

**THE USE OF MIND MAPPING TECHNIQUE TO IMPROVE
STUDENTS' ANALYTICAL EXPOSITION TEXT WRITING
ACHIEVEMENT AT THE SECOND GRADE IN SENIOR HIGH SCHOOL
16 BANDAR LAMPUNG**

Undergraduate Thesis

By:

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**ENGLISH EDUCATION STUDY PROGRAM
DEPARTMENT OF LANGUAGE AND ARTS EDUCATION
FACULTY OF TEACHER TRAINING AND EDUCATION
UNIVERSITY OF LAMPUNG
BANDAR LAMPUNG**

2024

ABSTRACT**THE USE OF MIND MAPPING TECHNIQUE TO IMPROVE
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This study aims to find out whether there is any significant improvement in students' analytical exposition text writing achievement and which aspect of writing would improve the most after the students were taught mapping techniques. This technique was intended to facilitate students in designing their own writing and effectively solve students' writing problems in general. The subjects of this study were 30 students who were in the second grade at Senior High School 16 Bandar Lampung. Writing test in the form of a pretest and a post-test of the analytical exposition text was applied to collect the data. This study used a quantitative approach with a one-group pretest-post-test design. The data was analyzed by means of a paired sample t-test to answer the question of whether there is a significant improve in students' analytical exposition text writing achievement and compared the score of each aspect of writing to find out which aspect of writing has improved most significantly. The results showed that there was a significant improvement in students' writing achievement after they were taught mind mapping regarding their scores from the pretest and post-test. From the calculations, the result showed that the result improved significantly from the pretest (66.13) to the post-test (82.06) with a gain of 15.93. It was also found that content was the aspect of writing that improved the most among the other aspects of writing, which improved by 21% with a gain between pretest and post-test of 6.26. In short, the mind mapping technique can provide improvement and a positive influence on students' analytical exposition text writing achievements.

Keywords: Mind mapping, analytical exposition, writing achievement.

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Asyifa Nur Sya'adah

**Undergraduate Thesis
Submitted in a Partial Fulfillment of
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In

**The Language and Arts Education Department of
The Faculty of Teacher Training and Education**



**FACULTY OF TEACHER TRAINING AND EDUCATION
LAMPUNG UNIVERSITY
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2024**

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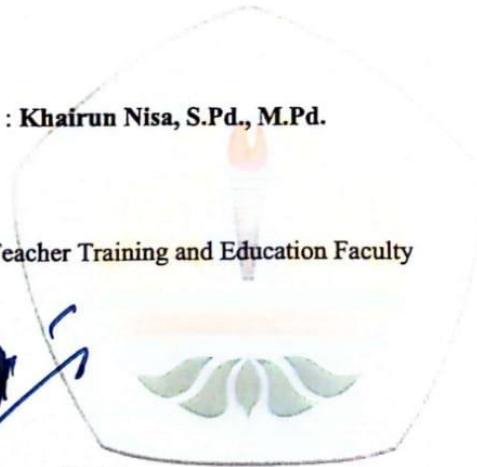
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Menyatakan bahwa skripsi ini adalah hasil karya saya sendiri. Sepanjang pengetahuan saya, karya ini tidak berisi materi yang ditulis oleh orang lain, kecuali bagian-bagian tertentu yang saya ambil sebagai acuan. Apabil ternyata terbukti bahwa pernyataan ini tidak benar, sepenuhnya menjadi tanggung jawab saya.

Bandar Lampung, 6 Februari 2024

Yang membuat pernyataan,



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Asyifa Nur Sya'adah

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CURRICULUM VITAE

The author's name is Asyifa Nur Sya'adah. She was born on August 14th, 2002, in Tulang Bawang. She is the second child and only daughter of a great couple, Mr. Winarto and the late Mrs. Rismawati. She has an older brother named Habib Insan Rozaq and three younger brothers named Muhammad Jamil Al-Jabbar, Muhammad Tajdid Ridho, and Muhammad Azzam Al-Haq.

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MOTTO

“I have come to love myself for who I am, for who I was, and for who I hope to become”

-RM of BTS-

DEDICATION

I dedicate this thesis to:

My beloved parents

Mr. Winarto and the late Mrs. Rismawati. Thank you for all the support, both morally and materially, love, and all the prayers.

My beloved brothers

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Bandar Lampung, 6th February 2024

The author,

A handwritten signature in black ink, appearing to read 'Asyifa Nur Sya'adah', written in a cursive style.

Asyifa Nur Sya'adah

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I. INTRODUCTION

In this chapter the researcher presents several main points to discuss the main ideas of the study. It consists of some points to provide prior information for the research. The researcher describes the background and the reason in selecting the topic. It is divided into several parts including background, research question, objective of the research, the uses of the research, the scope of the research, and definition of terms.

1.1 Background

Learning a language is a transformative and enriching experience that broadens horizons, connects learners with diverse cultures, and enhances communication skills. Whether it's for personal, academic, or professional reasons, embarking on a language learning journey opens doors to new opportunities and perspectives. In addition, learning a language can improve cognitive abilities and brain function. Learning the language challenges a person's thinking, improve memory retention, and improves problem-solving skills. In learning a language, there are four basic language skills that need to be mastered: listening, speaking, reading, and writing. The four basic skills are related to each other by two parameters: the mode of communication (oral or written) and the direction of communication (receiving or producing the message).

Regarding to the mode of communication, writing is an example of a way to keep communication going despite the distance. Apart from functioning to communicate, the importance of writing is to be a measure of social status and how educated a person is. As stated by Urbanova and Oakland (2002), written language currently has a social role, and educational function and status have high social prestige. Therefore, writing is something that needs to be mastered by everyone, especially students.

According to Byrne (1998:28) writing is an activity to produce a sequence of sentences arranged in a particular order and linked together in certain ways. Writing is one of the most important language skills to be mastered by students, especially at the senior high school level. According to Ashraf et al. (2016), writing is one of the productive English skills that must be possessed by students of English as a Foreign Language (EFL) in Indonesia for the purpose of written communication and academic writing, such as letters, essays, term papers, articles, journals, project reports, theses, etc. It is emphasized that writing has a vital role in the production of language, which is used to mediate global knowledge. According to Lowenberg (2000), there are various types of writing in Indonesia that students must learn, including expository, narrative, descriptive, recount, and argumentative. Intermediate-level students are expected to have at least basic-level writing skills (Spratt et al., 2005). In addition, students entering academic disciplines need a specialized literacy that consists of the ability to use discipline-specific rhetorical and linguistic conventions to serve their purposes as writers (Berkenkotter et al, 1991:19). Thus, learning how to write well in English is very important for students.

After seeing how important writing is for students, it does not rule out the possibility that there are still students who face problems in writing, especially in compiling the ideas they have. The researcher once taught writing at a high school in Bandar Lampung and found problems in students' writing, namely compiling the ideas they already had into a series of sentences and making perfect writing according to the sequence. In addition, the researcher's statement is supported by previous researcher, Farooq et al. (2012). Based on their research, it was found that some students had difficulty organizing ideas and connecting them. Here are some statements from students who experienced writing problems: "My written expression is not good at describing the sequence of events", "While writing, I often face the problem of connecting ideas", "I face problems connecting one paragraph with the other".

In line with what was described by Farooq, Richard and Renandya (2002: 303) also state that writing is the most difficult skill for second language and foreign language learners. Furthermore, they claim that writing is not only generating and organizing ideas of our mind, but also translating these ideas into a readable text. Based on their arguments, it seems common that many learners particularly those of foreign language learners have some degrees of difficulties in writing. Therefore, some efforts need to be done in order to maintain or improve the students' writing achievement. Based on the problems that have been described and to improve students' writing achievement, it is very important for the teacher to apply an appropriate technique. By using a good technique, the teacher can perform well in the teaching and learning process and simultaneously achieve the target. In this study, the researcher was motivated to apply a technique to help students in their writing by means of the mind mapping technique. Mind mapping order many keywords in every branch. The keywords in the branches could suggest new idea or topic to make a sentence. In other words, it helps students to associate ideas, think creatively, and make connections in sentences.

Buzan (2007) says that by using mind mapping, people could represent ideas through visualization and graphic forms where one idea is connected to another idea by using branches. Besides, he also says that by using mind mapping, it is easy for people to put information into their memory. Based on previous research conducted by Waloyo (2017) in teaching writing using the mind mapping technique, he is explained that teaching writing through the mind mapping technique shows that the students do not directly understand how to draw mind maps, but after several processes of doing the mind mapping, they are guided to write a text through mind mappings. Through mind mapping, the students are able to comprehend the text organization of the narrative, the tense, and the sequences of the story in general. It is clear that teaching writing is not an easy task; it needs a creative person to organize the class through various approaches, methods, and techniques that are suitable for the students' needs and able to overcome the problems of the teaching and learning process.

The similar research of mind mapping, Karim (2018) compared traditional conventional ways of teaching writing with teaching using the mind mapping technique. The result is that the mind mapping technique is superior in the writing process. This study reveals that mind mapping is a very useful tool that can help both educators and students overcome the complexity of writing and make it more enjoyable. Hence, this technique should be recommended to students and used in other language skills courses. This is also supported by Naghmeh-Abbaspour (2020), who argues that the mind mapping technique has helped the students organize their texts. Mind mapping could help students develop their writing skills in terms of organizing ideas. Consequentially, mind mapping would be especially suitable to assist students in planning their writing since the technique stimulates them to acquire and establish a deeper understanding of the writing topics.

From the explanation above, it was stated that mind mapping technique was a good technique which could be used by the teacher to help the students more creative during teaching and learning process. Mind mapping helped the students to learn, arrange, and organize information in their brain.

Besides, to see the effect of using mind mapping on improving students' writing achievement, the researcher chose analytical exposition as a text assessment. An analytical exposition text is one of the texts that has to be learned by second graders in senior high school. According to Cahyono (2009), analytical exposition is a type of spoken or written text intended to convince listeners or readers that something is important; the author gives several arguments or some facts as the fundamental reasons why something happened, and this text also consists of three parts, namely: thesis, argumentation, and reiteration.

In addition, this research originated from the problems that the researcher encountered at SMA 16 Bandar Lampung, which she encountered through observations at school and interviews with English teachers at SMA 16 Bandar Lampung, who found that there were problems faced by most students, namely writing problems, especially when the students were asked to write an analytical

exposition. This was proven by the results of the student's analytical exposition score, which was lower than other material studied by second grade students.

Based on the above background, it motivates the researcher to choose this technique to teach writing and to find the answer to the research question about improving students' writing achievement and which aspect might be most affected.

1.2 Research Questions

Based on the background that has been discussed above, the researcher formulates the problems as follows:

1. Is there any significant improvement of students' analytical exposition text writing achievement after the students are being taught by using Mapping Techniques?
2. Which aspect of writing would improve the most after the students being taught by using Mapping Techniques?

1.3 Objective of Research

1. To find out whether there is any significant improvement of students' analytical exposition text writing achievement after the students are being taught by using Mapping Techniques
2. To find out which aspect of writing would improve the most after the students being taught by using Mapping Techniques

1.4 The Uses of the Research

1. Theoretically, this study is expected to provide some contribution and support for the enlargement of the theory about the implementation of the Mind Mapping Technique in learning in the field of teaching English, especially for teaching writing. For researcher, the results of this study can be a reference or comparison for further researchers who want to learn more about writing Analytical Exposition texts using the Mind Mapping Technique.

2. Practically, the results of this study might be used as a consideration for English teachers to implement the mind mapping technique in teaching writing in the context of English as a foreign language, especially to improve students' writing achievement. In addition, the researcher hopes that students can learn English easily, especially in writing after knowing this technique.

1.5 The Scope of The Research

The focus area of this study was investigated students' writing productivity before and after learning writing used the Mind Mapping technique as measured by a set of pretest and posttest. By using a quantitative approach as a research methodology to examine the data, this research was conducted at the second grade students of Senior High School 16 Bandar Lampung. This study focused on two research objectives. The first was determining the improvement in students' writing achievement after teaching mind mapping techniques. The second objective of the study was to find out which aspects related to writing, such as content, organization, vocabulary, use of language, and mechanics, improved the most after students followed the learning activities organized in the lesson plans. The text that was chosen was an argumentative text. Precisely, analytical exposition, as one of the families in argumentative text, had the lesson material taught to the students as the treatment. Meanwhile, the cases that were given in the treatment have been taken from the issues that have been the most talked about among students lately.

1.6 Definition of Terms

The statements provided below are the keywords which are the important terms mentioned in this research:

Writing

Writing is process of gathering ideas through thinking which makes the readers get the points of the paragraph; the writer has to arrange the sentences smoothly. Writing also includes the process of review and rechecks the

contents of the writing to get the best arrangement and to help the readers are easy to understand the content of the paragraph (Oshima & Hogue, 1999).

Mind Mapping

Mind mapping is a writing technique where one can represent ideas in the form of visualizations and graphics where one idea is connected to another by using branches (Buzan, 2008).

Analytical Exposition Text

According to Cahyono (2009), Analytical Exposition is a type of spoken or written text intended to persuade the listeners or readers that something is important, the writer gives some arguments or some facts as the fundamental reasons why something is the case.

II. THEORITICAL FRAMEWORK

This chapter is provided with theories as the support for the research and concerning the definition framework of the research. They are previous study, writing, analytical exposition text, mind mapping, teaching writing with mind mapping, the advantages and disadvantages of teaching writing with mind mapping, theoretical assumption and hypotheses.

2.1 Previous Research Overview

There are several studies conducted by researcher related to the topic of this study. One of the researchers who has investigated the effectiveness of mind mapping in teaching writing is Ade Aprilia (2017) with her research entitled "The Implementation of Mind Mapping Technique to Improve Students' Ability in Writing Descriptive Text at Second Grade of SMPN 1 Trimurjo". The research used quantitative research which used one group pretest-posttest design, and the sample of this research was VIII A which consisted of 31 students. After comparing the result of the pre-test and posttest, it showed that mind mapping could improve students' achievement in writing descriptive text. The total score of pre-test was 1650 and the total score of posttest was 1963. It meant that the total score of pretest to posttest had increased 313 points. The research also finds that the most improved aspect of writing is the content aspect. Moreover, from the result of observation and questionnaire, understanding grammar was the major constraint in learning descriptive texts. It can be concluded that mind mapping gives a positive effect in teaching writing especially writing descriptive text. However, the second finding showed that understanding grammar was the major constraint in learning descriptive texts. Briefly, referring to the result above, it can be said that mind mapping technique facilitates the students to improve their writing skill in descriptive texts.

The other research conducted by Al Kamli (2019) investigated “The Effect of Using Mind Maps to Enhance EFL Learners' Writing Achievement and Students' Attitudes towards Writing at Taif University”, proposing the use of mind mapping strategy not only to organize ideas, but also to organize grammatical and linguistic knowledge. This study has examined the impacts of employing this mind mapping technique as a pre-writing procedure to improve female language learners' writing achievement as well as their perspectives considering writing in English at Taif University, Saudi Arabia. In a quasi-experimental design, a mixed methods approach was used through collection of quantitative as well as qualitative data. The study population included 128 students in an experimental and a control group. According to the finding of this study, first of all, differences were found between the mean scores of the experimental and the control groups on the post-tests of the students' writing achievement and writing attitudes, which favored the experimental group; second, a significant difference was reported between the mean scores of the experimental group's pre- and post-tests in writing achievement and writing attitudes, in favor of the post-test; third, students' problems in writing in English consisted of the lack of vocabulary, organization, spelling as well as grammar; fourth, students were accustomed to memorization, practice, and self-correction, which indicated that they were not used to planning their writing; finally, students also showed positive perceptions regarding mind mapping strategy and believed it was helpful for them to improve their writings in English.

There are also researcher who implemented mind mapping in his research, namely Waloyo (2017) with title “The Implementation of Mind Mind Mapping Technique in Teaching Writing: A Case Study at MAN 13 Jakarta”. The research finding of this study shows that mind mapping has good influences to the students' writing achievement. It equips the students with clear guideline to write because it allows students think freely and creatively. The students understand the text organization of narrative, the tense in writing narrative, and how to determine the sequence of the story based on the mapping and key words provided. In addition, Naqbi (2011) said that mind mapping did help students to plan and organize their ideas for writing tasks under exam conditions. It meant

that mind mapping provided key words which were used as a planning and could catch the writers' ideas about what they had to write in their writing. It can be said that Mind mapping is technique to facilitate students in enhancing their ideas.

In addition, based on research from Rafidah (2019) entitled "Technology-Assisted Mind Mapping Technique in Writing Classrooms: An Innovative Approach". The researcher reported that mind mapping techniques can be employed to study and collect new information, to solve difficulties, to make decisions and finally to write purposefully. And also, the results of the study reported in this research indicate that attitudes of writing students became significantly more positive toward the adoption of technology-assisted mind mapping techniques. The other research conducted by Eka Widya Astuti, et al (2020) investigated about effectiveness using mind mapping for students titled "The Effect of Mind Mapping Technique on Students' Achievement Writing Analytical Exposition Text" show that the comparative of their research is a qualitative research which involves high school grade 3 students as the population of this comparison, these students who are students from Creativkids Medan. The result of this comparison is that the value of 67.53 is the value obtained using the Mind Mapping technique. Another thing that does not use the Mind Mapping technique gets a score of 63.5. This also causes if students who use the Mind Mapping technique get the t_{obs} of 3.43 points, which means that it increases more than t table 2.00.

Furthermore, there was another research by Bitu Naghmeh-Abbaspour (2020) titled "Analysis for finding the effect of mind mapping technique on the Iranian English as Foreign Language learning' writing skills" which used one group pretest-posttest design, the research finding of this study was shown that mind mapping could promote the students' efficiency to organize their texts, mind mapping provided students with the chance to unify their thoughts before writing and was therefore effective in improvement of organization of their ideas.

In total, according to the previous studies, some of which were reviewed above, it was clear that most of the research has been carried out with an emphasis on

the effects of mind mapping on students' writing achievement. It should be noted that all these studies have emphasized the meaningful effects of mind mapping on writing achievement. The interesting common conclusion in all the mentioned studies is that mastery of mind mapping has helped the students improved their writing achievement.

2.2 Writing

Writing is a branch of the basic skill to learn a language, which must be mastered by students. Besides writing, other basic skills include listening, reading and speaking.

2.2.1 The Concept of Writing

According to Byrne (1998:28) writing is an activity to produce a sequence of sentences arranged in a particular order and linked together in certain ways. When people write, they use graphic symbols, which are letters related to the sounds they make when they speak. Furthermore, he states that writing involves encoding of a message. Writing is one of the important aspects in teaching and learning English beside listening, speaking, and reading skill. Then Harmer (2004) state that writing is a process in which writing is often heavily influenced by constraints of genres, then these elements have to be present in learning activities.

Oshima and Hogue (1999:3) state that writing is a process, not a product. It can be said that writing is process of gathering ideas through thinking which makes the readers get the points of the paragraph; the writer has to arrange the sentences smoothly. Writing also includes the process of review and rechecks the contents of the writing to get the best arrangement and to help the readers are easy to understand the content of the paragraph. And also, Lindemann (1982:11) added that writing was defined as a process, communication, graphic system and convey a message. It means that writing is an activity of communication which uses a paper or other material to convey a message or information through graphic system.

On the other hand, Hedge (2002:302) mentioned that writing was the result of employing strategies to manage the composing process which was one of gradually developing a text. It is clear that in the writing activity needs serious attention and good strategies to create valuable text. The strategies which appropriate students' need will help them to organize their idea and guide their thought in the process of constructing paragraph. Furthermore, Petty and Jensen (1980: 362) stated that writing was a process of expressing thoughts and feelings, and of shaping experiences. It can be said that writing is an activity that needs full concentration to generate and compose ideas into sentences and paragraph through many steps that cannot express orally. By writing, the writers can share their feeling, knowledge and experiences with a great impression.

2.2.2 Aspect of Writing

In order to make a good writing, there are five aspects that should be considered in the process of making a composition. Below are the five aspects of writing according to Jacobs et al (1981).

1. Content

It refers to the substance of writing, the experience of the main idea identified by seeing the topic sentence. The topic sentence should express the main idea and reflect the entire paragraph.

2. Organization

It refers to the logical organization of content that stick together so that ideas run smoothly within paragraph.

3. Grammar/Language use

It refers to the use of the correct grammatical forms and syntactical pattern. It is identified from the construction of well-formed sentence.

4. Vocabulary

It refers to the selection of words that are suitable the content. It can be identified by seeing the words choice or diction in order to convey ideas to the reader.

5. Mechanics

It refers to the use of graphic conventional of the language. It is identified by seeing the usage of spelling, punctuation, and capitalization within the paragraph.

2.2.3 Process of Writing

A writing process is done through some stages. On each stage, students are engaged in a certain activity to construct their writing. Hogue (1996) divides writing process into four parts, they are:

1. Prewriting

This is the step which the students have brain-warming for gathering the ideas they want to write. There are some techniques students can do to gather the ideas. The students can select a topic then write raw sentences without considering grammar, spelling, punctuation or sequences with freewriting technique. Quite different with free-writing, in clustering technique the student may use lines, boxes, arrows and circles to draw the relationship among the ideas and details that occur. After that students put minor ideas in the smaller boxes or circles, and use connecting lines to show the relations of each point. Another technique is having teachers to be more involved namely Brainstorming technique. This technique freely jotting down ideas about a topic, with the purpose is to generate lots of ideas so teachers have something to work with and select from. While students write everything that comes to themselves about a topic keyword and phrases, ideas, details, examples. After students have brainstormed, they must read over their list, underlining interesting or exciting ideas they might develop further.

The last is questioning technique. This is the technique which the students generate who, why, when, what, where, and how questions about the topic before starting their writing. With those questions, students are able to elaborate and generate ideas by asking as many questions as the students can think about their topic.

2. Writing The Draft

Drafting is the writing step after students generate their ideas. In this step the students start to convey the words they have in mind from the first line in the first paragraph based on what they have planned in the prewriting step. Grammar or spelling mistakes are trying to be reduced here but is not the main focus. Instead of focusing on the graphic aspects, ideas developing are being more focused in this step. The students are better at inputting more external conjunctions to enhance their ideas by linking to real world events. We still refer to this first version of a piece of writing as a draft. This first 'go' at a text is often done on the assumption that it would be amended later while as the writing process proceeds into editing, a number of drafts may be produced on the way to the final version (Harmer, 2004:5).

3. Editing (reflecting and revising)

In this step, the students are asked to be more focused on the word choosings, spelling, punctuation, and grammar mistakes instead of the content ideas. This step is basically focusing on editing and revising the writing mistakes. There are several steps in the editing process: First, students should check the meaning. Students should read their paragraphs silently. Is their writing able to communicate what they want it to deliver? Is the meaning of all the sentences clear? If not, the students should make the changes in their writing. Next, the students must check the mechanics. Students should read the paragraph silently again, this time look for mistakes in punctuation, grammar and spelling. If they find any mistakes, they should fix them. Third, if it is needed the students can ask the other students to check the meaning. Finally, if possible students can ask their friends to check the mechanics of their writing. The peer checking steps are better done if the students have enough time.

4. Writing the final draft

The last step in the writing process was to write a clean revision of the paragraph with all the editing carried out. This draft is the one

that the students turned in, so they have to be sure to use a good writing format.

2.2.4 Teaching Writing

In learning to write, the students are not only following the instructions from teachers but also need to experience the discovery writing style on their own. This is in line with Sidauruk et al.'s (2020) statement that learning to write is a process of discovering and organizing ideas, putting them on paper, and reshaping and revising them. According to Harmer (2004), when helping students become better writers, teachers have a number of crucial tasks to perform during and after students' writing: demonstrating, motivating, supporting, responding, and evaluating. Finally, in accompanying students' processes while learning to write at various stages of draft, the teacher was not grading the work or judging it as a finished product. Instead, the teacher told the student how well it is going so far. Meanwhile, when evaluating the student's writing for a test purpose, the teacher is highlighting the points where the student has written it well and where the mistakes are, and the teacher may also be aware of the value. By way of contrast, the marking assessment is different from responding. Teachers can still use marking assessment, not just to rate students' achievement but also as a learning opportunity. Finally, the main focus in learning to write is on improving the quality of students' writing products over a particular period of time. When the students are able to improve the writing aspects of their writing products, it can be said that they are learning writing successfully.

2.3 Analytical Exposition

Analytical exposition text is one of some genres of texts that are learned in Senior High School in Indonesia especially in second grade. According to Gerrot and Wignel (1998), Analytical exposition is a genre which has social function to persuade the reader or listener that something is the case. In

addition, Cahyono (2009), says analytical exposition is a type of spoken or written text intended to persuade the listeners or readers that something is the case. To prove the case that something is important, the writer gives some arguments or some facts as the fundamental reasons why something is the case.

Meanwhile, according to Amilia et al. (2016) analytical exposition is defined as argumentative text because the writer providing readers or listeners with a point of view, ideas, or thoughts of topic or issue or problem needs to get attention or explanation with no apparent efforts to persuade readers. Different from argumentative text in general, analytical exposition text does not persuade the reader to adopt or consider a new perspective. The main purpose in analytical exposition text is to try to convince the readers that the topic presented is an important topic to be discussed or gets attention by providing arguments or opinions that support the main idea or topic. Analytical exposition text does not only contain an argument, but can contain several argument series that have the same purpose. Analytical exposition texts are easily found in news editorials, advertisement texts, pamphlets, twitter threads, magazines, etc.

2.3.1 Language Features

According to Gerrot & Wignell (1994) the language features of analytical exposition text are:

1. Use Simple Present Tense,
2. Focus on Generic Human and Non-Human Participants,
3. Use Of Relational Processes,
4. Use Internal Conjunction,
5. Use Causal Conjunction, and
6. Use word that link argument

2.3.2 Generic Structure

According to Anderson and Anderson (1997) in Septiana (2016), The generic structure of analytical exposition consists of three parts: thesis, arguments and reiteration.

1. Thesis

The thesis is consist of introducing topic and indicates the writer's point of view. Besides, thesis is also used as the outline of the main idea, to be presented.

2. Argument

The argument is used for restating the main argument outlined in preview. It consists of the elaboration, development, and reinforcement to each point of argument.

3. Reiteration or conclusion.

This part is used to restate the writer's position and to conclude the whole argument.

2.4 Mind Mapping

Mind Maps are a whole-brain thinking alternative to linear thinking, reach in all directions and capture thoughts from all angles.

2.4.1 Concept of Mind Mapping

According to Tony Buzan (2000), Mind mapping is an application that gives us the meaningful information to understand in a simple way. Mind Mapping Technique prepares the mind in a way that information can be used in logical and imaginary way to make an image in the brain. In Mind Mapping Technique first main idea is specified and then the linear view is explained. It is also useful for self and group in which it can have more effect than written review. This method is suitable for teachers and students for the recurrence and easy to understand hard topics. In addition, it also promotes student knowledge. This technique increases the creative power in new concepts and help to increase your motivation to study the students. And also, Buzan (2005) stated that, mind mapping gives different types of learners the opportunity to excel

and useful for gifted learners as they do not place limitation on their learning but allow the learners to develop creativity in limitless ways. Based on the statement above, it can be said that mind map gives learners freedom to explore everything from their mind and express it freely.

Hedge (1988, p. 30) states that making a mind map is a strategy for note-making before writing; in other words, scribbling down ideas about a topic and developing those ideas as the mind makes associations. In line with Hedge, Hayes (1992:203) states that through mind mapping students turns random thoughts into patterns that can be written down and developed. Students become increasingly motivated to complete a writing task as their ideas emerge in organized forms. It can be stated that mind mapping facilitates the writers to explore their ideas or maximizes their brain to develop their writing achievement.

Mind Maps are a whole-brain thinking alternative to linear thinking, reach in all directions and capture thoughts from all angles. The mind mapping strategy can be used to explore almost any topics in writing and also used in every kind of writing such as: narrative, descriptive, recount, persuasive, argumentative, essay etc. Students can improve their ideas and lend themselves to discussing ideas in groups.

2.4.2 Procedure of Mind Mapping

Mind mapping is a technique that can be used in the writing process, and using mind mapping in the writing process there are steps that must be passed, and the steps used are based on several theories. Tony Buzan (2010:15-16) as an expert in the field of mind mapping mention that seven steps to create a Mind Mapping:

1. Start it in the center of the landscape blank paper.
2. Make a central image that represents the topic about which you are writing or thinking. The topic that has been thought of is written in the middle of the paper that has been prepared beforehand.

3. Use multiple colors throughout the mind map. Using lots of colors for each point and different ideas can make it easier to distinguish each point and make writing more exciting.
4. The lines should be connected, starting from the central image. This is important so as not to make mistakes in the order of ideas.
5. Make curves, not straight lines.
6. Use a keyword in each line. Mind mapping is a map of ideas that arise. Therefore, only points are written on the map.
7. Use illustration. To facilitate sentence development later, it is necessary to add supporting illustrations according to the topic, but this is optional.

2.5 Teaching Writing with Mind Mapping

Teaching writing is to teach students to share and express their ideas in written form. It is very important for the teacher to provide the materials which are relevant to students' need and interest and also to the things that they have not known before. Byrne (1980:7) states that teaching is showing or helping someone to learn how to do something providing with knowledge, causing on helping someone to know or understand. This statement can be concluded that teaching writing can be guidance for the students to learn how to write easily. In teaching writing with mind mapping techniques, there are several arrangements of activities that need to be completed by the students. The followings are the steps of teaching writing using mind mapping:

1. Pre-Activity
 - a. Teacher opens the class and greets to the students.
 - b. Teacher checks the students' attendance list.
 - c. Teacher brainstorms the students about their experience in writing paragraph.
2. Whilst-Activity
 - a. The teacher asked students questions related to the topic they learned.

- b. The teacher explained about generic structure in the analytical exposition text.
- c. The teacher asked students to describe their difficulties in making analytical exposition texts.
- d. The teacher explained how to make analytical exposition text using the mind mapping technique and gave an example.
- e. The teacher was given a different topic and asked the students to write a paragraph.

3. Post-Activity

- a. Teacher asks students to submit their work.
- b. Teacher tells the material for next meeting.
- c. Teacher closes the meeting

Researcher carried out several steps in teaching writing, especially analytical exposition texts. Then several treatments were given in the teaching and learning processed by the researcher. Students are expected to master the material in three meetings. Researcher used mind mapping as a technique to improve students' writing achievement.

2.6 The Advantages and Disadvantages of Teaching Writing with Mind Mapping Technique

In teaching writing using the mind mapping technique, there are advantages and disadvantages to the learning process. The following are some of the advantages and disadvantages of teaching writing using mind mapping.

Advantages:

There are several productive reasons for the teaching and learning of mind maps in the process of writing at second grade in senior high school:

1. According to Zaid (1995), mind mapping is very useful in the process of outlining an essay on any given topics or in the process of helping students to start writing actual paragraphs.

2. Mercer (2002) believes that mind mapping aids students in the process of making connections amongst ideas and in linking known information with previously unknown information. In this sense, mind mapping will be useful before the process of writing, during writing and also post-writing.
3. The researcher also observed how mind mapping can aid novice writers to focus on the given topic by having their ideas explicitly seen in front of them as they start the writing process.
4. Complete mind maps also help novice writers to write in correct and logical order.
5. mind mapping can be viewed as a mental tool that can guide writing students through four stages of the writing process, namely the prewriting stage, drafting stage, editing stage, and finally the revising stage.
6. By creating mind maps, writing students can move around in their minds and follow their personal interests in an organized yet non-constricting framework.

Disadvantages:

Not being blinded by the powerful advantages mind mapping offers as stated above, we also need to admit the disadvantages mind mapping brings about in the EFL classroom (Hofland, 2007).

1. Mind mapping is unfamiliar in the teaching and learning process, yet it is not widely used in schools. Budd (2003) states that the students will probably find it a bit odd to make even one very simple mind-map when first using mind mapping technique. This results into a complicated experience as the students may think it is time consuming.
2. However, this must appear to be so only in the beginning. There is one solution to cope with it: any students who get involved in mind-mapping technique to improve their leaning need to practice regularly. In other words, the more the students use the technique, the easier it becomes.

2.7 Theoretical Assumption

There are several techniques for teaching writing in English as a foreign language. There have been many techniques applied by the teachers in Indonesia to teach writing in a language lesson, especially English. In the complexity of writing itself, it is possible for the teachers to meet difficulties in teaching writing to their students, and moreover, in the language the students are not used to. And also, students need to consider five aspects of writing; therefore, most students do not like writing. They find it difficult to express their ideas in written form.

On the basis of a theoretical review, it can be seen that the mind mapping technique can help the students because it enables them to arrange the facts and ideas. Buzan (2008) says that by using mind mapping, people can represent ideas into visualization and graphic forms where one idea is connected to another idea by using branches. Besides, he also says that by using mind mapping, it is easy for people to put information into their memories.

In analytical exposition text students have to write three parts from the structure of the text specifically. From this case, researcher can know that mind mapping and analytical exposition text have seemed similar characters. In order to researcher can combine both into a method. Students can make analytical exposition text easily. They can put the central idea or main idea in the center and then they explain the ideas into sub ideas. After that they can connect each idea with brunch and can repeat these steps to be applied in another sub idea.

From explanation above, the researcher assumes that mind mapping can make the teachers manage the class activities not only into a fun, productive, and effective learning experience, but also train them to be able to face the problem they meet in real life which is a life-long skill needed by the students and also be more effective to improve students' writing achievement in analytical exposition text.

2.8 The Hypotheses

Composing hypotheses is commonly needed in conducting quantitative research. The hypothesis was built up based on the problem discussed in the first chapter. According to the theoretical assumption above, the hypotheses which were proposed in this research are concerned to:

1. H1: There is improvement in students' writing performance after being taught by mind mapping technique.
2. H2: Content is the most improved writing aspect in students' writing product after learning by mind mapping technique.

III. METHODS

This chapter presents several points about how the research was being conducted: research design, variables of research, population and sample, research procedures, data collection technique, research instrument, validity and reliability of the instrument, scoring criteria for writing tests, data analysis, hypothesis testing, and data treatment. For more details would be discussed as follows.

3.1 Research Design

This research is conducted with a quantitative method and using one-group pretest post-test design proposed by Setiyadi (2018). The aim of this research is to find out there is improvement or not in students' writing achievement in analytical exposition text using mind mapping technique at second grade of Senior High School 16 Bandar Lampung.

Furthermore, the researcher used a design for this research called *the pre-test post-test design* proposed by Setiyadi (2018). The design is illustrated as follows:

T1 X T2

T1 : Pre-test

X : Treatment (Teaching writing analytical exposition text using mind mapping technique)

T2: Post-test

The research was conducted in five meetings. Firstly, the students were asked to do a pre-test in the first meeting. After that, there was a treatment received by the students regarding the writing material with the mind mapping technique. A *paired sample t-test* was used to analyze the data for the first research question. Meanwhile, to answer the second research question, the

researcher compared the score of each writing aspect to know which one had the most significant improvement.

3.2 Population and Sample

1. Population

The population refers to the entire group of individuals or objects that the researcher is interested in studying. The population of this research was the second-grade students of SMA Negeri 16 Bandar Lampung. There were ten classes in second grade, and each class consists of 30 students.

2. Sample

In determining the experimental class, this study used purposive sampling. According to Barreiro (2001), purposeful sampling is sampling where the people who are sampled are to be representative of the population. In this research, the researcher has chosen one class, XI 1, which consists of 30 students' samples. They were active students at Senior High School 16 in Bandar Lampung.

3.3 Data Collecting Technique

The research was conducted in five meetings. The first meeting was for the pretest. The next three meetings were for the treatment and implementation of the mind-mapping technique. The last meeting was for the post-test, where the researcher gave instructions to the students to create a piece of writing. Moreover, the procedures for conducting this research are as follows:

3.3.1 Pre-test

In order to discover students' present knowledge in writing, a pretest was given before the treatment was given. The students got the pre-test in the first meeting, but they still have not gotten the treatment yet. The students made a writing product before being taught the mind-mapping technique.

3.3.2 Treatment

The researcher has conducted treatment in three meetings. Each meeting took about 90 minutes. Each meeting is given analytical exposition material on a different topic. The activities presented are as follows:

Treatment 1: Students were given an explanation of analytical exposition. After that, the researcher gave the students a topic about "*The Importance of Having Breakfast.*" Then, students were taught how to organize their ideas by using mind mapping. And then, students were asked to arrange paragraphs of non-consecutive analytical exposition text into sequential text (1).

Treatment 2: Students were given an explanation of analytical exposition. After that, the teacher gave the students a topic about "*The Importance of Physical Activity and Sports.*" Then, students were taught how to organize their ideas by using mind mapping. And then, students were asked to arrange paragraphs of non-consecutive analytical exposition text into sequential text (2).

Treatment 3: Students were given an explanation of analytical exposition. After that, the teacher gave the students a topic about "*The Importance of Education.*" Then, students were taught how to organize their ideas by using mind mapping. And then, students were asked to arrange paragraphs of non-consecutive analytical exposition text into sequential text (3).

3.3.3 Post-test

At the last meeting, a post-test was given to students in order to find out the improvement in their writing performance in writing analytical exposition texts after receiving the treatment. The students made their written products with the mind-mapping techniques they had learned. Learning outcomes were in the form of score data, which was later used by comparing them with pre-test scores. The written products were

examined by the teacher, with five aspects of writing carried out during the pre-test.

3.4 Research Instrument

In this study, the researcher used a writing test as the research instrument. The writing tests are divided into two parts: the pretest and the post-test. Both of the writing tests required the subjects to write an argumentative essay consisting of a maximum of 500 words by selecting one of two topics that would be delivered by the teacher. In addition to the prompt, the procedure of the method was developed along with the analytical exposition text characters.

3.5 Scoring Criteria

To evaluate the students' writing scores, the researcher analyzed the results of the students' text writing to make sure that the treatment had an impact on or improved the students' writing achievement.

3.5.1 Scoring Rubric System

There are five aspects that were tested in examining students' performance in writing: content, organization, vocabulary, grammar, and mechanics. In evaluating students' writing scores, the researcher analyzed students' writing products to find out whether there is an improvement in students' writing achievement after getting the treatment. In determining the score, the researcher used the scoring system criteria, which were based on the rating sheet from Jacobs, H.D., 1981. The scoring aspects of the test are derived as follows:

1. Content : 30%
2. Grammar : 25%
3. Organization : 20%
4. Vocabulary : 20%
5. Mechanic : 5%

Table 3.1 Writing Scoring Rubric

Aspect	Criteria	Score
Content	<p>Excellent to very good:</p> <p>Knowledge, substantive, through development of thesis, relevant theory.</p>	30-27
	<p>Good to average:</p> <p>Some knowledge subject, adequate range, limited development of thesis, mostly relevant to topic but lacks details.</p>	26-22
	<p>Fair to poor:</p> <p>Limited knowledge of subjects, little substance, inadequate development of topic.</p>	21-17
	<p>Very Poor:</p> <p>Does not show knowledge of subjects, no substantive not pertinent, not enough to evaluate.</p>	16-0
Grammar	<p>Excellent to very good:</p> <p>Effective complete constructions, few errors of agreement, tense, number, word order, function, and preposition.</p>	25-22
	<p>Good to average:</p> <p>Effective but simple construction, minor problems in complex construction, several errors of agreement, prepositions but seldom obscured.</p>	21-18
	<p>Fair to poor:</p>	17-11

	<p>Major problem in simple construction, frequent errors in negotiation, agreement, tense, number, word, and meaning confusing.</p> <p>Very poor:</p> <p>Virtually no mastery of sentence construction rules, dominated errors, does not communicate, not enough to evaluate.</p>	10-5
Organization	<p>Excellent to very good:</p> <p>Fluent expression, ideas clearly stated/supported, well-organized, logical sequencing.</p>	20-18
	<p>Good to average:</p> <p>Loosely organized but the main ideas stand out, limited support, logical but sequence and development.</p>	17-15
	<p>Fair to poor:</p> <p>Non-fluent, ideas confused or disconnected, lack logical sequence and development.</p>	14-10
	<p>Very poor:</p> <p>Does not communicate, no organization, not enough to evaluate.</p>	9-7
Vocabulary	<p>Excellent to very good:</p> <p>Sophisticated range, effective words/idioms and usage, word form mastery, appropriate register.</p>	20-18
	<p>Good to average:</p>	17-15

	<p>Adequate range, occasional errors or idiom choice, usage but meaning not clear.</p> <p>Fair to poor:</p> <p>Limited range, frequent errors of idiom/words, meaning confused or not clear.</p> <p>Very poor:</p> <p>Essentially translation, little knowledge of English vocabulary, not enough to evaluate.</p>	<p>14-10</p> <p>9-7</p>
Mechanic	<p>Excellent:</p> <p>Few errors of punctuation, spelling and capitalization/used correctly</p> <p>Good:</p> <p>Occasional errors of punctuation, spelling, and Capitalization.</p> <p>Fair:</p> <p>Numerous errors of punctuation, spelling, and capitalization</p> <p>Very poor:</p> <p>No mastery of convention, dominated by errors of punctuation, spelling, and capitalization</p>	<p>5</p> <p>4</p> <p>3</p> <p>2</p>

3.5.2 Score Sheet

The score sheet is an instrument to help researchers measure students' writing performance, which can be converted into a total score. The score sheet has been created based on five aspects of writing, as follows:

The Score sheet Of Writing Test

Name:

Class:

Table 3.2 Writing Score Sheet

No	Proficiency Description	Criteria				Score
		Very Poor	Fair to Poor	Good to Average	Excellent to Very Good	
1	Content	13-16	17-21	22-26	27-30	
2	Language Use	5-10	11-17	18-21	22-25	
3	Vocabulary	7-9	10-13	14-17	18-20	
4	Organization	7-9	10-13	14-17	18-20	
5	Mechanic	2	3	4	5	
Total						

Total Score Categorizing		
Letter	Score	Description
A	83 – 99	Very Good
B	63 – 82	Good
C	43 – 62	Enough
D	26 – 42	Less
E	16 – 25	Low

3.6 Procedure of Research

The research was conducted in five meetings. The first meeting was a pretest. The next three meetings were for the implementation of the mind mapping technique in writing analytical expositions. In the last meeting, a post-test was carried out by giving instructions to students to write their analytical exposition on paper. In addition, the procedure for this research is as follows:

3.6.1 Determining Problems

Problems were identified through observations and interviews with English teachers conducted by the researcher at SMA Negeri 16 Bandar Lampung. The researcher found that most students still had difficulty organizing the ideas they had during the learning process, especially when asked to write analytical expository texts. As a result, they sometimes made the same mistake in their next writing. Therefore, researcher have conducted research on writing used mind mapping techniques to solve writing problems for students.

3.6.2 Selecting Population and Sample

The population selected in this study were class II students at Senior High School 16 Bandar Lampung. Researcher was choosed class XI 1, which consists of 30 students' sample.

3.6.3 Determining Material

The material based on the high school syllabus derived from the Merdeka curriculum for second grade students at Senior High School 16 Bandar Lampung. In this study, the material focused on making short analytical exposition texts.

3.6.4 Determining Pre-test

In order to discover students' prior knowledge in writing, students got a pretest at the first meeting while they were still not getting treatment. Students should make written products before being taught the mind mapping technique.

3.6.5 Conducting Treatment

In the treatment, there were several topics discussed during the learning process in class. Teaching materials are delivered in the form of explanations accompanied by several pictures and videos. These materials are used as a background for students to build their writing. In addition, during treatment, students were asked to make a short analytical exposition text with a theme given by the teacher.

3.6.6 Conducting Post-test

At the last meeting, a post-test was given to students to find out the improvement in their writing achievement in writing analytical exposition texts after receiving treatment. Students were asked to make their writing products using the mind-mapping techniques they had learned. Learning outcomes in the form of score data, which was later used to compare with pretest scores. Writing products are examined by the teacher in five aspects of writing.

3.6.7 Data Analysis

In this step, the researcher analyzed the data obtained from the students' pretest and post-test using SPSS. All tests were graded based on the writing aspects of Jacobs (1981). Then, these scores are compared to see the student's improvement from the first test to the second test. However, there are three evaluators who check all student writing on both tests. The first rater was the researcher, while the second and third raters were the English teachers. Furthermore, the results of the writing aspect are also investigated to find out the improvements in each aspect.

3.7 Validity and Realibility of The Instrument

In this section, there are two parts: validity and reliability. In conducting the research, checking the validity and reliability is a must for the researcher. As mentioned by Setiyadi (2006). The quality of a test can be seen from the validity and reliability of the instrument.

3.7.1 Validity of Writing Test

According to Farhady & Hatch (1982), validity is the extent to which an instrument really measures the objective to be measured and is compatible with the criteria. The validity of a test shows how far the test measures what is supposed to be measured (Setiyadi, 2006). Hatch and Farhady (1982:281) added that there are two basic types of validity: content validity and construct validity.

1. Construct Validity

Construct validity was needed for the instrument, which has some indicators for measuring one aspect or construct (Setiyadi, 2006). If a test instrument has several aspects, and each aspect is measured by several indicators, then these indicators must have a positive relationship with each other. In this study, the researcher used writing aspects from Jacobs (1981), of which there are five aspects of writing, namely: content, organization, grammar, vocabulary, and mechanics. Therefore, the test has measured these five aspects, and then the test has included aspects of construct validity. In measuring the construct validity of an instrument (test), the second rater and third rater were involved in determining the validity of the test.

2. Content Validity

According to Brown (2000), content validity includes any validity strategies that focus on the content of the test. Content validity is concerned with whether the test is sufficiently representative and comprehensive. According to Setiyadi (2006), the material given was compatible with the curriculum. This research used a writing test that was supposed to be mastered by the second-grade students in senior high school. The results of the test were considered valid in terms of content validity since the test of writing consisted of a representative sample of writing aspects, and the material used was chosen based on the Merdeka Curriculum for second-grade students in senior high school.

Since this research was about writing achievement, the researcher considered five aspects of writing, which are measured: content, organization, vocabulary, language use, and mechanics. It can be said that the test has been covered with construct validity. Furthermore, the writing tests were administered based on indicators and the objectives in the school's syllabus. The researcher chose to write analytical exposition text for this research, so it was examined by considering indicators of analytical exposition text. It could be assumed that the instrument used in this research was valid.

3.7.2 Realibility of Writing Test

A test is considered reliable if it produces consistent results. As stated by Farhady & Hatch (1982, p. 243), the reliability of a test can be defined as the extent to which it produces consistent results when administered under similar conditions. Since the instruments being used in this research were written tests, the researcher uses *inter-rater reliability* in order to see the consistency of the test. Besides, to avoid subjectivity or bias in the research, inter-rater reliability is used. In this case, there are three raters. Hence, in this research, the researcher collaborated with the writing teachers to assess students' writing based on the aspects of writing proposed by Jacobs et al. (1981). The first rater was the researcher, and the second and the third are the second grade English teacher in Senior High School 16 Bandar Lampung. The researcher made sure that three raters used the same criteria in scoring students' writing tests. After that, the results from three raters compared to determine their reliability. Furthermore, to see the correlation between three raters, the researcher used criteria devised by Jacobs et al. (1981:90).

To measure reliability of the scoring, this study used *Rank Spearman Correlation* with the formula:

$$r = 1 - \frac{6 \sum d^2}{N(N^2 - 1)}$$

r : Coefficient of rank order

d : Difference of rank correlation

N : Number of students

1-6: Constant number

(Hatch and Farhady, 1982: 206)

In this case, the coefficient of rank correlation was analyzed with the standard of reliability as follows:

1. 0.80000 - 1.0000: very high reliability.
2. 0.60000 - 0.7900: high reliability.
3. 0.40000 - 0.5900: medium reliability.
4. 0.20000 - 0.3900: low reliability.
5. 0.00000 – 0.1900: very low reliability.

(Arikunto, 2006).

Based on the standard of reliability above, it could be concluded that the writing tests should be considered reliable if the test reached the range of 0.60 to 0.79 (high reliability). Furthermore, the reliability of the pretest and posttest in this research is presented below:

Table 3.3 Reliability of Pretest

Correlation	Number of Items (N)
.961**	3

From the table above, it is clearly seen that the reliability of the pretest is 0.961. Hence, it can be concluded that the pretest used to know students' prior achievement is considered to have a very high reliability. On the other hand, the reliability of post-test is pictured on the following table:

Table 3.4 Reliability of Posttest

Correlation	Number of Items (N)
.944**	3

Based on the second table, the reliability of the posttest is scored 0.944. According to the specification of Arikunto (2006), if the value of the test is 0.80000 to 1.00000 it means that the test has a very high reliability level.

In conclusion, the research results showed that both tests have high reliability. This showed that all tests have good, consistent assessment results.

3.8 Data Analysis

In order to get the results of this research, the researcher was analyzed the data by using some steps as follows:

3.8.1 Data Analysis of the First Research Question

1. Scoring the result of students' pretest and post-test.
2. Tabulating the results of the score of pretest and post-test.
3. Finding the mean of the pretest and post-test by using *paired sample t-test* in SPSS.
4. Finding the level of significant by compare the t-value and t-table
5. Composing a discussion regarding the result.
6. Answering the first research questions by concluding the results of the analysis.

3.8.2 Data Analysis of the Second Research Question

1. Computing the data to SPSS.
2. Finding the mean of pretest and post-test in each aspect of writing.
3. Analyzing the significant improvement of each aspect of writing in percentage by using the formula:

$$\left[\frac{\text{pretest} \times 100}{\text{aspect weight}} \right] \text{ and } \left[\frac{\text{posttest} \times 100}{\text{aspect weight}} \right]$$

4. Drawing conclusions by comparing the gain score of each writing aspect.

3.9 Hypotheses Testing

The formula for testing the hypotheses of this research was:

$$\mathbf{H1 = Sig. < 0.05}$$

H1: There is significant improvement of students' analytical exposition text writing achievement after being taught with the mind mapping technique.

H2: Content is the writing aspect that improves the most after they are taught with the mind mapping technique.

The hypotheses were analyzed by using *Paired Samples T-test* of *Statistical Package for Social Science* (SPSS). Then, to find out the second research question, the researcher compared students' writing product results to each five writing aspects to know which aspect has the most significant improvement.

In short, this chapter covers the methodology of the research which is concerned with research design, variables of research, population and sample, research procedure, research instrument, data collecting technique, validity and reliability of the instrument, data analysis, and hypothesis testing.

V. CONCLUSION AND SUGGESTION

This final chapter focuses on the discussion of two points. First, the conclusion of the research findings. Second, the suggestions are for an English teacher who wants to implement mind mapping techniques in teaching writing and another researcher who wants to conduct an investigation in the same area.

5.1 Conclusion

After conducting research in Grade XI 1 SMAN 16 Bandar Lampung, the researcher obtained the results of the data analysis and discussion. Researcher want to state the following conclusions:

There was a significant improvement in the students' writing achievement after being taught the mind mapping technique. The technique was applicable to encourage the students to improve their writing achievement since it was proved by the improvement of the students mean score in the post-test, which was higher than in the pre-test. The student's mean score increased from 66.13 to 82.06, with a gain of 15.93 specifically. It also reveals that the most significant improvements were those in the writing content aspect. The learning writing process using the mind mapping technique made it easier for the students to write because they were able to generate and organize ideas in the pre-writing process.

5.2 Sugestion

Relating to the conclusion above, the researcher would like to present some suggestions that should be considered in applying the mind mapping technique to teaching writing.

1. English Teacher

- a. Some students may find it difficult to connect their arguments to the topics discussed during class. They tend to be reluctant to participate in learning activities in class. Therefore, it is recommended that

teachers provide motivation and reinforcement to students during the learning process.

- b. Should not too concern about language use because the most important thing is students are able to express their thoughts in words first. The language use can be evaluated when students have finished their work. It is to build students' self-confidence in writing.
- c. English teachers can apply mind mapping as a way to improve students' achievement to write analytical exposition texts and other types of texts. Mind mapping can help students develop ideas related to the topic. The teacher should prepare some examples using mind mapping.
- d. The advantages provided in writing using mind mapping techniques, such as creative and critical thinking skills, should be optimally utilized by teachers, especially in teaching writing. This can be modified into stages in providing material, discussing, and improving students' analytical expositions text writing achievement.
- e. In scoring the students' works, the teacher should follow the scoring rubric of writing, which consists of five aspects of writing, namely content, organization, vocabulary, language use, and mechanics. This is to turn out fair and good scoring.

2. Further Research

- a. To attract students' interest in learning writing using the mind-map technique, perhaps future researchers can ask students to use colorful pens to beautify and also differentiate each part of the text structure.
- b. In this research, the researcher used mind mapping to help students' analytical exposition texts writing achievement in 11th grade senior high school. Further researchers can investigate the use of mind mapping techniques to teach other types of texts studied in 11th grade or at other levels of students.
- c. Other factors that might influence students' writing results such as gender, personality, and level of competency. it is possible for

researcher to analyze the use of these factors on students' writing achievement taught using mind-mapping techniques.

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