

THE EFFECT OF MIND MAPPING STRATEGY IMPLEMENTATION ON STUDENTS' EXPOSITORY WRITING SKILL IN ENGLISH LEARNING

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Abstrak - Penelitian ini bertujuan untuk menganalisis pengaruh penerapan strategi Mind Mapping terhadap kemampuan menulis teks eksposisi siswa dalam pembelajaran Bahasa Inggris di SMP Negeri 10 Palembang. Latar belakang penelitian ini didasarkan pada rendahnya kemampuan menulis siswa, terutama dalam mengorganisasi ide, menyusun argumen logis, dan menjaga koherensi antarparagraf. Penelitian menggunakan pendekatan kuantitatif dengan desain eksperimen semu (quasi-experimental) model Nonequivalent Control Group Design, yang melibatkan dua kelas X: kelas eksperimen (26 siswa) dan kelas kontrol (27 siswa). Data dikumpulkan melalui tes menulis (pretest dan posttest), lembar observasi, dan dokumentasi. Analisis data dilakukan dengan uji-t dan perhitungan gain score untuk melihat perbedaan hasil belajar sebelum dan sesudah perlakuan. Hasil penelitian menunjukkan bahwa siswa yang diajar dengan strategi Mind Mapping mengalami peningkatan signifikan dalam kemampuan menulis teks eksposisi, baik dari aspek isi, organisasi ide, penggunaan bahasa, maupun motivasi belajar. Nilai rata-rata posttest kelas eksperimen mencapai 82,5, sedangkan kelas kontrol 70,2.

Kata kunci: mind mapping, keterampilan menulis, teks eksposisi, pembelajaran bahasa Inggris.

Abstract - This study aims to analyze the effect of applying the Mind Mapping strategy on students' ability to write expository texts in English learning at SMP Negeri 10 Palembang. The research was conducted due to students' low writing performance, particularly in organizing ideas, developing logical arguments, and maintaining text coherence. The study applied a quantitative approach with a quasi-experimental design (Nonequivalent Control Group Design) involving two tenth-grade classes: the experimental class (26 students) and the control class (27 students). Data were collected through writing tests (pretest and posttest), observation sheets, and documentation. Statistical analysis using t-tests and gain scores revealed that students taught through the Mind Mapping strategy achieved significantly higher improvements in writing ability, including content organization, language accuracy, and motivation. The experimental group obtained an average posttest score of 82.5, while the control group averaged 70.2.

Keywords: Mind Mapping, Writing Skills, Expository Text, English Language Learning

1. INTRODUCTION

Writing is one of the most complex productive skills that requires the simultaneous involvement of cognitive, affective, and psychomotor aspects (Yuan, 2023; Jordan, 1999). In the context of English language learning at the secondary school level, writing serves not only as a means of expressing ideas and feelings but also as an important indicator of overall language mastery (Rosdiana et al., 2024). Writing in English requires the ability to choose appropriate words (diction), understand grammatical structures, organize ideas logically, and present arguments in a coherent and systematic manner (Ningrum et al., 2023; Sinaga & Ownie, 2013). Therefore, writing is often considered the highest skill in language learning because it integrates all other language skills—listening, speaking, and reading (Nguyen & Habók, 2022). In the context of Indonesian education, writing skills are one of the main components of the English curriculum, particularly in expository texts (Ferdaus & Novita,

History:

Received : 20 August 2025

Revised : 27 August 2025

Accepted : 7 September 2025

Published : 10 September 2025

Publisher: Universitas PGRI Palembang

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2023). Expository writing requires students to express opinions and arguments logically and factually on a given topic, so the ability to write this type of text reflects the extent to which students' critical thinking skills have developed (Nafi'a et al., 2022). According to Bloom Widhiyanto & Siroj (2020), the ability to write expository texts falls under higher-order thinking skills (HOTS), as students must analyze, evaluate, and develop ideas based on rational reasoning. Thus, mastering expository writing skills plays a strategic role in measuring students' logical, critical, and reflective thinking abilities in English learning (Mukramah et al., 2023).

However, preliminary observations conducted at SMP Negeri 10 Palembang revealed that most students still struggle with writing expository texts. These difficulties are evident in their inability to organize ideas systematically, develop relevant arguments, and maintain coherence between paragraphs (Malini et al., 2022). Many students simply copy sentences from the teacher's examples without engaging in proper planning or idea development. This indicates that the writing learning process is still dominated by a teacher-centered approach, in which teachers play the main role while students remain passive and cognitively disengaged (Haerazi & Irawan, 2020). This condition has led to students producing low-quality expository texts that tend to be disorganized, repetitive, and lack a clear logical flow. They often struggle to determine the main idea and to develop supporting details effectively. Therefore, a learning strategy that fosters independence, creativity, and active participation in the writing process is needed. An effective writing strategy should not only emphasize the final written product but also the thinking process that students undergo before and during writing (Phetsangkhad & Prakai, 2022).

One relevant and effective strategy to address these challenges is the Mind Mapping strategy. According to (Asmaun et al., 2023). Mind Mapping is a visual representation technique that illustrates the logical relationship among ideas using a branching concept map, beginning with a central idea and extending to sub-ideas (Merta et al., 2023). By using symbols, colors, and connecting lines, Mind Mapping helps students organize information hierarchically and appealingly. This strategy enables students to visualize the overall relationship between parts of the text before they begin writing, allowing them to construct a more systematic and coherent text framework. According to Darmawanti & Widyaningrum (2023), in the context of expository writing, Mind Mapping can be used as a pre-writing tool that helps students develop arguments based on their chosen main idea. Students can map the central thesis in the middle of the map, then add branches representing reasons, supporting evidence, and concrete examples that will later be developed into paragraphs in their expository text. Thus, this strategy assists not only in organizing ideas but also in developing logically connected and relevant content.

Several studies support the effectiveness of the Mind Mapping strategy in writing instruction. Wardhani et al. (2022), found that the use of Mind Mapping improved students' narrative and descriptive writing skills by enhancing creativity and systematic thinking. Similarly, Asmaun et al. (2023), reported that students who learned to write using Mind Mapping produced better text organization and used vocabulary more accurately than those taught through conventional methods. These findings indicate that Mind Mapping affects not only the writing outcomes but also the students' cognitive processes and engagement in learning. Furthermore, Mind Mapping aligns with Vygotsky (1978), constructivist theory, which emphasizes that knowledge is built through active and collaborative processes. In writing instruction, students who use Mind Mapping can work together to develop ideas and exchange feedback, creating social interactions that deepen their understanding of the writing

topic. Therefore, Mind Mapping not only benefits individual learning but also promotes meaningful collaborative learning.

Based on the discussion above, this study aims to examine the effect of implementing the Mind Mapping strategy on students' ability to write expository texts in English learning at SMP Negeri 10 Palembang. Through this study, it is expected that a deeper understanding of the effectiveness of Mind Mapping in enhancing students' critical thinking, creativity, and writing skills can be achieved. In addition, the findings of this study are expected to serve as a practical reference for English teachers in implementing innovative, participatory, and student-centered writing approaches (Jaihow & Sinwongsuwat, 2024). Thus, this research not only contributes to improving students' writing skills but also supports the national education goal of developing learners who are active, critical, and adaptive to global challenges. The implementation of the Mind Mapping strategy is expected to provide a real solution to transforming the paradigm of writing instruction—from a merely mechanical activity into a creative and reflective thinking process that is enjoyable and meaningful for students.

2. METHOD

2.1 Research Design

This study employed a quantitative approach with a quasi-experimental design, specifically the Nonequivalent Control Group Design model (Sugiyono, 2021; Kademi, 2021). Two groups of students were purposively selected:

- Experimental class (X-A, 26 students): taught using the Mind Mapping strategy.
- Control class (X-B, 27 students): taught using the conventional method (lecture and regular writing exercises).

Both groups were given a pretest and posttest to measure changes in writing ability before and after the treatment.

2.2 Research Instrumen

The instruments used in this study included:

- Writing test of exposition text — assessed in terms of content, organization, coherence, grammar, and vocabulary.
- Observation sheets for students and teacher activities — recorded student engagement, interaction, and participation during the learning process.
- Documentation — included students' written products and teaching-learning records.

2.3 Data Analysis Techniques

Quantitative data were analyzed using the following steps:

- Normality and homogeneity tests to ensure that data met statistical assumptions.
- Independent sample t-test to determine the significant difference between the posttest results of both groups.
- Gain score analysis to measure the improvement in students' learning outcomes.
- Descriptive qualitative analysis was also used to interpret the results of classroom observation and students' participation levels.

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3. RESULT AND DISCUSSION

3.1 Result

3.1.1 Results of Pretest and Posttest

Table 1. Results of Pretest and Posttest of Expository Writing Skills

Class	N	Lowest Score	Highest Score	Mean Pretest	Mean Posttest	Gain	Students \geq 75
Experimental (Mind Mapping)	26	50	75	62.3	82.5	20.2	76.9%
Control (Conventional)	27	48	74	61.5	70.2	8.7	44.4%

Before the treatment, both groups showed nearly identical pretest averages (62.3 vs. 61.5), indicating that the two classes had comparable initial writing abilities. However, after the experimental treatment, a clear difference appeared — the experimental group’s mean score rose to 82.5, while the control group only reached 70.2.

This shows that the Mind Mapping strategy resulted in a greater improvement (mean gain of 20.2) compared to the conventional method (mean gain of 8.7).

3.1.2 Statistical Test

To determine whether the difference between the two groups was statistically significant, the data were analyzed using an independent samples t-test after confirming that they met the assumptions of normality and homogeneity.

Table 2. Results of Normality and Homogeneity Tests

Test Type	Sig. (p-value)	Interpretation
Normality (Kolmogorov-Smirnov)	0.200 > 0.05	Normal Distribution
Homogeneity (Levene’s Test)	0.134 > 0.05	Homogeneous Variance

Since both tests show $p > 0.05$, the data are normally distributed and homogeneous, allowing the use of parametric tests.

Next, the t-test was conducted to analyze the significance of the mean difference.

Table 3. Independent Sample t-Test Result (Posttest Scores)

Variable	$t_{observed}$	df	$t_{table} (\alpha=0.05)$	Sig. (2-tailed)	Interpretation
Posttest (Exp. vs Control)	6.42	51	2.008	0.000	Significant Difference

The obtained $t_{observed} = 6.42$ is greater than $t_{table} = 2.008$, and the significance value $p = 0.000 < 0.05$, indicating a statistically significant difference between the posttest scores of the experimental and control groups.

Therefore, it can be concluded that the use of the Mind Mapping strategy has a significant effect on students’ ability to write exposition texts.

3.2 Discussion

3.2.1 The Influence of Mind Mapping on the Writing Process

Mind Mapping encourages students to generate and connect ideas before writing. During the prewriting stage, students organize their main ideas and supporting arguments visually, which helps structure their compositions logically. This supports Rehman et al. (2025), who emphasized that Mind Mapping facilitates associative thinking and strengthens memory retention, allowing learners to recall and connect concepts more effectively during writing.

In this study, students' mind maps included keywords, color codes, and arrows connecting related ideas — a process that helped them visualize the logical flow of their exposition texts. As a result, they were more confident in developing paragraphs with clear thesis statements and coherent arguments.

3.2.2 Improvement in Organization and Coherence

The students' final writing products demonstrated a clear improvement in organization and coherence. Exposition texts written by the experimental group displayed a well-defined structure (thesis → argumentation → reiteration), while those in the control group often lacked logical sequencing and paragraph unity.

This finding aligns with Flower & Hayes (2019), concept of process writing, where effective prewriting planning leads to more coherent and cohesive compositions.

By structuring ideas visually before drafting, students avoided redundancy and maintained a consistent logical flow throughout their essays.

3.2.3 Language Accuracy and Vocabulary Mastery

Quantitative analysis of students' writing samples revealed a decrease in grammatical errors from 27% in the pretest to 14% in the posttest for the experimental class. Additionally, vocabulary diversity increased as students brainstormed synonyms and relevant phrases while constructing their mind maps.

This improvement aligns with Yundayani et al. (2023), who suggested that vocabulary expansion and grammatical accuracy develop more effectively when learners are cognitively engaged in meaningful tasks such as concept mapping and collaborative discussion.

3.3.4 Learning Motivation and Engagement

Students in the experimental group reported greater enjoyment and motivation during writing activities. The use of colors, images, and branching structures made writing appear more creative and less monotonous.

These visual stimuli not only supported cognitive processing but also affected emotional engagement, making the learning experience more memorable.

This result supports the findings of Soughati et al. (2025), who noted that visual-based learning tools can enhance students' motivation, focus, and long-term retention.

Moreover, teacher observations confirmed that students who initially hesitated to write began expressing ideas more confidently after practicing Mind Mapping collaboratively.

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3.3.5 Pedagogical Implications

The significant improvement ($t_{observed} = 6.42$; $p = 0.000$; $d = 1.29$) demonstrates that the Mind Mapping strategy is not only statistically effective but also pedagogically beneficial. It supports the process-oriented approach to writing instruction, emphasizing stages of planning, drafting, revising, and reflecting.

4 CONCLUSION

Based on the findings and discussion, it can be concluded that the Mind Mapping strategy has a significant positive effect on improving students' ability to write exposition texts in English learning.

Students taught using Mind Mapping showed greater improvement in content, organization, grammatical accuracy, and motivation compared to those taught with conventional methods.

Mind Mapping enables students to plan and organize ideas visually, improves text structure clarity, and strengthens connections between main and supporting ideas. Moreover, it fosters a more active, collaborative, and enjoyable learning environment, enhancing students' confidence and motivation.

Pedagogically, Mind Mapping can be regarded as an innovative strategy in English writing instruction, as it promotes both cognitive engagement and emotional involvement. Teachers are encouraged to integrate this technique into writing lessons to help students develop the critical and communicative thinking skills required in the 21st century.

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