ENHANCING STUDENTS'ANALYTICAL EXPOSITION WRITING SKILL THROUGH MIND MAPPING AND TPS FOR THE ELEVENTH GRADE OF ALKAUTSAR SENIOR HIGH SCHOOL

A Thesis

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MASTER OF ENGLISH EDUCATION PROGRAM
LANGUAGE AND ARTS EDUCATION DEPARTMENT
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ABSTRACT

ENHANCING STUDENTS'ANALYTICAL EXPOSITION WRITING SKILL THROUGH MIND MAPPING AND TPS FOR THE ELEVENTH GRADE OF ALKAUTSAR SENIOR HIGH SCHOOL

By
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This study aimed to investigate whether there was a significant difference in students' analytical exposition writing skills between those taught through the integration of Mind Mapping and Think-Pair-Share (TPS) and those taught using Mind Mapping only. In addition, this study explored students' perceptions toward the use of the integrated strategy in writing instruction. The study was motivated by students' difficulties in generating ideas, organizing arguments logically, and producing coherent analytical exposition texts. Therefore, an instructional strategy that could support both cognitive processes and collaborative interaction in writing activities was considered necessary.

This study employed a quantitative approach using a quasi-experimental design. The population of the study consisted of eleventh-grade students of Al-Kautsar Senior High School Bandar Lampung, with a total sample of 60 students divided into an experimental class and a control class. The experimental class was taught using the integration of Mind Mapping and Think-Pair-Share (TPS), while the control class was taught using Mind Mapping only. The research instruments included pre-test and post-test writing assessments as well as a students' perception questionnaire. The data were analyzed using SPSS through normality tests, homogeneity tests, Wilcoxon Signed-Rank Test, and Mann-Whitney U Test because the data were not normally distributed. Students' writing was assessed based on five aspects: content, organization, vocabulary, language use, and mechanics, adapted from Heaton's (1991) scoring rubric.

The findings revealed that the integration of Mind Mapping and Think-Pair-Share had a positive effect on students' analytical exposition writing skills, particularly in the aspects of content and organization. Students in the experimental class demonstrated better improvement in developing ideas, constructing arguments, and maintaining coherence compared to students in the control class. Furthermore, the questionnaire results indicated that most students responded positively toward the integrated strategy because it helped them generate ideas, participate actively in discussions, and improve their confidence in writing. Therefore, the integration of Mind Mapping and Think-Pair-Share can be considered an effective alternative instructional strategy for enhancing analytical exposition writing skills among EFL senior high school students.

Keywords: *Analytical Exposition Writing, Mind Mapping, Think-Pair-Share (TPS), Writing Skill, EFL Students*

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LEMBAR PERNYATAAN

Dengan ini saya menyatakan dengan sebenarnya bahwa:

1. Tesis dengan judul "Enhancing students'analytical exposition wrting skill through mind mapping and TPS for the eleventh grade of Alkautsar senior high school." adalah hasil karya saya sendiri dan saya tidak melakukan penjiplakan atau pengutipan atas karya penulis lain dengan cara yang tidak sesuai dengan tata etika ilmiah yang berlaku dalam masyarakat akademik atau yang disebut plagiarism.
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Yang membuat pernyataan,

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CURRICULUM VITAE

Datu Noplanol S.Pd. affectionately known as Mr Datu, as an English teacher born in Bangka, on November 27, 1980. He is the second child in his family.

He earned his Bachelor's degree in STKIP Bandar Lampung in 2005.He has served as an English instructor at Platinum course in Bandar Lampung (2019–2026) and as an english teacher in Alkautsar senior high school from 2005 till now.

Known for his strong commitment to education and leadership, Datu actively leads the Alkautsar English Club, where he encourages students to develop their confidence, communication skills, and critical thinking through various English learning activities. As a Guru Penggerak under the Indonesian Ministry of Education program, he consistently demonstrates dedication to improving the quality of teaching and fostering a positive learning environment. His role reflects his ability to inspire both fellow educators and students through innovation, collaboration, and meaningful educational practices.

In the academic field, Datu is currently conducting research focused on enhancing students' analytical exposition writing skills through innovative teaching strategies, particularly the integration of Mind Mapping and Think-Pair-Share techniques. His research highlights his deep interest in English language teaching, especially in developing students' critical thinking, organization of ideas, and academic writing abilities.

Beyond his professional achievements, Datu is recognized for his passion for character building and lifelong learning. He believes that education should not only improve academic competence but also shape students into creative, responsible, and confident individuals. Through his leadership, research, and teaching experiences, he continues to contribute positively to educational development and inspire others to pursue continuous growth and excellence in learning.

MOTTO

“Learning is not attained by chance; it must be sought with effort and collaboration.”

by Ibnu Sina

DEDICATION

With heartfelt reverence, I extend my deepest gratitude to Allah SWT, whose endless mercy, strength, and blessings of health have guided me throughout the journey of completing this study. I also offer my sincerest dedication to the dearest souls in my life,she is wife. To my beloved father, Abdul Karim (Alm), who never stopped believing in the power of my mind; to my mother, Siti Khodijah, whose love knows no end and whose prayers have always been my shield; to my wife, Dewi Sari Agustini whose unwavering support and wisdom continue to teach me the true meaning of life; and to my siblings who had been my constant source of laughter, strength, and encouragement even in the toughest moments,you remind me that family is the greatest gift of all, especially when all of you have gone. And, of course to my Daughter, Devanka and Ramdhani who give me the strength to survive, struggle and keep going in this world.

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Finally, the researcher wholeheartedly welcomes all suggestions or constructive feedback in improving the quality of this work. Therefore, I hope this thesis is able to expand further the knowledge and domain of Cognition Hypothesis and be resourceful to future researches.

Bandar Lampung, 13 Mei 2026
The Researcher

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I. INTRODUCTION

This chapter presents an overview of the study and outlines the fundamental aspects that form the basis of the research. It discusses the background of the study, identifies the research problems, states the research questions and objectives, defines the scope and limitations of the study, and explains its significance. These sections collectively provide a clear rationale for conducting the research and clarify the direction and focus of the study.

1.1 Background of the Study

Writing is widely recognized as one of the most demanding skills in English as a Foreign Language (EFL) learning. Unlike listening and speaking, writing requires learners to integrate various linguistic and cognitive components simultaneously, including idea generation, organization, vocabulary selection, grammatical accuracy, and mechanics. For Indonesian senior high school students, writing is not merely a classroom activity but also a crucial academic skill that reflects their ability to think critically and express ideas logically in written form. Among the genres taught at the senior high school level, analytical exposition text is considered particularly challenging because it requires students to construct arguments, present logical reasons, and persuade readers through well-organized reasoning.

Several scholars have emphasized the complexity of writing as a language skill. Nunan (2003) states that writing is the most difficult of the four language skills, while Richards and Renandya (2002) argue that second language learners often struggle with writing because it demands control over vocabulary, grammar, punctuation, spelling, and content at the same time. Furthermore, Oshima and Hogue (2006) explain that expository writing requires logical reasoning and factual support, making it especially difficult for learners who are still developing their

linguistic and cognitive abilities. Tribble (1996) also notes that many EFL learners produce disorganized and incoherent texts due to limited mastery of discourse structure. These perspectives indicate that writing instruction should not only focus on linguistic accuracy but also emphasize idea development and logical organization.

In practice, many eleventh-grade students still experience serious difficulties in writing analytical exposition texts. Based on preliminary observation at Al-Kautsar Senior High School, students often struggle to generate ideas, organize arguments coherently, and develop paragraphs systematically. Their writing tends to be fragmented, repetitive, and lacking a clear logical flow. These problems suggest that students face not only linguistic limitations but also difficulties in managing ideas and structuring texts. As a result, their writing performance remains unsatisfactory, and many students show low confidence and motivation when completing writing tasks.

One of the major factors contributing to these problems is the dominance of product-oriented teaching in writing classes. In many EFL classrooms, writing instruction focuses heavily on the final product and grammatical correctness, while the writing process itself such as brainstorming, planning, drafting, revising, and editing receives limited attention (Raimes, 1983). Hedge (2005) further explains that limited vocabulary, poor organization, lack of exposure to good writing models, and insufficient feedback also contribute to students' weak writing performance. Consequently, students are often asked to write immediately without adequate preparation or guidance, making writing an overwhelming task, particularly in analytical exposition texts that require clear reasoning and systematic organization.

From a theoretical perspective, writing ability consists of several interrelated components, including content, organization, vocabulary, language use, and mechanics. These components must develop in balance to produce effective writing. Improvement in writing skills cannot be achieved instantly but requires continuous practice and appropriate instructional support, especially during the pre-writing and drafting stages. Therefore, teachers need to adopt instructional

strategies that help students organize ideas, reduce cognitive load, and actively engage in the writing process.

To address these challenges, Mind Mapping has been proposed as an effective pre-writing strategy. Mind Mapping allows students to visually generate and organize ideas before writing, helping them identify relationships among concepts and plan the structure of their texts. Previous studies have shown that Mind Mapping improves students' ability to develop ideas and create more cohesive texts (Akbar & Syarif, 2018; Dalimunthe, 2019). By using this strategy, students can focus more on content development and organization, which are essential in analytical exposition writing.

Another instructional strategy that supports active learning is Think-Pair-Share (TPS). TPS encourages students to think individually about a topic, discuss their ideas with a partner, and share them with the class. This strategy promotes meaningful interaction, peer feedback, and active participation, which can enhance students' understanding and confidence in writing. Studies by Astuti (2017), Wahyuni (2018), and Li and Lam (2019) indicate that TPS positively affects students' writing performance by fostering creativity and collaborative learning.

More recent studies suggest that combining cognitive strategies such as Mind Mapping with collaborative strategies like Think-Pair-Share may provide greater benefits than using a single strategy alone. Research by Zubaidah et al. (2017) and Akbar and Kamaruddin (2020) shows that the integration of Mind Mapping and TPS significantly improves students' writing ability, coherence, and motivation. Similarly, Handayani (2021) and Pratiwi and Fitriani (2022) report that this combination helps students produce more cohesive and logically structured expository texts. However, limited research has specifically examined the combined use of Mind Mapping and TPS in teaching analytical exposition writing at the senior high school level, particularly at Al-Kautsar Senior High School.

Based on these considerations, this study focuses on enhancing students' analytical exposition text writing skill through the integration of Mind Mapping and Think-Pair-Share for the eleventh-grade students of Al-Kautsar Senior High School. This study examines not only the effectiveness of the instructional strategies in improving students' writing performance but also students' perceptions

of their use in the writing classroom. By addressing both cognitive and affective aspects of learning, this research is expected to contribute to a more comprehensive understanding of effective process-based and student-centered writing instruction in the EFL context.

1.2 Identification of the Problems

Based on the background of the study, the following problems are identified:

1. Students experience difficulties in generating and organizing ideas when writing analytical exposition texts.
2. Students tend to have low confidence and motivation in writing due to limited guidance during the writing process.
3. Writing instruction focuses more on final products than on the stages of the writing process.
4. The effectiveness of integrating Mind Mapping and Think-Pair-Share in improving analytical exposition writing skills has not been sufficiently explored at Al-Kautsar Senior High School.

1.3 Limitation of the Problems

This study is limited to the use of Mind Mapping integrated into Think-Pair-Share in teaching analytical exposition writing. The subjects of the study are the eleventh-grade students of Al-Kautsar Senior High School. The assessment of students' writing is limited to the components of writing, namely content, organization, vocabulary, language use, and mechanics.

1.4 Formulation of the Research Questions

Based on the limitation of the problems, the research questions are formulated as follows:

1. Is there a significant difference in students' analytical exposition writing skills between those taught using Mind Mapping integrated into Think-Pair-Share and those taught using original mind mapping?

2. How do students perceive the use of Mind Mapping integrated into Think-Pair-Share in learning analytical exposition writing?

1.5 Objectives of the Study

The objectives of this study are:

1. To investigate whether there is a significant difference in students' analytical exposition writing skills between those taught using Mind Mapping integrated into Think-Pair-Share and those taught using original mind mapping.
2. To explore students' perceptions toward the use of Mind Mapping integrated into Think-Pair-Share in learning analytical exposition writing.

1.6 Significance of the Study

The significance of this study can be viewed from theoretical, pedagogical, and practical perspectives. Theoretically, this study is expected to enrich the discussion on process-based writing instruction by providing empirical evidence on the integration of cognitive and collaborative strategies in EFL writing. Pedagogically, the findings may help teachers understand the importance of guiding students through the writing process and considering students' perceptions in evaluating instructional effectiveness. Practically, this study is expected to provide useful insights for English teachers, curriculum designers, and future researchers in developing effective strategies for teaching analytical exposition writing at the senior high school level.

1.7. Definition of Terms

Writing

Writing refers to students' ability to express ideas, thoughts, and information in written form in a coherent, organized, and meaningful way. In this study, writing focuses on students' skill in producing expository texts by applying appropriate content, organization, vocabulary, grammar, and mechanics.

MindMapping

Mind Mapping is a visual learning technique used to organize and develop ideas

through keywords, symbols, and connections. In this study, Mind Mapping is used as a pre-writing strategy to help students generate ideas, structure content, and plan their expository writing more effectively.

Think-Pair-Share

Think-Pair-Share is a cooperative learning strategy that encourages students to think individually about a topic, discuss their ideas with a partner, and then share them with the class. In this study, Think-Pair-Share is applied to support students' writing development by promoting idea exchange, clarification, and collaborative learning before and during the writing process.

II. LITERATURE REVIEW

This chapter presents the theoretical and empirical foundations underlying the present study, which focuses on enhancing students' analytical exposition writing skills through the integration of Mind Mapping and Think-Pair-Share (TPS). The discussion is organized systematically to reflect academic thesis standards commonly applied in reputable Indonesian state universities. The chapter begins with an overview of writing ability and its aspects, followed by teaching analytical exposition writing, writing assessment, analytical exposition text, Mind Mapping, Think-Pair-Share, the integration of Mind Mapping into TPS, teaching procedures, students' perceptions, previous studies, theoretical assumptions, and hypotheses. Each section is presented coherently without conceptual overlap to ensure clarity and academic rigor.

2.1 Writing Ability

In the field of language learning, writing is often considered one of the most challenging skills for learners to master. This is because writing requires not only the ability to use language accurately but also the ability to organize ideas and convey meaning effectively. In academic contexts, particularly in argumentative genres such as analytical exposition, writing becomes even more demanding as it involves higher-order thinking skills and logical reasoning.

Writing is a complex productive skill that requires learners to generate ideas, organize them logically, and express them accurately using appropriate linguistic forms. In the context of analytical exposition texts, writing ability involves not only linguistic competence but also critical thinking and reasoning skills. Analytical exposition writing requires students to analyze issues, formulate

a clear position, and support that position with logical arguments and evidence (Knapp & Watkins, 2005; Oshima & Hogue, 2006).

Flower and Hayes (1981) conceptualize writing as a recursive cognitive process in which writers continuously plan, draft, and revise their ideas. This recursive nature is particularly evident in analytical exposition writing because students must repeatedly evaluate the strength of their arguments and the coherence of their reasoning. In the Indonesian EFL context, many senior high school students experience difficulties in analytical writing due to limited vocabulary, weak organization, and minimal exposure to argumentative discourse (Fareed, Ashraf, & Bilal, 2016). These challenges indicate the need for instructional strategies that support both idea organization and collaborative reflection during the writing process.

Writing, particularly analytical exposition writing is a complex process that integrates linguistic competence, cognitive processes, and critical thinking skills. As suggested by Linda Flower and John R. Hayes(1981), writing involves a recursive process that requires continuous planning, drafting, and revising. In addition, students must be able to construct logical arguments and organize their ideas effectively to achieve the communicative purpose of the text. However, challenges faced by EFL learners highlight the importance of appropriate instructional strategies to support writing development. Therefore, effective teaching of analytical exposition writing should focus not only on language accuracy but also on enhancing students' critical thinking and organizational skills.

2.2 Aspects of Writing

In assessing writing competence, it is important to consider the fundamental aspects that construct a piece of writing. Writing is not a single skill but a combination of several interrelated components that work together to produce a clear, coherent, and meaningful text. These aspects become particularly crucial in academic writing, where the effectiveness of a text is determined by how well each component is developed and integrated.

Writing competence is commonly assessed through several interrelated components that together determine the overall quality of a written text. Brown (2001) identifies five major aspects of writing: content, organization, vocabulary, language use, and mechanics. These components are not independent; rather, they interact dynamically during the writing process. In analytical exposition writing, weakness in one aspect often affects the effectiveness of the entire text.

Heaton (1991) emphasize that content and organization should receive greater emphasis in academic writing assessment because they reflect students' ability to develop ideas and present logical arguments. Similarly, Weigle (2002) argues that linguistic accuracy alone cannot represent writing proficiency unless it is supported by clear organization and meaningful content. Therefore, balanced development of all writing aspects is essential, particularly for argumentative genres such as analytical exposition.

In short, As highlighted by H. Douglas Brown(2004), J. B. Heaton(1991), and Sara Cushing Weigle(2002), effective writing cannot be evaluated based on a single component, as each aspect contributes to the overall quality of the text. In the context of analytical exposition writing, the ability to present clear ideas, organize arguments logically, and support them with appropriate language plays a crucial role in achieving persuasive and coherent writing. Therefore, a balanced development of all writing aspects is essential to produce effective academic texts.

2.2.1 Content

Content refers to the relevance, clarity, and depth of ideas presented in a text. In analytical exposition writing, content quality is reflected in the clarity of the thesis, the strength of arguments, and the adequacy of supporting evidence. Hedge (2005) emphasizes that persuasive writing depends largely on the quality of ideas and reasoning rather than linguistic accuracy alone. Content plays a central role in determining the effectiveness of analytical exposition writing, as it represents the substance and intellectual quality of the text. According to Hedge (2005), successful persuasive writing depends primarily on the strength of ideas, the clarity of reasoning, and the relevance of supporting evidence rather than on linguistic accuracy alone. In analytical exposition texts, high-quality content is reflected in a

clearly stated thesis that directly addresses the issue being discussed, well-developed arguments that are logically organized, and sufficient evidence that supports each claim convincingly. When ideas are presented clearly and supported by relevant examples, facts, or logical explanations, readers are more likely to be persuaded by the writer's stance. Conversely, even grammatically accurate writing may fail to achieve its communicative purpose if the ideas are weak, unclear, or poorly supported. Therefore, in line with Hedge's view, content quality should be considered the foundation of effective analytical exposition writing, as strong ideas and sound reasoning form the basis upon which linguistic features and organizational elements function to achieve persuasive and meaningful communication.

2.2.2 Organization

Organization concerns the logical arrangement of ideas within a text. Analytical exposition texts typically follow a structured pattern consisting of a thesis, a series of arguments, and a concluding reiteration (Derewianka, 1990). Harmer (2007) notes that well-organized writing enables readers to follow the writer's reasoning more easily and enhances overall coherence. Organization is a crucial element in analytical exposition writing, as it determines how effectively ideas and arguments are presented and understood by the reader. According to Derewianka (1990), analytical exposition texts follow a systematic structure consisting of a thesis, a sequence of arguments, and a concluding reiteration, which functions to guide readers through the writer's line of reasoning. This structured pattern helps ensure that ideas are introduced clearly, developed logically, and reinforced at the end of the text. Supporting this view, Harmer (2007) emphasizes that well-organized writing allows readers to follow the writer's arguments more easily, thereby enhancing coherence and overall textual clarity. When ideas are arranged logically and connected smoothly, readers can comprehend the progression of arguments without confusion. Conversely, poor organization may result in fragmented ideas and weaken the persuasive impact of the text. Therefore, in line with Derewianka's genre-based framework and Harmer's emphasis on clarity, effective organization serves as a foundation for coherent, logical, and

persuasive analytical exposition writing, enabling writers to communicate their viewpoints in a clear and convincing manner.

2.2.3 Vocabulary

Vocabulary refers to the selection of words appropriate to the topic, context, and audience. In analytical exposition writing, the use of academic and evaluative vocabulary, as well as logical connectors, plays a crucial role in strengthening arguments and ensuring clarity (Nunan, 1991). Vocabulary plays a fundamental role in the effectiveness of analytical exposition writing, as it directly influences how ideas, arguments, and evaluations are communicated to the reader. As emphasized by Nunan (1991), appropriate vocabulary selection must align with the topic, context, and intended audience to ensure meaningful and purposeful communication. In analytical exposition texts, the use of academic and evaluative vocabulary enables writers to express opinions, judgments, and stances in a formal and convincing manner. Such vocabulary helps writers present arguments more precisely and persuasively, allowing readers to clearly understand the writer's position. Furthermore, the strategic use of logical connectors—such as cause–effect, contrast, and addition markers—contributes significantly to textual coherence and cohesion. These connectors guide readers through the flow of arguments, ensuring that ideas are logically linked and systematically developed. Without adequate vocabulary control, arguments may become vague, fragmented, or less convincing. Therefore, mastery of academic vocabulary and logical connectors is essential in analytical exposition writing, as it strengthens argumentation, enhances clarity, and supports the overall communicative purpose of the text, in line with Nunan's view of vocabulary as a core component of effective language use.

2.2.4 Language Use

Language use includes grammatical accuracy, sentence structure, and cohesion. Effective analytical writing requires the use of complex sentences, appropriate tense usage, and cohesive devices to express relationships between ideas clearly (Brown, 2001). Language use is a vital component of analytical

exposition writing, as it reflects the writer's ability to express ideas accurately, logically, and coherently. Brown (2001) emphasizes that effective language use involves not only grammatical accuracy but also the appropriate selection of sentence structures and cohesive devices that function to convey meaning clearly. In analytical writing, the use of complex sentences allows writers to express logical relationships such as cause and effect, contrast, and reasoning more explicitly, thereby strengthening the development of arguments. Appropriate tense usage also contributes to clarity and consistency, ensuring that ideas are presented within a clear temporal and logical framework. Furthermore, cohesive devices—such as conjunctions, reference words, and transitional markers—play an essential role in linking ideas across sentences and paragraphs, helping readers follow the flow of arguments smoothly. When these linguistic elements are used effectively, the text becomes more coherent, persuasive, and academically appropriate. Conversely, weaknesses in grammatical accuracy, sentence structure, or cohesion may obscure meaning and reduce the effectiveness of the argument. Therefore, in line with Brown's (2001) view, mastery of language use is essential for producing clear, logical, and well-structured analytical exposition texts that successfully communicate the writer's intended message.

2.2.5 Mechanics

Mechanics involve spelling, punctuation, capitalization, and formatting. Although mechanics carry less weight than content or organization, persistent mechanical errors can reduce readability and negatively affect the credibility of academic writing (Hedge, 2005). Mechanics play an important supporting role in academic writing, as they influence how clearly and professionally ideas are presented to the reader. Hedge (2005) explains that while mechanical aspects such as spelling, punctuation, capitalization, and formatting may carry less weight than content development or organization, they remain essential for maintaining readability and credibility in written texts. In analytical exposition writing, accurate mechanics help readers focus on the arguments and ideas without being distracted by surface-level errors. Proper punctuation and capitalization clarify sentence boundaries and emphasize key points, while correct spelling and consistent

formatting contribute to a polished and academic appearance. Persistent mechanical errors, however, can disrupt comprehension, reduce reading fluency, and create a negative impression of the writer's competence, even when the ideas themselves are strong. Therefore, in line with Hedge's (2005) view, careful attention to writing mechanics is necessary to support effective communication, enhance readability, and reinforce the credibility of analytical exposition writing in academic contexts.

2.3 Analytical Exposition Text

Analytical exposition text is a type of persuasive academic writing that aims to convince readers of the validity of a particular viewpoint through logical arguments and evidence (Knapp & Watkins, 2005). Analytical exposition text is a type of argumentative writing that presents a viewpoint on an issue and supports it through logical reasoning and evidence. According to Derewianka (1990), an analytical exposition text is designed to persuade the reader that a particular position or point of view is valid by presenting arguments that support the writer's stance. The persuasion in this text is achieved through analysis rather than emotional appeal.

Similarly, Knapp and Watkins (2005) define analytical exposition as a genre that explains why something is the case by organizing ideas into a thesis followed by arguments. The purpose of this text is not to debate opposing views explicitly, but to strengthen one position by providing clear reasons and logical justification.

Analytical exposition is a type of argumentative text that aims to persuade readers by presenting logical arguments and evidence. As stated by Sutarsyah (2025), this genre is structured into thesis, arguments, and reiteration to support the writer's position. In addition, writing itself requires clear organization and coherence to effectively deliver ideas (Raja, 2016). Therefore, students need to master both the structure of analytical exposition and the general principles of effective writing in order to produce a well-organized text.

From a functional perspective, Hyland (2004) explains that analytical exposition is closely related to academic argumentation because it requires writers to position themselves in relation to an issue and guide readers through a chain of reasoning. This makes analytical exposition an important genre for EFL learners,

as it helps them develop skills needed for academic writing, such as formulating claims, supporting ideas with evidence, and maintaining logical coherence.

In the context of English language teaching, analytical exposition texts are used to:

1. Develop students' critical and analytical thinking skills
2. Train students to construct logical arguments in written form
3. Improve students' ability to express opinions using academic language.

2.3.2 Generic Structure of Analytical Exposition Text

Analytical exposition texts follow a predictable and systematic structure that supports logical reasoning. According to Derewianka (1990) and Knapp and Watkins (2005), the generic structure consists of three main parts: thesis, arguments, and reiteration (or conclusion). Each part serves a specific communicative function in persuading the reader. The generic structures of analytical exposition text are thesis, arguments, and reiteration or conclusion.

The thesis is the opening part of the text in which the writer introduces the topic and clearly states their position or point of view. This section functions as the foundation of the argument, guiding the reader on what the writer believes and what will be discussed in the text. Knapp and Watkins (2005) emphasize that a clear thesis statement is essential because it provides direction and focus for the arguments that follow. Without a clear thesis, the text may lack coherence and persuasive force.

The arguments section presents a series of reasons that support the thesis. Each argument is usually developed in a separate paragraph and includes a topic sentence, explanation, and supporting evidence or examples. According to Derewianka (1990), the strength of an analytical exposition lies in the logical connection between arguments and the thesis. Hyland (2004) explains that arguments should be organized logically, often from the strongest to the weakest or from general to specific, to enhance persuasiveness. In EFL classrooms, students often struggle at this stage because they must not only generate ideas but also organize them coherently. Therefore, teaching strategies that support idea

organization, such as Mind Mapping and collaborative discussion, are particularly relevant.

The reiteration restates the thesis and summarizes the main arguments without introducing new information. Its function is to reinforce the writer's position and leave a strong impression on the reader. According to Knapp and Watkins (2005), effective reiteration strengthens persuasion by reminding readers of the logical reasons that support the writer's stance.

2.3.3 Language Features of Analytical Exposition Text.

Analytical exposition texts employ specific linguistic features that support clarity, logical reasoning, and persuasion. These language features distinguish analytical exposition from other text types and reflect its academic nature. Analytical exposition text uses some language features: Use of Present Tense, Logical Connectives such as *therefore, however, moreover, in addition,* and *as a result* help readers follow the flow of reasoning, Modal Verbs such as *should, must, can,* and *may* are frequently used to express degrees of certainty, obligation, or recommendation, Formal and Academic Vocabulary such as *significant, crucial, problematic,* and *inevitable* are commonly used to strengthen arguments, and Coherence and Cohesion.

2.4 Teaching Writing for Analytical Exposition

Teaching analytical exposition writing requires a pedagogical approach that emphasizes both genre awareness and the writing process. According to Derewianka (1990), students need explicit instruction on the purpose, structure, and language features of analytical exposition texts in order to produce effective arguments. Without such guidance, learners often fail to distinguish between expressing opinions and constructing reasoned arguments.

From a process-oriented perspective, Raimes (1983) asserts that writing instruction should focus on how students generate, develop, and refine ideas rather than merely evaluating the final product. This approach allows students to experience writing as a developmental activity and reduces anxiety commonly associated with writing tasks. Harmer (2007) further notes that teachers play a

crucial role in facilitating the writing process by providing models, guiding pre-writing activities, and offering constructive feedback.

In the context of EFL classrooms, teaching analytical exposition writing also involves fostering critical thinking skills. Facione (2011) explains that argumentative writing encourages learners to analyze issues, evaluate evidence, and draw reasoned conclusions. Therefore, instructional strategies that promote discussion, reflection, and idea organization are essential to support students' development in analytical writing

.Effective instruction in analytical exposition writing emphasizes argument development, explicit teaching of text structure, integration of vocabulary and language features, and a process-oriented approach. Brown (2001) argues that writing instruction should focus on planning, drafting, revising, and editing rather than merely producing a final product.

Several strategies are commonly used to support analytical writing, including collaborative writing, scaffolded instruction, debate-based activities, and continuous feedback. Collaborative learning, grounded in Vygotsky's (1978) social constructivist theory, allows students to refine ideas through interaction, while feedback supports gradual improvement in writing quality (Harmer, 2007).

Students often encounter difficulties in developing logical arguments, maintaining coherence, and using academic vocabulary. Teachers must balance attention to language accuracy and content quality, which can be challenging in EFL classrooms with limited instructional time.

2.5 Writing Assessment

Writing assessment is an integral part of writing instruction because it provides information about students' progress and informs instructional decisions. Brown (2004) emphasizes that effective writing assessment should align with instructional objectives and reflect the complexity of the writing process. In analytical exposition writing, assessment should evaluate not only grammatical accuracy but also the clarity of arguments and the coherence of text organization.

Weigle (2002) highlights the importance of using analytic scoring rubrics in EFL writing assessment, as they allow teachers to evaluate different components of

writing separately. This approach provides more detailed feedback and helps students understand specific areas that need improvement. Moreover, formative assessment plays a vital role in process-based writing instruction by offering ongoing feedback during drafting and revising stages (Black & Wiliam, 1998).

2.5.1 Types of Writing Assessment

Writing assessment can be categorized into assessment of learning (summative), assessment for learning (formative), and assessment as learning. Summative assessment measures students' achievement after instruction, while formative assessment provides ongoing feedback during the learning process. Assessment as learning encourages students to reflect on their own writing development (Earl, 2003). Based on Brown (2001) and Hedge (2005), analytical exposition writing is assessed through content, organization, vocabulary, language use, and mechanics. These criteria align with the characteristics of effective argumentative writing. This study adopts an analytic scoring rubric adapted from Heaton (1991), which evaluates writing performance across multiple components. The analytic approach allows for detailed analysis of students' strengths and weaknesses and is particularly suitable for EFL writing research.

Table 1. Scoring Rubric for Analytical Exposition Writing (Heaton, 1991)

No.	Writing Component	Score Range	Criteria Description
1	Content	30–27	Excellent to very good: ideas are clearly stated, relevant, well-developed, and supported by logical arguments.
		26–22	Good to average: ideas are relevant but lack depth or sufficient support.
		21–17	Fair to poor: limited ideas, weak arguments, insufficient support.
		16–13	Very poor: ideas are unclear or irrelevant.
2	Organization	20–18	Excellent to very good: clear thesis, logical sequencing, strong cohesion.

		17–14	Good to average: generally clear but limited flow.
		13–10	Fair to poor: weak organization and paragraphing.
		9–7	Very poor: lack of organization.
3	Vocabulary	20–18	Effective academic vocabulary and precise word choice.
		17–14	Adequate vocabulary with occasional misuse.
		13–10	Limited vocabulary affecting meaning.
		9–7	Very poor vocabulary control.
4	Language Use	25–22	Accurate grammar and sentence structure.
		21–18	Some grammatical errors but meaning clear.
		17–11	Frequent grammatical errors.
		10–5	Dominated by grammatical errors.
5	Mechanics	5–4	Correct spelling, punctuation, capitalization.
		3	Occasional mechanical errors.
		2	Frequent mechanical errors.
		1	Dominated by mechanical errors.

2.6 Mind Mapping

Mind Mapping is a visual strategy used to generate and organize ideas. Buzan (2010) defines mind mapping as a technique that represents ideas in a radial structure, enabling learners to see relationships among concepts. Mind Mapping supports analytical exposition writing by helping students plan arguments, sequence ideas logically, and reduce cognitive load during writing.

A number of previous studies conducted in the last seven years have reported positive effects of Mind Mapping and Think-Pair-Share (TPS) on students' writing performance, particularly in terms of engagement, content development, and organization. These studies consistently suggest that both strategies support

students' ability to generate ideas and structure their writing, although improvements in grammatical accuracy and mechanics tend to require longer instructional exposure.

Several studies focusing on Mind Mapping have demonstrated its effectiveness in enhancing students' idea generation and text organization. For instance, research by Al-Jarf (2017) found that EFL students who used Mind Mapping during the pre-writing stage produced essays with clearer main ideas and better-organized paragraphs compared to those who used linear outlining. Similarly, Rahayu and Wulandari (2019) reported that Mind Mapping helped senior high school students develop richer content and maintain coherence in expository texts, as students were able to visualize relationships among ideas before writing. These findings align with Buzan's (2006) theory that visual mapping supports cognitive processing by reducing memory load and enhancing conceptual connections.

More recent studies conducted between 2021 and 2025 have reinforced these findings. Rahmawati and Fitriani (2021) reported that students who applied Mind Mapping in analytical exposition writing showed significant improvement in content development and idea organization, as the strategy helped them structure arguments more systematically. In a quasi-experimental study, Sari, Putra, and Dewi (2022) found that Mind Mapping effectively enhanced students' ability to generate supporting details and maintain logical flow in expository essays, although improvements in grammatical accuracy were limited.

Similarly, Hidayat and Nuraini (2023) observed that Mind Mapping increased students' engagement during the pre-writing stage and resulted in more coherent paragraph development in senior high school EFL classrooms. Most recently, Lestari and Pratama (2024) reported that students taught using Mind Mapping demonstrated clearer thesis statements and better organization of arguments, particularly when the strategy was applied consistently over several instructional sessions. Overall, these studies confirm that Mind Mapping is particularly effective in improving higher-level writing skills, such as idea generation and organization, while lower-level linguistic accuracy may require additional instructional support and longer practice.

2.7 Think-Pair-Share (TPS)

Think-Pair-Share is a collaborative learning strategy developed by Lyman (1981) that involves individual thinking, paired discussion, and group sharing. TPS encourages active participation and critical thinking, which are essential for developing argumentative writing skills.

Studies on Think-Pair-Share have also highlighted its role in increasing student engagement and improving the quality of written output. Kaddoura (2018) reported that TPS encouraged active participation and critical thinking, as students had opportunities to reflect individually and refine their ideas through peer discussion. In a classroom-based study, Putri and Sudirman (2020) found that students taught through TPS demonstrated stronger argument development and clearer organization in argumentative writing than those taught through traditional teacher-centered methods. These results support Johnson, Johnson, and Holubec's (1994) assertion that cooperative learning enhances understanding when students actively exchange ideas.

More recent studies have examined the integration of individual and cooperative strategies in writing instruction. Rahmawati and Fitriani (2021) reported that combining Mind Mapping with collaborative discussion significantly improved students' content development and organization in analytical exposition texts. However, the study also noted that improvements in grammar and mechanics were less pronounced, suggesting that linguistic accuracy requires sustained practice and explicit instruction. This finding is consistent with Hyland's (2004) view that higher-level writing skills, such as idea development and organization, often develop earlier than lower-level linguistic accuracy in EFL contexts.

Despite the generally positive findings, previous studies indicate certain limitations. Most studies were conducted over relatively short instructional periods and primarily focused on quantitative outcomes, such as test scores. Few studies explored students' perceptions of using Mind Mapping integrated into TPS, particularly at the senior high school level. Moreover, limited research has specifically examined the use of these combined strategies in teaching analytical exposition text, which requires both critical thinking and coherent argumentation.

2.8 Integrating Mind Mapping into Think-Pair-Share

The combination of Mind Mapping and Think-Pair-Share (TPS) offers an effective integration of individual cognitive structuring and social interaction in the writing process. Mind Mapping enables students to independently generate, organize, and visualize ideas before writing, while TPS provides opportunities for students to discuss, clarify, and refine those ideas through peer interaction. Johnson, Johnson, and Holubec (1994) emphasize that cooperative learning becomes most effective when it is supported by meaningful cognitive strategies that help learners process content deeply.

Similarly, Slavin (1995) argues that integrating cooperative learning with individual tasks enhances both comprehension and written production, as students are encouraged to take personal responsibility while benefiting from collaboration. In the context of writing instruction, Jacobs, McCafferty, and Iddings (2006) affirm that students' writing development is strengthened when visual thinking tools are combined with peer dialogue, as this integration supports idea elaboration and audience awareness.

When Mind Mapping is embedded within the TPS stages, students first organize their ideas individually through mind maps, then refine and expand those ideas during pair discussions, and finally strengthen their arguments through class sharing. This integrated approach aligns closely with the process writing model proposed by Harmer (2004), which views writing as a recursive process involving planning, drafting, revising, and editing. Through this combination, students are better supported in developing content, organizing ideas coherently, and gaining confidence in expressing their arguments in written form.

Although Mind Mapping has been shown to be effective in helping students generate ideas and organize their writing, several limitations can still be identified in its implementation. One major weakness of Mind Mapping is its individual nature, which may cause students to rely only on their own background knowledge when developing ideas. As a result, students with limited knowledge or lower ability often find it difficult to expand their arguments or consider different perspectives. In addition, without peer discussion or feedback, ideas produced

through Mind Mapping may lack depth and critical thinking, particularly in argumentative writing such as analytical exposition texts.

These limitations can be addressed through the use of Think-Pair-Share (TPS), which emphasizes peer interaction and idea exchange. Through the *pair* and *share* stages, students have opportunities to discuss, clarify, and refine the ideas they initially develop individually. Peer discussion allows students to gain new perspectives, strengthen their arguments, and organize ideas more logically. Therefore, TPS functions as a bridge between individual idea planning through Mind Mapping and deeper argument development through social interaction. The integration of these two strategies enables students not only to organize ideas effectively but also to improve the quality of content and the strength of argumentation in their writing.

2.9 Teaching Procedure Using Mind Mapping,Mind Mapping Integrated with TPS

In this study, the teaching procedures were designed based on two instructional approaches, namely Mind Mapping and the combination of Mind Mapping and TPS. Each technique provides different learning experiences that support students' writing development, particularly in producing analytical exposition texts.

Mind Mapping focuses on helping students organize their ideas visually. Through this technique, students are guided to brainstorm, structure, and develop their arguments systematically before writing. This approach emphasizes individual cognitive processing, allowing students to generate and expand ideas independently.

Meanwhile, Think-Pair-Share (TPS) is a collaborative learning strategy that encourages students to think in pair, discuss their ideas with a partner, and share them with the class. This technique promotes interaction, critical thinking, and the exchange of ideas, which can enhance students' understanding and confidence in expressing their thoughts.

Furthermore, the combination of Mind Mapping and TPS integrates both cognitive and collaborative processes. In this approach, students first construct their

ideas individually using mind maps, and then refine and develop those ideas through pair discussions and class sharing. This integrated technique is expected to provide more comprehensive support for students in organizing, developing, and expressing their ideas effectively in written form.

The teaching procedures of these three techniques are systematically presented in the following table, which outlines each stage of the learning process, starting from the introduction stage to the revising or editing stage. It can be seen in Appendix 7.

The teaching procedure using Mind Mapping integrated into Think-Pair-Share (TPS) is designed to guide students through a structured yet flexible writing process, moving from individual idea generation to collaborative refinement and independent text production. This procedure reflects the view of writing as a process rather than a product, emphasizing planning, interaction, and revision (Harmer, 2004).

1. Pre-Writing Stage (Individual Planning through Mind Mapping)

The pre-writing stage focuses on idea generation and organization through Mind Mapping. At this stage, students are introduced to a topic related to analytical exposition text and are encouraged to activate their prior knowledge. According to Buzan (2006), Mind Mapping facilitates creative thinking by allowing learners to visualize relationships among ideas, which helps them organize information more effectively before writing.

Students individually create a mind map by placing the central topic in the middle of the page and developing branches for the thesis and supporting arguments. This activity helps students clarify their position and identify relevant reasons and examples. Flower and Hayes (1981) explain that effective planning is a critical component of the writing process, as it reduces cognitive overload during drafting. By organizing ideas visually, students are better prepared to translate thoughts into coherent written text.

2. Think Stage (Individual Reflection)

In the Think stage of TPS, students reflect individually on their mind maps and consider the strength and relevance of their ideas. This stage encourages

students to take responsibility for their own learning and supports independent thinking. Slavin (1995) emphasizes that individual accountability is essential in cooperative learning to ensure that each learner actively engages with the task.

During this stage, students may revise or expand their mind maps by adding supporting details, examples, or logical connections. This reflective process allows students to evaluate their arguments critically before sharing them with peers.

3. Pair Stage (Collaborative Discussion and Refinement)

In the Pair stage, students discuss their mind maps with a partner. Through peer interaction, students exchange ideas, provide feedback, and suggest improvements to each other's arguments. According to Johnson, Johnson, and Holubec (1994), cooperative learning promotes deeper understanding when learners engage in face-to-face interaction and positive interdependence.

This stage supports the social construction of knowledge, as students negotiate meaning and clarify their thoughts through discussion. Vygotsky (1978) argues that learning occurs most effectively within the Zone of Proximal Development, where learners can perform better with the support of peers. As a result, students often gain new perspectives and strengthen their arguments during pair discussions.

4. Share Stage (Class Discussion and Idea Expansion)

In the Share stage, students present or summarize the results of their pair discussions to the whole class. This stage allows students to compare ideas across groups and gain broader insights into the topic. According to Harmer (2004), sharing ideas in a supportive classroom environment increases learners' confidence and motivation to write.

Teacher feedback during this stage plays a crucial role in guiding students toward more accurate content and logical organization. The teacher may highlight strong arguments, correct misconceptions, and model effective language use. This scaffolding process supports students in refining their ideas before writing.

5. Writing Stage (Drafting Analytical Exposition Text)

After completing the TPS stages, students begin writing their analytical exposition text individually based on their revised mind maps. This stage involves transforming organized ideas into a coherent written draft that follows the generic structure of analytical exposition: thesis, arguments, and reiteration.

According to Hyland (2004), explicit attention to genre structure and language features helps students produce more effective academic texts. The mind map serves as a guide, helping students maintain coherence and focus while writing.

6. Revising and Editing Stage (Optional Extension)

Students revise their drafts based on peer or teacher feedback. This stage aligns with the process writing approach, which views writing as recursive and subject to continuous improvement (Harmer, 2004). Revising helps students improve content clarity, organization, and language accuracy.

The integration of Mind Mapping into TPS supports both cognitive and social aspects of writing development. Mind Mapping helps students organize ideas independently, while TPS facilitates meaningful interaction and collaborative learning. Supported by experts such as Buzan (2006), Johnson et al. (1994), Vygotsky (1978), and Harmer (2004), this teaching procedure is expected to enhance students' ability to write analytical exposition texts effectively.

2.10 Theoretical Assumption

Writing is a complex cognitive and social process that involves generating ideas, organizing information, and expressing arguments in coherent and linguistically accurate forms. Brown (2001) identifies five interrelated aspects of effective writing: content, organization, vocabulary, language use, and mechanics. Improving these aspects requires structured guidance that leads students through each stage of writing, rather than leaving them to compose independently. Therefore, the assumption is that explicit teaching strategies, such as Mind Mapping and TPS can provide the scaffolding necessary to develop students' writing systematically and meaningfully.

2.11 Hypothesis

H_0: There is a significant difference in students' writing achievement between using Mind Mapping integrated with TPS on students' writing skills and original mind mapping.

H_1: There is a significant difference in students' writing achievement between using Mind Mapping integrated with TPS on students' writing skills and original mind mapping.

III. METHOD

This chapter outlines the methods used to investigate the effectiveness of Mind Mapping and Think-Pair-Share (TPS) in improving students' expository writing skills. The study applies a quantitative approach with a quasi-experimental design to compare students' writing performance across different teaching strategies. The integration of Mind Mapping and TPS is expected to enhance both individual idea development and collaborative learning. This chapter includes the research design, population and sample, variables, instruments, data collection procedures, and data analysis techniques.

3.1 Research Design

This study adopted a quantitative quasi-experimental research design with a pre-test and post-test control group format. This method provided a practical way to investigate the effectiveness of specific teaching interventions in this case, Mind Mapping, Think-Pair-Share (TPS), and their integration on students' performance in expository writing.

The design of this research is:

G1 = T1 X1 T2
G2 = T1 X2 T2

Where:

G1 : experimental class

G2 : control class

T1 : Pretest

T2 : Posttest

X1 : treatment using the integrated mind mapping and TPS technique

X2 : Treatment using original Mind Mapping

This research design aims to measure the improvement in students' writing achievement that can be attributed to each of the instructional techniques being studied. To achieve this, the study will involve two distinct groups:

The control Group: This group was taught using mind mapping technique, meanwhile the experimental group received a combination of Mind Mapping and TPS, integrating both cognitive structuring and collaborative dialogue. This group will receive the most comprehensive support for writing, addressing both idea organization and idea development through interaction.

Each group was given a pre-test before the intervention to assess their initial writing proficiency in expository text. After both groups receive the treatment based on the determined method, they will perform a post-test. The results will then be analyzed to determine which strategy or combination of strategies leads to the greatest improvement in students' expository writing ability.

This research design had some advantages. First, it compares the result between the experimental group and the control group, and also among the experimental groups themselves, revealing the relative effectiveness of each approach. Second, the pre-test and post-test format enables the researcher to measure gains in performance, thus highlighting the progress attributable to the instructional methods rather than to other external factors. Lastly, by employing two different conditions and a control group, the study ensures a robust exploration of teaching techniques, offering useful insights for pedagogical practice in EFL (English as a Foreign Language) classrooms.

In summary, the quasi-experimental design with a control group and multiple experimental conditions allowed for a comprehensive evaluation of how Mind Mapping individually and the combination of mind mapping and Think Pair Share can enhance students' writing skills, especially in crafting coherent and well-structured expository texts. This design is appropriate and aligned with the study's goal of promoting evidence-based, innovative teaching practices in senior high school English instruction.

3.2 Population and Sample

The population of this study consisted of the eleventh-grade students from Alkautsar Senior High School in Bandar Lampung. A cluster random sampling technique was used to select two intact classes that are equivalent in their English proficiency based on their mid-term scores. Total students involved in this study were 60 students. With ± 30 students in each group. The two classes were assigned to the two different treatment groups.

3.3 Research Variables

In this study, the research variables were carefully categorized into independent variables (x) and a dependent variable (y), reflecting the cause-effect relationship at the heart of the research design. The aim is to investigate how specific instructional strategies influence students' ability to write expository texts more effectively. Below is a detailed explanation of each variable involved:

3.3.1 Independent Variables

The independent variables are the instructional interventions applied during the research. These are the variables that the researcher manipulates to determine their effect on students' writing performance.

1) Mind Mapping

Mind Mapping is a visual pre-writing strategy used to help students organize their thoughts before they begin drafting their texts. This technique encourages students to brainstorm ideas, usually around a central theme or topic. Mind Mapping is believed to enhance students' ability to structure their ideas coherently, promote logical sequencing, and stimulate creative thinking, especially in planning expository texts. As a stand-alone intervention, it targets the cognitive process of writing.

2) Combination of Mind Mapping and TPS

The second independent variable is the integrated use of both Mind Mapping and TPS. This combined approach is intended to offer a comprehensive instructional method that addresses both individual cognitive planning and social

idea refinement. Students first organize their ideas using Mind Mapping, then collaborate with peers using TPS to evaluate and enhance those ideas. This method is expected to provide synergistic benefits, potentially resulting in higher writing achievement than when either technique is used alone.

3.4 Instruments of the Research

To ensure the reliability and validity of data collection in this quasi-experimental study, several research instruments are employed. These instruments serve to measure both the students' progress in writing and the effectiveness of the teaching interventions. The instruments include writing tests (pre-test and post-test) to measure the students' writing skill, and questionnaire to know the students' perception of the implementation of mind mapping integrated with TPS, each of which plays a crucial role in evaluating the outcomes of using Mind Mapping and Think-Pair-Share (TPS) techniques in teaching analytical exposition writing.

1. Writing Test (Pre-Test and Post-Test)

The primary instrument used to measure the dependent variable students' writing achievement in expository texts is a writing test, administered both before (pre-test) and after (post-test) the instructional treatments. The goal of the test is to assess students' ability to produce coherent, structured, and well-developed expository essays. By comparing the pre-test and post-test results, the researcher can evaluate the effectiveness of each teaching method (Mind Mapping, TPS, and their combination) in improving students' writing skills.

Students were given a specific expository writing prompt related to familiar topics appropriate for their cognitive and language proficiency levels. They will be asked to develop their ideas into a full expository essay, typically consisting of:

1. A clear thesis statement or topic sentence
2. Supporting paragraphs with examples or explanations
3. A concluding paragraph that summarizes the main points

The students' essays were evaluated using a scoring rubric adapted from Heaton (1991),a widely used and well-established framework for assessing ESL/EFL writing performance.

1. Questionnaire

The second instrument is questioinnaire to get the students' perception of the writing activity using the integration technique of mind mapping and think pair share. The questionnaire was made using likert scale from scale 1 to 4.

There were 26 questions which cover

The aspects of perception being higlighter were

The questionnaire was validated by

Table of questionnaire

In sum, the writing tests and questionnaire collectively form a robust set of instruments that not only quantify student improvement but also monitor the teaching learning process. These tools provide quantitative data, which enrich the analysis and interpretation of the study's findings. The careful selection and application of these instruments help ensure the study's validity, reliability, and educational relevance particularly in the context of enhancing expository writing through Mind Mapping and Think-Pair-Share techniques among Indonesian senior high school students.

3.5. Data Collection

To systematically investigate the effect of Mind Mapping and Think-Pair-Share (TPS) on students' expository writing achievement, the data collection procedure is carefully structured into several phases. These phases ensure that each group receives appropriate treatment, the results are reliable and valid, and all necessary data is accurately documented for analysis. The entire data collection spans from initial preparation through post-treatment evaluation, encompassing a range of activities essential to the success of the study.

1) Preparation Phase

Before conducting the treatment, the researcher carries out a thorough preparation phase to ensure the smooth implementation of the study. This phase includes designing lesson plans and preparing writing topics as well as scoring rubrics.

a. Designing Lesson Plans

Each experimental and control group receives customized lesson plans tailored to their instructional method where Experiment Group uses an integrated model

combining Mind Mapping and TPS and Control Group adheres to the standard curriculum, representing the conventional method of writing instruction.

These lesson plans serve as instructional guides and ensure consistency and clarity in the teaching process throughout the research period.

b. Preparing Writing Topics and Rubrics

The researcher prepares different topic which means a topic for pre-test and anotherone for post-test that are relevant to students' academic level and interests. The writing prompts are expository in nature, requiring students to explain, describe, or inform. Additionally, a scoring rubric based on Heaton (1991) is prepared in advance, ensuring that all student essays are assessed based on the same objective criteria: content, organization, vocabulary, grammar, and mechanics.

2) Pre-Test

All two groups experiment Group (Mind Mapping + TPS), and control Group (Mind mapping) are administered a pre-test at the beginning of the study. The pre-test is used to assess students' initial proficiency in writing expository texts. This baseline data is essential for determining the extent of improvement after the instructional treatments are applied. Students are given a specific topic and a limited time to write an expository essay. The topic is: Traditional learning is better than online learning. The researcher or the teacher gave the test sheets to the students. Their essays were then collected by the researcher and scored according to the prepared rubric. These scores provide quantitative data representing each group's starting point before any intervention.

3) Treatment Phase (1–5 Weeks)

The treatment phase is conducted over approximately 1 to 5 weeks, depending on the school schedule and teaching load. Each meeting lasts for approximately 90 minutes, following the standard classroom duration. During this phase, each group receives instruction based on its assigned teaching method.

a. Experimental Group: Combined Mind Mapping and Think-Pair-Share (TPS)

The experimental group receives instruction through an integrated approach that combines Mind Mapping and Think-Pair-Share (TPS) to enhance students' analytical exposition writing skills. The teaching process is organized into several writing stages during each 90-minute meeting.

In the pre-writing stage (Think), students spend approximately 20 minutes creating Mind Maps based on the given topic. In this stage, students brainstorm ideas, identify the main issue, generate supporting arguments, and organize their ideas visually. This activity helps students develop critical thinking and prepare the structure of their analytical exposition text before writing.

Next, in the discussion and revising stage (Pair), students spend around 25 minutes working with a partner. They compare their Mind Maps, exchange opinions, discuss the relevance of their arguments, and revise their ideas collaboratively. Through peer interaction, students are encouraged to clarify their thoughts, improve the organization of ideas, and strengthen the content of their writing.

After that, students enter the sharing stage (Share), which lasts approximately 20 minutes. In this stage, several students present their Mind Maps and arguments to the class. Other students provide responses, suggestions, and feedback regarding the clarity, organization, and persuasiveness of the ideas presented. This activity promotes active participation and helps students gain broader perspectives before writing their essays.

Finally, in the drafting and revising stage, students spend the remaining 25 minutes composing their analytical exposition texts individually based on the revised Mind Maps and class discussion. During this stage, students focus on developing coherent paragraphs, organizing arguments logically, and applying appropriate vocabulary, grammar, and mechanics. Students are also encouraged to reread and revise their drafts before submitting them. This integrated strategy addresses both the cognitive and collaborative aspects of writing development.

b. Control Group (mind mapping technique)

The control group received instruction through the conventional teaching method by using only the Mind Mapping technique based on the existing curriculum. Unlike the experimental group, students in this group did not participate in pair discussions or class-sharing activities. The teaching process was also conducted in several writing stages during each 90-minute meeting.

In the pre-writing stage, students spent approximately 25 minutes identifying the issue or problem based on the given topic. The teacher introduced the topic and asked students to create individual Mind Maps to generate and organize ideas related to the analytical exposition text. Students identified the main idea, supporting arguments, and examples independently without collaborative discussion.

Next, in the planning stage, which lasted around 20 minutes, students organized the information from their Mind Maps into a simple outline. They arranged their thesis statement, supporting arguments, and conclusion systematically to prepare for the writing activity. The teacher provided guidance and explanation regarding the structure of analytical exposition text during this stage.

Afterward, students continued to the drafting stage for approximately 30 minutes. In this stage, students individually wrote their analytical exposition texts based on the outlines and Mind Maps they had prepared. They focused on expressing their arguments clearly and organizing the text coherently according to the generic structure of analytical exposition text.

Finally, during the editing and revising stage, students spent the remaining 15 minutes reviewing their writing. They checked grammar, vocabulary, punctuation, spelling, and sentence structure before submitting their final drafts. The teacher might provide brief feedback and corrections to help students improved their writing accuracy and organization.

4) Post-Test

Following the treatment period, a post-test was administered to two groups. The post-test was designed to mirror the pre-test in structure and difficulty, allowing for direct comparison. The post-test aimed to measure the effectiveness of each instructional strategy in enhancing students' writing performance. Students wrote expository essay different topic under the same testing conditions as in the pre-test. The topic was: Should Handphone be Allowed in the Classroom? The essays were evaluated using the same rubric, and the scores were recorded for statistical analysis.

5) Data Documentation

To ensure transparency and reliability, all data from the study are systematically documented. Pre-test and post-test scores from all participants are compiled in spreadsheets for analysis. These scores serve as the primary data for determining the impact of each instructional method.

The data collection procedure is thoughtfully designed to support the objectives of the study. Through careful planning, consistent implementation, and comprehensive documentation, the research ensures both quantitative and qualitative insights into how Mind Mapping, TPS, and their integration affect students' expository writing skills. This step-by-step process allows the researcher to make accurate comparisons and draw valid conclusions about the effectiveness of each instructional strategy, particularly within the Indonesian senior high school context.

3.6. Data Analysis Techniques

To determine the effectiveness of the Mind Mapping and Think-Pair-Share (TPS) techniques in enhancing students' writing skills, a comprehensive set of statistical tools was employed. These tools allowed the researcher to interpret both the central tendency and variability of student performance, as well as the significance of observed differences among the treatment groups.

1) Descriptive Statistics

Descriptive statistics was utilized to summarize and describe the basic features of the data collected from pre-tests and post-tests. The following descriptive measures will be computed:

a. Mean (average score): To identify the overall performance level of students in each group.
b. Standard deviation (SD): To assess the degree of variability or dispersion of the scores from the mean.
c. Range: To identify the difference between the maximum and minimum scores in each group.

These statistics provided a general overview of the students' writing achievement across all groups, both before and after the instructional treatments.

2) Inferential Statistics

Inferential statistical analysis will be conducted to draw conclusions about the population based on the sample data, specifically to examine whether there are statistically significant differences between the groups.

The data were analyzed using SPSS. The analysis covered non-parametric paired sample t-test where the data come from the same group (pretest – posttest from either experimental or control group) and independent sample t-test where from the control and experimental class were compared.

This analysis determines whether the mean writing scores between the two groups differ significantly. Independent sample t-test was appropriate when comparing two groups and testing the hypothesis that at least one group's mean differs from the others.

To determine the use of parametic or non parametric test, researcher followed the assumption test include normality test and homogenity variance, the assumptions test is descibed as follows :

a. Normality Test

A Kolmogorov–Smirnov test will be used to verify whether the distribution of the data is normal in each group. A normal distribution is a key assumption for non-parametric test..

b. Homogeneity of Variance

A Levene's Test will be applied to assess whether the variances among the groups are equal. Homogeneity of variance is another critical assumption of t-test.

c. Level of Significance

All statistical tests will be conducted at a significance level of $p < 0.05$. If the p-value is less than 0.05, the results will be considered statistically significant, indicating that the differences observed are unlikely to have occurred by chance.

3.7. Validity and Reliability

Ensuring the accuracy and consistency of the research instruments is crucial in educational research. To enhance the validity and reliability of the findings, both validity and reliability of the instruments used in this study will be addressed.

1. Content and construct Validity

Content validity refers to how well a test measures the intended content area. In this study, the writing test is designed specifically to assess students' expository writing skills, including their ability to organize ideas, provide supporting details, and use appropriate language features. The validity of writing task and scoring rubrics were validated by English language teaching experts and senior educators. Meanwhile, the questionnaire was validated by the expert validator so it was approppriated to be used to get the data of studnets' perception. The results of the validation process can be seen in the Appendix 5.

They examined whether the test items aligned with the learning objectives of expository writing for senior high school students. Feedback from these experts were used to revise and refine the test items, ensuring they were representative and appropriate for the target population.

2. Reliability

Reliability refers to the consistency and accuracy of scores produced by the assessment tool. To improve inter-rater reliability, two experienced raters independently scored the students' writing samples using the same rubric adapted from Heaton (1991). It can be seen in the appendix 1.

The consistency of the two raters' scores will be assessed using a statistical correlation (such as Pearson correlation coefficient or Cohen's kappa). A high correlation value (e.g., above 0.70) will indicate good inter-rater reliability, meaning that the rubric provides consistent results regardless of who evaluates the essays. In this study, the Pearson Product Moment Correlation formula was applied to measure this reliability between Rater 1 (R1) and Rater 2 (R2).

The interrater reliability test was conducted to determine the degree of consistency between the scores given by R1 and R2 in assessing students' test performance. The analysis employed the Pearson Product Moment Correlation formula as follows:

$$r_{xy} = \frac{n\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{\{n\Sigma X^2 - (\Sigma X)^2\}\{n\Sigma Y^2 - (\Sigma Y)^2\}}}$$

The results of the reliability analysis across four data groups are presented as follows:

a. Interrater Analysis of the Pretest in the Experimental Class

Based on the Pearson Product Moment correlation calculation between the scores of Rater 1 and Rater 2 on the pretest data of the experimental class (n = 30 students), an r value of 0.9983 was obtained. This value falls within the range of 0.80 to 1.00, indicating that the level of agreement between the two raters is classified as very strong. Therefore, the scoring instrument used in the pretest of the experimental class is considered reliable, as both raters demonstrated a highly consistent and objective evaluation.

b. Interrater Analysis of the Posttest in the Experimental Class

The Pearson Product Moment correlation calculation on the posttest data of the experimental class yielded an r value of 0.9781. This value falls within the range of 0.80 to 1.00, which classifies the level of interrater agreement as very strong. This result indicates that the scores assigned by Rater 1 and Rater 2 to the posttest of the experimental class were consistent and trustworthy, confirming that the scoring instrument is reliable.

c. Interrater Analysis of the Pretest in the Control Class

For the pretest data of the control class, the Pearson Product Moment correlation analysis yielded an r value of 0.9999. This value is extremely close to 1.00 and falls within the range of 0.80 to 1.00, indicating a level of interrater agreement categorized as very strong. This finding demonstrates that both raters held an almost identical perception in evaluating students' performance on the pretest of the control class, confirming that the scoring instrument is highly reliable.

d. Interrater Analysis of the Posttest in the Control Class

The Pearson Product Moment correlation analysis on the posttest data of the control class produced an r value of 0.9994. This value falls within the range of 0.80 to 1.00, indicating that the level of interrater agreement is classified as very strong. Accordingly, the scoring judgments made by Rater 1 and Rater 2 on the posttest of the control class were proven to be consistent and objective, affirming that the scoring instrument is reliable.

Based on all four interrater reliability analyses above, the entire dataset, comprising both the pretest and posttest results of the experimental and control classes, yielded Pearson Product Moment correlation coefficients ranging from 0.9781 to 0.9999. All of these values fall within the very strong category (0.80 to 1.00). This conclusively demonstrates that the scoring instrument used throughout this study possesses a very high level of reliability. Consequently, the data collected can be fully accounted for in terms of objectivity and consistency, and are thus suitable to serve as a valid basis for further statistical analysis.

3.8 Hypotheses Testing

The researcher formulates the hypotheses that are tested in this study as follows:

H_0 : There is no significant difference in students' writing achievement after being taught using Mind Mapping integrated into TPS on students' writing skills.

H_1 : There is a significant difference in students' writing achievement after being taught using Mind Mapping integrated into TPS on students' writing skills.

The criteria for the hypotheses are as follows:

a. If the significance (p) value is less than the significant level (0.05) and t-value is more than the t-table, it means that H_0 is rejected. It indicates that there is a significant difference in students' writing achievement after being taught using Mind Mapping integrated into TPS on students' writing skills.
b. If the significance (p) value is more than the significant level (0.05) and t-value is less than the t-table, it means that H_0 is accepted. It indicates there is no significant difference in students' writing achievement after being taught using Mind Mapping integrated into TPS on students' writing skills.

V. CONCLUSION AND SUGGESTION

5.1 Conclusion

This study was conducted to investigate the effectiveness of Mind Mapping and Think-Pair-Share (TPS) strategies in teaching writing in an EFL classroom and to explore students' perceptions toward the implementation of these strategies. Two research questions were formulated to examine both the quantitative outcomes of students' writing performance and the quantitative data of questionnaire tendencies reflected in students' perceptions. To answer the first research question, statistical analyses were conducted using SPSS version 23, while descriptive statistical analysis using Microsoft Excel was employed to analyze students' perceptions toward the strategies.

The findings related to the first research question revealed that the implementation of Mind Mapping and Think-Pair-Share did not result in a statistically significant improvement in students' writing performance. The results of the non-parametric statistical tests indicated that there were no significant differences between the pre-test and post-test scores, either within the experimental group or between the experimental and control groups. Several factors may explain these findings. First, the treatment duration was relatively short, lasting only approximately 1–5 weeks, whereas writing skill development requires continuous practice, repeated revision, and long-term instruction. Second, writing is a complex skill involving multiple components such as content, organization, vocabulary, grammar, and mechanics, which students need sufficient time to master and integrate effectively. Although Mind Mapping and TPS supported idea generation and collaboration, students may still have experienced difficulties in developing coherent texts and applying linguistic accuracy.

Another possible reason is that students were still adapting to the instructional strategies. Since Mind Mapping and TPS were relatively new learning approaches for the students, they may have needed more time to become familiar

with brainstorming ideas, organizing arguments systematically, and participating in collaborative discussions. Furthermore, EFL learners commonly face linguistic limitations related to grammar, vocabulary, sentence structure, and idea development. These challenges may reduce the immediate effectiveness of instructional strategies, particularly when students have limited language exposure and insufficient intensive writing practice. In addition, the statistical tests showed only small differences between the pre-test and post-test scores, indicating that the improvement achieved by some students was not strong enough to reach statistical significance. This finding suggests that instructional strategies alone may not guarantee immediate improvement because successful writing development is also influenced by factors such as language proficiency, motivation, classroom practice intensity, teacher feedback, and the learning environment.

Despite the absence of statistically significant improvement in writing performance, the findings related to the second research question demonstrated that students held positive perceptions toward the implementation of Mind Mapping and Think-Pair-Share in teaching writing. The descriptive analysis of the perception questionnaire revealed an overall mean score of 2.89, which falls within the positive category. This result indicates that students generally perceived the instructional strategies as helpful, engaging, and supportive during the writing process. Students agreed that Mind Mapping assisted them in organizing ideas and planning their writing, while Think-Pair-Share facilitated idea sharing, peer interaction, and collaborative learning. These positive perceptions suggest that students accepted and valued the learning strategies implemented in the classroom.

The contrast between the quantitative results and the perception data highlights an important pedagogical insight. Although students' writing scores did not improve significantly, their positive perceptions indicate that affective and motivational aspects of learning were positively influenced. The improvement may have occurred more in students' engagement, confidence, participation, and motivation rather than in immediate test performance. This finding supports the view that positive attitudes toward learning often emerge earlier than observable improvement in academic achievement. Therefore, positive perception can be considered an early indicator of instructional effectiveness, particularly in writing

instruction, which requires sustained practice, continuous feedback, and long-term learning processes.

In conclusion, this study demonstrates that while Mind Mapping and Think-Pair-Share did not produce statistically significant improvement in students' writing performance within the scope of this research, the strategies were positively perceived by students and contributed to a more engaging learning environment. The findings suggest that the effectiveness of Mind Mapping and TPS should not be evaluated solely based on short-term test results. Instead, these strategies should be viewed as pedagogically valuable approaches that have the potential to support writing development when implemented consistently and over a longer period. Thus, Mind Mapping and Think-Pair-Share remain beneficial strategies in EFL writing instruction, particularly in fostering student engagement, collaboration, motivation, and readiness to learn.

5.2 Suggestions

Based on the findings and discussion of this study, the implementation of Mind Mapping and Think-Pair-Share (TPS) demonstrated positive contributions toward students' writing development, particularly in organizing ideas, generating content, improving coherence, and increasing students' engagement during the learning process. The combination of individual idea generation through Mind Mapping and collaborative interaction through TPS created a more supportive learning environment for students in developing expository writing skills. The findings also revealed that students became more confident in expressing ideas and more active in participating during classroom activities. Although the improvement of writing achievement required continuous practice and sufficient treatment duration, the study indicated that collaborative and student-centered learning strategies could positively influence both students' writing performance and classroom interaction.

Furthermore, the integration of Mind Mapping and TPS helped students overcome several common difficulties in writing, such as lack of ideas, limited organization, and low participation in classroom discussions. Mind Mapping enabled students to visually organize and connect their ideas before writing, while

TPS encouraged them to discuss, evaluate, and refine their thoughts collaboratively with peers. This process not only supported cognitive development but also promoted social interaction and active learning. The findings suggest that writing instruction should not merely focus on the final product but also emphasize the writing process, idea development, peer collaboration, and continuous feedback.

However, the study also found several challenges during the implementation process. Some students still needed guidance in creating effective Mind Maps, while others required more time and support during pair discussions to actively contribute ideas. In addition, the relatively limited duration of treatment may not have fully optimized students' adaptation to these learning strategies. Therefore, the effectiveness of Mind Mapping and TPS depends greatly on teacher facilitation, classroom management, sufficient practice opportunities, and consistent implementation over time. Considering these findings, several suggestions are proposed for teachers and future researchers as follows.

5.2.1 Suggestions for Teachers

Based on the findings of this study, teachers are encouraged to implement Mind Mapping and Think-Pair-Share as part of a sustained instructional approach rather than as short-term teaching techniques. Teachers should provide explicit instruction and modeling when introducing Mind Mapping to ensure that students understand how to generate, connect, and develop ideas effectively. In implementing Think-Pair-Share, teachers should carefully manage pairing and discussion stages to ensure that all students actively participate and benefit from peer interaction. Allocating sufficient time for discussion and reflection is essential to maximize the effectiveness of collaborative learning. Teachers are also advised to integrate these strategies with direct instruction on writing components such as organization, grammar, vocabulary, and coherence. Continuous feedback and scaffolding should be provided to help students gradually improve their writing skills. By applying these strategies consistently, teachers may transform students' positive perceptions into tangible improvements in writing performance.

5.2.2 Suggestions for Future Researchers

Future researchers are encouraged to conduct similar studies with a longer treatment duration to allow sufficient time for students to internalize Mind Mapping and Think-Pair-Share strategies. Increasing the sample size and involving participants from different educational levels may enhance the generalizability of the findings. Future studies may also consider employing mixed-method research designs by combining quantitative data with qualitative data such as interviews, observations, or reflective journals. This approach would provide a deeper understanding of how students experience and apply these strategies during the writing process.

Researchers are also encouraged to investigate the effectiveness of Mind Mapping and TPS on specific genres of writing, such as expository, argumentative, or narrative texts. Additionally, examining the role of teacher facilitation and student interaction quality may provide further insight into the su[illegible] implementation of collaborative learning strategies. These future inves[illegible] may contribute to more comprehensive and conclusive findings regar[illegible] effectiveness of Mind Mapping and Think-Pair-Share in EFL writing instr[illegible]

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