Inggris sebagai bahasa asing (EFL) karena menuntut siswa untuk menghasilkan gagasan, mengorganisasi informasi, menerapkan struktur tata bahasa yang tepat, dan mengomunikasikan makna secara efektif. Banyak siswa SMA di Indonesia masih mengalami kesulitan dalam menyusun teks naratif akibat keterbatasan kosakata, pengorganisasian teks yang kurang baik, motivasi yang rendah, serta praktik pembelajaran yang berpusat pada guru. Penelitian ini bertujuan untuk mengkaji efektivitas Problem-Based Learning (PBL) dalam meningkatkan keterampilan menulis naratif siswa di SMAN 12 Banda Aceh. Penelitian ini menggunakan desain kuantitatif pra-eksperimental dengan pendekatan one-group pretest-posttest yang melibatkan 23 siswa kelas sepuluh yang dipilih melalui teknik purposive sampling. Data dikumpulkan menggunakan tes menulis yang dilaksanakan sebelum dan sesudah penerapan model PBL, kemudian dianalisis menggunakan statistik deskriptif dan uji-t sampel berpasangan (paired-samples t-test) dengan perangkat lunak IBM SPSS Statistics versi 21. Hasil penelitian menunjukkan adanya peningkatan yang signifikan pada kemampuan menulis siswa. Skor rata-rata pretest meningkat dari 37,39 menjadi 81,30 pada posttest. Selain itu, uji-t sampel berpasangan menunjukkan perbedaan yang signifikan secara statistik antara skor pretest dan posttest ($t = -10,721$, $p < 0,001$), yang mengonfirmasi bahwa penerapan PBL secara nyata meningkatkan keterampilan menulis naratif siswa. Temuan ini mengindikasikan bahwa Problem-Based Learning mendorong pembelajaran aktif, pemecahan masalah secara kolaboratif, berpikir kritis, dan pengalaman menulis yang bermakna, yang semuanya berkontribusi positif terhadap performa menulis siswa. Oleh karena itu, PBL direkomendasikan untuk diterapkan.

Keywords: *Problem-Based Learning, menulis narasi, keterampilan menulis*

INTRODUCTION

Writing is widely recognized as one of the most complex productive skills in English language learning because it requires learners to integrate linguistic knowledge, cognitive processes, and communicative competence simultaneously. Unlike receptive skills, writing demands students to generate ideas, organize information logically, apply appropriate grammatical structures, select suitable vocabulary, and produce coherent texts for particular communicative purposes. Consequently, writing competence has become one of the essential learning outcomes in English as a Foreign Language (EFL) classrooms, particularly at the secondary school level where students are expected to produce various genres of academic texts, including narrative, descriptive, recount, and argumentative texts (Li, 2023).

Despite its importance, writing remains one of the most difficult language skills for Indonesian EFL learners. Numerous studies have reported that many students encounter difficulties in generating ideas, organizing paragraphs coherently, using appropriate vocabulary, maintaining grammatical accuracy, and applying writing conventions effectively (Nurkamto, J., Prihandoko, L. A., Putro, N. H. P. S., & Purwati, 2024). These challenges often result in low writing achievement and reduced motivation to participate in classroom writing activities (Rahmatunisa, 2021). Traditional teacher-centered instruction, which emphasizes memorization and product-oriented assessment, frequently limits students' opportunities to develop creativity, critical thinking, and authentic communication through writing (Beckett, G. H.; Slater, 2020b).

Narrative writing constitutes one of the fundamental text genres taught in Indonesian senior high schools because it encourages students to express experiences, imagination, and creativity while developing their linguistic competence. However, classroom observations conducted at SMAN 12 Banda Aceh revealed that many tenth-grade students experienced considerable difficulties in composing narrative texts. Most students were unable to develop ideas into complete paragraphs, organize events chronologically, construct coherent sentences, or employ appropriate vocabulary and grammatical structures. Their writing products were generally brief, poorly organized, and lacked coherence, resulting in unsatisfactory learning outcomes.

The preliminary observation was further supported by interviews with English teachers, who reported that students tended to perceive writing as a difficult and monotonous activity. Many learners lacked confidence in expressing their ideas because classroom instruction primarily focused on teacher explanations and textbook exercises rather than meaningful writing experiences (Thorndahl, K. L., & Stentoft, 2020a). As a consequence, students became passive learners and demonstrated limited engagement during writing lessons (Adventi, A. L., Mali, Y. C. G., 2025). These conditions indicate the need for more innovative instructional approaches capable of encouraging students to become active participants in the learning process (Bilgin, R., & Yildiz, 2024).

One instructional model that has received considerable attention in language education is Problem-Based Learning (PBL). Rooted in constructivist learning theory, PBL positions students as active learners who construct knowledge through authentic problem-solving, collaboration, inquiry, and reflection (Orhan, 2024). Instead of receiving information passively, students are challenged to investigate real-world problems, discuss alternative solutions, evaluate information critically, and communicate their findings through various learning products, including written texts (Yamin, 2025). Such learning experiences encourage higher-order thinking skills while simultaneously improving students' language proficiency (Thorndahl, K. L., & Stentoft, 2020).

Within writing instruction, Problem-Based Learning provides authentic contexts that stimulate idea generation and meaningful communication (Guo, Q., Jamil, H., Ismail, L., Luo, S., & Sun, 2024). Students collaboratively analyze problems, exchange perspectives, collect relevant information, organize ideas systematically, and transform their understanding into written compositions. Through these processes, learners become more engaged in planning, drafting, revising, and editing their writing (Sema, E. A., Yesigat, S. G., & Dememe, 2024). Previous studies have consistently demonstrated that PBL contributes positively to students' writing achievement by improving text organization, vocabulary use, grammatical accuracy, creativity, collaboration, and learning motivation (Prabowo, J., Hartono, R., Rukmini, D., & Saleh, 2024). Moreover, PBL

fosters learner autonomy and encourages students to take greater responsibility for their own learning (Cahyaningrum, T., & Widyantoro, 2020).

Although previous research has confirmed the effectiveness of Problem-Based Learning in English language instruction, several limitations remain evident in the existing literature (Aryanti, N., Anggaira, A. S., Ardiansyah, W., & Suhono, 2024). Most previous studies have concentrated on reading comprehension, classroom action research, or descriptive investigations of classroom implementation. In writing instruction, many studies have examined students' perceptions of PBL or compared it with other teaching methods without providing rigorous quantitative evidence of students' writing improvement. Furthermore, limited research has specifically investigated the effectiveness of PBL in improving narrative writing skills among senior high school students in the Aceh context using a pre-experimental design supported by inferential statistical analysis. Consequently, empirical evidence demonstrating the causal effect of PBL on students' narrative writing achievement in Indonesian EFL classrooms remains limited (Yamin, M., & Aulia, 2025).

The present study addresses this research gap by examining the effectiveness of Problem-Based Learning in improving the narrative writing skills of tenth-grade students at SMAN 12 Banda Aceh. The study employs a one-group pretest-posttest pre-experimental design and analyzes students' achievement using a paired-samples *t*-test to determine whether the observed improvement is statistically significant. This methodological approach provides stronger empirical evidence regarding students' writing gains than studies relying primarily on classroom observations or descriptive findings.

The novelty of this study lies in both its methodological and contextual contributions to the existing literature on EFL writing instruction. While previous studies have largely examined Problem-Based Learning (PBL) through classroom action research, descriptive investigations, comparative studies, or students' perceptions, this study employs a quantitative one-group pretest-posttest pre-experimental design accompanied by paired-samples *t*-test analysis to objectively measure the impact of PBL on students' narrative writing achievement. In addition, this research specifically focuses on narrative writing, a genre that remains underexplored in previous PBL studies conducted in Indonesian senior high schools, particularly in the Aceh context. By providing statistically supported evidence of students' writing improvement, this study extends previous findings and offers a more rigorous empirical evaluation of PBL effectiveness in Indonesian EFL classrooms.

The findings of this study are expected to contribute theoretically and practically to English language teaching. Theoretically, the study enriches the growing body of literature concerning constructivist learning and Problem-Based Learning in EFL writing instruction. Practically, the findings provide English teachers with an alternative student-centered instructional model capable of improving students' writing competence, critical thinking, collaboration, and classroom engagement. Furthermore, the results may serve as valuable references for curriculum developers, educational policymakers, and future researchers interested in developing innovative approaches to teaching writing in Indonesian secondary schools.

Based on the background discussed above, this study aims to investigate whether the implementation of Problem-Based Learning significantly improves the narrative writing skills of tenth-grade students at SMAN 12 Banda Aceh. Accordingly, the research addresses the following question: Does the implementation of Problem-Based Learning significantly improve students' narrative writing skills.

METHODE

This study employed a quantitative approach using a one-group pretest-posttest pre-experimental design to investigate the effectiveness of Problem-Based Learning (PBL) in improving students' narrative writing skills. A quantitative approach was considered appropriate because the study aimed to measure changes in students' writing performance objectively using numerical data and statistical analysis. The one-group pretest-posttest design was selected because it enables researchers to compare students' writing achievement before and after the implementation of the instructional intervention, thereby allowing the effectiveness of PBL to be evaluated within the same group of participants (Bulus, 2021).

Although this design does not include a control group, several measures were implemented to minimize threats to internal validity. The intervention was conducted over six instructional meetings within a four-week period under consistent classroom conditions. All participants were taught by the same English teacher using identical instructional materials, learning procedures, and lesson objectives throughout the intervention. In addition, students' narrative writing performance in both the pretest and posttest was assessed using the same analytic scoring rubric and identical scoring criteria to ensure consistency in measurement. These procedures were intended to minimize potential threats related to instructional variation and instrumentation, thereby enhancing the internal validity of the study.

The population consisted of all tenth-grade students enrolled at SMAN 12 Banda Aceh, while the sample consisted of 23 students from Class X Science 1 selected through purposive sampling. Purposive sampling was employed because preliminary classroom observations and consultation with the English teacher indicated that this class experienced considerable difficulties in narrative writing and demonstrated relatively low writing achievement compared with the expected learning outcomes. In addition, Class X Science 1 followed the same English curriculum, learning objectives, and assessment standards as the other tenth-grade classes, making it an appropriate and representative sample for evaluating the effectiveness of the PBL intervention. This class was selected based on initial classroom observations and teacher recommendations, which indicated that students experienced difficulties in developing narrative texts and demonstrated relatively low writing achievement.

The research procedure began with a pretest to measure students' initial narrative writing skills. Following the pretest, the researcher implemented the Problem-Based Learning (PBL) model over six instructional meetings, with each meeting lasting approximately 90 minutes. The intervention followed five stages of PBL. First, students were introduced to authentic problems related to narrative texts. Second, they were organized into small collaborative groups to discuss the problems and identify possible solutions. Third, students investigated relevant information, exchanged ideas, and developed their understanding through group discussions. Fourth, students individually composed narrative texts based on the outcomes of the problem-solving process and presented their work for discussion. Finally, students reflected on the learning process and received feedback from the teacher. Throughout the intervention, the teacher acted as a facilitator by guiding discussions, monitoring group activities, and providing feedback on students' writing. After completing the intervention, students took the posttest using the same writing task format as the pretest.

The collected data were analyzed using IBM SPSS Statistics Version 21. Descriptive statistics were first employed to summarize students' writing achievement by calculating the minimum score, maximum score, mean score, frequency distribution, percentage, and level of learning mastery for both the pretest and posttest. Prior to conducting inferential statistical analysis, the normality of the pretest and posttest scores was assessed using the Shapiro-Wilk test because the sample consisted of fewer than 50 participants. If the data met the normality assumption ($p > .05$), a paired-samples t -test was performed at a significance level of 0.05 to determine whether there was a statistically significant difference between students' narrative writing scores before and after the implementation of the Problem-Based Learning model.

RESULT

The implementation of the Problem-Based Learning (PBL) model was evaluated by comparing students' narrative writing performance before and after the instructional treatment. Students completed a pretest before the implementation of PBL and a posttest after the treatment. The findings are presented through descriptive statistics, including students' score distributions, learning mastery, and mean scores, followed by inferential statistical analysis using a paired-samples t -test to determine whether the observed improvement was statistically significant.

The results revealed that students' writing performance was generally low. As presented in Table 1, the mean pretest score was 37.39, indicating that most students experienced considerable difficulties in developing narrative texts. Students demonstrated weaknesses in organizing ideas, maintaining coherence between sentences, applying grammatical rules

accurately, and selecting appropriate vocabulary. Many of the narrative texts consisted of only a few simple sentences with limited content development and weak chronological organization.

Table 1. Descriptive Statistics of Pretest Scores

Score	Frequency	Persentase (%)
20	9	39,13
40	6	26,09
50	5	21,74
60	2	8,70
70	1	4,35
Mean	37,39	100

Based on the classification of learning achievement, nine students (39.13%) were categorized as having very low writing ability, eleven students (47.83%) were categorized as low, two students (8.70%) reached the moderate category, and only one student (4.35%) achieved the high category. None of the students reached the very high category. Furthermore, only one student (4.35%) achieved the school's Minimum Mastery Criterion (KKM) of 70, whereas twenty-two students (95.65%) failed to reach the required standard. These findings indicate that students' narrative writing ability before the implementation of the Problem-Based Learning model was unsatisfactory and required instructional improvement. Specifically, the low mean score and the high proportion of students who failed to achieve the Minimum Mastery Criterion (KKM) suggest that students experienced difficulties in generating ideas, organizing narrative events logically, maintaining coherence, and applying appropriate grammar and vocabulary in their writing.

Following several meetings using the Problem-Based Learning model, students completed the posttest to evaluate their writing achievement after the instructional treatment. The results demonstrated a substantial improvement in students' narrative writing performance. As shown in Table 2, the mean posttest score increased to 81.30, indicating a remarkable improvement compared with the pretest results.

Table 2. Descriptive Statistics of Posttest Scores

Score	Frequency	Persentase (%)
70	4	17.39
80	13	56.52
90	5	21,74
100	1	4.35
Mean	81,30	100

The distribution of students' achievement also showed considerable improvement. Seventeen students (73.91%) achieved the high category, while six students (26.09%) reached the very high category. No students remained in the very low, low, or moderate categories. In addition, all twenty-three students (100%) successfully achieved the Minimum Mastery Criterion established by the school. These findings indicate that the implementation of Problem-Based Learning effectively enhanced students' narrative writing performance across all achievement levels.

The comparison between the pretest and posttest results clearly demonstrates a substantial increase in students' writing achievement. The average score improved by 43.91 points, from 37.39 before the treatment to 81.30 after the implementation of Problem-Based Learning. This improvement suggests that the instructional activities incorporated in the PBL model successfully facilitated students in generating ideas, organizing narrative structures, applying appropriate vocabulary and grammar, and producing more coherent written texts.

After confirming that the normality assumption had been satisfied, a paired-samples *t*-test was performed using IBM SPSS Statistics Version 21 to determine whether the improvement in students' narrative writing scores was statistically significant. The statistical analysis revealed a mean difference of -43.478, with a *t*-value of -10.721 and 22 degrees of freedom. The significance value (Sig. 2-tailed) was 0.000, which was considerably lower than the predetermined significance level of 0.05.

Table 4. Paired-Samples t-Test

Paired Samples Test							t	Sig. (2-tailed)
Paired Differences					95% Confidence Interval of the Difference			
Mean	Std. Deviation	Std. Error	Lower	Upper				
Pair 1	Pretest_Eksperimen - Posttest_Eksperimen	-43.478	19.449	4.055	-51.889	-35.068	-10.721	.000

This result indicates that the improvement observed in students' narrative writing scores was unlikely to have occurred by chance. Therefore, the implementation of Problem-Based Learning produced a statistically significant positive effect on students' narrative writing achievement. The statistical findings confirm that the improvement in students' writing performance was associated with the instructional treatment, supporting the effectiveness of Problem-Based Learning in teaching narrative writing.

Overall, the descriptive and inferential statistical findings consistently demonstrate that the Problem-Based Learning model effectively improved students' narrative writing ability. Students not only achieved significantly higher writing scores after the intervention but also demonstrated complete mastery according to the school's learning standards. The substantial increase in the average score, together with the significant paired-samples t-test results, provides strong empirical evidence that Problem-Based Learning is an effective instructional approach for enhancing narrative writing skills among tenth-grade students at SMAN 12 Banda Aceh.

DISCUSSION

The findings of this study demonstrate that the implementation of the Problem-Based Learning (PBL) model significantly improved students' narrative writing skills. Descriptive statistical analysis showed that the mean score increased from 37.39 in the pretest to 81.30 in the posttest, with an average improvement of 43.478 points. Furthermore, the paired-samples t-test produced a significance value (Sig. 2-tailed) of 0.000, which is lower than the significance level of 0.05. Therefore, the null hypothesis (H_0) was rejected and the alternative hypothesis (H_1) was accepted, indicating that the implementation of the Problem-Based Learning model had a statistically significant effect on students' narrative writing skills.

The pretest results revealed that students experienced considerable difficulties in writing narrative texts before the implementation of the Problem-Based Learning model. Most students were unable to develop ideas systematically, organize the structure of narrative texts effectively, and apply appropriate vocabulary and grammatical patterns. This condition was reflected in the low average pretest score (37.39), where only one student (4.35%) achieved the Minimum Passing Criterion (KKM), while 22 students (95.65%) failed to reach the expected standard. These findings indicate that students required a more engaging instructional approach that could actively involve them in the writing process.

Following the implementation of the Problem-Based Learning model, students' narrative writing performance improved substantially. The average posttest score increased to 81.30, and all students (100%) successfully achieved the Minimum Passing Criterion. Most students were categorized as having high (73.91%) and very high (26.09%) levels of writing achievement. This substantial improvement suggests that the Problem-Based Learning model effectively facilitated students in developing ideas, organizing narrative structures, selecting appropriate vocabulary, and producing more coherent written texts. Through authentic problem-solving activities and collaborative learning, students became more actively engaged in constructing their knowledge and expressing their ideas in written form. These findings support the view of (Krajcik, J. S., & Shin, 2021) who argue that Problem-Based Learning encourages students to actively construct knowledge through authentic learning experiences and collaborative inquiry.

The improvement in students' writing achievement can also be observed from the average gain of 43.478 points between the pretest and posttest. This finding indicates that the learning activities implemented through Problem-Based Learning enabled students to develop their writing skills more effectively than before the intervention. During the learning process, students were encouraged to identify problems, explore information, exchange ideas with their peers, and

produce meaningful written texts based on collaborative discussion. Such learning experiences not only improved students' writing performance but also increased their motivation and engagement throughout the learning process. This finding is consistent with (Condliffe, B., Quint, J., Visher, M. G., Bangser, M. R., Drohojowska, S., Saco, L., & Nelson, 2021) who reported that problem-based learning activities promote active participation, collaboration, and meaningful learning experiences that positively influence students' academic achievement.

The findings of this study are also consistent with constructivist learning theory, which emphasizes that knowledge is actively constructed through meaningful learning experiences and social interaction. Rather than passively receiving information from the teacher, students participating in Problem-Based Learning actively investigated problems, discussed possible solutions, developed narrative texts collaboratively, and reflected on their learning experiences. These activities enabled students to improve not only their linguistic competence but also higher-order thinking skills, including critical thinking, communication, collaboration, and problem-solving. As stated by (Almulla, 2020) Problem-Based Learning promotes student autonomy, collaboration, communication, and reflection, all of which are fundamental principles of constructivist learning and essential competencies for twenty-first-century education.

The present findings are further supported by previous empirical studies investigating the effectiveness of Problem-Based Learning in English language instruction (Aditia, G. R., & Astuti, 2025) reported that Problem-Based Learning consistently improves students' writing skills, particularly in content development, text organization, vocabulary use, and classroom engagement. Similarly, (Cahyono, B. Y., Irawati, R., Amalia, S. N., & Hidayat, 2024) found that the implementation of Problem-Based Learning significantly enhanced students' writing performance across various educational contexts. Likewise, (Arochman, T., Margana, Ashadi, Achmad, S., Nugrahaeni, D. A., & Baihaqi, 2024) concluded that Problem-Based Learning positively influences students' grammar, vocabulary, organization, and content development. The consistency between those studies and the present research strengthens the evidence that Problem-Based Learning is an effective instructional model for improving students' narrative writing skills.

The findings are also in agreement with (Giawa, 2022), who found that students taught using Problem-Based Learning achieved significantly better results in narrative writing than those taught using conventional instructional methods. Furthermore, (Almulla, 2020) emphasized that Problem-Based Learning enhances students' creativity, collaboration, communication skills, and overall academic achievement. Similarly, (Kokotsaki, D., Menzies, V., & Wiggins, 2021) argued that Problem-Based Learning creates a student-centered learning environment that promotes meaningful learning experiences and long-term knowledge retention. These previous findings reinforce the argument that the active and collaborative learning environment created through Problem-Based Learning contributes positively to students' writing development.

Overall, the descriptive and inferential statistical findings consistently demonstrate that the Problem-Based Learning model effectively improved students' narrative writing ability. The considerable increase in students' mean scores indicates that Problem-Based Learning created meaningful learning experiences by engaging students in authentic problem-solving activities, encouraging them to generate ideas, organize narrative structures more systematically, and communicate their ideas more coherently in written form (Beckett, G. H.; Slater, 2020a) who emphasized that problem-based learning provides meaningful opportunities for students to develop writing competence while simultaneously fostering learner autonomy and active participation in English language learning.

These findings are consistent with the study conducted by Prabowo et al. (2024), which reported that Problem-Based Learning improved students' writing organization, vocabulary use, grammatical accuracy, and learning motivation. Likewise, Guo et al. (2024) argued that authentic problem-solving activities provide meaningful contexts that stimulate students' idea generation and facilitate the writing process. The improvement observed in the present study therefore supports previous evidence that Problem-Based Learning is effective in enhancing students' writing performance in English as a Foreign Language (EFL) classrooms.

However, the present study differs from previous research such as Aryanti et al. (2024), which mainly examined the implementation of Problem-Based Learning or students' perceptions of the learning model. In contrast, this study provides quantitative evidence of the effectiveness

of Problem-Based Learning by measuring students' narrative writing achievement through pretest-posttest assessment and paired-samples *t*-test analysis. Consequently, the findings offer stronger empirical support for the effectiveness of Problem-Based Learning in improving narrative writing skills among Indonesian senior high school students.

The findings also have important implications for English language teaching. The improvement in students' narrative writing achievement suggests that Problem-Based Learning enabled students to actively engage in identifying problems, exchanging ideas with peers, organizing information systematically, and developing narrative texts through collaborative learning activities. These learning processes may have contributed to better organization, coherence, vocabulary use, and grammatical accuracy in students' writing.

Consistent with previous studies (Prabowo et al., 2024; Guo et al., 2024), the results indicate that Problem-Based Learning is an effective instructional approach for improving students' narrative writing skills by promoting active learning, collaboration, critical thinking, and meaningful communication. English teachers are encouraged to integrate Problem-Based Learning into writing instruction because it promotes active learning, collaboration, critical thinking, and meaningful communication while improving students' writing achievement. However, unlike many previous studies that primarily focused on classroom implementation or students' perceptions of Problem-Based Learning, this study provides quantitative evidence of its effectiveness through a pretest-posttest design and paired-samples *t*-test analysis. Furthermore, this study contributes to the growing body of literature on constructivist approaches to EFL writing instruction by providing quantitative empirical evidence of the effectiveness of Problem-Based Learning in the Indonesian secondary school context.

CONCLUSION

This study examined the effectiveness of Problem-Based Learning (PBL) in improving the narrative writing skills of tenth-grade students at SMAN 12 Banda Aceh. The findings demonstrated that the implementation of PBL significantly improved students' narrative writing achievement. This was evidenced by the increase in the mean score from 37.39 in the pretest to 81.30 in the posttest, representing an average gain of 43.91 points. Furthermore, the paired-samples *t*-test yielded a significance value of 0.000 ($p < 0.05$), indicating a statistically significant difference between students' writing performance before and after the implementation of PBL. These findings confirm that Problem-Based Learning was effective in improving students' narrative writing skills within the context of this study.

The results also indicate that Problem-Based Learning facilitated students' ability to generate ideas, organize narrative texts more effectively, apply appropriate vocabulary and grammatical structures, and produce more coherent written compositions. In addition, the collaborative and problem-solving activities embedded in the PBL model contributed to greater student engagement during the writing process, supporting the development of meaningful learning experiences in English as a Foreign Language (EFL) writing instruction.

Nevertheless, this study has several limitations. The research employed a one-group pretest-posttest pre-experimental design without a control group, which limits the ability to attribute the observed improvement exclusively to the implementation of Problem-Based Learning. In addition, the study involved only 23 students from a single tenth-grade class at one senior high school, which may limit the generalizability of the findings to other educational contexts. Therefore, the findings should be interpreted within the scope and context of the present study.

SUGGESTIONS

Based on the findings of this study, English teachers are encouraged to adopt Problem-Based Learning (PBL) as a student-centered instructional approach in teaching narrative writing. By integrating authentic problem-solving tasks, collaborative learning activities, and reflective discussions into classroom instruction, teachers can create more meaningful learning experiences that promote students' writing skills, critical thinking, and active participation.

For future research, it is recommended that researchers employ more rigorous research designs, such as quasi-experimental or randomized controlled trial designs, to provide stronger evidence of the effectiveness of Problem-Based Learning. Future studies should also involve larger

sample sizes and participants from diverse educational settings, including different schools, grade levels, and geographical regions, to improve the generalizability of the findings. In addition, researchers are encouraged to investigate the influence of Problem-Based Learning on other important variables, such as writing motivation, critical thinking, collaborative learning, writing self-efficacy, and learner autonomy. Further research may also examine the effectiveness of Problem-Based Learning across different writing genres and other English language skills, including reading, speaking, and listening, to provide a more comprehensive understanding of its contribution to English language learning.

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