



The Effect of Problem-Based Learning Model on Students' Writing Ability in Recount Texts at Grade Ten of State Senior High School 7 Tanjungbalai in the 2025/2026 Academic Year

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ABSTRACT

This study investigated the effect of the Problem-Based Learning (*PBL*) model on students' ability in writing recount texts at State Senior High School 7 Tanjungbalai during the 2025/2026 academic year. The research was motivated by students' difficulties in organizing ideas, applying appropriate grammatical structures, and developing coherent recount texts through conventional instructional methods. The study addressed whether the implementation of the *PBL* model significantly improved students' writing ability compared to traditional teaching strategies. A quantitative experimental design was employed involving 68 tenth-grade students, consisting of 34 students in the experimental group and 34 students in the control group. Data were collected through *pre-test* and *post-test* writing assessments and analyzed using the *t-test* formula. The findings revealed that the experimental group demonstrated a substantial improvement, with the mean score increasing from 62.2 in the *pre-test* to 81.5 in the *post-test*, while the control group improved from 57.6 to 66.8. Statistical analysis showed that the *t-observed* value (11.14) exceeded the *t-table* value (1.997) at the significance level of 0.05 with 66 degrees of freedom. The study concludes that the Problem-Based Learning model has a significant positive effect on students' ability in writing recount texts.

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INTRODUCTION

Language functions as a primary means of communication through which individuals convey information, ideas, thoughts, and emotions to others. It operates as a structured system of words organized into meaningful expressions that facilitate interaction and understanding. English, as an international language, plays a significant role in global communication, education, and professional development (Lawa et al., 2023; Narinda et al., 2023). According to Wulandari et al. (2023), English language learning encompasses four essential skills, namely listening, speaking, reading, and writing, all of which must be mastered to achieve communicative competence. Consequently, teachers are expected to implement creative and innovative instructional strategies, methods, models, and learning media in order to enhance students' English proficiency effectively.

Among the four language skills, writing is widely recognized as one of the most fundamental and challenging components of English language learning. Writing is considered crucial in mastering a foreign language because it enables students to express ideas systematically and communicate meaning effectively in written form. Sihombing et al. (2025) state that writing provides numerous benefits, including the development of intelligence, creativity, initiative, self-confidence, and the ability to organize and elaborate ideas. In addition, writing contributes to students' capacity to generate new ideas, collect information, and solve problems critically and creatively (Nasution, 2022; Sebayang et al., 2022). Despite its importance, writing remains difficult for many students because it requires not only idea expression but also grammatical accuracy, coherence, and appropriate language use (Fauzan et al., 2022; R. Manik & Siregar, 2020).

Based on the curriculum framework discussed by Suryadi et al. (2022), tenth-grade students are expected to understand the communicative purpose, generic structure, and linguistic features of various text genres, including recount texts. Students are also required to learn several genres, such as descriptive, recount, report, narrative, and procedural texts, as part of their English language learning. Recount text specifically aims to retell past events or experiences for the purpose of informing or entertaining readers and generally consists of orientation, events, and re-



orientation. In practice, however, many students continue to experience difficulties in writing recount texts due to limited vocabulary mastery, poor organization of ideas, and insufficient understanding of grammatical structures, particularly the use of the *simple past tense* (Cahyani et al., 2023; Capili & Anastasi, 2024). These challenges indicate that students require more effective and engaging instructional approaches to improve their writing performance.

A preliminary observation conducted at State Senior High School 7 Tanjungbalai revealed that students' writing ability, particularly in recount text composition, remained relatively low. Interviews with English teachers indicated that students demonstrated limited interest in writing activities because of restricted vocabulary knowledge and difficulties in applying grammatical rules accurately. Several students also encountered difficulties in understanding the instructional materials presented in class, which may have been influenced by low learning motivation and the limited variation of teaching methods employed by teachers. These conditions suggest the necessity of implementing a more interactive and student-centered learning model capable of addressing students' diverse learning needs. An appropriate instructional approach is therefore required to improve students' engagement and writing competence in recount text learning.

One instructional model that can potentially address these challenges is Problem-Based Learning (*PBL*). According to Lukin (2024), *PBL* enhances students' critical thinking and problem-solving abilities by engaging them in authentic and meaningful learning situations. This model encourages students to become more active, collaborative, and independent throughout the learning process while enabling them to construct knowledge through real-world contexts. Previous studies have shown that *PBL* promotes collaboration, increases students' motivation, and provides meaningful learning experiences that support deeper understanding and engagement (Baidowi et al., 2015; Fleckenstein et al., 2023; Susanti et al., 2023). Based on these considerations, the researcher is interested in investigating the effectiveness of the Problem-Based Learning model in improving students' writing ability. Therefore, this study is entitled "*The Effect of Problem-Based Learning Model on Students' Writing Ability in Recount Texts at Grade Ten of State Senior High School 7 Tanjungbalai in the 2025/2026 Academic Year.*"

METHOD

This study employed a quasi-experimental research method using a non-equivalent control group design (Capili & Anastasi, 2024). In this design, the experimental and control groups were not selected randomly; however, both groups were administered a *pre-test* to measure their initial writing ability prior to the treatment. Different instructional treatments were subsequently applied to each group, where the experimental group received instruction through the Problem-Based Learning (*PBL*) model, while the control group was taught using a conventional learning model. At the conclusion of the treatment, both groups completed a *post-test* to evaluate the effect of the instructional approaches on students' writing achievement. This design enabled the researcher to compare the effectiveness of the *PBL* model and conventional instruction in improving students' ability to write recount texts.

Table 1. Research Design

Group	Pre-Test	Treatment	Post-Test
Experimental	X	Differentiated Learning	X
Control	Y	Conventional Model	Y

Where:

X = Differentiated Instruction

Y = Conventional Instruction

The experimental class implemented the Problem-Based Learning model, which engaged students in solving real-world problems related to the learning materials. In contrast, the control class applied a conventional learning model characterized by teacher-centered instruction and direct explanation of information. Through these different instructional approaches, the study examined the effectiveness of each model in improving students' writing outcomes. Data collection in this study required the use of research instruments designed to measure students' writing performance accurately. According to V. H. T. Manik and Napitupulu (2026), an instrument is defined as a tool used to collect research data systematically and objectively.

The research procedures consisted of three stages, namely *pre-test*, treatment, and *post-test*. The *pre-test* was administered to measure students' initial understanding and writing ability in recount texts before the implementation

of the instructional treatment. In this stage, students were instructed to write a simple recount text based on their personal experiences, and the assessment focused on aspects such as generic structure, language features, vocabulary usage, and grammatical accuracy. Both the experimental and control groups completed the *pre-test*, and the results served as baseline data for subsequent comparison. The treatment phase was conducted after the *pre-test*, during which the experimental group received instruction using the Problem-Based Learning (*PBL*) approach supported by visual media such as pictures and videos. Meanwhile, the control group was taught through conventional instructional methods relying primarily on teacher explanation without multimedia support.

Following the treatment phase, a *post-test* was administered to evaluate students' writing performance after receiving different instructional approaches. Similar to the *pre-test*, the *post-test* required students to write a recount text in essay form based on a topic related to their holiday experiences. The *post-test* results were subsequently analyzed to compare the writing achievement of the experimental and control groups after the treatments had been implemented. Students' writing performance was assessed using a scoring rubric designed to measure several components of writing systematically. The rubric provided detailed criteria for evaluating students' writing quality across different performance levels, thereby ensuring consistency and objectivity in the assessment process.

Table 1. Scoring Guide

Student Score	Level	Score	Criteria
Content	Excellent to very Good	20	Knowledgeable, substantive, thesis-driven, and related to the chosen topic
		15	Some subject knowledge, acceptable range, limited thesis development, mainly relevant to topic but lacking in details
	Fair to Poor	10	Limited subject knowledge, little substance, and insufficient topic development
	Very Poor	5	Does not demonstrate subject knowledge is non-substantive, on-relevant, or insufficient to evaluate.
Organization	Excellent to very good	20	Fluent expression, clear concepts, short, well-organized, logical sequence, coherent
	Good to Average	15	Fluent expression, clear concepts, short, well-organized, logical sequence, coherent
	Fair to Poor	10	Non fluency, ideas confused or disconnected, lacks logical sequencing and development
	Very Poor	5	Does not communicated, no organization or not enough to evaluate.
Vocabulary	Excellent to very good	20	Range, word or idiom choice and use, mastery, register
	Good to Average	15	Appropriate range, occasional word or idiom form, choice, and usage faults, but meaning not obfuscated
	Fair to Poor	10	Limited vocabulary, frequent idiom choice, usage, and meaning errors
	Very Poor	5	Few English vocabulary, idioms, or word forms to evaluate
Language Use	Excellent to Very Good	20	Few agreement, tense, number, word order, articles, pronouns, and preposition errors
	Very Good to Excellent	15	Effective but simple construction: minor agreement, tense, number, word order of function, articles, pronouns, and preposition errors, but meaning rarely obscured
	Fair to Poor	10	Major problem in simple or complex constructions: frequent error or negation agreement, tense, number, word order or function run-ons, deletions: meaning muddled or obscured
	Very Poor	5	No knowledge of sentence building rules, error prevail, not enough to evaluate
Mechanics	Excellent to Very Good	20	Few spelling, punctuation, capitalization, paragraphing errors
	Very good to Average	15	Occasional spelling, punctuation, capitalization, paragraphing errors, but meaning clear
	Fair to Poor	10	Poor handwriting, spelling, punctuation, and paragraphing; unclear meaning
	Very Poor	5	Spelling, punctuation, capitalization, and paragraphing errors dominate

Evaluating students' writing ability in language learning requires the application of scoring rubrics that provide clear criteria and detailed descriptions of performance levels. Such assessment instruments assist teachers in measuring students' work accurately, delivering constructive feedback, and enabling learners to monitor their progress systematically (Darwati & Purana, 2021). Instrument validity refers to the extent to which an instrument accurately measures the construct it is intended to assess. According to Arikunto (2019), citing Scarvia B. Anderson, a test is considered valid if it effectively measures the specific variable under investigation. In this study, the validity of the instrument was analyzed using the *Product Moment Correlation* formula.

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

Reliability, meanwhile, should not merely be interpreted as the accuracy of a measuring instrument but also as the consistency and stability of measurement outcomes. Scarvia B. Anderson, as cited in Arikunto et al. (2023), explains that reliability reflects the extent to which an instrument consistently measures the characteristic being assessed. A reliable instrument produces stable and dependable results across repeated administrations. In this study, reliability was calculated using the following formula:

$$r_{11} = \frac{2 \cdot r_{1/21/2}}{(1 + r_{1/21/2})}$$

RESULT AND DISCUSSION

The results of the students' writing tests in the experimental group are presented in Table 3. The table illustrates the comparison between students' *pre-test* and *post-test* scores after the implementation of the Problem-Based Learning (PBL) model. The data indicate a substantial improvement in students' writing performance following the instructional treatment. This increase can be observed not only in individual student achievement but also in the overall class performance reflected in the total and mean scores.

Table 3. Scores of *Pre-Test* and *Post-Test* of the Experimental Group

No	Students' Name	Score of Pre test (X)	Score of Post test (Y)	X ²	Y ²	X.Y
1	AA	70	85	4900	7225	5950
2	AF	65	80	4225	6400	5200
3	AR	80	100	6400	10000	8000
4	AKS	50	75	2500	5625	3750
5	CIS	50	70	2500	4900	3500
6	DSM	65	85	4225	7225	5525
7	DM	55	75	3025	5625	4125
8	DAHR	70	85	4900	7225	5950
9	DPA	50	80	2500	6400	4000
10	EMS	55	75	3025	5625	4125
11	GM	50	70	2500	4900	3500
12	IWP	65	90	4225	8100	5850
13	JR	65	85	4225	7225	5525
14	KN	25	50	625	2500	1250
15	MAM	60	85	3600	7225	5100
16	MT	25	45	625	2025	1125
17	NA	40	70	1600	4900	2800
18	NS	55	75	3025	5625	4125
19	RI	75	85	5625	7225	6375
20	RF	60	75	3600	5625	4500
21	RH	75	90	5625	8100	6750
22	RAM	60	80	3600	6400	4800
23	SD	70	85	4900	7225	5950
24	SA	80	95	6400	9025	7600
25	SCI	55	70	3025	4900	3850
26	SWT	70	85	4900	7225	5950
27	SF	75	85	5625	7225	6375
28	SYB	80	90	6400	8100	7200
29	TWN	65	80	4225	6400	5200
30	TF	70	85	4900	7225	5950
31	TSN	55	70	3025	4900	3850
32	ZE	70	90	4900	8100	6300
33	ZIM	70	85	4900	7225	5950
34	ZP	90	95	8100	9025	8550
TOTAL	2115	$\sum x$ 2725	$\sum y$ 138375	$\sum x^2$ 222675	$\sum y^2$ 174550	$\sum xy$

Based on the data presented above, the distribution of students' *pre-test* scores demonstrated varying levels of writing proficiency prior to the implementation of the treatment. One student obtained the highest score of 90, while three students achieved scores of 80 and another three students obtained scores of 75. Seven students scored 70, five students achieved 65, and three students obtained scores of 60. In addition, five students received scores of 55, four students scored 50, one student obtained 40, and two students achieved the lowest score of 25. These findings indicate that students' initial writing abilities were distributed across different proficiency levels before the implementation of the Problem-Based Learning model.

The *post-test* results revealed a substantial improvement in students' writing achievement after receiving instruction through the Problem-Based Learning approach. One student achieved the highest score of 100, while two students obtained scores of 95 and four students achieved scores of 90. The majority of students, namely eleven students, obtained a score of 85, indicating a considerable concentration of students within the high achievement category. Furthermore, four students achieved scores of 80, five students obtained scores of 75, and another five students scored 70, while only one student received a score of 50 and one student obtained the lowest score of 45. These findings demonstrate that students' writing performance improved significantly after the implementation of the instructional treatment.

Based on the comparison between the *pre-test* and *post-test* results, it can be concluded that students' writing achievement after the treatment was substantially higher than their initial performance. The mean score of the *pre-test* was 62.2, whereas the mean score of the *post-test* increased to 81.5 after the implementation of the Problem-Based Learning strategy. This improvement represents an increase of approximately 31% in students' writing performance. The findings indicate that the Problem-Based Learning model effectively enhanced students' ability to write recount texts. The instructional approach encouraged students to become more engaged in the learning process and supported the development of their ideas and writing organization more effectively.

Based on the data presented above, the distribution of students' *pre-test* scores demonstrated varying levels of writing proficiency prior to the implementation of the Problem-Based Learning (PBL) strategy. One student achieved the highest score of 90, while three students obtained scores of 80 and another three students achieved scores of 75. Seven students received a score of 70, five students obtained 65, and three students achieved scores of 60. In addition, five students scored 55, four students obtained 50, one student received a score of 40, and two students achieved the lowest score of 25. These findings indicate that students' initial writing abilities were relatively diverse before the treatment was administered.

The distribution of students' *post-test* scores revealed a substantial improvement in writing performance following the implementation of the Problem-Based Learning strategy. One student achieved the highest score of 100, while two students obtained scores of 95 and four students achieved scores of 90. The majority of students, namely eleven students, obtained a score of 85, indicating a considerable concentration of students within the high-achievement category. Furthermore, four students achieved scores of 80, five students obtained scores of 75, and another five students scored 70, while only one student received a score of 50 and one student obtained the lowest score of 45. These results demonstrate that students' writing achievement improved significantly after receiving instruction through the Problem-Based Learning approach.

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Based on the data presented above, the distribution of students' *pre-test* scores indicated varying levels of writing proficiency prior to the implementation of the instructional treatment. One student achieved the highest score of 85, while one student obtained scores of 80 and 75 respectively. Three students achieved scores of 70 and another three students obtained 65, whereas six students received a score of 60. The majority of students were concentrated within the lower and middle achievement categories, with eight students scoring 55 and seven students obtaining 50.

In addition, one student received a score of 45, two students achieved scores of 40, and one student obtained the lowest score of 35, indicating that students' initial writing abilities were relatively limited before the treatment.

Table 4. The Score of Pre Test and Post Test of Control Group

No	Students' name	Score of Pre test (X)	Score of Post test (Y)	X ²	Y ²	X.Y
1	ADS	55	60	3025	4225	3300
2	AW	55	65	3025	3600	3575
3	AK	65	70	4900	6400	4550
4	AF	60	70	3600	5625	4200
5	AZ	55	60	2500	4225	3300
6	ARA	70	75	3600	4900	5250
7	ASP	65	70	2025	3600	4550
8	DK	60	70	2500	3025	4200
9	DKP	40	50	2500	3600	2000
10	EZ	50	55	2025	3025	2750
11	FA	45	60	3600	4900	2700
12	FFS	80	85	625	2025	9000
13	HA	85	90	1225	2025	8550
14	HD	50	55	625	1225	2750
15	IR	70	75	2025	2500	4875
16	JA	35	50	5625	8100	1575
17	JF	40	45	2500	4900	1800
18	MRS	65	70	4225	5625	4550
19	MR	55	65	2500	3025	3300
20	MS	60	70	2500	4225	4200
21	MA	50	65	2500	3025	3250
22	MR	55	65	1600	2500	2700
23	NKA	50	60	3600	5625	3000
24	NA	55	60	4225	4900	3.300
25	NH	55	65	4900	5625	3575
26	NS	60	70	3025	3600	4200
27	NSN	50	60	3600	5625	3000
28	RPL	50	55	4225	4900	2750
29	RAA	75	85	3025	4225	6375
30	SR	70	75	3025	3600	5250
31	SA	55	70	5625	7225	3850
32	TAS	60	75	4225	5625	4500
33	WA	60	75	1600	2500	4500
34	WS	50	70	2500	3600	3500
TOTAL		\sum_x	\sum_y	$\sum x^2$	$\sum y^2$	$\sum xy$
	1995	2270	102825	143350	134725	

The distribution of students' *post-test* scores demonstrated noticeable improvement after the implementation of the conventional instructional model. One student achieved the highest score of 90, while two students obtained scores of 85. Five students achieved scores of 75, and the largest group, consisting of eight students, obtained a score of 70. Furthermore, five students achieved scores of 65, six students obtained 60, and three students scored 55, while only two students received a score of 50 and one student obtained the lowest score of 45. These findings indicate that students' writing performance improved after the instructional process, although the improvement was not as substantial as that observed in the experimental group.

Based on the comparison between the *pre-test* and *post-test* results, it can be concluded that students' writing achievement after the treatment was higher than their initial performance. The mean score of the *pre-test* was 57.6, whereas the mean score of the *post-test* increased to 66.8 following the implementation of the conventional learning model. This improvement represents an increase of approximately 16% in students' writing achievement. Although the conventional instructional approach contributed to some degree of improvement, the increase remained relatively moderate compared to the results obtained through the Problem-Based Learning strategy. These findings suggest that conventional teaching methods were less effective in significantly enhancing students' ability to write recount texts.

CONCLUSION

This study employed a quantitative approach using a quasi-experimental design involving two groups, namely the experimental group and the control group, consisting of tenth-grade students at State Senior High School 7 Tanjungbalai during the 2025/2026 academic year. Data were collected through three stages, namely *pre-test*, treatment, and *post-test*, using a writing test instrument designed to assess students' ability in composing recount texts. The implementation of the Problem-Based Learning (*PBL*) strategy in the experimental group proved effective in improving students' writing performance. The *PBL* approach encouraged students to participate actively in the learning process, develop critical thinking skills, and solve problems collaboratively during classroom activities. As a result, students demonstrated greater ability in generating, organizing, and expressing ideas coherently in their recount writing.

Based on the results of the data analysis, the alternative hypothesis (*Ha*) was accepted, whereas the null hypothesis (*Ho*) was rejected. This finding indicates that the implementation of the Problem-Based Learning (*PBL*) strategy had a statistically significant effect on students' writing ability. Furthermore, the increase in the mean score of the experimental group was considerably higher than that of the control group, demonstrating that the *PBL* strategy was more effective than conventional instructional methods. The use of *PBL* also enhanced students' motivation and interest in learning English, particularly in writing activities, by creating a more interactive and meaningful classroom environment. These findings suggest that the Problem-Based Learning strategy is an effective instructional approach for improving students' ability to write recount texts.

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