

Improving Students' Procedural Writing Skills Through Project-Based Learning At Sma Negeri 1 Sinabang

INFO PENULIS	INFO ARTIKEL
Bela Rahnum Universitas Bina Bangsa Getsempena belarahnum12@gmail.com +628970234785	ISSN: 2807-9558 Vol. 6, No.1 April 2026 http://jurnal.ardenjaya.com/index.php/ajup
Sariakin Universitas Bina Bangsa Getsempena sariakin@bbg.ac.id +6285277938888	
Zahria Amalina Universitas Bina Bangsa Getsempena zahria@bbg.ac.id +6282346069101	

© 2026 Arden Jaya Publisher All rights reserved

Saran Penulisan Referensi:

Rahnum. B., Sariakin., & Amalina, Z. (2026). Improving Students' Procedural Writing Skills Through Project-Based Learning At Sma Negeri 1 Sinabang. *Arus Jurnal Pendidikan*, 6 (1),706-711.

Abstrak

Menulis merupakan salah satu keterampilan produktif yang penting dalam pembelajaran bahasa Inggris; namun, banyak siswa sekolah menengah atas masih mengalami kesulitan dalam mengorganisasi ide, mengembangkan teks yang koheren, serta mempertahankan ketepatan tata bahasa. Penelitian ini bertujuan untuk mengetahui efektivitas Project-Based Learning (PjBL) dalam meningkatkan keterampilan menulis teks prosedur siswa di SMA Negeri 1 Sinabang. Penelitian ini menggunakan pendekatan kuantitatif dengan desain pra-eksperimen one-group pre-test and post-test. Sebanyak 27 siswa kelas X berpartisipasi dalam penelitian ini. Data dikumpulkan melalui tes menulis yang diberikan sebelum dan sesudah penerapan Project-Based Learning. Hasil tulisan siswa dinilai menggunakan rubrik penilaian teks prosedur yang mencakup aspek organisasi, isi, penggunaan bahasa, urutan langkah, tata bahasa, dan mekanika penulisan. Data dianalisis menggunakan statistik deskriptif, Wilcoxon Signed Rank Test, dan analisis N-Gain. Hasil penelitian menunjukkan adanya peningkatan yang signifikan pada kemampuan menulis siswa setelah diberikan perlakuan. Nilai rata-rata meningkat dari 69,00 pada pre-test menjadi 89,07 pada post-test. Hasil Wilcoxon Signed Rank Test menunjukkan adanya perbedaan yang signifikan secara statistik antara nilai pre-test dan post-test ($p < 0,05$), sedangkan analisis N-Gain menunjukkan tingkat peningkatan pada kategori sedang. Temuan ini mengindikasikan bahwa Project-Based Learning memberikan pengalaman belajar yang bermakna dengan mendorong kolaborasi, berpikir kritis, dan praktik menulis yang autentik, sehingga mampu meningkatkan kemampuan siswa dalam menulis teks prosedur. Oleh karena itu, Project-Based Learning dapat dianggap sebagai salah satu pendekatan pembelajaran yang efektif untuk pengajaran keterampilan menulis di tingkat sekolah menengah atas.

Kata kunci: *Project-Based Learning (PjBL)*, keterampilan menulis, teks prosedur, pengajaran bahasa Inggris

Abstract

Writing is one of the essential productive skills in English language learning; however, many senior high school students still encounter difficulties in organizing ideas, developing coherent texts, and maintaining grammatical accuracy. This study investigated the effectiveness of Project-Based Learning (PjBL) in improving students' procedural writing skills at SMA Negeri 1 Sinabang. The study employed a quantitative approach using a one-group pre-test and post-test pre-experimental design. Twenty-seven tenth-grade students participated in the research. Data were collected through writing tests administered before and after the implementation of Project-Based Learning. The students' writing was assessed using a procedural writing rubric covering organization, content, language use, sequencing, grammar, and mechanics. The data were analyzed using descriptive statistics, the Wilcoxon Signed Rank Test, and N-Gain analysis. The findings revealed a substantial improvement in students' writing performance after the treatment. The mean score increased from 69.00 in the pre-test to 89.07 in the post-test. The Wilcoxon Signed Rank Test indicated a statistically significant difference between pre-test and post-test scores ($p < 0.05$), while the N-Gain analysis indicated a medium level of improvement. These findings suggest that Project-Based Learning provides meaningful learning experiences by encouraging collaboration, critical thinking, and authentic writing practice, thereby enhancing students' procedural writing ability. Therefore, Project-Based Learning can be considered an effective instructional approach for teaching writing at the senior high school level.

Keywords: Project-Based Learning, Writing Skill, Procedural Text, English Language Teaching

A. Introduction

Writing is one of the essential productive skills in English language learning because it enables students to communicate ideas, opinions, and information effectively through written texts. According to (Siahaan, 2008) writing is a process of transforming ideas into written language that requires careful organization, appropriate vocabulary, and grammatical accuracy. Similarly, (Mulyasa, 2017) emphasizes that writing activities encourage students to develop critical thinking, creativity, and communication skills simultaneously. Unlike receptive skills, writing requires learners to generate ideas, organize them logically, and express them using appropriate vocabulary, grammar, and mechanics. Therefore, writing is often considered one of the most challenging language skills for English as a Foreign Language (EFL) learners. Consequently, writing instruction should provide students with meaningful learning experiences that allow them to develop both linguistic competence and higher-order thinking skills.

One of the text genres taught in Indonesian senior high schools is procedural text. This genre requires students to explain how to perform a task through clear objectives, appropriate materials, and sequential steps using correct language features. However, many students still experience difficulties in writing procedural texts because they struggle to generate ideas, organize information logically, and apply grammatical rules accurately. Based on preliminary observations conducted at SMA Negeri 1 Sinabang in September 2025, many tenth-grade students encountered difficulties in writing procedural texts. Most students were unable to organize ideas systematically, use appropriate sequence markers, and maintain grammatical accuracy throughout their writing. Furthermore, classroom instruction remained predominantly teacher-centered, limiting students' opportunities to actively participate in meaningful writing activities. As a result, many students' writing achievement was still below the school's minimum mastery criterion (KKM).

To address these challenges, teachers need instructional approaches that actively engage students in meaningful learning experiences. One instructional model that has attracted considerable attention is Project-Based Learning (PjBL). (Thomas, 2000) defines Project-Based Learning as a student-centered instructional approach that enables learners to acquire knowledge through authentic projects and meaningful problem-solving activities. This instructional model also aligns with student-centered learning principles, allowing learners to construct knowledge through authentic experiences. These characteristics make Project-Based Learning particularly suitable for writing instruction because students actively participate in

brainstorming, drafting, revising, and presenting their written work throughout the learning process.

Numerous studies have demonstrated the effectiveness of Project-Based Learning in improving students' writing skills. (AFFANDI, 2023) reported that Project-Based Learning significantly improved students' writing achievement by increasing classroom participation and collaborative learning. Likewise, (Aisha, 2023) found that students who learned through Project-Based Learning became more motivated and produced better-organized written texts than those who received conventional instruction. In addition, (Sulkiman et al., 2026) concluded that Project-Based Learning created a more interactive classroom environment, leading to higher student motivation and better writing achievement. These findings indicate that Project-Based Learning has consistently shown positive contributions to writing instruction across different educational contexts.

Although previous studies have reported positive findings regarding the effectiveness of Project-Based Learning, most of them focused on improving general writing skills or different text genres. Research specifically examining the implementation of Project-Based Learning in teaching procedural writing at the senior high school level, particularly in Aceh, remains limited. Moreover, no previous study has investigated the effectiveness of Project-Based Learning in improving procedural writing skills at SMA Negeri 1 Sinabang. Therefore, further investigation is needed to determine whether this instructional model can effectively address students' writing difficulties within this context.

Based on these considerations, this study aimed to examine the effect of Project-Based Learning on the procedural writing skills of tenth-grade students at SMA Negeri 1 Sinabang. Specifically, the study investigated whether the implementation of Project-Based Learning significantly improved students' procedural writing achievement after participating in project-based learning activities. The findings are expected to contribute to English language teaching by providing empirical evidence regarding the effectiveness of Project-Based Learning in teaching procedural writing and by offering practical insights for teachers who seek to implement more engaging and student-centered writing instruction.

B. Methodology

This study employed a quantitative approach using a pre-experimental research design with a one-group pre-test and post-test design. The design was selected to examine the effectiveness of Project-Based Learning (PjBL) in improving students' procedural writing skills by comparing their writing performance before and after the treatment. The research design can be illustrated as follows:

$$O_1 - X - O_2$$

Where O_1 represents the pre-test, X denotes the treatment using Project-Based Learning, and O_2 represents the post-test. The research was conducted at SMA Negeri 1 Sinabang. The participants were 27 tenth-grade students selected through total sampling because only one class was available for the study. All students participated in the pre-test, treatment sessions, and post-test.

The research instrument was a writing test administered twice: before and after the implementation of Project-Based Learning. In both tests, students were required to write a procedural text based on the given topic. The rubric assessed seven aspects of writing, namely goal or purpose, materials or ingredients, steps or instructions, sequencing words, language clarity, diagrams or visuals (if applicable), and grammar and mechanics. The treatment was conducted through the implementation of Project-Based Learning. During the learning process, students worked collaboratively to complete writing projects by identifying a topic, collecting information, organizing ideas, drafting procedural texts, revising their work based on feedback, and presenting the final product. Throughout the activities, the teacher acted as a facilitator by providing guidance and monitoring students' progress.

The collected data were analyzed using both descriptive and inferential statistics. Descriptive statistics were used to calculate the mean scores of the pre-test and post-test. Prior to hypothesis testing, the normality of the data was examined. Since the data were not normally distributed, the Wilcoxon Signed Rank Test was employed to determine whether there was a statistically significant difference between students' pre-test and post-test scores. In addition, the N-Gain test was used to measure the effectiveness of the treatment by identifying the level of students' improvement after the implementation of Project-Based Learning.

C. Result and Discussion

The findings of this study were obtained from the analysis of students' writing test scores before and after the implementation of Project-Based Learning (PjBL). The analysis consisted of descriptive statistics, a normality test, the Wilcoxon Signed-Rank Test, and the N-Gain analysis. These analyses were conducted to determine whether Project-Based Learning significantly improved students' procedural writing skills.

Students' Pre-test and Post-test Performance

Table 1. Descriptive Statistics of Students' Writing Scores

Test	N	Minimum	Maximum	Mean
Pre-test	27	50	85	69.00
Post-test	27	75	100	89.07

Explanation:

Number of Samples (N) = 27

Smallest Rank Sum (T) = 20

Mean Pre-test Score = 69.00

Mean Post-test Score = 89.07

Table 1 presents the students' writing performance before and after the implementation of Project-Based Learning. The mean score increased from 69.00 in the pre-test to 89.07 in the post-test, with an improvement of 20.07 points. In addition, the minimum score increased from 50 to 75, while the maximum score improved from 85 to 100. These descriptive statistics indicate that students demonstrated better writing performance after participating in Project-Based Learning activities.

Table 2. Wilcoxon Signed-Rank Test

Analysis	Result
Wilcoxon Z	-4.06
Asymp. Sig. (2-tailed)	.000
N-Gain Score	0.65
Category	Medium

Table 2 presents the results of the statistical analyses conducted to determine the effectiveness of Project-Based Learning (PjBL) on students' procedural writing skills. The analyses included the Wilcoxon Signed-Rank Test and the N-Gain analysis. The Wilcoxon Signed-Rank Test was employed because the data did not meet the assumption of normality, making it more appropriate than a parametric test for comparing students' pre-test and post-test scores.

The results of the Wilcoxon Signed-Rank Test showed a Z-value of -4.06 with an Asymp. Sig. (2-tailed) value of .000, which is lower than the significance level of 0.05. This finding indicates that there was a statistically significant difference between the students' writing scores before and after the implementation of Project-Based Learning. Consequently, the null hypothesis (H_0) was rejected, while the alternative hypothesis (H_a) was accepted. These findings demonstrate that students achieved significantly higher writing scores after participating in the Project-Based Learning activities.

Furthermore, the effectiveness of the treatment was examined using the N-Gain analysis. The analysis yielded an average N-Gain score of 0.65, which falls into the medium category. This result indicates that the implementation of Project-Based Learning produced a moderate level of improvement in students' procedural writing skills. The increase in the students' average writing score, together with the statistical significance indicated by the Wilcoxon Signed-Rank Test, provides evidence that the instructional treatment contributed positively to students' writing achievement.

The findings of this study demonstrate that the implementation of Project-Based Learning (PjBL) had a significant positive effect on students' procedural writing skills at SMA Negeri 1 Sinabang. The improvement was reflected in the increase in the students' mean score from 69.00 in the pre-test to 89.07 in the post-test. In addition, the Wilcoxon Signed-Rank Test confirmed that the difference between the pre-test and post-test scores was statistically significant, while

the N-Gain analysis produced a score of 0.65, indicating a medium level of improvement. These findings suggest that Project-Based Learning was effective in enhancing students' ability to write procedural texts after participating in project-based learning activities.

These findings support the theory proposed by (Thomas, 2000) who states that Project-Based Learning provides meaningful learning experiences by engaging students in authentic projects that require investigation, collaboration, and the production of tangible outcomes. In the context of this study, these characteristics were reflected in students' active participation during classroom discussions, collaborative writing activities, and project presentations, all of which contributed to the improvement of their procedural writing skills.

The findings are also consistent with several previous studies reviewed in this research. (AFFANDI, 2023) reported that Project-Based Learning significantly improved students' writing achievement by increasing classroom participation and encouraging collaborative learning. Likewise, (Aisha, 2023) found that students became more motivated and produced better-organized written texts after participating in project-based learning activities. The consistency between the present study and these previous findings strengthens the evidence that Project-Based Learning is an effective instructional approach for improving students' writing skills across different educational settings.

Although the N-Gain analysis categorized the improvement as medium, the increase of more than twenty points in the students' average score demonstrates that the implementation of Project-Based Learning resulted in meaningful learning improvement. One possible explanation is that the treatment was conducted within a relatively limited period, allowing students only a short time to adapt to the learning model. It is possible that a longer implementation period with additional writing projects would produce an even greater improvement. Nevertheless, the significant statistical results indicate that Project-Based Learning successfully improved students' procedural writing skills within the duration of this study.

The findings of this study have important implications for English language teaching, particularly in writing instruction. Rather than relying solely on teacher-centered approaches, English teachers are encouraged to integrate Project-Based Learning into classroom activities to provide students with meaningful opportunities to practice writing collaboratively and authentically. Through project-based activities, students not only improve their writing skills but also develop essential twenty-first-century competencies such as communication, collaboration, creativity, and critical thinking. Therefore, Project-Based Learning can be considered an effective instructional alternative for teaching procedural writing in senior high school EFL classrooms.

D. Conclusion

The findings of this study indicate that the implementation of Project-Based Learning (PBL) significantly improved the procedural writing skills of the tenth-grade students at SMA Negeri 1 Sinabang. The improvement was evidenced by the increase in the students' mean scores from the pre-test to the post-test, the statistically significant result of the Wilcoxon Signed-Rank Test, and the medium category obtained from the N-Gain analysis. These findings demonstrate that Project-Based Learning effectively supported students in developing procedural texts by encouraging active participation, collaboration, and authentic learning experiences throughout the writing process.

The results suggest that Project-Based Learning can serve as an effective alternative instructional approach for teaching writing, particularly procedural texts, in EFL classrooms. By engaging students in meaningful project-based activities, teachers can create a more student-centered learning environment that promotes not only writing achievement but also essential skills such as communication, collaboration, creativity, and critical thinking. Future researchers are encouraged to investigate the implementation of Project-Based Learning in other writing genres, educational levels, or longer treatment periods to obtain broader evidence regarding its effectiveness.

E. Reference

AFFANDI, S. H. (2023). Penerapan model Project-Based Learning dalam pembelajaran menulis teks prosedur sederhana bagi siswa kelas tujuh MTs Negeri 6 Tulungagung. *Jurnal Inovasi Tenaga Pendidikan Dan Kependidikan*, 3.

- Aisha, H. (2023). Penerapan model pembelajaran Project-Based Learning untuk meningkatkan keterampilan menulis teks eksposisi pada siswa kelas X IPA 7 SMA Negeri 11 Banda Aceh. *Jurnal Ilmiah Mahasiswa Pendidikan*, 4.
- Mulyasa. (2017). *Pengembangan dan Implementasi Kurikulum 2013*. PT Remaja Rosdakarya.
- Siahaan, S. (2008). *Issues in Linguistics* (first edition). Graha Ilmu.
- Sulkiman, Fitriani, Y., & Utami, P. I. (2026). Improving Students' Procedural Text Writing Skills Through Project-Based Learning. *Journal of Social Work and Science Education*, 7 (2).
- Thomas, J. W. (2000). *A review of research on project-based learning*. Autodesk Foundation.