

IMPROVING JUNIOR HIGH SCHOOL STUDENTS' READING COMPREHENSION OF RECOUNT TEXTS THROUGH MIND MAPPING

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Abstract

Reading, an essential language skill, supports language competence and expands students' knowledge. Despite this, students often struggle with reading comprehension, particularly with main ideas, stated details, and communicative purposes. This research aimed to improve reading comprehension among seventh-grade students at SMPN I Miomaffo Timur through the mind-mapping technique. The study investigated (1) how mind mapping improves reading comprehension, and (2) common student mistakes in text comprehension. A pre-experimental design with pre- and post-tests was used. Pre-test results showed that 60% of students were very poor, 30% were poor, and 10% were fair. Post-test scores improved: 15% very good, 75% good, and 10% fair. A paired-sample t-test confirmed a significant improvement, $t(19) = -18.29$, $p < .05$, with mean scores rising from 35.05 to 80.5. Mind mapping proved effective for enhancing comprehension, especially with recount texts. Meanwhile, initial difficulties included stated details, main ideas, text purpose, and recognizing text type. After intervention, challenges remained mainly in identifying main ideas, details, and purpose. This study concludes that mind mapping positively impacts reading comprehension and reduces common difficulties.

Keywords: Reading comprehension, mind mapping, recount text

INTRODUCTION

Reading is one of the four essential language skills in English learning. Its role is significant not only for mastering language competence but also for acquiring broader knowledge (Brown, 2004). Through reading activities, teachers build on students' background knowledge and expand their insights, enabling them to access new knowledge that later contributes to the development of other skills, such as writing and speaking. When students understand what they read, they acquire knowledge that allows them to use the language more effectively. As Grabe and Stoller (2013) state, reading involves extracting meaning from the printed page and interpreting information appropriately. In this sense, reading can be seen as an efficient process of obtaining the author's intended message.

Reading comprehension, therefore, becomes a vital component in English teaching. Tompkins (2011) describes comprehension as a creative, multifaceted process that draws on phonology, syntax, semantics, and pragmatics. In classroom practice, reading is primarily aimed at obtaining information. To achieve this, students must understand the words and sentences in the text. However, traditional practices such as dictation, rote memorization, and note-taking often fail to foster deeper comprehension when not supported by creative teaching strategies.

In many cases, students struggle to recall information they have previously learned because their notes or memories are not well-organized. They also find it difficult to concentrate on assignments due to the absence of structured strategies for processing information. For example, when reading a text, students often highlight random sentences or write fragmented notes, which makes it hard for them to identify main ideas and supporting details. To address these challenges, students need effective strategies to organize their ideas and improve their comprehension. One promising approach is the mind mapping technique, which has not been widely introduced to teachers and students in the research context. Through visual branches, keywords, and color-coded connections, mind mapping allows students to group related concepts such as characters, settings, and events in a narrative text into a clear structure. This technique uses visual and sensory associations to link ideas, much like a road map, and has been shown to enhance students' ability to generate ideas, recall information, and build interest in reading comprehension (Buzan, 2006).

Mind mapping is considered a creative note-taking strategy that transforms long lists of information into colourful, highly organized, and easy-to-remember diagrams. This method aligns with how the human brain processes information, making comprehension more efficient. Previous studies have shown that mind mapping in learning helps students determine main ideas, organize concepts, present information clearly, and develop creativity. Other benefits include improving focus, problem-solving ability, time management, and holistic understanding of the material.

Several studies have confirmed its effectiveness. Ganito et al. (2022) found that the mind-mapping technique is effective in improving students' reading comprehension. The students' average scores increased from the first to the second study, and all students met the minimum mastery criterion in the second test. In addition to the quantitative improvement, the qualitative data also revealed positive impacts on students' learning activities, including increased interest, motivation, and self-confidence in reading. Therefore, mind mapping can be considered a useful technique to enhance both students' comprehension skills and their overall learning attitudes. Similarly, Zebua (2022) indicates that applying the mind-mapping technique effectively improves students' reading comprehension of narrative texts. Conducted through two cycles of Classroom Action Research, the study showed significant progress in students' ability to understand and obtain information from the text. Therefore, mind mapping can be considered an effective strategy for English teachers to enhance students' comprehension skills, as it helps organize and guide their ideas during the reading process. Fitri et al. (2022) demonstrated that the mind-mapping technique was effective in improving students' reading comprehension of recount texts. The findings from field notes, interviews, observation checklists, questionnaires, and tests consistently showed positive results. Students became more active, motivated, and engaged during reading activities, while their comprehension scores increased significantly across the two cycles. Therefore, mind mapping can be considered a successful strategy for overcoming students' reading difficulties and enhancing their overall comprehension skills. Febrianti & Gaffar (2024) assert that the implementation of the mind mapping technique effectively improved students' comprehension of historical recount texts. Results from observations, interviews, and tests showed significant improvement in students' understanding after applying the technique. Moreover, students had positive perceptions of mind mapping, as it helped them organize their ideas and better grasp the text's content. Therefore, mind mapping can be considered an

effective strategy to enhance students' reading comprehension, particularly in learning historical recount texts. These studies consistently show that mind mapping improves comprehension.

However, a notable gap remains in the existing literature; for example, most of these studies were conducted at the senior high school level, often involving students with relatively higher English proficiency and more learning exposure. In contrast, limited research has examined the use of mind mapping among junior high school students, particularly those at the early stages of learning English in rural Indonesian contexts. Therefore, the present study seeks to fill this gap by investigating the effectiveness of mind mapping in improving the reading comprehension of seventh-grade students at SMPN 1 Miomaffo Timur, who are beginner EFL learners from a distinct cultural and linguistic background. This focus offers a new perspective on how mind mapping can support early-stage learners in developing their reading skills, especially in comprehending recount texts.

Accordingly, two research questions were formulated: (1) to what extent can the mind mapping technique improve the students' reading comprehension? and (2) what common mistakes do students make in comprehending recount texts? The study aimed to investigate the effectiveness of the mind mapping technique in enhancing students' reading comprehension and to analyze their common mistakes. The findings are expected to contribute to the teaching of reading by offering practical implications for teachers and enriching the literature on strategy-based reading instruction in junior high schools.

METHOD

Research Design

This study employed a pre-experimental research design to examine the effectiveness of the mind mapping technique in improving students' reading comprehension and to determine whether it could help them achieve higher scores. Specifically, a one-group pre-test and post-test design was used, in which the pre-test and post-test were employed to determine whether significant differences occurred after the treatment (Creswell, 2014).

The study involved two variables: the independent variable, the use of the mind-mapping technique, and the dependent variable, students' reading achievement. The study's variables are presented in Table 1.

Table 1. Variables of the Study

Class	Pre-test (Y ¹)	Treatment (X)	Post-test (Y ²)
C	Y ¹	X	Y ²

Notes:

- C : The experimental group taught using the mind mapping strategy
- Y¹ : The pre-test in the form of a reading comprehension test
- X : The treatment, i.e., teaching reading using the mind mapping technique
- Y² : The post-test in the form of a reading comprehension test

Population and Sample

The study population consisted of all seventh-grade students at SMPN I Miomaffo Timur, totaling 64 students across three classes: Class A (21 students), Class B (23 students), and Class C (20 students).

The sample was selected using purposive sampling. According to Creswell (2014), purposive sampling is a technique in which subjects are selected for specific purposes rather than randomly. In this study, the researcher selected Class VII C, comprising 20 students, as the sample.

Instrument

The instrument used in this study was a 20-item multiple-choice test. The breakdown of the test items by aspect is as follows: understanding the purpose of the text (1 item: item 2), identifying the type of text (1 item: item 1), identifying the topic of the text (2 items: items 6 and 13), identifying the main idea (2 items: items 4 and 14), and answering stated detail questions from the text (14 items: items 3, 5, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, and 20).

Research Procedure

Data collection began with a pre-test. The researcher administered a reading comprehension test on recount texts to the experimental group, with both the pre-test and post-test comprising 20 multiple-choice items. Designed to assess the students' prior knowledge of recount texts, the pre-test set a baseline for later comparison.

Next, after completing the pre-test, the experimental class received the treatment, which involved teaching reading comprehension using the mind mapping technique. The treatment was conducted in two meetings.

At the beginning of each lesson, the researcher greeted the students and checked their attendance. For the first meeting, the researcher used a recount text entitled "*My Vacation in Lembah Hijau*", and for the second meeting, "*Grandpa's Birthday*". During each session, keywords related to the topic were placed at the center of the graphic organizer, and students were instructed to generate and link related words around the keyword. Afterward, students read and reviewed their mind maps

Subsequently, the students answered questions related to the text and engaged in group discussions to verify their answers. Each session was concluded with motivation and feedback from the researcher to encourage active participation and engagement.

Finally, after the treatment, the post-test was administered to the same class to measure any improvement in students' reading comprehension of recount texts. The post-test also consisted of 20 multiple-choice items, similar to the pre-test, to ensure comparability of the results.

Technique of Data Analysis

The pre-test and post-test data were analyzed to determine the effectiveness of the mind-mapping technique in improving students' reading comprehension. Descriptive statistics, including the mean, maximum, minimum, and standard deviation, were used to provide an overview of students' performance before and after the treatment. Subsequently, a t-test was conducted to determine whether the mind-mapping technique had a significant effect on students' reading comprehension. In this analysis, two hypotheses were tested: the null and the alternative.

FINDINGS AND DISCUSSION

Findings

The findings of this study showed that teaching reading comprehension using the mind-mapping technique effectively improved students' comprehension, particularly in recount texts. The students' performance in the pre-test and post-test is presented below.

The pre-test results showed that students had low achievement in understanding recount texts. The pre-test mean score was 35.5, with 60% of students scoring very poor, 30% scoring poor, and 10% scoring fairly. No student achieved a high score, indicating that most students had difficulty comprehending the provided reading texts (Table 2).

Table 2. Students Pre-Test Scores

No	Students	Score	Level of Mastery
1	SS	35	Very Poor
2	JS	30	Very Poor
3	HT	30	Very Poor
4	HS	45	Poor
5	YK	30	Poor
6	OK	30	Very Poor
7	YT	30	Very Poor
8	MN	40	Poor
9	MT	50	Poor
10	AB	20	Very Poor
11	TT	40	Poor
12	SB	25	Very Poor
13	RK	60	Fairly
14	RN	60	Fairly
15	AF	35	Very Poor
16	AN	30	Very Poor
17	SK	20	Very Poor
18	STK	35	Very Poor
19	YL	45	Poor
20	MS	20	Very Poor
Total		780	
Mean		35.5	Very Poor

After applying the mind-mapping technique, students' reading comprehension improved significantly. The post-test results show that 15% of students achieved very good scores, 75% scored good, and 10% scored fairly, with a mean score of 77.5 (Table 3).

Table 3 Students' Post-Test Scores

No	Students	Score	Level of Mastery
1	SS	90	Very Good
2	YS	80	Good
3	HT	80	Good
4	HS	90	Very Good
5	YK	65	Fairly
6	OK	65	Good
7	YT	85	Good
8	MN	80	Good
9	MT	90	Very Good
10	AB	80	Good
11	TT	85	Good
12	SB	80	Good
13	RK	85	Good
14	RN	80	Good
15	AF	80	Good
16	AN	85	Good
17	SK	65	Fairly
18	STK	85	Good
19	YL	80	Good
20	MS	80	Good
Total		1,550	Good
Mean		80.5	

The post-test results showed that 15% of students achieved very good scores, 75% scored good, and 10% scored fairly. Compared to the pre-test, the post-test scores increased significantly, indicating that the mind-mapping technique effectively improved students' reading comprehension of recount texts.

Students' pre-test and post-test scores were used to calculate the t-test statistic. This was conducted to determine whether the null hypothesis (H_0 : there was no effect of mind mapping on students' reading comprehension) or the alternative hypothesis (H_1 : there was an effect of mind mapping on students' reading comprehension) was accepted in this study. The result of the t-test is presented in Table 4.

Table 4. The result of t-test

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	35,5	80,5
Variance	139,210526315789	57,6315789473684
Observations	20	20
Pearson Correlation	0,423070358650113	
Hypothesized Mean Difference	0	
df	19	
t Stat	-18,2911240056839	
P(T<=t) one-tail	8,02319003626169E-14	
t Critical one-tail	1,72913281152137	
P(T<=t) two-tail	1,60463800725234E-13	
t Critical two-tail	2,09302405440831	

A paired-samples t-test was conducted to compare students' pre-test and post-test scores after being taught using the mind-mapping technique. The results indicated a significant difference between the two tests, with a t-value of $t(19) = -18.29$ and $p < .05$, leading to the rejection of the null hypothesis. The post-test mean score ($M = 80.5$) was substantially higher than the pre-test mean score ($M = 35.05$). This suggests that implementing the mind-mapping technique effectively improved students' performance.

Overall, students' reading comprehension improved from the pre-test (mean score 35.5) to the post-test (mean score 80.5), with an increase of 45 points, or 8.2%. The results indicated that applying the mind-mapping technique, combined with the treatments provided, successfully enhanced students' understanding and ability to interpret recount texts.

Analysis of students' answers revealed that, in the pre-test, the most common mistakes were in understanding the text's purpose, the main idea, the topic, the type of text, and the stated detail questions. After applying mind mapping, the post-test results showed a reduction in errors, with only a few mistakes remaining in the main idea, stated detail questions, and the purpose of the text. This indicates that mind mapping helped students organize information, improve comprehension, and minimize common reading mistakes. In summary, the findings indicate that the mind-mapping technique was effective in improving students' reading comprehension and reducing common errors in recount texts.

Discussion

The research findings indicated that students' reading comprehension improved after using the mind-mapping technique, particularly in understanding recount texts. The improvement can be seen by comparing the pre-test and post-test results. In the pre-test, students' reading comprehension was low, especially in identifying the text's main idea. This indicates that students had difficulty expressing their ideas and fully understanding the content before mind mapping was implemented. These findings align with those of Zubaidah et al. (2017), who highlighted the effectiveness of mind mapping in improving students' reading comprehension by helping them structure information logically. Similarly, Sagita & Sagita (2024) found that mind mapping enhanced comprehension of texts, demonstrating its applicability to different text genres.

Another challenge faced by students was answering stated detail questions, which often required making inferences or deducing implied meanings. This difficulty was compounded by limited vocabulary and limited knowledge of grammar. Similar findings were reported by Martini et al. (2025) and Nuralimah et al. (2023), who argued that limited vocabulary significantly impairs students' ability to understand word meanings in reading texts. Additionally, students struggled with identifying the purpose and type of the text. In the pre-test, common mistakes included understanding the information, identifying the main idea, and determining the text's purpose and type. In contrast, the post-test showed a significant reduction in errors, with remaining mistakes mostly related to the main idea, understanding the information, and the text's purpose.

To address these challenges, the researcher used the mind-mapping technique as a treatment. Before the treatment, students were given exercises consisting of reading texts and answering a few related questions to assess their initial knowledge. Many students were confused and spent considerable time interpreting words, often reading without understanding how to locate relevant information. After the treatment, students became more active and motivated in reading activities. They could comprehend the texts more effectively, answer questions accurately, and identify the main idea more easily.

Based on the findings, it can be concluded that mind-mapping techniques are effective for reading comprehension. This conclusion is supported by the significant improvement in students' performance from the pre-test to the post-test, showing that students demonstrated improved ability to understand, analyze, and respond.

CONCLUSION AND SUGGESTION

The paired-samples t-test results showed that using the mind-mapping technique significantly enhanced students' reading comprehension. The statistical analysis revealed a meaningful difference between the pre-test and post-test scores, as indicated by $t(19) = -18.29, p < .05$, leading to rejection of the null hypothesis. The substantial increase in the mean score from the pre-test ($M = 35.05$) to the post-test ($M = 80.5$) confirmed that the implementation of mind mapping was effective in improving students' overall reading performance. In the present study, mind mapping helped students understand texts more easily, retrieve information efficiently, and actively engage in reading activities, while also motivating them and reducing boredom. Based on these findings, it is suggested that English teachers use mind mapping as a creative reading strategy to make lessons more engaging and improve students' reading skills, and that future researchers explore additional innovative methods to further enhance reading comprehension.

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