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Visualization Strategy to Improve Student Reading Comprehension at Eleventh Grade of SMKN 1 Sitiung

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Abstract. This study aims to determine the effect of using visualization strategies to improve reading comprehension among eleventh-grade students at SMKN 1 Sitiung in the 2024/2025 academic year. Visualization strategy is a cognitive technique that encourages students to mentally picture the content of a text, helping them better understand what they read. The method used in this research was pre-experimental with a one-group pretest-posttest design. The sample consisted of 21 students from class XI TKJ. The instrument used was a multiple-choice reading comprehension test given before and after the treatment. The results showed a significant improvement in students' reading comprehension scores after being taught using the visualization strategy, as proven by the Wilcoxon test with a significance value lower than 0.05. Furthermore, the N-Gain analysis indicated that the level of improvement was in the moderate category. It can be concluded that the visualization strategy is effective in enhancing SMK students' reading comprehension skills.

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INTRODUCTION

There are four skills in English. They are listening, reading, writing, and speaking. In this research, the researcher only focused the study on reading skills, which is one of the basic components of language proficiency. Reading itself is a complex activity because it involves perception and thinking, in other words, through reading someone can regain the knowledge they already have. Apart from that, reading also allows someone to enjoy literary works, obtain new information, and develop their mindset. In general, language skills are divided into two categories: listening and reading are included in receptive skills (receiving information), while speaking and writing transcriptions are included in productive skills (generating information)

Reading is an excellent skill that can provide lot of benefits in many areas of life, particularly in education. Besides that, reading is one of skill that must be mastered because it can be bring benefits. According to, (Sofyan et al., 2021) state that reading is a part of language skills that need an interactive trough text in comprehending the meaning and got information from written text. By reading, students can explore their skills and knowledge. Reading skills are not only for learning a lesson, but also for gaining experience, knowledge and other things that can help student think critically.

As mentioned above, reading has an important role for students in the learning process in class. Because reading is the basis for them to understand every subject, especially English. With good reading skill, students can more easily absorb information, improve understanding, and develop important thinking skill that support academic success.

Comprehension is the process of recognizing the meaning of words and sentences relating them to the content of the text. Reading comprehension refers to a student ability to read a story and identify the main ideas in the text. With this skills, students can answer question related to the text they have read. (wahyuni et al., 2021) states that reading comprehension is a process construct meaning by coordinating a number of complex processes and smoothness. Therefore, reading comprehension is very important so that students do not misinterpreting the meaning of the text or reading.

Based on observation made by researchers at SMKN 1 Sitiung, researchers only focused on reading skill, especially in class eleventh TKJ (*Teknik Komputer Jaringan*). Not all student are interested in English and become passive in class. Researchers concluded that this happened because of several factors, from student and teacher. First, many students lack vocabulary, which affects them in determining the main ides in the text given by the teachers. Secondly, they also found several foreign words which made them confused in interpreting the meaning of the words, they did not try to guess the meaning from the context but used google translate. Third, students lack of interest in reading and this affects their motivation in learning. This happens because student think English is difficult.

On the other hand, according to researchers' observation, most understanding teacher still use conventional methods in teaching reading, which makes them less motivated in learning. Therefore, strategies are very necessary in increasing students' interest in learning and improving reading comprehension. One such strategy that has shown promising result is the use of visualization. By encouraging students to create mental images based on the text, visualization help them better understand and retain information, ultimately enhancing their reading comprehension skill.

Therefore, to improve students' achievement in reading comprehension, students need good methods that can help them understand reading text. reading comprehension is the ability to understand the meaning of the text read. Person ability to understand text is influenced by their tenacity and ability to process the information they receive. Reading activities can help students who have learning difficulties, especially in the context of reading text in a foreign language such as English? In reading comprehension, they need good method that can help them understand the reading text. Then, researchers plan to apply visualization strategies.

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Theoretically, the use of visualization in reading instruction can be explained through Dual Coding Theory. Sadoski and Paivio (2013) explain literacy processes through the interaction between verbal and nonverbal representations. In reading, learners may construct mental images based on textual information, allowing them to connect linguistic information with visual representations. This process may support the construction of meaning and the retention of information. Furthermore, Grabe and Stoller (2020) emphasize the complex nature of reading comprehension, particularly in second-language learning, where readers must coordinate linguistic knowledge and cognitive processes to understand written texts. Therefore, visualization can be considered a potentially useful strategy for supporting EFL students in constructing meaning from reading materials.

Visualization is a good method that can improve students reading comprehension. Visualization refers to the ability to create visual representation in the mind while reading. According to, visualization is a proven strategy used to improve reading comprehension. Student are taught visual, sequential steps for putting details together to get the main idea. Moreover, this strategy helps students create images in their minds, engage more with the text, and improve mental imagery. Therefore, teachers must apply visualization strategy in the classroom to create fun class and attract students' interest in learning English.

Based on the explanation and problems above, using appropriate reading strategies can improve students' reading comprehension achievements. To prove whether visualization strategies are really suitable for student, researchers conducted a study entitled "Using Visualization Strategies to Improve Students Reading Comprehension".

METHODS

Type of this research used was experimental research, specifically using a one-group pretest-posttest design. Experimental research involved only one group without any comparison or control group. It aims to determine the effect of a treatment by comparing the results before and after the treatment is applied

Therefore, according to Sugiyono (2017) cited by (Fariza et al., 2022) states that the experimental method is a research method used to find the effect of certain treatments. Methods used in research this is an experimental method in the form of Pre Experiment Design. Design This experiment did not use a control class and was not randomly selected random. The experimental method in this research used a type of research design with the one group pretest posttest method. In this design, treatment is given, so the results of the treatment can be known more accurately, because they can be compared with the situation before the treatment was given.

The one-group pretest–posttest design allows researchers to examine changes in participants' performance by comparing measurements obtained before and after an intervention. However, as discussed by Shadish et al. (2002), designs without a control group have limitations in establishing causal relationships because alternative explanations, such as maturation, testing effects, and other external influences, cannot be fully ruled out. In the present study, the pretest and posttest scores were compared to determine whether students' reading comprehension performance changed following the

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implementation of the visualization strategy. The findings should therefore be interpreted in relation to the study design and its limitations.

FINDINGS

This chapter presents the results of the tests administered to the research sample. The test results were used to obtain empirical evidence about the effectiveness of using visualization strategies on reading comprehension in eleventh-grade students of SMK N 1 Sitiung in the 2024/2025 academic year. Data on students' reading comprehension were taken from the results of student scores in the final study. In this study, the researchers conducted four meetings. The tests used to measure students' reading abilities were a pre-test and a post-test. Both tests had the same questions and criteria. The first meeting was used to measure students' reading comprehension abilities by administering a pre-test. The next step was to provide treatment with the provided visualization strategy. The treatment was given for four meetings. After providing treatment, the sixth meeting was held again to measure students' abilities with a post-test. In this post-test, the researchers were able to determine whether the visualization strategy had a positive effect on students' reading comprehension.

After the data obtained from the pre-test result and post-test result have been carried out, then the research will carry out the process result obtained from data using the SPSS application. The following:

Table 1. Descriptive Statistic

	N	Minimum	Maximum	Mean	Std Deviation
Pre-Test	21	28	76	55,24	16.810
Post-test	21	60	95	78,33	11.762
Valid N (listwise	21				

Normality Test

The purpose of the normality test is to find out whether the data is normality distributed or not. In addition, SPSS 25 program was used to analyze the data. The results of data analysis will be presented as follows:

Table 2. Normality Test

	Kolmogrov-Smirnov			Shapiro-Wilk		
	statistic	Df	Sig.	Statistic	Df	Sig.
Pre-test	.252	.21	.001	.864	21	.005
Post-test	.191	21	.045	.909	21	.054

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Based on the table above shows that, the significance of pre-test is 0.005 and post-test is 0.054, so, this shows that the data has normally distribution and it can see from the significance value >0.05.

Hypothesis Test

After the collected data is calculated using the normality test, the next step is to test hypothesis, because the data does not come from a normally distributed population, hypothesis testing is carried out using non-parametric test. The test used is Wilcoxon test to answer research questions about the effectiveness of Strategy visualization in this study. The esults will be presented as follows:

Table 3. Wilcoxon igned Rank Test

Ranks				
		N	Mean Ranks	Sum of Ranks
PostTest-Pretest	Negative Ranks	0[a]	.00	.00
	Positive Ranks	21[b]	11.00	231.00
	Ties	0[c]		
	Total	21		

a. PostTest < PreTest
b. PostTest > PreTest
c. PostTest = PreTest

Based on the table of ranks above, in negative ranks this value of 0 in N value, mean ranks and sum of ranks indicates that there is no decrease (reduction) from the pre-test score to the post-test score. In N of positive ranks is 21 which means that 21 students experienced an increase on students reading comprehension with strategy visualization from pre-test and post-test. The mean ranks increase is 11.00 while the sum of ranks is 231.00.

Table 4. Test Statistic

Test Statistic	
	Posttest - Pretest
Z	-4.018[b]
Asymp.Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks

Based on the Wilcoxon test results presented in table 4.9, the significance value of 0,00 is less than 0,05 which result in H0 being rejected. It means that the hypothesis is accepted. Therefore, it can be concluded that, there is any significant effectiveness of using

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strategy visualization on students reading comprehension at the eleventh grade of SMKN 1 Sitiung.

DISCUSSION

The main purpose of this research is to know the effect using strategy visualization to comprehend reading comprehension at eleventh grade SMK N 1 Sitiung. The implementation of strategy visualization in teaching reading comprehension is one of the ways to know is the effect of strategy visualization in teaching strategy visualization or not. Based on the research, this research proved that statistically there is an increase in students reading with strategy visualization.

Based on research, this study statistically demonstrated an improvement in students reading comprehension using visualization strategy. Strategy visualization can be applied in the leaning process to facilitate student comprehension of text during reading comprehension.

Based on the result of data analysis, it can be explained that after the researcher teaching reading by using strategy visualization, the research found that the post-test score of students were higher than the pre-test score after being taught using strategy visualization. According to Wicaksono (2016), as cited by the finding of this research showed that the students gave a positive response to the implementation of Visualization technique in their reading activities. It means that the visualization technique could improve the students in reading comprehension.

The improvement in students' reading comprehension scores following the implementation of the visualization strategy can be discussed in relation to the cognitive processes involved in reading. Sadoski and Paivio (2013) provide a theoretical basis for understanding how verbal information and mental imagery can work together during literacy activities. When learners create mental representations of information described in a text, they may be better able to organize and connect the information they encounter.

The findings of the present study are also relevant to the research conducted by Musdizal (2019), which examined the influence of visualization strategy on reading comprehension ability. Nevertheless, the extent to which visualization contributes to improved comprehension should be interpreted carefully because reading performance can also be influenced by vocabulary knowledge, background knowledge, and other cognitive processes (Grabe & Stoller, 2020; Duke & Cartwright, 2021). Moreover, because the present study employed a one-group pretest–posttest design, the observed improvement demonstrates a significant change in scores but does not conclusively establish that visualization alone caused the improvement.

Therefore, this study found that strategy visualization has an impact on students reading comprehension. However, after analyzing using SPSS and calculating the N-Gain value, it was found that the use of strategy visualization was relatively ineffective in improving students reading comprehension.

CONCLUSIONS

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Based on the results of the research in chapter IV, the author concluded that the strategy visualization quite effective on the students reading comprehension. This is supported by the results of the Wilcoxon test, which show a significance value of 0.000 in the comparison between the pre-test and post-test score. This value is smaller than the expected significance level of 0.05. Therefore, since the significance value 0.000 is less than 0.05, it can be concluded that there is a statically significant difference between the pre-test and post-test results. In conclusion, the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. In other words, it proves that strategy visualization is effective on students reading comprehension at eleventh grade at SMK N 1 Sitiung Kabupaten Dharmasraya.

However, this study has several limitations. First, the one-group pretest–posttest design did not involve a control group, making it difficult to establish that the improvement resulted solely from the visualization strategy. Second, the study involved only 21 students from one class, limiting the generalizability of the findings. Third, the relatively short intervention period and absence of a delayed posttest prevented the researchers from determining whether the improvement was sustained over time. Additionally, the study relied primarily on quantitative data and did not explore students' experiences in using visualization.

Future research should employ experimental or quasi-experimental designs with control groups and larger, more diverse samples. Including delayed posttests and qualitative methods, such as interviews and classroom observations, would provide deeper insights into students' experiences and the sustainability of learning outcomes. Further studies could also compare visualization with other reading strategies across different text genres and proficiency levels.

REFERENCES

Astiantih, S., Ode Muh Idrus Hamid, L. B., & Nurul Pratiwi Sofyan, W. (2022). Improving Reading Comprehension by using Experience Text Relationship (ETR). *ELS Journal on Interdisciplinary Studies in Humanities*, *5*(2), 2022. https://doi.org/10.34050/elsjish.v5i2.21150

Duke, N. K., & Cartwright, K. B. (2021). The science of reading progresses: Communicating advances beyond the simple view of reading. Reading Research Quarterly, 56(S1), S25–S44. https://doi.org/10.1002/rrq.411

Fariza, M., Mahmud, T., Bina, U., & Getsempena, B. (2022). *Jurnal Ilmiah Mahasiswa PENGARUH MEDIA MAKET BERBASIS CERITA ISLAMI DALAM MENINGKATKAN KETERAMPILAN BERBICARA PADA ANAK USIA 5-6 TAHUN DI PAUD IK NURUL QURAN Abstract Speaking as a communication process , the process of changing the form of thoughts or fe*. *3*(2).

Grabe, W., & Stoller, F. L. (2020). Teaching and researching reading (3rd ed.). Routledge.

Musdizal, M. (2019). the Influence of Visualization Strategy on Reading Comprehension Ability. *Jurnal Dimensi*, *8*(2), 317–328. https://doi.org/10.33373/dms.v8i2.2162

Copyright © Year by Linguapedia, e-ISSN 2597-9744; p-ISSN 2622-9196

Sadoski, M., & Paivio, A. (2013). Imagery and text: A dual coding theory of reading and writing (2nd ed.). Routledge.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). Experimental and quasi-experimental designs for generalized causal inference. Houghton Mifflin.

Sofyan, N., HJ Wahid, J., & Idris, N. H. (2021). The Effectiveness of Reading Aloud Strategy in Concerning Students' Reading Skills. *Jo-ELT (Journal of English Language Teaching) Fakultas Pendidikan Bahasa & Seni Prodi Pendidikan Bahasa Inggris IKIP*, *8*(1), 11. https://doi.org/10.33394/jo-elt.v8i1.3564

Sugiyono. (2017). Metode penelitian kuantitatif, kualitatif, dan R&D. Alfabeta.

Wahyuni, T., Yundayani, A., & Islam Daruttaubah Bekasi, S. (2021). *Prosiding Seminar Nasional Pendidikan STKIP Kusuma Negara III Improving Student's Reading Comprehension Through Contextual Guessing Technique By Whatsapp Group*. *2014*, 2014–2017. https://ji.unbari.ac.id.

Wicaksono, W. A. (2016). Improving students' reading comprehension through visualization technique: A classroom action research at the VII A grade students of SMP N 2 Karanglewas in academic year 2015/2016 [Undergraduate thesis, Universitas Muhammadiyah Purwokerto]. UMP Repository.

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