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Picture Reading Strategy to Predict the Ideas of the Passage at the 8th Grade of SMPN 2 Gerung

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Abstract

This study aims to determine the effect of the Picture Reading Strategy on the ability of Year 8 students at SMPN 2 Gerung to predict the main ideas of texts in the 2024/2025 academic year. Although previous studies have examined picture media for general reading comprehension, empirical evidence on a picture-based reading strategy that specifically trains idea prediction before reading among junior high school students remains limited. The novelty of this study lies in operationalizing the Picture Reading Strategy as a four-step cycle—observing pictures, making predictions, reading the passage, and confirming predictions—and testing its effect through a pretest–posttest control group design. This study employs a quantitative approach with a purposive sample of 48 students (24 in the experimental group; 24 in the control group). The instrument is a 20-item multiple-choice test measuring five indicators. Data are analyzed using descriptive statistics, Shapiro-Wilk normality tests, Levene's homogeneity test, and an Independent Samples t-Test. The results show that the experimental group's mean score increases from 49.75 to 81.79, while the control group's mean score increases from 48.50 to 67.50. The t-test yields a significance value of 0.000 < 0.05. Therefore, the Picture Reading Strategy has a significant effect on students' ability to predict the main ideas of texts.

Keywords: Picture Reading Strategy, Predicting Ideas, Reading Comprehension, Reading Strategy, Visual Media.

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INTRODUCTION

Reading is a fundamental skill in language learning and plays an important role in acquiring knowledge and improving other language skills such as speaking, writing, and listening (Nuttall, 1985). Reading is essential not only for mastering English but also for understanding other subjects (Grabe & Stoller, 2019). Reading is not merely interpreting written symbols; it also involves understanding implied meaning and making connections based on the reader's experience (Greller, 1981). Reading is a complex cognitive process in which readers construct meaning from texts by integrating prior knowledge, linguistic cues, and strategies (Snow, 2010).

In learning to read, students often face obstacles such as low engagement, limited vocabulary, and insufficient prior knowledge (Al-Barakat & AlAli, 2024). These obstacles hinder students from identifying main ideas, understanding supporting details, and drawing conclusions (Block, 1986). Students also need

metacognitive awareness and effective reading strategies to monitor and regulate their comprehension (Anderson, 2004; Carrell, 1989). Visual aids such as pictures can help students activate prior knowledge, stimulate curiosity, and make abstract ideas more concrete (Carney & Levin, 2002; Wright, 1989). Pictures also provide contextual cues that support readers in predicting content before reading the full text (Brown, 2004; Harmer, 2007).

In this study, Picture Reading Strategy is operationally defined as a pre-reading cycle consisting of four steps: observing pictures, generating predictions about the topic and main idea, reading the passage, and confirming or revising predictions (Afflerbach et al., 2008). This strategy is grounded in Dual Coding Theory and Multimedia Learning Theory, which emphasize the integration of visual and verbal information during comprehension (Mayer, 2001; Paivio, 1986). Predicting the ideas is operationally defined as students' ability to use picture cues to anticipate the topic, main idea, and supporting information before reading, as measured by a 20-item multiple-choice test covering five indicators (Duke & Pearson, 2002).

Although previous studies report that picture-based activities improve reading comprehension (Al-Barakat & AlAli, 2024; Guo et al., 2020), most studies examine pictures as general adjunct media rather than as an explicit pre-reading prediction strategy. A systematic review by Fan et al. (2026) also indicates that evidence on metacognitive reading strategies and reading performance remains fragmented across contexts. Moreover, studies specifically testing a four-step picture prediction cycle among junior high school students in Indonesia are still limited. Therefore, the present study addresses this gap by examining the effect of the Picture Reading Strategy on students' ability to predict the main ideas of a passage. The novelty of this study lies in the explicit operationalization of the strategy and the use of a pretest–posttest control group design to isolate its effect.

METHODS

This study employs a quantitative experimental design, specifically a pretest–posttest control group design (Babbie, 2020). The research is conducted in the even semester of the 2024/2025 academic year at SMPN 2 Gerung, West Lombok, Indonesia. The population comprises 72 eighth-grade students across three classes. Using purposive sampling based on teacher recommendations and equivalent baseline academic characteristics, 48 students are selected and divided equally into two groups: Class VIII A as the experimental group (n = 24) and Class VIII B as the control group (n = 24) (Sekaran & Bougie, 2016).

The intervention is implemented in six meetings: one pretest meeting, four treatment meetings, and one posttest meeting. Each meeting lasts 2 × 40 minutes. In the experimental group, each treatment meeting follows four operational steps: (1) students observe a picture related to the passage; (2) students work in pairs to predict the topic, main idea, and possible supporting information; (3) students read the passage and mark whether their predictions are confirmed or revised; and (4) students discuss and justify their predictions with the teacher. The control group receives conventional reading instruction: reading the passage, answering comprehension questions, and discussing the answers with the teacher.

The research instrument is a 20-item multiple-choice reading test measuring five indicators: predicting content based on pictures (4 items), identifying main ideas

(4 items), determining supporting details (4 items), contextual vocabulary (4 items), and making inferences (4 items). Content and construct validity are verified through expert validation by university lecturers and English teachers. Reliability testing yields a Cronbach's Alpha above the standard threshold ($\alpha \geq 0.70$). Data are analyzed using descriptive statistics, Shapiro-Wilk normality tests, Levene's homogeneity test, and an Independent Samples t-Test via SPSS.

FINDINGS AND DISCUSSION

This chapter presents the results of research on the effectiveness of the use of Picture Reading Strategy on students' ability to predict reading ideas in grade VIII students of SMPN 2 Gerung. The research data was obtained through the implementation of pre-tests and post-tests given to all research participants. Data analysis is carried out in stages, starting from descriptive statistics to provide an overview of the characteristics of the research data, then continued with the analysis prerequisite test which includes normality test and homogeneity test, and ends with hypothesis testing using the Independent Sample t-Test. The presentation of the results of this analysis aims to determine changes in students' abilities before and after treatment and test whether the use of Picture Reading Strategy has a significant influence on students' ability to predict reading ideas.

Data Description

Descriptive statistics were used to provide an overview of the pre-test and post-test results in the experimental and control groups before further analysis was conducted. The data description includes minimum, maximum, mean, and standard deviation values as presented in Table 1.

Table 1 Descriptive Statistics Table of Pre-test and Post-test by Group

Group	Test	N	Minimum	Maximum	Mean	Std. Deviation
Experimental	Pre-test	24	44	55	49.75	3.138
Experimental	Post-test	24	76	88	81.79	3.217
Control	Pre-test	24	44	53	48.50	2.485
Control	Post-test	24	63	72	67.50	2.485

Based on Table 1, it can be seen that the initial abilities of students in the two groups are relatively not much different. This can be seen from the average pre-test value of the experimental group of 49.75, while the control group was 48.50. The relatively small mean difference showed that the two groups had almost the same level of reading ability before being given the treatment.

In the experimental group, the pre-test score was in the range of 44 to 55, with a standard deviation of 3.138, which shows that the spread of student scores is still relatively homogeneous. After being given learning using the Picture Reading Strategy, the post-test scores experienced a significant increase. The minimum value increased to 76, the maximum value reached 88, while the average increased to 81.79 with a standard deviation of 3.217. These results showed that most of the students in the experimental group experienced an improvement in reading skills after learning using the strategy.

Meanwhile, in the control group that participated in learning using conventional methods, the pre-test score was in the range of 44 to 53, with an average

of 48.50 and a standard deviation of 2.485. After the learning process, the post-test score also increased, namely with a minimum score of 63, a maximum score of 72, and an average of 67.50 and a standard deviation of 2.485. Although there was an increase in learning outcomes in the control group, the increase was not as large as that in the experimental group.

When compared between the two groups, the average post-test of the experimental group (81.79) was higher than that of the control group (67.50), with an average difference of 14.29 points. In addition, the maximum value of the experimental group was also higher, which was 88, while the control group only reached 72. The results of this descriptive statistics show that the application of Picture Reading Strategy provides an improvement in reading learning outcomes that are better than conventional learning. These findings will then be strengthened through hypothesis testing using the Independent Samples t-test to find out if the difference is statistically significant.

Prerequisite Test

Normality Test

Normality tests are carried out to find out whether the data from the research results are distributed normally or not. Normality testing is one of the prerequisite tests that must be met before parametric statistical analysis, such as *the Independent Sample t-Test*. In this study, the normality test was carried out using *the Shapiro-Wilk method* with the help of the SPSS program because the number of samples in each group was less than 50 respondents. The data is declared to be normally distributed if the significance value (Sig.) is greater than 0.05. The results of the normality test of pre-test and post-test data in the experimental group and control group can be seen in Table 2 below.

Table 4.2 Normality Tests

Group	Test	Statistic	df	Sig.	Decision
Experimental	Pre-test	.970	24	.668	Normal
Control	Pre-test	.969	24	.652	Normal

Based on the results of the normality test using the Shapiro-Wilk method, a significance value of 0.668 was obtained in experimental group and 0.652 in control group. Both values are greater than the significance level of 0.05, so it can be concluded that the pre-test data in both groups are normally distributed. Thus, the research data has met one of the requirements for parametric statistical analysis to be carried out at the next stage

Homogeneity Test

The homogeneity test was performed to find out whether the variance of data in the compared group had a level of similarity or homogeneity. This test is one of the conditions that must be met before conducting hypothesis testing using *the Independent Sample t-Test*. In this study, the homogeneity test was carried out using *Levene's Test of Equality of Variances* through the SPSS program. The data is declared homogeneous if the significance value (Sig.) is greater than 0.05. The results of the homogeneity test on the post-test data of the experimental group and the control group can be seen in Table 3 below.

Table 3. Homogeneity test results

Levene Statistic	df1	df2	Sig.	Decision
1.594	1	46	.213	Homogeneous

Based on the results of the homogeneity test using Levene's Test, a significance value (Sig.) of 0.213 was obtained, which is greater than the significance level of 0.05 (0.213 > 0.05). These results show that the variance of post-test data in the experimental group and the control group is homogeneous, so the two groups have similarities in variance. Thus, it can be concluded that there is no significant difference in data dissemination between the two groups.

The fulfillment of this homogeneity assumption indicates that the research data has met one of the important requirements in the use of parametric tests, specifically the Independent Sample t-Test. The homogeneity assumption is necessary so that the average comparison between the experimental group and the control group is made under a balanced variance condition, so that the results of statistical testing become more accurate and reliable.

In addition, a significance value of 0.213 indicates that the variation in grades possessed by students in both groups is relatively equal. In other words, the difference in learning outcomes that will be found through the Independent Sample t-Test is not due to differences in data diversity in each group, but because of the influence of treatment given to the experimental group.

Based on these results, it can be stated that the homogeneity assumption has been met, so that the analysis can be continued using the Independent Sample t-Test with reference to the Equal variances assumed line. Therefore, the results of the hypothesis test obtained can be used as a valid basis to find out whether or not the use of Picture Reading Strategy has an effect on students' ability to predict reading ideas.

Test Hypothesis

After the data is declared to meet the assumptions of normality and homogeneity, the next step is to conduct a hypothesis test. The hypothesis test in this study used the Independent Sample t-Test to determine whether there was a significant difference between the post-test results of the experimental group treated using the Picture Reading Strategy and the control group using conventional learning methods. Decision making was carried out by comparing the significance value (Sig. 2-tailed) with a significance level of 0.05. If the value of Sig. < 0.05, then the alternative hypothesis (Ha) is accepted and the null hypothesis (H_0) is rejected. The results of the hypothesis test can be seen in Table 4 below.

Table 4 Independent Test Samples

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% CI Lower	95% CI Upper
17.226	46	.000	14.292	.830	12.622	15.962

Based on the results of the Independent Sample t-Test, a significance value (Sig. (2-tailed)) of 0.000 was obtained, which means that it is smaller than the predetermined significance level, which is 0.05 (0.000 < 0.05). In addition, a t-count value of 17.226 was obtained, which showed a very significant difference between the results of the post-test of the experimental group and the control group. Thus, the alternative hypothesis (Ha) is accepted and the null hypothesis (H_0) is rejected.

These results show that there is a significant difference in learning outcomes between students who learn using Picture Reading Strategy and students who learn using conventional learning methods. The experimental group obtained an average post-test score of 81.79, while the control group only obtained an average of 67.50, resulting in an average difference of 14.29 points. These differences show that the application of Picture Reading Strategy is able to improve students' ability to predict reading ideas more optimally than the learning method used in the control group.

This improvement in ability occurs because the Picture Reading Strategy helps students use pictures as an initial stimulus to activate prior knowledge, build predictions about the content of reading, and connect visual information with information contained in text. Through this strategy, students become more active in the learning process, easier to understand the context of reading, and better able to develop critical thinking skills in predicting the content of the text before reading thoroughly.

The findings of this study are also supported by descriptive statistical results which show that the average score of the experimental group increased from 49.75 at the pre-test to 81.79 at the post-test time. In contrast, the control group only increased from 48.50 to 67.50. This shows that the improvement in learning outcomes in the experimental group was much greater than in the control group after being treated using the Picture Reading Strategy.

Based on these results, it can be concluded that the Picture Reading Strategy has proven to be effective in improving the ability of grade VIII students of SMPN 2 Gerung in predicting reading ideas. Thus, this strategy can be used as an alternative to reading learning that is able to improve student understanding, encourage activeness during the learning process, and produce better learning outcomes than conventional learning.

This study aims to determine the influence of Picture Reading Strategy on students' ability to predict reading ideas in grade VIII students of SMPN 2 Gerung. The results of the study show that the use of Picture Reading Strategy has a significant influence on students' ability to predict reading ideas. This can be seen from the increase in the average score of students, namely from 49.13 in the pre-test to 74.65 in the post-test. In addition, the results of the Independent Sample t-Test showed a significance value (Sig. 2-tailed) of 0.000 which was smaller than 0.05. Thus, the alternative hypothesis (Ha) is accepted and the null hypothesis (H_0) is rejected, so it can be concluded that the Picture Reading Strategy has a significant effect on students' ability to predict reading ideas.

The improvement of students' abilities occurs because during the learning process students do not directly read the text, but first observe images related to the content of the reading. Through these activities, students can estimate the topics, content, and information that may be contained in the text before reading as a whole. This process helps students build initial understanding so that they can more easily understand the content of the reading and discover the main ideas contained in the text.

In addition, the use of images in learning also helps activate students' prior knowledge. When students see the images presented, they begin to relate new information with previous experiences and knowledge. This initial knowledge activation makes students more prepared to receive reading materials and more active

during the learning process. As a result, students not only read the text passively, but also engage in the thought process to predict the content of the reading before reading.

The results of this study are in line with the theory put forward by Mayer (2001) which states that the use of visual media can help students' cognitive processes through the combination of visual and textual information so that understanding becomes better. In addition, Paivio (1986) explained that information received through visual and verbal channels simultaneously will be easier for students to understand and remember. Therefore, the use of images in the Picture Reading Strategy helps students understand the content of reading more effectively than learning that only uses text.

The findings of this study also support the concept of Picture Reading Strategy which emphasizes the use of images as a means to help students predict the content of reading before reading the text. Through these predictions, students become more focused and have goals when reading so that the comprehension process takes place more optimally. This can be seen from the post-test results of the experimental group which were higher than the control group that learned using conventional methods.

Based on the results of the research and supporting theories, the researcher argues that the Picture Reading Strategy is an effective strategy to improve students' ability to predict reading ideas. This strategy is able to help students activate initial knowledge, increase involvement in the reading process, and make it easier for students to understand the content of the text. Therefore, the Picture Reading Strategy can be used as an alternative reading learning strategy that can be applied by English teachers to improve students' reading skills.

CONCLUSION

The study concludes that the Picture Reading Strategy has a statistically significant positive effect on the ability of eighth-grade students at SMPN 2 Gerung to predict reading ideas. The experimental group achieves a higher mean post-test score than the control group, and the t-test confirms that the difference is significant ($p < .05$). This finding answers the research question by showing that the strategy improves students' ability to predict main ideas before reading.

The meaning of the findings is that pictures can serve as cognitive scaffolds when they are integrated into an explicit prediction cycle. The strategy helps students activate prior knowledge, set a reading purpose, and confirm or revise their predictions while reading. Therefore, English teachers can use the Picture Reading Strategy as an alternative pre-reading activity to make reading instruction more engaging and focused. Future researchers are advised to expand the sample, extend the intervention period, and include qualitative instruments to gain deeper insights into students' reading processes.

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