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The Effect of a Multimodal Approach in Audiovisual-Based Indonesian Language Learning at SDN Sondosia

Afifah Afra Amatullah*, Mulyadi, Didit Haryadi, Syarifudin, Desy Ningsih Komalasari
Department of Elementary School Teacher Education, STKIP Taman Siswa Bima, Bima, 84119, Indonesia

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** Corresponding author:*

E-mail: afifahafra234@gmail.com

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A B S T R A C T

Elementary school students' text comprehension skills are still relatively low because classroom learning is often dominated by conventional verbal instruction with limited use of interactive learning media. The audiovisual-based multimodal approach is considered important to support students' literacy development through visual and auditory representations. This study aimed to analyze the effect of a multimodal approach based on audiovisual media on elementary school students' text comprehension skills. The research employed a quantitative approach using a quasi-experimental method with a non-equivalent control group design. The participants consisted of 30 third-grade students of SD Negeri Sondosia, including 16 students in the experimental class and 14 students in the control class. Data were collected through pretests and posttests. The findings revealed that the mean score of the experimental class increased from 68.3 in the pretest to 79.7 in the posttest, while the control class improved from 66.1 to 72.3. The independent sample t-test indicated a significant difference between the two classes in the posttest results ($p = 0.009 < 0.05$). In addition, the N-Gain score of the experimental class was higher than that of the control class. Therefore, the audiovisual-based multimodal approach can be considered an effective alternative strategy for enhancing elementary school students' text comprehension skills.

1. Introduction

Indonesian language learning in elementary schools plays an important role in developing students' literacy skills, particularly their ability to comprehend texts (Kamila & Purwandari, 2024). Indonesian language instruction requires students to construct textual understanding through varied and dialogic literacy practices. Reading is one of the fundamental language skills that supports students' academic development. Furthermore, the primary objective of reading instruction is to improve students' ability to understand language texts efficiently and accurately (Jannah et al., 2025). In 21st century learning, the process of text comprehension no

longer relies solely on written language but also involves the ability to interpret visual, audio, and symbolic representations. Therefore, learning activities need to incorporate multiple modalities to align with students' cognitive development (Dewi et al., 2025). In addition, pedagogical transformation toward multimodal learning experiences is considered essential in supporting more comprehensive learning processes.

Preliminary observations indicated that the text comprehension skills of third-grade students at SD Negeri Sondosia were still relatively low. Teachers tended to rely on verbal explanations without integrating interactive learning media that could support students' engagement and comprehension during the learning process. This condition affected students' learning outcomes. The average student score remained below the Minimum Mastery Criterion (KKM) of 70, with an overall average score of 66 and a learning mastery rate of only 40%. This condition indicates that students still require more interactive learning experiences to support their literacy development and text comprehension skills. Previous studies have shown that the use of innovative learning models supported by video media can increase student engagement, improve attention during learning activities, and facilitate better understanding of instructional materials (Utami et al., 2025).

An audiovisual-based multimodal approach was selected as an alternative solution because it is compatible with the characteristics of elementary school students, who are generally more responsive to visual and auditory learning media (Intaniasari et al., 2022). Through the integration of text, images, audio, and video, students gain more concrete and contextual learning experiences. Visual and auditory representations also assist students in processing information through multiple channels, thereby improving text comprehension more effectively (Huszka et al., 2024).

The multimodal approach is consistent with the characteristics of digital age learners, as elementary school students tend to respond more positively to visual and audio-based media (Artajaya et al., 2025). Previous studies have shown that audiovisual media and innovative instructional approaches can improve students' learning outcomes. However, most previous studies have positioned audiovisual media merely as instructional aids rather than as integral components of a structured multimodal approach. Furthermore, studies investigating the effectiveness of audiovisual-based multimodal approaches among elementary school students, particularly during the early stages of reading development, remain limited.

The novelty of this study lies in its context, approach, and analytical focus. This study was conducted with third-grade elementary school students who were still in the early stages of reading development. Therefore, the study provides empirical evidence regarding the effectiveness of multimodal approaches in supporting foundational literacy learning, which has received limited attention in previous studies. In addition, this study directly integrated a multimodal approach with audiovisual media in text comprehension instruction, not merely as supplementary teaching aids but as structured instructional strategies. Furthermore, this study not only examined differences in learning outcomes between groups but also measured

the degree of students' improvement, thus providing a more comprehensive understanding of the effectiveness of the implemented instructional approach.

Based on the description above, this study aimed to analyze the effect of an audiovisual-based multimodal approach on the text comprehension skills of third-grade students at SD Negeri Sondosia and to identify differences in the improvement of text comprehension skills between the experimental class and the control class.

2. Methodology

Research Design

This study employed a quantitative approach to objectively examine the effect of the treatment through numerical data analysis. The research design used was a quasi-experimental method with a non-equivalent control group design. The study involved two groups, namely an experimental class and a control class. Both groups were administered a pretest to determine the students' initial abilities. The experimental class then received instruction using an audiovisual-based multimodal approach, while the control class participated in conventional learning activities. After the treatment was completed, both groups were given a posttest to measure changes in students' text comprehension skills.

Population and Sample

The study was conducted at SD Negeri Sondosia, Bima Regency, West Nusa Tenggara, from February to March 2026. The population consisted of all students at SD Negeri Sondosia, while the sample was selected using purposive sampling in accordance with the quasi-experimental design. The sample comprised 30 students, including 16 students from Class III A as the experimental group and 14 students from Class III B as the control group.

Instruments

The primary research instrument was a text comprehension test administered in the form of a pretest and posttest. The test was developed based on indicators of text comprehension skills, including identifying explicit information, determining the main idea, understanding relationships between sentences, and drawing conclusions from the text (Kuşdemir, 2020). The instrument consisted of 20 items, including 15 multiple choice questions and 5 essay questions. In addition, observation sheets were used to record the implementation of the learning process, supported by research documentation.

Data Collection

Data collection was carried out through the stages of pretesting, treatment, and posttesting. The experimental class received instruction using an audiovisual-based

multimodal approach through the integration of texts, instructional videos, audio materials, LCD projectors, and speakers. Meanwhile, the control class participated in conventional learning through lecture-based instruction and the use of textbooks.

Data Analysis

The data were analyzed using descriptive and inferential statistics. Descriptive statistics were used to describe the mean scores, minimum scores, maximum scores, and standard deviations of the pretest and posttest results. Before hypothesis testing, normality and homogeneity tests were conducted as prerequisite analyses. Hypothesis testing was performed using a paired sample t-test to determine differences in students' abilities before and after the treatment within each group, and an independent sample t-test to identify differences in improvement between the experimental and control groups. In addition, N-Gain analysis was conducted to determine the level of improvement in students' text comprehension skills after the treatment.

3. Results and Discussion

Descriptive Statistical Analysis

The research findings were obtained from the analysis of pretest and posttest scores on the text comprehension skills of third-grade students at SD Negeri Sondosia in both the experimental and control classes. Before the implementation of the audiovisual-based multimodal approach, students' initial text comprehension skills were still relatively low. Most students experienced difficulties in identifying main ideas, understanding relationships between sentences, and concluding the content of Indonesian reading texts. During the pretest session, several students were also less active in responding to questions and tended to rely only on reading text passages without deeper interpretation of meaning.

The pretest results also indicated that several students still had difficulties in reading comprehension, identifying explicit information, interpreting story content, and responding to questions related to Indonesian language texts. The learning treatment in the experimental class was carried out through an audiovisual-based multimodal approach by integrating text, images, audio, video, and interactive learning activities in Indonesian language instruction. The teacher prepared narrative reading materials accompanied by visual illustrations, learning videos, sound effects, and oral explanations to support students' understanding of the text content. The learning process was conducted using LCD projectors and speakers to display audiovisual materials during classroom activities.

The implementation of the audiovisual-based multimodal approach was conducted through three instructional stages. During the planning stage, the teacher prepared narrative reading texts, audiovisual materials, visual illustrations, learning videos, and assessment instruments that were aligned with the learning objectives. During the implementation stage, students were engaged in multimodal learning activities

by reading texts, observing images, watching videos, listening to audio explanations, participating in discussions, and completing interactive tasks related to the reading materials. During the evaluation stage, students completed comprehension exercises and posttests to assess their understanding of the texts and to measure the effectiveness of the instructional approach.

The implementation of these multimodal learning activities contributed to greater student engagement and participation during classroom instruction. Students demonstrated increased attention to learning materials, more active involvement in discussions, and better understanding of text content. They were able to identify story elements, retell the content of texts, and express opinions more confidently during classroom activities. These improvements in learning engagement and comprehension were reflected in the improvement of their posttest scores presented in Table 1.

Table 1. Descriptive Statistical Analysis

	Class	Pretest	Posttest
N	A	16	16
	B	14	14
Mean	A	68.3	79.7
	B	66.1	72.3
Standard deviation	A	4.66	8.58
	B	4.88	5.04

Based on Table 1, the initial abilities of students in both groups were relatively comparable. The mean pretest score of the experimental class was 68.3, while the control class obtained 66.1. These findings indicate that both groups had relatively similar initial text comprehension abilities before the treatment was administered.

After the implementation of the audiovisual-based multimodal approach, the average posttest score of the experimental class increased to 79.7, whereas the control class reached 72.3. In addition to the increase in mean scores, the number of students who achieved the minimum mastery criterion also increased in the experimental class after the implementation of the audiovisual-based multimodal approach. In addition to the improvement in scores, changes were also observed in students' classroom participation during the learning process. Students in the experimental class became more active in discussions, more focused when observing audiovisual materials, and more confident in expressing opinions related to the reading texts. Several students who were initially passive also showed greater participation during question and answer activities.

The improvement in learning outcomes in the experimental class suggests that the integration of text, images, audio, and video assisted students in understanding reading materials more concretely and contextually. Presenting instructional materials through multiple channels of information enabled students to recognize relationships between events, comprehend story content, and capture the messages conveyed in the text more effectively.

Prerequisite Analysis Tests

Before conducting hypothesis testing, the data were analyzed using normality and homogeneity tests as prerequisites for parametric analysis. The results are presented in Table 2.

Table 2. Results of Prerequisite Analysis Tests.

Test	Group	p
Normality	Pretest A	0.747
	Posttest A	0.788
	Pretest B	0.681
	Posttest B	0.207
Homogeneity	Pretest	0.950
	Posttest	0.092

The test results indicate that all significance values were greater than 0.05, demonstrating that the data were normally distributed and had homogeneous variances. Therefore, the data met the requirements for parametric statistical analysis.

Paired Sample t-Test

Changes in students' text comprehension skills before and after the treatment were analyzed using a paired samples t-test, as presented in Table 3.

Table 3. Results of the Paired Sample t-Test

Class	Statistic	t	df	p
A	Student's t	−7.24	15	< .001
B	Student's t	−5.59	13	< .001

The paired samples t-test results indicate that both groups experienced improvements in text comprehension skills after the learning process. However, the improvement in the experimental class was higher than that of the control class. These findings suggest that the audiovisual-based multimodal approach helped students understand texts more actively and meaningfully through the integration of text, images, and audio.

Independent Sample t-Test

Differences in learning outcomes between the experimental and control classes were analyzed using an independent samples t-test, as presented in Table 4.

Table 4. Results of the Independent Samples t-Test

Test	Statistic	df	p
Pretest	Student's t = 1.24	28	0.224
Posttest	Student's t = 2.82	28	0.009

The independent samples t-test results revealed no significant difference in pretest scores between the experimental and control classes ($p = 0.224 > 0.05$), indicating that both groups had relatively equivalent initial abilities. However, a significant difference was found in the posttest scores between the two groups ($p = 0.009 < 0.05$). These findings demonstrate that the audiovisual-based multimodal approach had a more effective influence on improving students' text comprehension skills compared to conventional learning methods.

N-Gain Test

The effectiveness of the treatment was further supported by the N-Gain analysis results, as illustrated in Figure 1.

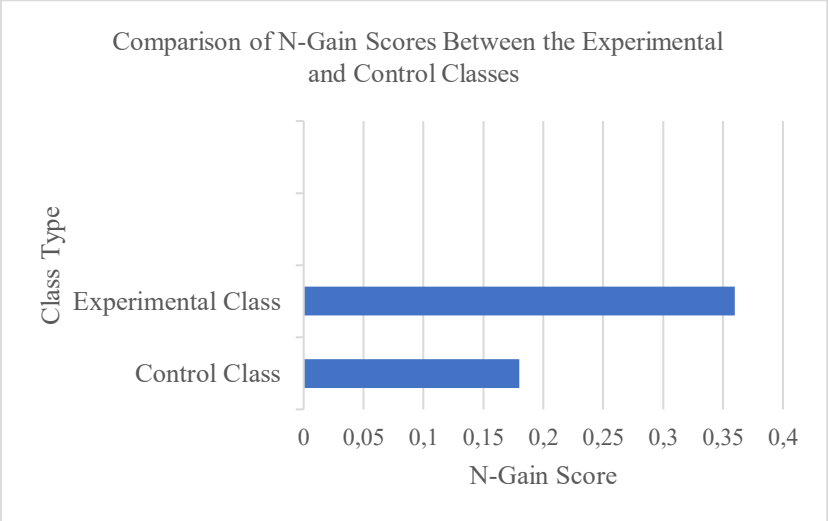

Figure 1. Comparison of N-Gain Scores Between the Experimental and Control Classes

The N-Gain scores indicate that the improvement in text comprehension skills in the experimental class was categorized as moderate with a score of 0.36, while the control class was categorized as low with a score of 0.20. These findings demonstrate that the audiovisual-based multimodal approach was more effective in improving students' text comprehension skills compared to conventional learning methods. The integration of visual, audio, and textual elements helped students understand reading materials more concretely, making the learning process more engaging and meaningful.

The findings of this study revealed that the audiovisual-based multimodal approach was able to improve students' text comprehension skills more effectively than conventional learning. The integration of text, images, audio, and video provided students with more concrete learning experiences, making it easier for them to comprehend reading materials. These findings are also supported by Rahmi et al. (2025), who explained that interactive multimedia in Indonesian language learning can improve students' engagement, motivation, and understanding through the integration of visual and interactive learning components. For elementary school

students, the use of multiple forms of information representation can enhance attention, contextual understanding, and the ability to connect ideas within a text. Multimodal learning also supports learner engagement because students become more focused and actively involved during literacy activities when interactive audiovisual media are integrated into classroom instruction (Anjelina et al., 2026). These findings indicate that multimedia learning enables students to process information simultaneously through visual and verbal channels, thereby optimizing comprehension. In addition, learning activities involving audiovisual elements also encourage more active student participation during the learning process (Pasaribu et al., 2025).

The use of audiovisual media can improve literacy skills and learning outcomes among elementary school students (Fitriyani & Solihati, 2022). Similarly, (Rahmatya & Hikmawan, 2026) emphasized that multimodal digital learning environments support students' engagement, communication, and meaning construction through the integration of multiple representations and interactive media. In this study, students not only read texts but also received visual and auditory support that facilitated the process of constructing meaning (Tarigan et al., 2025). Therefore, the audiovisual-based multimodal approach can serve as an alternative Indonesian language learning strategy that is more interactive and aligned with the learning characteristics of elementary school students.

4. Conclusion

This study demonstrated that the audiovisual-based multimodal approach had a positive effect on the text comprehension skills of third-grade students at SD Negeri Sondosia. The implementation of multimodal learning through the integration of text, images, audio, video, and interactive classroom activities was able to support students in understanding reading materials more effectively than conventional learning methods. Students became more active during the learning process, showed better focus when engaging with audiovisual materials, and were more confident in expressing ideas related to the texts being studied. The findings indicate that the audiovisual-based multimodal approach successfully improved students' ability to identify important information, understand relationships between ideas, and conclude the content of texts. The learning process also became more meaningful because students received information through various forms of representation that supported their comprehension abilities. Therefore, the audiovisual-based multimodal approach can be considered an effective alternative strategy for Indonesian language learning, particularly in improving elementary school students' literacy and text comprehension skills. Future studies are recommended to involve larger samples and different learning materials in order to obtain more comprehensive findings.

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