

**THE IMPACT OF PEER TEACHING ON ELEVENTH-GRADE STUDENTS' ABILITY TO WRITE DESCRIPTIVE TEXTS AT SMK 1 TAMANSISWA PEMATANGSIANTAR**

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**Abstract**

Writing is one of the essential skills in English learning; however, many vocational high school students still struggle to express their ideas coherently and grammatically. Peer teaching strategy has been widely recognized as an effective approach to enhance students' language skills through collaborative learning, yet limited studies have examined its impact on descriptive writing in vocational school contexts. Therefore, this study aimed to determine the effect of peer teaching strategy on students' ability to write descriptive texts at SMK 1 Tamansiswa Pematangsiantar. This study employed a pre-experimental design using a one-group pre-test and post-test administered to one class of eleventh-grade students (XI MPLB 2). In the implementation, students worked in pairs or small groups, where peer tutors guided their classmates in drafting, revising, and providing feedback on descriptive texts. The findings revealed a substantial improvement in students' writing performance, with the mean score increasing from 41.00 in the pre-test to 56.4 in the post-test. The result of the paired-sample t-test indicated a significant difference between the two means ( $p < .001$ ), demonstrating that peer teaching strategy had a significant effect on students' writing ability. In conclusion, peer teaching effectively improved students' ability to write descriptive texts by fostering cooperation, confidence, and peer feedback

**Keywords:** Descriptive Text, Peer teaching strategy, Writing ability

**1. INTRODUCTION**

Writing is one of the four essential language skills that plays a crucial role in English learning. It enables students to express ideas, feelings, and knowledge in a structured and meaningful way. According to Harmer (2004), writing is a recursive process involving generating ideas, drafting, revising, and editing to produce coherent texts. However, for many students at the secondary level, writing in English remains a challenging skill due to limited vocabulary, grammatical weaknesses, and low confidence in organizing ideas (Brown, 2001). Among various genres, descriptive text is particularly important because it requires students to use vocabulary and grammatical structures creatively to describe people, places, or objects vividly and coherently (Knapp & Watkins, 2005).

From a theoretical perspective, this study is grounded in social constructivism, particularly Vygotsky's view that learning occurs through social interaction and collaborative activities. Vygotsky (1978) emphasizes the role of the Zone of Proximal Development (ZPD), where learners can perform tasks more effectively with guidance from more capable peers. In this context, peer interaction provides scaffolding, allowing students to develop writing skills through shared problem-solving, discussion, and feedback. Thus, writing instruction that incorporates peer collaboration aligns well with social constructivist principles.

To improve students' writing ability, teachers have implemented various instructional strategies, one of which is peer teaching. Peer teaching involves students learning from and teaching one another under teacher supervision. This strategy promotes active engagement, cooperative learning, and shared responsibility for learning outcomes. Spratt and Leung (2000) argue that peer teaching enhances students' confidence and reflective understanding, while Slavin (1995) highlights its effectiveness in fostering meaningful interaction and peer feedback. Through discussion, correction, and mutual support, students are encouraged to clarify ideas and refine their writing. Therefore, peer teaching serves as a practical instructional strategy that operationalizes social interaction, scaffolding, and feedback mechanisms in the writing classroom.

Empirically, several studies have demonstrated the effectiveness of peer teaching across different English language skills. Nurfadillah (2023), for example, conducted a pre-experimental study at SMAN 19 Gowa and found that peer teaching significantly improved students' speaking fluency and accuracy. Similarly, Munirah et al. (2020) reported that peer teaching had a significant effect on students' ability to write negotiation texts, as evidenced by a higher post-test score in the experimental group compared to the control group. In addition, Hidayati et al. (2024) found that peer teaching effectively improved vocabulary mastery among junior high school students, while Babayiğit and Erkuş (2022) confirmed its positive impact on academic achievement in primary education settings. Although previous studies consistently indicate that peer teaching is effective in enhancing speaking skills, vocabulary mastery, negotiation text writing, and general academic achievement, most of these studies focus on different language skills, text types, or educational levels. Limited research has specifically examined the effect of peer teaching on descriptive text writing, particularly within vocational high school (SMK) contexts, where students often face distinct challenges related to language proficiency and learning motivation. Writing descriptive text is a foundational skill that requires not only linguistic accuracy but also the ability to organize ideas clearly and creatively.

Therefore, investigating peer teaching in this specific context is essential to provide pedagogical insights relevant to vocational education.

Based on this research gap, the present study seeks to investigate the impact of peer teaching strategy on students' ability to write descriptive texts among eleventh-grade students at SMK 1 Tamansiswa Pematangsiantar.

The research question guiding this study is: Does the peer teaching strategy significantly improve the students' ability to write descriptive texts at the eleventh grade of SMK 1 Tamansiswa Pematangsiantar?

Accordingly, the objective of this study is to determine the impact of peer teaching strategy on the descriptive writing ability of eleventh-grade students at SMK 1 Tamansiswa Pematangsiantar using a pre-experimental one-group pre-test and post-test design. This study is expected to contribute both theoretically and practically. Theoretically, it strengthens empirical support for social constructivist learning principles in writing instruction and enriches the existing literature in English Language Teaching (ELT). Practically, the findings may serve as a reference for English teachers, particularly in vocational high schools, to design interactive and student-centered writing activities

through peer teaching. Moreover, students may benefit from collaborative learning experiences that foster writing skills, confidence, communication, and social interaction.

## 2. METHODS

### Research Design

This study used a quantitative approach with a pre-experimental one-group pre-test and post-test design. The design was chosen to measure the impact of the peer teaching strategy on students' ability in writing descriptive text.

The study was conducted by administering a pre-test to measure students' initial writing ability, followed by a treatment using the peer teaching strategy, and finally a post-test to assess their improvement after the treatment.

According to Creswell (2014), a quantitative design allows researchers to examine relationships between variables using numerical data and statistical tests to determine the significance of the results.

The structure of the design was as follows:

Group	Pre-test	Treatment	Post-test
Experimental	O <sub>1</sub>	X	O <sub>2</sub>

O<sub>1</sub> = Pre-test before treatment

X = Treatment using peer teaching strategy

O<sub>2</sub> = Post-test after treatment

This design enabled the researcher to determine whether there was a statistically significant improvement in students' writing performance after applying the peer teaching strategy.

### Research Population and Sample

The population of this study consisted of 116 students of the eleventh grade at SMK 1 Tamansiswa Pematangsiantar in the 2024/2025 academic year. The population was distributed into five classes as follows:

Class	Number of Students
XI BR	11
XI AKL	18
XI MPLB 1	31
XI MPLB 2	30
XI TKKR	26
<b>Total</b>	<b>116</b>

From this population, the sample of the study was 30 students from class XI MPLB 2, which was selected using purposive sampling technique. This class was chosen because the students demonstrated moderate English proficiency and represented a balanced students, making them suitable for examining the effectiveness of the peer teaching strategy.

According to Fraenkel and Wallen (2012), purposive sampling is appropriate when researchers intentionally select participants who can provide relevant and representative data for the study's focus.

### **Instruments**

The instrument used in this study was a writing test designed to measure students' ability in writing descriptive texts before and after the implementation of the Peer Teaching Strategy. The test focused on five components of writing content, organization, vocabulary, language use, and mechanics based on the analytical scoring rubric adapted from Jacobs et al. (1981). Each aspect was scored on a scale, and the total score for each student was calculated from the sum of all components, with a maximum score of 100.

Prior to the main study, a pilot study was conducted with 10 students from class 11 AKL who were not involved in the main research. The purpose of this pilot study was to ensure the clarity, validity, and reliability of the writing test. Based on the pilot results, minor revisions were made to the test instructions and scoring criteria to improve consistency and comprehension. The pilot data also showed acceptable reliability, with clear item interpretation by the students. The final version of the instrument was then administered as both a pre-test and a post-test to the experimental group. The data obtained were analyzed using JASP version 0.95.1, employing a Paired Sample t-test to determine whether there was a significant difference in students' writing scores before and after being taught through the Peer Teaching Strategy.

### **Data Analysis**

The data collected from the pre-test and post-test were analyzed quantitatively to determine the impact of the Peer Teaching Strategy on students' ability in writing descriptive text. All students' writing tests were scored using an analytic scoring rubric adapted from Jacobs et al. (1981), which assessed five components of writing: content, organization, vocabulary, language use, and mechanics. Each component was scored according to the rubric criteria, and the total score for each student was calculated to obtain the mean scores of the group in both tests.

To ensure the reliability of the writing assessment, the scoring process was conducted consistently using the same rubric and scoring procedures for both the pre-test and post-test. Prior to the main study, a pilot study was conducted to examine the clarity and consistency of the scoring criteria. The results of the pilot study indicated that the rubric was understandable and applicable, contributing to acceptable scoring reliability. To minimize scoring bias, the writing tests were assessed by the researcher as a single rater using standardized criteria, and the scoring was carried out at different times to maintain objectivity and consistency.

Before conducting the main statistical analysis, the data were tested for normality to confirm that they met the assumptions required for parametric analysis. After the data were confirmed to be normally distributed, a Paired Sample t-test was conducted using JASP version 0.95.1 to compare students' mean scores between the pre-test and post-test.

This statistical test was appropriate because the study employed a pre-experimental one-group pre-test and post-test design.

The hypotheses were formulated as follows:

- **H<sub>0</sub> (Null Hypothesis):** There is no significant difference between students' writing achievement before and after being taught using the Peer Teaching Strategy.
- **H<sub>a</sub> (Alternative Hypothesis):** There is a significant difference between students' writing achievement before and after being taught using the Peer Teaching Strategy.

The results of the t-test were interpreted based on a significance level of 0.05. A p-value lower than 0.05 indicated a statistically significant difference between students' writing scores before and after the implementation of the Peer Teaching Strategy. Based on this criterion, the null hypothesis (H<sub>0</sub>) was rejected, and the alternative hypothesis (H<sub>a</sub>) was accepted.

### 3. RESULTS

The total number of sample in this study was 30 students from SMK 1 Tamansiswa Pematangsiantar, specifically from grade XI MPLB 2. This class was designated as the experimental group and was taught using the peer teaching strategy.

**Table 1. Students Scores of the Experimental Class**

<b>NO</b>	<b>Student's Initial Name</b>	<b>Pre Test</b>	<b>Post Test</b>
1.	ASM	70	80
2.	AS	20	48
3.	AA	40	40
4.	APK	20	20
5.	BN	70	80
6.	DS	20	80
7.	DD	20	70
8.	DF	48	78
9.	FS	58	78
10	FKL	58	80
11	FDA	62	80
12	HBF	20	20
13	JI	70	80
14	MS	20	65
15	MFA	20	70
16	NZ	20	70
17	OC	80	85
18	RAY	50	70
19	RW	20	20
20	SA	20	20
21	SB	58	80
22	SR	58	80
23	SAM	20	78
24	SM	60	65
25	STE	70	78

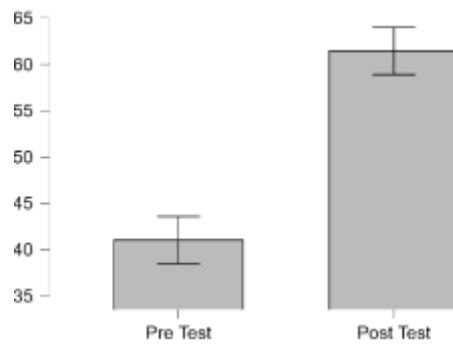
26	SPJ	20	20
27	SKB	20	70
28	VRA	20	20
29	WM	40	48
30	ZKS	58	70
	$\Sigma$	1,230	1,771

In the experimental class, the highest pre-test score recorded was 80, while the lowest score was 20. Following the implementation of the Peer Teaching Strategy, the post-test results indicated a notable improvement, with the highest score reaching 85 and the lowest score at 20. The total score for the pre-test in this class was 1,230 points. After the instructional treatment, the experimental class achieved a total of 1,771 points in the post-test.

**Table 2.** Descriptive Statistics of Students' Writing Scores

	N	Mean	SD	SE	Coefficient of variation
Pre Test	30	41.00	21.53	3.930	0.525
Post Test	30	61.43	23.49	4.288	0.382

The descriptive statistical results presented in Table 2 reveal a noticeable improvement in students' writing performance after the implementation of the Peer Teaching Strategy. The mean score increased from 41.00 in the pre-test to 61.43 in the post-test, indicating a substantial enhancement in students' ability to write descriptive texts. The standard deviation (SD) values, 21.53 for the pre-test and 23.49 for the post-test, show that students' scores were relatively spread out in both tests, but the slightly higher SD in the post-test suggests that while overall performance improved, the level of variation among students' abilities remained fairly consistent. The standard error (SE) also slightly increased from 3.930 to 4.288, implying minor fluctuations in sample means, yet still within an acceptable range for classroom-based research. Furthermore, the coefficient of variation (CV) decreased from 0.525 in the pre-test to 0.382 in the post-test, demonstrating that students' scores became more stable and less dispersed relative to the mean after treatment. This decline in CV indicates that students' writing performance became more homogeneous and consistent after experiencing peer teaching activities. In summary, these results provide quantitative evidence that the Peer Teaching Strategy effectively improved students' descriptive writing performance, both in terms of higher average achievement and more consistent outcomes across the class.



**Figure 1.** The comparison of results.

After calculating the mean scores of the pre-test and post-test for the experimental class, the researcher presented the data through a bar chart to illustrate students' performance before and after the implementation of the Peer Teaching Strategy. The chart clearly demonstrates an improvement in students' writing performance, particularly after the intervention.

The mean score of the students increased from 41.00 in the pre-test to 61.43 in the post-test, indicating a significant enhancement in their ability to write descriptive texts. This increase of 20.43 points reflects the positive impact of the Peer Teaching Strategy, where students learned actively through collaboration and mutual feedback.

The findings suggest that involving students as peer teachers promotes deeper understanding, responsibility, and confidence in expressing ideas through writing. Unlike traditional teacher-centered methods, peer teaching encourages students to participate more actively, discuss content meaningfully, and correct each other's mistakes, which contributes to improved writing outcomes.

In conclusion, the visual representation of the data supports the statistical findings that the Peer Teaching Strategy effectively improved students' writing skills in descriptive text, making the learning process more engaging and productive.

#### Testing Hypothesis

**Table 3.** Paired Sample T-Test

Measure 1	Measure 2	t	df	p
Pre Test	- Post Test	-5.658	29	< .001

*Note.* Student's t-test.

After analyzing the data using the Paired Sample t-test in JASP version 0.95.1, the researcher found that the calculated  $t$ -value was  $-5.658$  with 29 degrees of freedom ( $df = 29$ ) and a significance level of  $p < .001$ . The  $t$ -table value for a two-tailed test at the 0.05 significance level is 2.045. Since the calculated  $t$ -value ( $|-5.658|$ ) was greater than the  $t$ -table value (2.045), it indicates a statistically significant difference between the students' pre-test and post-test scores. Therefore, the alternative hypothesis ( $H_a$ ), which states that the Peer Teaching Strategy significantly improves students' writing ability, was accepted, while the null hypothesis ( $H_0$ ), which states that there is no significant difference between the two tests, was rejected. This result confirms that the

implementation of the Peer Teaching Strategy had a positive and significant effect on students' writing performance in descriptive text.

#### 4. DISCUSSION

This study found that the implementation of the Peer Teaching Strategy significantly improved students' writing performance in descriptive texts. The increase in the mean score from 41.00 in the pre-test to 61.43 in the post-test, supported by the paired-sample t-test result ( $t(29) = -5.658, p < .001$ ), indicates that students demonstrated better writing ability after participating in peer teaching activities. This finding suggests that peer teaching was effective in enhancing students' descriptive writing skills.

The improvement can be explained by examining each aspect of the writing rubric used in this study. In terms of content, peer teaching enabled students to generate and develop ideas more effectively through discussion with their peers. By exchanging ideas and examples, students were better able to describe people, places, or objects in a clearer and more detailed manner. Regarding organization, collaborative activities helped students understand the generic structure of descriptive texts, including identification and description stages, resulting in more logically organized paragraphs. With respect to vocabulary, peer teaching encouraged students to share and learn new words from their classmates, allowing them to apply more varied and appropriate lexical choices in their writing. In terms of language use, particularly grammar, peer interaction provided opportunities for students to notice and correct grammatical errors through peer feedback and mutual explanation, leading to improved grammatical accuracy. Furthermore, improvement in mechanics, such as spelling and punctuation, occurred as students reviewed each other's work and became more attentive to surface-level errors during peer discussions.

These improvements support Vygotsky's Social Constructivist Theory, which emphasizes that learning occurs through social interaction and collaboration within the Zone of Proximal Development (ZPD). Through peer teaching, students acted as both learners and facilitators, providing scaffolding for one another. This social process enabled students to refine their understanding of writing conventions and apply them more effectively in descriptive texts.

The findings of this study are consistent with previous research. Nurfadillah (2023) and Munirah et al. (2020) reported that peer teaching significantly improved students' English performance, particularly in speaking and writing skills. Similarly, Hidayati et al. (2024) and Babayiğit and Erkuş (2022) found positive effects of peer teaching on vocabulary mastery and academic achievement. Fitriani (2020) also highlighted that peer teaching helps students organize ideas more effectively and increases their confidence. The present study extends these findings by demonstrating that peer teaching is also effective in improving descriptive writing skills among vocational high school students.

From a practical perspective, these results suggest that English teachers, particularly in vocational high schools, can adopt peer teaching as an instructional strategy to promote collaborative learning, increase student engagement, and improve writing proficiency. By involving students actively in the learning process, peer teaching can foster a supportive learning environment and reduce students' anxiety in writing.

Despite these positive findings, several limitations should be acknowledged. First, the use of a one-group pre-test and post-test design without a control group may pose threats to internal validity, as the observed improvement cannot be attributed solely to the peer teaching strategy. Second, the relatively small sample size, which was limited to one class of eleventh-grade students at SMK 1 Tamansiswa Pematangsiantar, restricts the generalizability of the findings. Third, the writing assessment was conducted by a single rater, which may involve a degree of subjectivity despite the use of an analytic scoring rubric and consistent scoring procedures. Finally, this study focused on learning outcomes and did not collect detailed process data, such as classroom observations or records of peer interaction, which could have provided deeper insight into how peer teaching was implemented. Future research is therefore recommended to employ experimental designs with control groups, involve multiple raters, include larger samples, and integrate qualitative data to explore the dynamics of peer teaching in writing instruction more comprehensively.

## **5. CONCLUSION**

This study concludes that the implementation of the Peer Teaching Strategy was associated with an improvement in students' ability to write descriptive texts. The statistical analysis revealed a significant difference between pre-test and post-test results, indicating that students demonstrated better writing performance after participating in peer teaching activities. This improvement suggests that involving students as peer teachers may support the development of their understanding of language structure, vocabulary use, and content organization. The findings align with previous studies highlighting the positive role of collaborative learning in language achievement. Peer teaching appears to create an interactive learning environment that encourages students' motivation, confidence, and sense of responsibility during the writing process. From a practical perspective, the successful application of peer teaching in writing instruction requires active teacher supervision, clear guidance on peer feedback, and well-structured roles among students. When these conditions are met, peer teaching can be considered a valuable alternative strategy for English teachers, particularly in vocational high schools, to enhance students' writing skills while promoting cooperation and active participation in the classroom.

## **ACKNOWLEDGMENTS**

The researcher would like to express her deepest gratitude to God Almighty for His blessings, guidance, and strength throughout the completion of this research. Sincere appreciation is extended to herself for the perseverance and dedication shown during the research process. The researcher also wishes to express heartfelt thanks to her family, whose endless support, prayers, and encouragement have been a source of strength. Special thanks are also given to SMK 1 Tamansiswa Pematangsiantar for providing the opportunity and support to conduct this study, as well as to the English teacher and students of class XI MPLB 2 who actively participated in the research activities. Furthermore, the researcher extends her appreciation to her lecturers for their valuable guidance and constructive feedback, and to her friends for their motivation and cooperation during the entire research process.

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