

## The Effect of Audio-Visual Media on Fourth-Grade Students' Vocabulary Acquisition at SDN Setonopande 1

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### ABSTRACT

This study aims to determine the effect of audio-visual media on the vocabulary of fourth-grade students at SDN Setonopande 1. The background of this study is based on the low vocabulary acquisition of students caused by conventional teaching methods and the lack of interesting learning media. This study employs a quantitative approach using a pre-experimental design with a one-group pre-test post-test method. The sample consists of 24 fourth-grade students. The instrument used is a vocabulary test covering aspects of word form, meaning, and usage. The results indicate a significant increase in post-test scores compared to pretest scores, with a significance level of  $0.000 < 0.05$ . These findings indicate that audio-visual media, such as YouTube videos and interactive PowerPoint presentations, are effective in improving students' vocabulary comprehension as well as increasing their engagement and motivation to learn. In conclusion, the use of audio-visual media is an appropriate and effective learning strategy for improving elementary school students' vocabulary acquisition.

**Keywords:** Vocabulary, Audio-Visual Media, Young Learners

### ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh media audio-visual terhadap perolehan kosakata siswa kelas IV di SDN Setonopande 1. Latar belakang penelitian ini didasarkan pada rendahnya penguasaan kosakata siswa yang disebabkan oleh metode pembelajaran konvensional dan kurangnya media pembelajaran yang menarik. Penelitian ini menggunakan pendekatan kuantitatif dengan metode pre-eksperimental desain one-group pretest-posttest. Sampel terdiri dari 24 siswa kelas IV. Instrumen yang digunakan berupa tes kosakata yang mencakup aspek bentuk, makna, dan penggunaan kata. Hasil penelitian menunjukkan bahwa terdapat peningkatan signifikan dalam nilai posttest dibandingkan pretest, dengan nilai signifikansi  $0.000 < 0.05$ . Temuan ini menunjukkan bahwa media audio-visual, seperti video YouTube dan presentasi PowerPoint interaktif, efektif meningkatkan pemahaman kosakata siswa serta meningkatkan keterlibatan dan motivasi belajar mereka. Kesimpulannya, penggunaan media audio-visual merupakan strategi pembelajaran yang tepat dan efektif dalam meningkatkan perolehan kosakata siswa sekolah dasar.

**Kata Kunci:** Kosakata, Media Audio-Visual, Pembelajar Muda

### INTRODUCTION

Vocabulary acquisition is a fundamental component of English language learning, especially for elementary school students. In today's era of globalization, early exposure to English has become an urgent necessity, in line with the *Kurikulum Merdeka* policy that emphasizes basic literacy and global competencies through contextual and flexible learning. However, the reality on the ground shows that elementary school students' vocabulary

mastery is still low. Students often struggle with understanding word meanings, correct pronunciation, and appropriate use of words in context. These challenges are frequently attributed to monotonous teaching methods, a limited variety of learning materials, and low student motivation.

Recent studies have shown that the use of audio-visual media, such as educational videos and interactive presentations, offer an effective solution to enhance vocabulary acquisition. Mayer (2014), through the Cognitive Theory of Multimedia Learning, states that learning will be more effective if information is conveyed through a combination of text, images, and sound. Similar findings were reported by Gélvez Capacho (2023) and Ryan et al. (2024), who showed that audio-visual media significantly improve students' vocabulary mastery, pronunciation, and learning motivation. However, most of these studies still focus on secondary education levels or international contexts, and few have specifically investigated the effectiveness of audiovisual media on elementary school students in Indonesia.

Based on these issues, this study was conducted to answer the question: can the use of audiovisual media have a significant effect on the vocabulary mastery of fourth-grade students at SDN Setonopande 1? This study also aims to fill the gap from previous studies by focusing on the local context and elementary education level.

The purpose of this study is to determine the vocabulary mastery scores of students before and after learning using audio-visual media, as well as to analyze whether there is a significant effect on the improvement of vocabulary mastery. The results of this study are expected to provide practical contributions for teachers in designing more interesting and effective learning media, as well as enriching the literature on the use of technology in English language learning for elementary school-aged children.

## METHOD

This study employed a quantitative approach with a pre-experimental design, specifically the one-group pre-test and post-test design. A quantitative method was selected to objectively examine the effect of using audio-visual media on the vocabulary acquisition of fourth-grade students. As Creswell (2012) states, quantitative research is used to explain phenomena by collecting numerical data and applying statistical techniques. The one-group pre-test-post-test design allows for the comparison of students' performance before and after the treatment without the inclusion of a control group, making it suitable for small-scale classroom research (Ary et al., 2010).

The research was conducted at SDN Setonopande 1, Kediri, during the second semester of the 2024/2025 academic year. The participants consisted of 24 fourth-grade students, selected using purposive sampling based on the alignment of their grade level with the research objectives and curriculum

materials. The vocabulary taught focused on daily and thematic content such as classroom objects and transportation, which are relevant for this age group.

The data collection procedure included three main stages: pre-test, treatment, and post-test. The pre-test was administered to measure students' initial vocabulary knowledge, focusing on three dimensions: form, meaning, and use, in accordance with Nation (2022) framework. The treatment consisted of three instructional sessions using audio-visual media, specifically YouTube educational videos and interactive PowerPoint presentations designed to support visual and auditory learning. These sessions were guided by Mayer (2014) Cognitive Theory of Multimedia Learning, which suggests that learning is enhanced when verbal and visual materials are presented together. Additionally, the instructional procedures followed the steps outlined by Lightbown et al. (2013), which emphasize the importance of modeling, guided practice, independent application, and meaningful interaction.

After the treatment, a post-test was given to assess improvement in vocabulary acquisition. Both the pre-test and post-test consisted of similar question formats to ensure consistency in evaluation. The collected data were first subjected to a normality test using the Shapiro-Wilk test, as the sample size was fewer than 50 participants. According to Ghazali (2016), the Shapiro-Wilk test is appropriate for assessing the distribution of small datasets. The test results indicated that the data were not normally distributed, with significance values below 0.05.

Due to the non-normal distribution of the data, the study employed the Wilcoxon Signed Ranks Test, a non-parametric statistical method, to test for significant differences between the pre-test and post-test scores. The Wilcoxon test is recommended when the assumption of normality is violated in paired sample analysis Ghazali (2016). This test helped determine whether the audio-visual intervention led to a statistically significant improvement in students' vocabulary acquisition.

In summary, this research method was designed to evaluate the effectiveness of audio-visual media in supporting vocabulary learning in a real classroom setting. Despite the absence of a control group, the design allowed for a focused and practical examination of instructional impact using appropriate statistical tools based on data characteristics.

## RESULT AND DISCUSSION

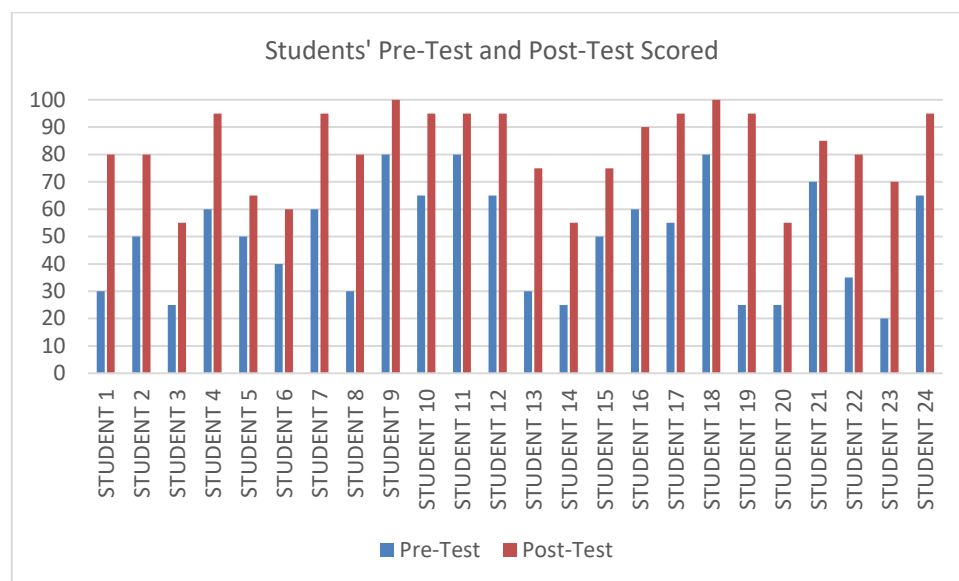
### A. RESULT

This study was conducted on 24 fourth-grade students at SDN Setonopande 1. Data were collected through pre-tests and post-tests to measure vocabulary mastery before and after the use of audio-visual media. The pre-test results showed that most students had low vocabulary mastery. The lowest score on the pre-test was 30 and the highest was 70, with an

average score of 48.75. After being given treatment in the form of learning using audio-visual media for three sessions, a post-test was conducted. The lowest score on the post-test increased to 60 and the highest was 90, with the average score increasing to 76.25.

**Table 1. Descriptive Analysis**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	24	20	80	48.96	19.780
Post-test	24	55	100	81.88	15.167
Valid N (listwise)	24				



**Chart 1. Comparism Students' Pre-Test and Post-Test Scored**

Before conducting a hypothesis test to determine the effect of audio-visual media on students' vocabulary acquisition, a normality test was conducted on the pre-test and post-test data. The normality test aims to determine whether the data is normally distributed, which will influence the selection of the type of advanced statistical test. In this study, the normality test was conducted using Shapiro-Wilk because the sample size was less than 50 ( $n = 24$ ) (Ghozali, 2016).

**Table 2. Normality Test**

Tests of Normality						
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-test	.164	24	.092	.915	24	.046
Post-test	.223	24	.003	.872	24	.006
a. Lilliefors Significance Correction						



Based on the results in Table 2, the significance value (p-value) obtained was 0.005 for the pre-test and 0.007 for the post-test. Since both significance values are smaller than  $\alpha = 0.05$ , it can be concluded that the pre-test and post-test data are not normally distributed. Therefore, to test the difference in values before and after the treatment, a non-parametric test, namely the Wilcoxon Signed Ranks Test, was used.

The Wilcoxon Signed Ranks test was used to determine whether there was a significant difference between students' pre-test and post-test scores after learning using audio-visual media. This test was conducted because the data did not meet the assumption of normality. The following are the results of the Wilcoxon test:

**Table 3. Wilcoxon Signed Ranks Test Results**

Ranks				
		N	Mean Rank	Sum of Ranks
Post-test – Pre-test	Negative Ranks	0 <sup>a</sup>	.00	.00
	Positive Ranks	24 <sup>b</sup>	12.50	300.00
	Ties	0 <sup>c</sup>		
	Total	24		
a. Post-test < Pret-test				
b. Post-test > Pret-test				
c. Post-test = Pret-test				

**Table 4. Wilcoxon Test Statistics**

Test Statistics <sup>a</sup>	
	Post-test – Pre-test
Z	-4.307 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

Based on Table 4, the value of  $Z = -4.307$  and Asymp. Sig. (2-tailed) = 0.000, indicating that the significance value is  $< 0.05$ . Therefore, it can be concluded that there is a statistically significant difference between the pre-test and post-test scores. Thus, the use of audio-visual media significantly improves the vocabulary mastery of fourth-grade students at SDN Setonopande 1.

These results support the alternative hypothesis ( $H_a$ ) that the use of audio-visual media has an effect on improving students' vocabulary, and reject the null hypothesis ( $H_0$ ) which states that there is no significant effect.

## B. DISCUSSION

The results of the study indicate that there was a significant increase in students' vocabulary mastery after the use of audio-visual media in the learning process. These findings support Mayer (2014) Multimedia Learning

theory, which states that learning is more effective when information is conveyed through a combination of text, sound, and images because it reduces cognitive load and improves information retention in long-term memory.

The use of media such as YouTube videos and interactive PowerPoint presentations has proven effective in enhancing students' attention, enthusiasm, and engagement in the learning process. This aligns with Gélvez Capacho (2023) findings that audiovisual media can simultaneously enhance motivation and vocabulary understanding, as well as research highlighting the effectiveness of audiovisual media in addressing vocabulary challenges, such as pronunciation and word meaning.

In the context of elementary school students, this media is highly suitable as it aligns with the cognitive development stage of 9–10-year-old children (concrete operational according to Piaget (1973)), who require contextual and visual learning. With the aid of audiovisual media, students can see and hear vocabulary in real-life contexts, such as word usage in sentences and daily activities, thereby reinforcing word meaning and functional usage.

This study also supports Nation (2022) view that effective vocabulary acquisition encompasses three main aspects: form, meaning, and use. These three aspects can be conveyed simultaneously through audiovisual media, such as when students hear the word "bicycle," see its image, and observe how the word is used in the video context.

Overall, the results of this study reinforce the idea that vocabulary learning using audiovisual media is more effective than conventional methods, particularly in the context of elementary education. In addition to improving learning outcomes, this medium also makes the learning process more engaging and enjoyable, and encourages students to be more active in understanding and using new vocabulary in their daily lives.

## CONCLUSION AND SUGGESTION

### A. CONCLUSION

Based on the results of the study conducted on the effect of using audio-visual media on the vocabulary mastery of fourth-grade students at SDN Setonopande 1, it can be concluded that learning using audio-visual media can improve students' ability to understand and use English vocabulary. This is evident from the significant difference between the learning outcomes before and after the treatment.

Audio-visual media such as educational videos and interactive presentations have proven effective in helping students recognize word forms, understand meanings, and use vocabulary in appropriate contexts. Learning becomes more engaging, interactive, and aligned with the cognitive characteristics of elementary school-aged children. Thus, the research

objective to determine the impact of audio-visual media on vocabulary mastery has been achieved optimally.

## **B. SUGGESTION**

Based on the results of the research conducted, there are several recommendations that can be given to various related parties. For teachers, it is recommended to routinely use audio-visual media in the learning process, especially in teaching vocabulary. The use of this media can help increase students' interest in learning and facilitate understanding of the material taught in a contextual and interesting manner. For students, it is hoped that they will be more active and enthusiastic in participating in learning that uses interactive media, so that the learning process becomes more enjoyable and the material being studied can be better understood.

Furthermore, for schools, it is recommended that they provide adequate support in the form of facilities, technological resources, and training for teachers so that they are able to develop and integrate technology-based learning media optimally. This support will have a positive impact on improving the quality of learning in the classroom. Finally, for future researchers, it is recommended to conduct further research with a broader scope, both in terms of sample size, educational levels studied, and types of media used. This aims to gain a more comprehensive understanding of the effectiveness of audio-visual media in improving vocabulary mastery and English language skills in general.

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