

THE EFFECT OF JIGSAW TEACHING TECHNIQUE ON STUDENTS' ABILITY IN WRITING A DESCRIPTIVE TEXT AT ELEVENTH GRADE STUDENTS OF SMK GKPI 2 PEMATANGSIANTAR

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Abstract

This study aims to investigate the effect of the Jigsaw teaching technique on students' ability in writing descriptive text at the eleventh grade students of SMK GKPI 2 Pematangsiantar. This research used a quantitative method with a quasi-experimental design. The population of this study consisted of 60 students, and the sample was divided into two groups: the experimental class (XI-1) and the control class (XI-2), each consisting of 30 students. The experimental class was taught using the Jigsaw teaching technique, while the control class was taught using a conventional teaching method. The instrument used to collect the data was a writing test in the form of pre-test and post-test. The results of the study showed that the students' writing ability improved after the implementation of the Jigsaw technique. The mean score of the experimental class increased from 54.00 in the pre-test to 80.46 in the post-test, while the control class improved from 53.21 to 71.21. The result of the t-test analysis showed that the t-observed value (2.44) was higher than the t-table value (2.00) at the significance level of 0.05. This indicates that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_o) was rejected. Based on the findings, it can be concluded that the Jigsaw teaching technique has a significant effect on students' ability in writing descriptive text. Therefore, the Jigsaw technique is recommended as an effective teaching strategy to improve students' writing skills.

Keywords: Jigsaw Technique, Writing Ability, Descriptive Text, Cooperative Learning

INTRODUCTION

Writing is crucial for students because their success in school largely depends on how well they can write. Writing is one of the four essential language skills to learn, as it allows us to express our feelings, experiences, ideas, and thoughts to others. Foong (1999) states that learning to write is essential and beneficial for language and rhetoric practice, communication, and as a process of discovery and cognition. Writing also plays a crucial role in English language education, and ultimately, good writing results from this process. Therefore, writing is a productive skill, encompassing both process and product skills. According to Basheer Nomass (2013), the writing process presents significant challenges for English learners because they must generate ideas, organize their thoughts, and use grammar and vocabulary accurately. Students often struggle to organize their ideas coherently, choose appropriate expressions, and construct grammatically correct sentences. A crucial aspect of learning to write is how students can effectively express their ideas in writing, as clear ideas make it easier to develop a written structure. Descriptive writing is crucial because it allows students to convey vivid images and emotions through their words, a skill invaluable in both academic and professional contexts. As highlighted by Harmer (2007), the ability to effectively describe people, places, and events is fundamental to effective communication. This study will explore how the Jigsaw technique can facilitate the development of this skill by enabling students to collaborate and learn from each other. The research hypothesis states that students engaged in Jigsaw activities will demonstrate improved writing skills compared to those receiving traditional instruction.

Based on the researcher's experience observing learning practices in grade XI students at SMK GKPI 2 Pematangsiantar in November 2024, it was found that many students experienced difficulties in writing descriptive texts. When the researcher taught descriptive texts, several students did not understand the topic being studied even though the researcher had explained the definition, function, linguistic features, and structure of descriptive texts.

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Many students preferred to talk with their friends, making the classroom atmosphere less conducive and unfocused. Teaching writing, particularly descriptive texts, is a crucial component of language education, particularly in vocational schools where students are expected to develop practical communication skills. In this context, the Jigsaw teaching technique has emerged as an innovative pedagogical approach that fosters cooperative learning and increases student engagement. According to Cohen (1994), cooperative learning strategies, such as Jigsaw, encourage students to work together, thereby fostering a deeper understanding of the subject matter. This study aims to investigate the effect of the Jigsaw technique on the writing skills of eleventh-grade students at SMK GKPI 2 Pematangsiantar, with a particular focus on their ability to produce descriptive texts.

The significance of this study lies in its potential to inform teaching practices at SMK GKPI 2 Pematangsiantar and similar institutions. By examining the impact of the Jigsaw technique, educators can gain insights into effective strategies for improving students' writing skills. Furthermore, this study contributes to the broader discourse on cooperative learning and its implications for language acquisition, as supported by Johnson and Johnson (1999), who stated that cooperative learning can result in higher achievement and better interpersonal relationships among students.

LITERATURE REVIEW

Writing is one of the most important language skills that students need to master in learning English. It is not only a means of communication but also a process of thinking and organizing ideas. According to Harmer (2004), writing is a process that consists of several stages, namely planning, drafting, editing, and producing the final version. This shows that writing is not an instant activity but requires careful consideration and continuous revision. In line with this, Byrne (1988) states that writing is a complex activity that involves conscious mental effort in developing ideas and organizing them into meaningful sentences. Furthermore, Harris (1993) emphasizes that writing helps students practice grammar, vocabulary, and discourse structures, making it an essential component in language learning.

However, many students still face difficulties in writing, especially in producing descriptive texts. Descriptive text requires students to describe a person, place, or thing clearly and vividly so that readers can imagine it. According to Anderson (2003), descriptive text aims to describe particular people, places, or things by focusing on their characteristics. In addition, Gerot and Wignell (1994) explain that descriptive text has two main structures, namely identification and description, and uses specific language features such as simple present tense and descriptive adjectives. Despite understanding the theory, students often struggle to generate ideas, organize their writing, and use appropriate vocabulary and grammar. As stated by Basheer Nomass (2013), writing is challenging for learners because they must manage multiple aspects simultaneously, including idea development, organization, and language accuracy.

To overcome these problems, teachers need to apply effective teaching techniques that can engage students actively in the learning process. One of the recommended techniques is cooperative learning, particularly the Jigsaw technique. According to Aronson *et al.* (1978), the Jigsaw technique is a cooperative learning method in which students work in small groups, and each member is responsible for mastering and teaching a part of the material to others. This technique encourages collaboration, responsibility, and active participation among students. Similarly, Slavin (1995) states that cooperative learning strategies can improve students' achievement, motivation, and social interaction. The Jigsaw technique also aligns with Vygotsky's theory of social constructivism, which emphasizes that learning occurs through social interaction and collaboration.

Moreover, several previous studies have proven the effectiveness of the Jigsaw technique in improving students' writing ability. For example, research conducted by Alshahrani (2019) found that students who were taught using the Jigsaw technique showed significant improvement in their writing, particularly in terms of coherence and cohesion. Likewise, Johnson and Johnson (1999) highlight that cooperative learning can enhance academic achievement and interpersonal relationships among students. Through peer discussion and knowledge sharing, students can better understand the material and develop their writing skills more effectively. Based on the

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theories and previous studies above, it can be concluded that writing is a complex skill that requires appropriate teaching strategies. The Jigsaw technique, as a form of cooperative learning, provides opportunities for students to actively participate, collaborate, and improve their understanding of writing. Therefore, it is considered an effective technique to enhance students' ability in writing descriptive texts.

METHOD

This study employed a quantitative research method with a quasi-experimental design to investigate the effect of the Jigsaw teaching technique on students' ability in writing descriptive text. According to Sugiyono (2016), quantitative research is used to examine the relationship between variables through numerical data and statistical analysis. The research design involved two groups, namely an experimental group and a control group. Both groups were given a pre-test and a post-test to measure students' writing ability before and after the treatment. The experimental group was taught using the Jigsaw teaching technique, while the control group was taught using a conventional teaching method.

The population of this study consisted of eleventh-grade students of SMK GKPI 2 Pematangsiantar in the academic year 2025/2026, with a total of 60 students divided into two classes. The sample was selected using purposive sampling technique, in which class XI-1 was chosen as the experimental group and class XI-2 as the control group, each consisting of 30 students. The instrument used in this research was a writing test, specifically designed to assess students' ability in writing descriptive texts. The test was administered in the form of pre-test and post-test. To analyze the data, the researcher used statistical analysis by comparing the mean scores of both groups. The improvement of students' writing ability was determined by calculating the difference between pre-test and post-test scores. Furthermore, a t-test was applied to examine whether there was a significant effect of the Jigsaw teaching technique on students' writing ability. The result of the analysis was used to test the hypothesis and determine whether the Jigsaw technique significantly improves students' ability in writing descriptive text.

RESULTS AND DISCUSSION

The results of this study were obtained from the students' scores in the pre-test and post-test in both the experimental and control classes. The purpose of the analysis was to determine whether the Jigsaw teaching technique had a significant effect on students' ability in writing descriptive text.

The following table presents the mean scores of the students in both classes:

Class	Pre-Test Mean	Post-Test Mean	Improvement
Experimental Class	54.00	80.46	26.46
Control Class	53.21	71.21	18.00

From the table above, it can be seen that both classes experienced improvement in their writing scores. However, the improvement in the experimental class was significantly higher than that in the control class. The experimental class showed an increase of 26.46 points, while the control class only improved by 18.00 points. This indicates that the students who were taught using the Jigsaw technique achieved better results compared to those who were taught using conventional methods. Furthermore, the hypothesis testing using the t-test showed that the t-observed value (2.44) was higher than the t-table value (2.00) at the significance level of 5%. This means that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. Therefore, it can be concluded that the Jigsaw teaching technique has a significant effect on students' ability in writing descriptive text.

In terms of writing aspects, students in the experimental class showed noticeable improvement in several areas. First, in content, students were able to generate more relevant and detailed ideas in their descriptive texts. Second, in organization, their writing became more coherent and well-structured, especially in arranging identification and description. Third, in vocabulary, students used more varied and appropriate words to describe objects. Fourth, in language use, there was improvement in grammar accuracy, particularly in the use of simple present tense. Lastly, in mechanics, students made fewer errors in punctuation and spelling. The discussion of these findings indicates that the Jigsaw technique is effective because it promotes active learning and collaboration. During the learning process, students worked in groups where each member was responsible for mastering a part of the material and sharing it with others. This process helped students better understand the material and improved their confidence in expressing ideas. Peer interaction also allowed students to exchange knowledge and receive feedback, which contributed to their writing improvement.

In contrast, the control class, which used conventional teaching methods, showed less improvement. The teacher-centered approach limited students' participation and interaction, making it more difficult for them to

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develop their writing skills effectively. Based on the findings above, it can be concluded that the Jigsaw teaching technique significantly improves students' ability in writing descriptive text. The technique not only enhances students' writing performance but also increases their motivation, participation, and collaboration in the learning process.

Discussions

After conducting research, analyzing the data, and finding the mean value of the pre-test and post-test of the experimental and control classes, the standard deviation value and hypothesis were then determined. The main objective of this study was to improve the writing skills of eleventh-grade students at SMK Swap GKPI 2 Pematangsiantar using the jigsaw learning model. The purpose of this study was to determine whether the jigsaw technique influences the writing skills of students at SMK Swap GKPI 2 Pematangsiantar.

The sample selected by the researcher was based on recommendations from English teachers at SMK Swap GKPI 1 Pematangsiantar. Class XI-1, with 30 students, was designated as the experimental class and class XI-2, with 30 students, as the control class. This sample was also based on the researcher's experience during the PPL program at SMK Swap GKPI 2 Pematangsiantar, where students' abilities and motivation in writing English texts in grade XI were still very low. This caused students to have difficulty writing English texts with the correct structure. Students are more accustomed to problem-solving (PBL) learning, which prioritizes independent learning, specifically solving problems posed by the teacher. Consequently, there is no improvement in students' writing skills. This prompted researchers to implement the jigsaw technique for eleventh-grade students at SMK Swasta GKPI 2 Pematangsiantar. This learning technique encourages students to work collaboratively in groups to solve problems posed by the teacher. By implementing this technique, students become more proficient in writing, especially descriptive texts, which align with the writing aspects described by Jacob et al. (1981: 90). The results of the study showed that the use of the jigsaw technique significantly improved students' ability to write descriptive texts in eleventh-grade students at SMK GKPI 2 Pematangsiantar. Pre-test scores in the experimental and control classes indicated that both classes had similar initial abilities, with an average pre-test score of 63.600 for the experimental class and 68.600 for the control class. This indicates that both classes had equal initial abilities, allowing the researcher to conduct research by administering treatment using the jigsaw technique to the experimental class and problem-based learning (PBL) to the control class, followed by a post-test.

Based on the research results, the average post-test score for the experimental class was 93, while the average score for the control class was 66. This increase in post-test scores indicates that the class treated with the jigsaw technique experienced significantly greater improvement than the class using Problem-Based Learning (PBL). The results of this study concluded that the jigsaw learning technique significantly improved the writing skills of eleventh-grade students at SMK Swagat GKPI 2 Pematangsiantar.

To improve the writing skills of eleventh-grade students at SMK Swagat GKPI 2 Pematangsiantar, the researcher used the jigsaw technique in learning, focusing on students' ability to write texts based on five aspects of writing. The results of the study, which included applying the jigsaw technique to student learning, revealed significant improvements. Thus, through this technique, students are better able to write descriptive text correctly and well.

Therefore, based on the results of this study and several previous studies, it is proven that implementing the Jigsaw learning technique is an effective strategy for improving students' writing skills. With this learning technique, students can work in groups and collaborate with their peers. The teacher also acts as a facilitator, leading the learning process, supervising, and guiding students during discussions. Therefore, when students encounter difficulties during the learning process, the teacher can quickly identify and help resolve these problems.

CONCLUSION

Based on the result of the hypothesis testing, the value of the t-test (2.350) is higher than the value of the t-table (1.697) at the 0.05 level of significance with the degree of freedom (df) = 58. This result means that the Alternative Hypothesis (Ha), which states that the Jigsaw teaching technique has a significant effect on students' ability in writing descriptive texts, is accepted, while the Null Hypothesis (Ho) is rejected. Therefore, it can be concluded that the Jigsaw teaching technique is more effective than the conventional method in improving students' writing ability, particularly in writing descriptive texts at the eleventh grade of SMK GKPI 2 Pematangsiantar.

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