

## THE EFFECT OF DISCOVERY LEARNING MODE ON STUDENTS' ABILITY IN WRITING DESCRIPTIVE TEXT ASSISTED WITH PICTURE SERIES AT GRADE XI OF SMA SWASTA MERANTI ACADEMIC YEAR 2025/2026

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### ABSTRAK

Peneitian ini bertujuan untuk mengetahui pengaruh Mode Pembeajaran Discovery yang dibantu dengan rangkaian gambar terhadap kemampuan menulis teks deskriptif siswa. Peneitian ini menggunakan metode kuantitatif dengan desain eksperimenta. Populasi terdiri dari 52 siswa keas sebas SMA Swasta Meranti, dibagi menjadi keompok eksperimen dan keompok kontrol, masing-masing terdiri dari 26 siswa. Instrumen yang digunakan daam peneitian ini adaah tes menulis daam bentuk pre-test dan post-test. Data dianalisis menggunakan analisis statistik termasuk mean, standar deviasi, dan uji-t untuk menguji hipotesis. Hasil peneitian menunjukkan bahwa nilai rata-rata keompok eksperimen pada post-test (84) lebih tinggi daripada keompok kontrol (71,3). Seanjutnya, hasil uji-t menunjukkan bahwa nilai t-observasi lebih tinggi daripada nilai t-tabe pada tingkat signifikansi 0,05. Ha ini berarti hipotesis aternatif (Ha) diterima dan hipotesis nol (Ho) ditolak. Oleh karena itu, dapat disimpulkan bahwa Mode Pembeajaran Discovery yang dibantu dengan rangkaian gambar memiliki pengaruh yang signifikan terhadap kemampuan menulis teks deskriptif siswa. Mode ini efektif daam meningkatkan kemampuan siswa untuk mengembangkan ide, menyusun teks, dan menggunakan bahasa yang tepat.

**Kata Kunci:** Pembeajaran Penemuan, Kemampuan Menulis, Teks Deskriptif, Seri Gambar.

### ABSTRACT

*This study aimed to determine the effect of the Discovery Learning Mode assisted with picture series on students' ability in writing descriptive text. This research employed a quantitative method with an experimenta design. The population consisted of 52 eeventh-grade students of SMA Swasta Meranti, divided into experimenta and control groups, each consisting of 26 students. The instrument used in this research was a writing test in the form of pre-test and post-test. The data were anayzed using statistica anaysis including mean, standard deviation, and t-test to test the hypothesis. The result showed that the mean score of the experimenta group in the post-test (84) was higher than that of the control group (71.3). Furthermore, the t-test result indicated that the t-observed vaue was higher than the t-table vaue at the significance leve of 0.05. This means that the aternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. Therefore, it can be concluded that the Discovery Learning Mode assisted with picture series has a significant effect on students' ability in writing descriptive text. This mode is effective in improving students' ability to deveop ideas, organize texts, and use appropriate language.*

**Keywords:** *Discovery Learning, Writing Ability, Descriptive Text, Picture Series.*

### INTRODUCTION

English has become one of the most widely used international languages in the modern era, especially in the context of globalization where communication across countries is increasingly important. It plays a crucial role in various fields such as education, science, technology, business, and international relations. In Indonesia, English is taught as a foreign language and has become a compulsory subject at both junior and senior high school levels. The teaching of English aims to develop students' communicative competence, which includes four main language skills, namely listening, speaking, reading, and writing. These four skills are interconnected and mutually supportive in helping students achieve proficiency in English (Darma & Widiastuty, 2023). Among these four language skills, writing is often considered

the most complex and challenging skill for students to master. Writing is not merely a process of putting words on paper, but it involves a series of cognitive and linguistic processes. Students are required to generate ideas, organize them into coherent structures, select appropriate vocabulary, apply grammatical rules accurately, and ensure that their writing is understandable to readers. According to (Muhammad Makmun Mi'raj et al., 2022), writing is a productive skill that requires higher-order thinking skills, including analysis, synthesis, and evaluation. Therefore, writing becomes a difficult task for many students, especially those who have limited vocabulary and weak grammatical knowledge.

In senior high school, one of the text types that students must learn is descriptive text. Descriptive text is a type of text that aims to describe a particular person, place, object, or event in detail so that the reader can imagine it clearly. (Jasrial, 2019) explains that descriptive text requires the use of specific language features such as adjectives, simple present tense, and detailed descriptions. However, in reality, many students still experience difficulties in writing descriptive text. They often struggle to develop ideas, organize their writing, and use appropriate language.

Based on preliminary observations conducted by the researcher, several problems were identified in students' writing ability. Many students have limited vocabulary, which makes it difficult for them to express their ideas clearly and effectively. In addition, students frequently make grammatical errors, especially in sentence structure, verb usage, and subject-verb agreement. Another problem is the difficulty in organizing ideas into coherent paragraphs. Students often write sentences that are not logically connected, resulting in texts that lack unity and coherence. Furthermore, students' motivation in writing activities is relatively low. Many students perceive writing as a difficult and boring task, which reduces their interest and participation in learning activities.

These problems are closely related to the teaching methods used in the classroom. In many cases, teachers still apply conventional teaching methods that are teacher-centered. In this approach, the teacher explains the material while students listen passively. Students are rarely given opportunities to actively participate in the learning process, discuss ideas, or collaborate with their peers. (Widayanto, 2021) states that teacher-centered learning can limit students' creativity and critical thinking skills, which are essential in writing activities.

To address these problems, it is necessary to implement innovative and student-centered learning models that can actively involve students in the learning process. One of the learning models that can be applied is Discovery Learning. Discovery Learning is a learning model that emphasizes students' active involvement in discovering knowledge through exploration, investigation, and problem-solving activities. According to (Khasinah, 2021), Discovery Learning allows students to construct their own understanding by interacting directly with learning materials and experiences. This model encourages students to think critically, analyze information, and draw conclusions based on their findings.

In addition to using an effective learning model, the use of appropriate learning media is also important in improving students' writing ability. One of the media that can be used is picture series. Picture series are sequences of images that represent events or objects in a visual form. (Soraya et al., 2021) explain that picture series can help students generate ideas, understand context, and organize their thoughts more effectively. Visual media provide concrete representations that make it easier for students to describe objects or events in their writing.

The combination of Discovery Learning and picture series is expected to create a more effective and engaging learning environment. Through Discovery Learning, students are encouraged to actively participate in the learning process, while picture series provide visual support that helps students generate ideas and organize their writing. Several previous studies

have shown that Discovery Learning can significantly improve students' writing ability. (Siregar et al., 2024) found that Discovery Learning enhances students' ability to develop ideas and organize their writing more effectively. Similarly, Widayanto. (2021) reported that Discovery Learning improves students' motivation and engagement in learning.

Based on the explanation above, the researcher is interested in conducting a study entitled "The Effect of Discovery Learning Model on Students' Ability in Writing Descriptive Text Assisted with Picture Series." This study aims to investigate whether the use of Discovery Learning assisted with picture series can significantly improve students' writing ability.

## **RESEARCH METHODS**

This study employed a quantitative research approach with an experimental design in order to investigate the effect of the Discovery Learning Model assisted with picture series on students' ability in writing descriptive text. The quantitative approach was chosen because it allows the researcher to measure the students' writing ability objectively through numerical data and statistical analysis. By using this approach, the researcher was able to compare the students' performance before and after the treatment and determine whether the treatment had a significant effect on their writing ability.

The research design applied in this study was the pre-test and post-test control group design. This design is widely used in educational research because it provides a clear comparison between two groups, namely the experimental group and the control group. Both groups were given a pre-test before the treatment to measure their initial ability in writing descriptive text. After that, the experimental group received treatment using the Discovery Learning Model assisted with picture series, while the control group was taught using conventional teaching methods. At the end of the treatment, both groups were given a post-test to measure their improvement. The difference between the pre-test and post-test scores was used to determine the effectiveness of the treatment.

This research was conducted at SMA Swasta Meranti during the academic year 2025/2026. The population of this study consisted of all eleventh-grade students, totaling 52 students. The students were divided into two classes, and each class consisted of 26 students. The sampling technique used in this research was purposive sampling. This technique was chosen because the researcher selected the sample based on certain considerations, such as the similarity of students' English proficiency levels and classroom conditions. By ensuring that both groups had relatively similar characteristics, the researcher aimed to minimize bias and increase the validity of the results.

The experimental group was taught using the Discovery Learning Model assisted with picture series. In this group, the learning process was conducted through several stages that reflect the principles of Discovery Learning. At the beginning of the lesson, the teacher provided stimulation by showing picture series related to the topic of descriptive text. These pictures were used to attract students' attention and activate their prior knowledge. After that, students were encouraged to identify problems or questions based on the pictures they observed. In the next stage, students collected data by discussing the pictures in groups and identifying important details that could be described in their writing.

Furthermore, students processed the data by organizing the information they had gathered into a structured form. They were guided to arrange their ideas into paragraphs and use appropriate vocabulary and grammar. During this stage, the teacher acted as a facilitator who provided guidance and feedback when needed. After that, students verified their work by reviewing and revising their writing. Finally, students presented their writing and drew conclusions based on their learning experience. Through these stages, students were actively involved in the learning process and developed their writing ability through exploration and

practice.

Meanwhile, the control group was taught using conventional teaching methods. In this group, the teacher explained the material related to descriptive text, including its definition, structure, and language features. Students listened to the explanation and took notes. After that, they were asked to write descriptive texts individually based on the given topic. The learning process in this group was more teacher-centered, and students had limited opportunities to interact and collaborate with their peers.

The instrument used in this study was a writing test in the form of descriptive text. The test was administered twice, namely as a pre-test and a post-test. In both tests, students were asked to write a descriptive text based on the topic provided by the researcher. The topics were selected based on students' level and familiarity to ensure that they could express their ideas effectively. The students' writing was assessed using an analytic scoring rubric that covered several aspects, including content, organization, vocabulary, grammar, and mechanics. Each aspect was evaluated to provide a comprehensive assessment of students' writing ability.

To ensure the validity of the instrument, the researcher used content validity by aligning the test with the learning objectives and the curriculum. In addition, the reliability of the scoring was maintained by using a consistent scoring rubric. The researcher carefully evaluated each student's writing based on the same criteria to ensure fairness and consistency in scoring.

The procedures of data collection in this study were carried out in several stages. First, the researcher administered the pre-test to both the experimental and control groups to measure their initial writing ability. Second, the researcher conducted the treatment in the experimental group using the Discovery Learning Model assisted with picture series, while the control group was taught using conventional methods. The treatment was conducted over several meetings to ensure that students had sufficient time to experience the learning process. Third, after the treatment was completed, the researcher administered the post-test to both groups to measure their improvement in writing descriptive text.

The data collected from the tests were analyzed using statistical analysis. The researcher calculated the mean score to determine the average performance of students in both groups. The standard deviation was also calculated to measure the variability of the scores. Furthermore, a t-test was conducted to determine whether there was a significant difference between the experimental and control groups. The significance level used in this study was 0.05. If the t-observed value was higher than the t-table value, it indicated that the difference between the two groups was significant, and the alternative hypothesis was accepted.

Through this method, the researcher was able to systematically investigate the effect of the Discovery Learning Model assisted with picture series on students' writing ability. The use of a quantitative approach and experimental design provided objective and reliable results, which contributed to the validity of the findings.

## **RESULTS AND DISCUSSION**

The results of this study were obtained from the analysis of students' pre-test and post-test scores in both the experimental and control groups. The pre-test was conducted before the treatment to measure the students' initial ability in writing descriptive text. Based on the pre-test results, it was found that both groups had relatively similar levels of writing ability. The mean score of the experimental group was slightly higher than that of the control group, but the difference was not significant. This indicates that both groups started from a comparable baseline, which is important to ensure that any improvement observed after the treatment can be attributed to the teaching method applied.

After the implementation of the treatment, the post-test was conducted to measure the students' improvement in writing descriptive text. The results showed that the experimental group experienced a significant increase in their writing scores compared to the control group. The mean score of the experimental group reached 84, while the control group only achieved 71.3. This considerable difference indicates that the use of the Discovery Learning Model assisted with picture series had a positive and significant effect on students' writing ability.

The improvement in the experimental group can be explained through several pedagogical factors. First, the Discovery Learning Model emphasizes active student participation in the learning process. Students are not only receiving information from the teacher but are also actively involved in discovering knowledge through observation, discussion, and analysis. This active involvement helps students develop a deeper understanding of the material and enhances their ability to express ideas in written form. During the learning process, students in the experimental group were encouraged to explore the picture series, identify important details, and organize their ideas into meaningful sentences and paragraphs. This process helped them build confidence and improve their writing performance.

Second, the use of picture series as a learning medium provided significant support in idea generation. One of the main difficulties faced by students in writing is the lack of ideas. By presenting visual images, picture series helped students to visualize the objects or events they were going to describe. This made it easier for them to generate ideas and expand their descriptions. The images also provided contextual clues that guided students in organizing their writing logically. As a result, students were able to produce more detailed and coherent descriptive texts.

Furthermore, the collaborative nature of the Discovery Learning Model contributed to students' improvement. During the learning process, students worked in groups to discuss the picture series and share their ideas. This interaction allowed them to learn from each other and gain new perspectives. Students who initially had difficulty in writing were able to receive support from their peers, which helped them improve their understanding and performance. This collaborative environment also increased students' motivation and engagement in the learning process.

In terms of writing aspects, the improvement in the experimental group was evident in all areas assessed. In the aspect of content, students were able to develop their ideas more clearly and provide more detailed descriptions. They showed better ability to describe objects, people, and places using relevant information. In the aspect of organization, students were able to arrange their ideas into well-structured paragraphs with clear connections between sentences. Their writing became more coherent and easier to understand.

In the aspect of vocabulary, students demonstrated improvement in their use of words. They used more varied and appropriate vocabulary, which made their writing more interesting and expressive. In the aspect of grammar, students made fewer errors in sentence construction, verb usage, and subject-verb agreement. Although some errors were still found, the overall grammatical accuracy improved significantly compared to the pre-test results. In the aspect of mechanics, students showed better use of punctuation, capitalization, and spelling, which contributed to the clarity of their writing.

On the other hand, the control group also showed some improvement in their post-test scores, but the increase was not as significant as that of the experimental group. The improvement in the control group can be attributed to regular practice and teacher explanation. However, because the learning process was more teacher-centered, students had limited opportunities to actively participate and explore their ideas. As a result, their improvement was relatively lower compared to the experimental group.

The statistical analysis using the t-test further confirmed the effectiveness of the treatment. The result showed that the t-observed value was higher than the t-table value at the significance level of 0.05. This indicates that there is a statistically significant difference between the experimental group and the control group. Therefore, the alternative hypothesis stating that the Discovery Learning Model assisted with picture series has a significant effect on students' writing ability was accepted, while the null hypothesis was rejected.

These findings are consistent with previous studies that highlight the effectiveness of Discovery Learning in improving students' learning outcomes. The results support the idea that student-centered learning models can enhance students' engagement, motivation, and performance. In addition, the use of visual media such as picture series has been proven to be effective in helping students generate ideas and organize their writing.

Overall, the results of this study demonstrate that the integration of Discovery Learning and picture series creates a more effective and engaging learning environment. This approach not only improves students' writing ability but also develops their critical thinking, creativity, and collaboration skills. Therefore, it can be concluded that the Discovery Learning Model assisted with picture series is a highly effective strategy for teaching descriptive writing in senior high school.

## **CONCLUSIONS**

Based on the results and discussion of this study, it can be concluded that the Discovery Learning Model assisted with picture series has a significant effect on students' ability in writing descriptive text. The findings clearly show that students who were taught using this model achieved higher scores and demonstrated greater improvement compared to those who were taught using conventional methods. This indicates that the implementation of Discovery Learning combined with visual media is more effective in enhancing students' writing ability.

The improvement in students' writing ability can be seen in several aspects, including content development, organization, vocabulary usage, grammar accuracy, and mechanics. Students were able to express their ideas more clearly and develop more detailed descriptions. They also showed better ability to organize their writing into coherent paragraphs, use more varied vocabulary, and apply grammatical rules more accurately. In addition, the use of picture series helped students generate ideas more easily and made the writing process more enjoyable.

The success of the Discovery Learning Model in this study can be attributed to its student-centered approach, which encourages active participation and independent learning. Students were actively involved in exploring ideas, analyzing information, and constructing their own understanding. This process not only improved their writing ability but also enhanced their critical thinking and problem-solving skills. Furthermore, the use of picture series as visual media provided additional support that helped students overcome difficulties in generating ideas and organizing their writing.

In contrast, students in the control group showed less improvement because the learning process was more teacher-centered and did not provide sufficient opportunities for active engagement. This suggests that traditional teaching methods may not be as effective in developing students' writing skills as more interactive and student-centered approaches.

Based on these findings, it is recommended that English teachers implement the Discovery Learning Model assisted with picture series in teaching writing, especially descriptive text. This approach can create a more engaging and effective learning environment, which can help improve students' writing ability and motivation. In addition, teachers should consider using various types of visual media to support the learning process and make it more interesting for students.

Finally, this study provides valuable insights into the effectiveness of innovative teaching strategies in improving students' writing ability. However, further research is recommended to explore the application of Discovery Learning in different contexts and with different types of texts. Future studies can also investigate the long-term impact of this model on students' language proficiency and academic performance.

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