



The Role of Multimodal Approach in Enhancing Reading Comprehension Skills in Junior High School Students

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Abstract. This study investigates the effectiveness of a multimodal approach in improving students' English reading comprehension at SMPN 10 South Tangerang during the 2025/2026 academic year. Involving 42 eighth-grade students, the research aimed to determine whether integrating various modes of learning such as text, images, audio, and video could enhance reading comprehension more effectively than traditional text-based instruction. A pre-experimental one-group pre-test and post-test design was used to measure students' progress before and after the implementation of multimodal learning. Data were analyzed using a paired sample t-test to identify significant differences between the two tests. The results indicated a notable improvement, with the mean score increasing from 70.48 on the pre-test to 79.76 on the post-test, representing a gain of 9.28 points. The significance value (Sig. 2-tailed = 0.000) confirmed that the improvement was statistically meaningful. These findings demonstrate that multimodal instruction enhances comprehension by presenting information through multiple sensory channels, supporting diverse learning preferences, and creating a more engaging and interactive learning environment. The study concludes that the multimodal approach is an effective method for teaching reading comprehension in junior high school and recommends broader application in English classrooms to strengthen students' motivation, understanding, and overall learning outcomes.

Keywords: English Education; Junior High School; Learning Media; Multimodal Approach; Reading Comprehension

1. INTRODUCTION

English is one of the most used foreign languages in the world and has gained recognition as universal language which people used as means of communication around the globe. Zeidan (2024) investigated that in 2024, 1.5 billion of people use English to facilitate communication across boundaries, followed by Mandarin Chinese and Hindi. English is considered as a foreign language in Indonesia and taught formally from preschool up to university. This policy was established in the regulation of the Ministry of Education, Culture, Research, and Technology in 2024 which mandates teaching English at every education level. In English language teaching and learning, there consist of four language skills that should be mastered; Listening, speaking, reading, and writing (Sitepu & Mutiarani, 2023).

Reading comprehension is one of the most crucial skills in learning English and in daily life (Putri & Mutiarani, 2025). According to Elleman & Oslund (2019), reading comprehension is the product of word decoding and linguistic comprehension. However, Tias et al. (2024) argues that mastering reading comprehension does not simply decoding words, it involves drawing out meaning from words, making conclusion, connecting ideas, and critically analyzing the material. Kendeou et al. (2016) adds that reading comprehension involves connecting meanings between sentences, applying prior knowledge, drawing inferences,

recognizing the structure of the texts, and considering the intentions of the author and objectives.

Increasing students' motivation for active and critical reading remains a significant focus in literacy education. Reading comprehension is a highly sophisticated skill that necessitates proficiency in vocabulary and decoding abilities for mastery. Furthermore, the integration of traditional texts may not always resonate with all learners, particularly given the evolving reading practices influenced by digital media and interactive storytelling (Thompson & Mcilnay, 2019).

This transformation is reinforced by Pardede (2019), who highlights that numerous studies conducted after 2010 consistently demonstrate the advantages of digital textbooks over traditional ones, especially in enhancing reading comprehension. Likewise, Sidabutar et al. (2022) affirm that engaging with digital texts positively influences students' reading comprehension, offering an effective alternative to conventional materials. Digital textbooks enhance reading comprehension by engaging students more effectively than traditional texts, making them a valuable tool in literacy education.

The role of critical thinking in reading comprehension is well-documented, emphasizing its contribution to students' ability to analyze and synthesize information effectively. Plummer et al. (2022) emphasize that critical thinking entails achieving intended outcomes through rational, goal-oriented reasoning, a process that strengthens students' capacity to evaluate texts comprehensively. Similarly, Hall et al. (2020) highlight that fostering these cognitive skills enables learners to draw meaningful conclusions and engage in deeper textual analysis. As a result, incorporating digital texts and interactive learning strategies can significantly enhance students' motivation and competency in active and critical reading.

Students' reading comprehension skills play a crucial role in their academic success and ability to engage with texts meaningfully (Hariyanti et al., 2025). Traditional, text-based teaching methods often fail to support junior high school students in developing this skill, as they do not cater to diverse learning needs (Rahman et al., 2024). Educators must adopt a more dynamic, multimodal approach that integrates visual, auditory, and interactive elements to enhance engagement and comprehension. Research shows that multimodal learning improves students' ability to process information through multiple channels, making learning more effective (Nor & Septiani, 2023). By creating a more engaging and interactive environment, teachers can better support students in developing strong reading comprehension skills. A dynamic, multimodal learning approach that integrates visual, auditory, and interactive

elements enhances students' reading comprehension and academic success more effectively than traditional text-based methods.

Social semiotics and dual coding theory provide the theoretical basis for these benefits. Social semiotics emphasizes the use of different semiotic resources, such as text, music, and visuals, in meaning-making, while dual coding theory holds that mixing verbal and visual inputs improves cognitive processing (Al-Muttairi & Al-Alusi, 2025). This foundation illustrates why multimodal approaches may enhance cognitive and emotional engagement, resulting in improved reading fluency, comprehension, and learner motivation.

Empirical studies further show that multimodal discourse analysis in English reading instruction promotes focus, engagement, and comprehension (Li et al., 2023). Incorporating visuals, animations, and digital media creates a dynamic learning environment that is especially beneficial for struggling students (Rashid et al., 2024). However, most research has examined short-term improvements, leaving questions about the long-term retention and transferability of these skills to other literacy contexts.

Several studies emphasize the need of teacher competency in developing the full potential of multimodal learning. While effective use of resources such as digital media, YouTube videos, and interactive texts can improve language competences, interpretation skills, and learner confidence (Kristiani & Pradnyadewi, 2021), insufficient teacher preparation limits the consistent deployment of these strategies (Mathebula et al., 2025). This suggests that tailored instruction in multimodal pedagogy is required to improve student outcomes.

Multimodal approaches enhance reading comprehension, accommodate different learning styles, and stimulate critical thinking. However, research gaps exist in understanding their long-term impacts, scalability in resource-constrained contexts, and the most effective teacher training programs. Addressing these weaknesses could make multimodal techniques more effective and sustainable in a variety of educational settings.

These studies provide strong evidence that multimodal approaches significantly enhance students' reading comprehension skills by promoting engagement, interaction, and deeper textual analysis. However, to maximize the benefits of multimodal learning, it is essential to address challenges such as resource accessibility and teacher preparedness. Future research should focus on optimizing multimodal strategies for junior high school students to further improve their reading proficiency and overall literacy development.

2. LITERATURE REVIEW

Reading Comprehension

Reading comprehension refers to the ability to understand, interpret, and analyze written texts effectively. Reading comprehension strategies are cognitive and behavioral techniques that enhance understanding by engaging readers in active interaction with the text through methods like monitoring, paraphrasing, elaboration, prediction, and skimming (Pelila & Palangyos, 2022).

Cognitive processes in reading comprehension involve decoding, interpreting, and integrating new information using prior knowledge, schema activation, and cognitive load management to construct meaning effectively. Vocabulary is essential for reading comprehension, and strategies like Morphemic Analysis and Contextual Clues help learners decode and infer word meanings, though their effectiveness depends on prior knowledge and familiarity with the techniques (Lai et al., 2022).

Multimodal Approach

A multimodal approach integrates multiple methods or modes of communication, such as visual, auditory, and textual elements, to enhance understanding and engagement. The multimodal approach in education enhances learning by integrating multiple communication modes oral, written, visual, and digital boosting engagement, comprehension, and interaction, especially in second-language learning (Guo, 2023). Multimodal strategies for accessibility enhance inclusivity by offering multiple interaction modes direct alternatives, assistive technology support, and user personalization ensuring flexibility for diverse needs and abilities.

This approach improves learning by catering to different preferences, making information more accessible and easier to retain. Multimodal learning styles involve equally engaging visual, auditory, kinesthetic, and tactile channels, enhanced by digital tools to boost adaptability, engagement, and motivation (García & Camarillas, 2020). Multimodal instructional strategies enhance learning by integrating visual, auditory, written, and interactive elements, promoting engagement, comprehension, and accessibility for diverse learners.

3. RESEARCH METHODS

This study was conducted at SMPN 10 South Tangerang, located at Yaktapena Raya No. 08, Pondok Ranji, East Ciputat, South Tangerang, Banten, in the academic year of 2025/2026. This school was selected based on several considerations, the school had basic facilities such as a multimedia projector, computer lab, and internet access, which were essential for implementing multimodal learning materials in the experimental group. This study used a pre-experimental design to investigate how a multimodal approach affects students' reading comprehension. In this research, the population of the study was all grade 8th students of SMPN 10 South Tangerang. This selected class consists of 42 students enrolled for the 2025/2026 academic year, who directly participated in the research by contributing data.

4. RESULTS AND DISCUSSION

The Analysis of The Data

Normality Test

Table 1. Tests of Normality

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-Test	.143	42	.031	.954	42	.090
Post-Test	.154	42	.014	.957	42	.118

Based on the Shapiro-Wilk test results above, the significance value for both Pre-Test (0.090) and Post-Test (0.118). Therefore, it can be concluded that both the Pre-Test and Post-Test data are normally distributed. In this research the sample consist of 42 students from experimental class. From the table 4.7, the sig. Pre test =0.90 and sig value. Post test = 0.118. this shows that the sig value. Pre test > 0.05 or $0.090 > 0.05$ and sig value. Post test > 0.05 or $0.118 > 0.05$ so from these results it can be concluded that pre test and post test data are normally distributed.

Hypothesis Test

		Paired Samples Test							
		Paired Differences		Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Mean	Std. Deviation		Lower	Upper			
Pair 1	Pre-Test - Post-Test	-9.286	5.129	.791	-10.884	-7.687	-11.733	41	<.001

Figure 1. Paired Sample Test

From the results of the paired sample T-test above, the sig value is known. (2-tailed) of 0.000. according to the decision-making rules in the paired sample T-test, the sig. (2-tailed) $<$

0.05 or $0.000 < 0.05$ it can be concluded that the hypothesis H0 is rejected and H1 is accepted because there is a significant difference between the pre-test and post-test learning outcomes. So, it can be concluded that there is an impact of the use of multimodal approach on students' reading comprehension in learning English in class VIII students at SMPN 10 South Tangerang.

Interpretations

The results of the statistical analysis conducted in this study provide an overview of how the multimodal approach influenced students' reading comprehension skills in the experimental class. The findings indicate that the multimodal approach had an impact on improving students' performance; however, this impact was not statistically significant. Although the descriptive statistics show an increase in the mean score from 70.48 in the pre-test to 79.76 in the post-test, the improvement did not reach the standard level of significance required in hypothesis testing. Since the significance value obtained from the paired sample t-test was higher than the 0.05 threshold, the improvement observed cannot be attributed solely to the multimodal approach. Thus, while a positive change is visible in the students' results, the effect is not strong enough to be classified as statistically significant.

Despite the lack of statistical significance, the descriptive results still reflect meaningful progress in students' reading comprehension abilities. The upward shift in the average score suggests that many students responded positively to the learning activities provided through the multimodal approach. This trend corresponds with the theoretical foundations of multimodal learning, which emphasize the use of various representational modes to assist students in processing information more effectively. In practice, the integration of visual, auditory, and textual elements offered students several ways to access meaning and organize their understanding of the reading materials. Although this improvement did not reach statistical significance, it nonetheless demonstrates that multimodal instruction can support comprehension development in practical classroom settings.

The use of multimodal materials throughout the intervention created a more engaging and interactive learning environment. Students appeared more attentive when reading was supported by images, video clips, or audio explanations, as these elements provided additional clarity and helped contextualize the content. This format allowed learners to connect information across different modes and supported comprehension through multiple channels. While the numerical results of the study may not fully capture the depth of these benefits, classroom observations and the descriptive trend in the scores indicate that multimodal instruction contributed positively to students' overall learning experiences.

The diversity of student responses to the multimodal approach may also explain the nonsignificant statistical outcome. Students come from different academic backgrounds and possess varying levels of prior knowledge, motivation, and learning preferences. Some learners may have adapted quickly to the multimodal format and showed notable improvement, while others may have required more time or additional support before demonstrating substantial progress. These individual variations could have influenced the overall distribution of the scores and contributed to the lack of statistical significance. In addition, the duration of the study may have limited the extent of measurable improvement, as multimodal approaches often require extended implementation before producing strong statistical effects.

Despite these limitations, the findings still highlight the pedagogical value of the multimodal approach. Reading comprehension is a complex cognitive process that involves multiple skill components, and the multimodal approach offers support by providing diverse and meaningful representations of the content. Even though the effect was impacted but not significant, the approach proved beneficial in enhancing classroom engagement and offering students more opportunities to construct meaning from the texts. The improved mean score, although not statistically significant, still reflects the practical potential of multimodal instruction in supporting comprehension development among junior high school students.

The findings of this research demonstrate that the multimodal approach had an impact on students' reading comprehension but did not yield a statistically significant effect based on the paired sample t-test. As a result, the null hypothesis (H_0), stating that there is no significant effect of the multimodal approach on students' reading comprehension skills, cannot be rejected. However, the descriptive improvement and qualitative observations suggest that the multimodal approach remains a valuable instructional strategy that can enhance students' engagement, motivation, and comprehension processes when used consistently and effectively. Although the quantitative evidence does not confirm a significant difference, the pedagogical implications indicate that the multimodal approach holds promise as a supplementary method in English language teaching at the junior high school level.

5. CONCLUSIONS AND SUGGESTIONS

This study concludes that the multimodal approach is highly effective in improving students' reading comprehension skills. Conducted at SMPN 10 South Tangerang with 42 eighth-grade students, the research found a significant increase in students' reading scores from 70.48 on the pre-test to 79.76 on the post-test, with a significance value of 0.000. These results confirm that combining text, images, audio, and visual media helps students understand reading

materials more deeply, increases motivation, enhances classroom engagement, and supports different learning styles. The multimodal approach also promotes collaboration, creativity, and critical thinking, aligning with Dual Coding Theory, which emphasizes that information presented visually and verbally is more easily processed. Overall, the multimodal approach is an effective, innovative, and student-centered method for teaching reading comprehension.

Based on the findings, teachers are encouraged to integrate multimodal strategies such as videos, audio, visuals, and digital tools into reading lessons to make learning more engaging and meaningful. Teachers should continuously develop their technological skills and design media that align with learning objectives. Students are advised to take a more active role by exploring various multimodal materials and using digital resources to strengthen comprehension according to their preferred learning styles. Future researchers are recommended to use stronger experimental designs, investigate other language skills, explore students' perceptions through qualitative approaches, and examine emerging technologies such as AR, VR, and game-based learning. These efforts can further enrich the understanding and application of multimodal learning in English education.

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