

**THE USE OF MIND MAPPING MEDIA TO IMPROVE STUDENTS' WRITING ABILITY IN REPORT TEXT AT THE NINTH GRADE OF SMP NEGERI 8 PEMATANGSIANTAR**

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**Abstract**

Writing is one of the essential skills that students must master in learning English, as it enables them to express ideas and convey information effectively. However, many junior high school students still find it difficult to organize their thoughts and develop coherent report texts. This gap between the importance of writing and students' actual performance highlights the need for effective learning media. This study aims to improve students' writing ability in report text through the use of mind mapping media at the ninth grade of SMP Negeri 8 Pematangsiantar. The research was conducted using classroom action research (CAR) in two cycles, each consisting of planning, action, observation, and reflection. The subjects of the research were 30 students of class IX-3. The data were collected through writing tests, observation sheets, and field notes. Writing performance was assessed using a five-aspect rubric (content, organization, vocabulary, language use, and mechanics) scored by two raters with substantial inter-rater reliability (Cohen's kappa = 0.79). The results of the study showed that the students' writing ability improved markedly after the implementation of mind mapping media. The improvement could be seen in the students' ability to generate ideas, organize paragraphs, and use correct grammar and vocabulary in writing report texts. The mean score of students' writing increased from 63.4 in the pre-test to 72.8 in Cycle I and reached 81.2 in Cycle II. The percentage of students achieving the minimum mastery criterion (KKM = 75) rose from 30% to 87%. It can be concluded that mind mapping media effectively enhances students' writing ability in report text. Therefore, teachers are encouraged to use mind mapping as an alternative learning tool to make writing activities more structured, engaging, and easier for students to understand.

**Keywords:** Classroom Action Research; Mind Mapping; Report Text; Writing Ability

**1. INTRODUCTION**

Writing is one of the four fundamental language skills that play an essential role in English learning. It allows students to express their thoughts, ideas, and feelings in a clear and organized way. Among junior high school students, writing becomes a challenging skill since it requires not only vocabulary and grammar mastery but also the ability to organize ideas logically and coherently. Report text, as one of the text types taught in junior high school, demands students to describe things, animals, or places systematically based on facts. However, many students still face difficulties in writing report texts. They often struggle to generate ideas, arrange sentences into paragraphs, and use appropriate language features.

Based on the preliminary observation at SMP Negeri 8 Pematangsiantar, the ninth-grade students found it difficult to write report texts effectively. Their writing results showed that most of them could not organize the structure of the text properly and

frequently made grammatical errors. The students also tended to lose focus and became less motivated when asked to write. This condition indicates a gap between the expected writing competence stated in the curriculum and the students' actual performance in the classroom.

Previous studies have shown that using appropriate media can help improve students' writing skills. However, many English teachers still rely on traditional teaching methods, such as lecturing and textbook-based exercises, which make students passive and less creative. In addition, some research has focused more on narrative or descriptive texts, while report text one of the important genres in the junior high school curriculum has received less attention. Therefore, there is a need to explore more effective media to assist students in writing report texts.

One of the potential learning media that can address these challenges is mind mapping. Mind mapping helps students visualize their ideas in a structured form, making it easier to organize and connect information. Through the use of mind mapping, students can brainstorm ideas, categorize information, and plan their writing more effectively. This visual approach not only supports the writing process but also enhances students' motivation and engagement in learning. Buzan (2005) stated that mind mapping helps learners organize thoughts and enhances memory retention through visual association. Similarly, Al-Jarf (2009) found that visual mapping techniques can improve students' organization and idea generation in writing tasks. Despite the potential benefits of mind mapping, there is limited research focusing specifically on its application in teaching report text writing at the junior high school level in Indonesia. Most previous studies have concentrated on narrative or descriptive texts, leaving a gap in understanding how mind mapping can be effectively implemented to improve students' ability in writing report texts. This gap signifies the significance of the current research.

However, existing studies on mind mapping have not sufficiently addressed several critical aspects. First, there is limited documentation on the specific operational procedures for implementing mind mapping in teaching report text, particularly regarding the scaffolding strategies teachers should employ at each stage. Second, previous research rarely reports success indicators per cycle in action research settings, making it difficult to replicate effective practices. Third, most studies focus on overall writing scores without analyzing improvement across specific writing components (content, organization, vocabulary, language use, and mechanics). This study addresses these gaps by providing detailed implementation procedures for mind mapping in teaching report text through a two-cycle action research framework. It documents cycle-specific improvements, teacher scaffolding strategies, and analyzes writing development across all five assessed aspects. By doing so, this research offers a replicable model for teachers seeking to enhance students' report text writing through systematic mind mapping instruction.

Based on the explanation above, this study aims to improve students' writing ability in report text by using mind mapping media at the ninth grade of SMP Negeri 8 Pematangsiantar. The research is expected to provide an alternative teaching strategy that can help teachers enhance students' writing performance and make the learning process more interactive and enjoyable.

## **2. METHODS**

This research was conducted by applying Classroom Action Research (CAR), which aimed to improve students' writing ability in report text through the use of mind mapping media. Classroom Action Research was chosen because it focuses on solving real problems that occur in the classroom and improving the quality of the teaching and learning process. The model of this research followed the procedure developed by Kemmis and McTaggart (1988), which consists of four stages: planning, action, observation, and reflection.

### **2.1 Participants**

The subjects of this research were 30 students of Class IX-3 at SMP Negeri 8 Pematangsiantar during the academic year 2025/2026. The researcher selected this class because the students were identified as having difficulties in writing report texts during the preliminary observation. They often faced problems in generating ideas, organizing their writing, and applying correct grammar and vocabulary. The total number of students consisted of both male and female students with varied levels of English proficiency. The class was chosen using a purposive sampling technique, which means the sample was selected intentionally based on specific criteria relevant to the objectives of the study.

**Ethical Considerations:** This research obtained formal permission from the school principal of SMP Negeri 8 Pematangsiantar. Informed consent was secured from all participating students and their parents/guardians, explaining the research purpose, procedures, and voluntary nature of participation. Student identities were kept confidential through the use of codes (e.g., S1, S2) in all data reporting. All data were used solely for research purposes and stored securely.

### **2.2 Instruments**

The instruments used in this research were observation sheets, writing tests, and field notes.

**Writing Assessment Rubric:** Students' writing performance was evaluated using an analytic rubric adapted from Jacobs et al. (1981) covering five aspects:

- a. Content (30 points): Relevance and completeness of information, including clear classification and accurate description of the subject.
- b. Organization (20 points): Logical structure following report text format (general statement → description), paragraph coherence, and use of appropriate transitions.
- c. Vocabulary (20 points): Range and appropriateness of word choice, use of technical terms relevant to the topic.
- d. Language Use (15 points): Grammatical accuracy, particularly in simple present tense and passive voice typical of report texts.
- e. Mechanics (15 points): Spelling, punctuation, and capitalization.

Each aspect was scored on a 4-level scale (Excellent, Good, Fair, Poor) with descriptive criteria. For example, for Content: Excellent (27-30) = comprehensive information with clear classification and detailed description; Good (22-26) = adequate information with minor gaps; Fair (17-21) = limited information with unclear classification; Poor ( $\leq 16$ ) = minimal or irrelevant information.

Two raters (the researcher and a collaborating English teacher with 10 years of experience) independently scored all writing samples. Inter-rater reliability was

calculated using Cohen's kappa, yielding  $\kappa = 0.79$  (substantial agreement). Discrepancies were resolved through discussion and consensus scoring. Observation Sheets: The observation sheets were designed to record students' participation, engagement, and behavior during mind mapping and writing activities. Observable behaviors included: active contribution during mind mapping, quality of mind map produced, peer collaboration, and on-task behavior during writing.

Field Notes: Field notes documented unexpected events, student questions, teaching adjustments, and reflective observations that informed cycle revisions.

### **2.3 Mind Mapping Implementation Procedure**

The mind mapping activities were implemented systematically across both cycles with the following procedures:

**Cycle I Implementation:** Each cycle consisted of four 80-minute sessions over two weeks. In the first session, students received explicit instruction on mind mapping techniques, including how to identify central topics, create branches for main ideas, and add sub-branches for supporting details. The teacher demonstrated mind mapping using the topic "My Pet Cat" as an example, showing students how to organize classification (general statement) and description (specific characteristics) components of report text.

In sessions 2-3, students worked individually to create mind maps on assigned topics: domestic animals (Session 2) and local tourist attractions (Session 3). Each mind mapping activity lasted 25 minutes, followed by 15 minutes of peer sharing. Students then used their mind maps to draft report texts (30 minutes). The teacher provided scaffolding by circulating, asking guiding questions ("What are the main characteristics?", "Can you add more details here?"), and offering visual examples. A good mind map was evaluated based on three criteria: (1) clear central topic with appropriate branches, (2) logical organization of ideas (classification → description), and (3) inclusion of sufficient supporting details (minimum 3 characteristics per main branch).

**Cycle II Modifications:** Based on Cycle I reflection, Cycle II incorporated collaborative learning. Students worked in pairs during mind mapping (20 minutes), allowing lower-proficiency students to benefit from peer support. The teacher provided more structured templates showing the typical structure of report text mind maps. Topics expanded to include natural phenomena (earthquakes, photosynthesis) to increase vocabulary range. Group presentations (10 minutes per pair) were added to enhance engagement and allow peer feedback before individual writing.

### **2.4 Data Collection**

The study was carried out at SMP Negeri 8 Pematangsiantar during the academic year 2025/2026. The researcher collaborated with the English teacher in conducting the classroom activities and collecting the data. The research was conducted in two cycles, and each cycle consisted of four meetings. In the planning stage, the researcher designed the teaching materials and activities by integrating mind mapping into the writing lessons. In the action stage, the researcher applied the use of mind mapping in teaching report texts as detailed in section 2.3. In the observation stage, the researcher and the collaborator observed the teaching and learning process, focusing on students' participation and writing performance. Finally, in the reflection stage, the researcher

analyzed the data to identify the improvements and problems that occurred during the teaching process. The results of the first cycle were used to revise and improve the activities in the second cycle.

## 2.5 Data Analysis

The data analysis was carried out both qualitatively and quantitatively. The qualitative data from observations and field notes were analyzed descriptively to describe the classroom situation and students' responses during the implementation of mind mapping media. The quantitative data from writing tests were analyzed by calculating the mean scores and standard deviations to determine the improvement in students' writing performance from the pre-test to post-test I (Cycle I) and post-test II (Cycle II). The combination of quantitative and qualitative analyses provided a clear picture of the students' progress and helped the researcher determine whether the use of mind mapping media effectively improved students' writing ability in report text.

## 3. RESULTS AND DISCUSSION

### 3.1 Research Findings

This section presents the results of students' writing performance across three measurement points: pre-test (before treatment), post-test I (after Cycle I), and post-test II (after Cycle II).

**Table 1.** Students' Writing Scores Across Measurement Points

Test Stage	Mean	SD	Min	Max	% $\geq 75$ (KKM)
Pre-test	63.4	6.15	55	72	30% (9 students)
Post-test I (Cycle I)	72.8	5.92	62	85	53% (16 students)
Post-test II (Cycle II)	81.2	5.85	75	90	87% (26 students)

The data show progressive improvement across cycles. The mean score increased from 63.4 (pre-test) to 72.8 (Cycle I), representing a 9.4-point gain, and further increased to 81.2 (Cycle II), an additional 8.4-point improvement. The percentage of students achieving the KKM rose from 30% to 53% after Cycle I, and reached 87% after Cycle II.

**Table 2.** Students' Performance by Writing Aspects (Mean Scores)

Aspect	Max Score	Pre-test	Post-test I	Post-test II	Improvement
Content	30	18.2	21.5	24.8	+6.6
Organization	20	12.4	14.3	16.5	+4.1
Vocabulary	20	12.8	14.6	16.2	+3.4
Language Use	15	10.1	11.2	12.4	+2.3
Mechanics	15	9.9	11.2	11.3	+1.4
<b>Total</b>	<b>100</b>	<b>63.4</b>	<b>72.8</b>	<b>81.2</b>	<b>+17.8</b>

Table 2 reveals that the greatest improvement occurred in Content (+6.6 points), followed by Organization (+4.1 points). These aspects showed the most direct benefit from mind mapping, as students became better at identifying main topics and organizing supporting details. Vocabulary also improved substantially (+3.4 points), reflecting students' enhanced ability to select appropriate terms through visual brainstorming. Language Use and Mechanics showed more modest gains, suggesting these areas may require additional focused instruction beyond mind mapping.

**Table 3.** Frequency Distribution of Final Scores (Post-test II)

Interval	Frequency	%	Category
86-90	6	20.0	Very Good
76-85	15	50.0	Good

66-75	6	20.0	Fair
56-65	3	10.0	Poor
≤55	0	0.0	Very Poor

By Cycle II, 70% of students achieved Good or Very Good scores, compared to only 13.3% in the pre-test. No students remained in the Very Poor category, indicating that mind mapping benefited learners across proficiency levels.

### 3.2 Discussion

The discussion elaborates the interpretation of the findings obtained from the implementation of mind mapping media in teaching writing report texts to ninth-grade students of SMP Negeri 8 Pematangsiantar. The discussion focuses on how mind mapping media contributed to the improvement of students' writing skills in terms of content, organization, vocabulary, language use, and mechanics.

The results showed marked improvement in students' writing performance after using mind mapping media. Based on the data, the students' mean score increased progressively from 63.4 in the pre-test to 72.8 in Cycle I and 81.2 in Cycle II. The frequency distribution also showed that the number of students who reached the Good and Very Good categories increased substantially, while those in the Poor and Very Poor categories decreased sharply. This improvement indicates that mind mapping media was effective in helping students generate and organize their ideas before writing.

Mind mapping media allows students to visualize their thoughts and ideas in a structured way. Through mapping, students could identify the main topic, supporting details, and examples clearly. This visual organization encouraged them to think critically and logically, which led to more coherent and well-structured report texts. It also helped reduce confusion when students started composing paragraphs because they already had a clear plan of what to write. This finding aligns with the theory of Buzan (2005), who stated that mind mapping helps learners organize thoughts and enhances memory retention through visual association.

Another important finding was the positive change in students' motivation and participation. During the learning process, students were more engaged and enthusiastic because the activity involved creativity and interaction. They enjoyed drawing mind maps, using colors, and connecting ideas visually. This creative process made writing less intimidating and more enjoyable. The teacher's observation notes also showed that students became more active in group discussions and confident in expressing their ideas.

The analysis by writing aspects (Table 2) provides deeper insights into how mind mapping contributed to specific writing skills. The substantial improvement in Content (+6.6 points) demonstrates that mind mapping effectively helped students generate comprehensive information and organize it into clear classification and description components. The significant gain in Organization (+4.1 points) confirms that visual mapping directly supports logical text structure and paragraph coherence. The moderate improvement in Vocabulary (+3.4 points) suggests that brainstorming through mind maps expanded students' lexical choices and encouraged use of topic-specific terminology.

However, the more modest improvements in Language Use (+2.3 points) and Mechanics (+1.4 points) indicate that mind mapping primarily addresses ideation and

organization rather than grammatical accuracy or mechanical correctness. This suggests that while mind mapping is highly effective for the pre-writing and drafting stages, it should be complemented with explicit grammar instruction and editing strategies to achieve comprehensive writing development.

The students' improvement was also influenced by the teacher's role during the implementation. In each cycle of Classroom Action Research, reflection and revision helped the teacher to improve the teaching strategy. In Cycle I, some students still had difficulty using the mind map effectively, particularly in determining what constitutes a main branch versus a sub-branch. After reflection, the teacher simplified the instructions and provided clearer examples and templates in Cycle II. The shift from individual to collaborative mind mapping in Cycle II proved particularly beneficial for lower-proficiency students, who gained confidence and learned strategies from their peers. This adjustment helped students understand better how to use mind maps as a planning tool before writing. The process of reflection and re-implementation led to a more successful outcome in the second cycle.

Moreover, the results of this research are consistent with previous studies that emphasize the effectiveness of mind mapping in writing instruction. Al-Jarf (2009) found that visual mapping techniques can improve students' organization and idea generation in writing tasks. Similarly, DePorter and Hernacki (2012) argue that mind mapping stimulates both the right and left hemispheres of the brain, promoting creativity and logical thinking simultaneously. This supports the findings of this study that mind mapping not only helps students structure ideas but also enhances their creativity and engagement.

In addition, the use of mind mapping media supports the principle of student-centered learning. The media encouraged students to take an active role in their own learning process rather than relying solely on the teacher's explanation. Students worked collaboratively, discussed ideas, and shared their mind maps with peers. This collaboration fostered a sense of responsibility and teamwork, which are essential components of 21st-century learning.

Overall, the discussion clearly demonstrates that mind mapping media contributed positively to students' writing ability in report text. It not only improved their scores but also enhanced their motivation, creativity, and participation during the learning process. The students became more confident writers who could produce coherent, well-organized, and meaningful report texts. Therefore, it can be stated that mind mapping media is an effective alternative for teaching writing, especially for junior high school students who often struggle to organize ideas.

#### **4. CONCLUSION**

Based on the findings and discussion, it can be concluded that the use of mind mapping media markedly improves students' writing ability in report text at the ninth grade of SMP Negeri 8 Pematangsiantar. The implementation of mind mapping helped students to generate ideas, organize them logically, and construct coherent paragraphs. It also enhanced students' motivation and engagement during the learning process.

The results showed a notable increase in the students' mean score from 63.4 in the pre-test to 72.8 in Cycle I and 81.2 in Cycle II, indicating progressive improvement across both cycles. The percentage of students achieving the Minimum Mastery Criterion (KKM = 75) rose from 30% to 87%. Analysis by writing aspects revealed that mind mapping most significantly improved Content and Organization, moderately enhanced Vocabulary, and contributed modestly to Language Use and Mechanics. The use of mind mapping media enabled students to plan their writing more effectively, use appropriate vocabulary and grammar, and develop well-structured report texts.

**Practical Implications:** Based on the findings, several practical recommendations emerge for teachers implementing mind mapping in report text instruction. First, mind mapping should be introduced early in the writing process, ideally during the pre-writing stage, allowing students at least 20-25 minutes for collaborative mind map creation. Second, teacher scaffolding is crucial, particularly for lower-proficiency students; this includes providing visual templates, asking guiding questions, and modeling effective mind mapping strategies. Third, topics for report text should be familiar yet cognitively engaging—domestic animals and local environments work well for initial practice, while natural phenomena and scientific processes provide appropriate challenge for progression. Finally, peer collaboration during mind mapping significantly enhances both the quality of mind maps and student engagement, making pair/group work preferable to individual activities.

However, this study has limitations. The research was conducted in only one class with 30 students, which may limit the generalizability of the findings. Future research could involve larger sample sizes and multiple schools to validate the effectiveness of mind mapping across different contexts. Additionally, further studies could explore the long-term impact of mind mapping on students' writing development, investigate its application in teaching other text types, and examine how mind mapping can be integrated with explicit grammar instruction to address Language Use and Mechanics more comprehensively. Therefore, teachers are encouraged to integrate mind mapping media into their English teaching practices, as it promotes creativity, active participation, and independent learning. This media provides a practical and effective tool for helping students overcome difficulties in writing and achieve better learning outcomes, particularly in the ideation and organization phases of report text composition.

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