IMPROVING STUDENTS' WRITING ON DESCRIPTIVE TEXT THROUGH CONCEPT MAPPING TECHNIQUE

(Undergraduate Thesis)

By

Nenti Safitri

ENGLISH EDUCATION STUDY PROGRAM

DEPARTMENT OF LANGUAGE AND ARTS EDUCATION

FACULTY OF TEACHER TRAINING AND EDUCATION

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ABSTRACT

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This study aims to investigate whether or not there is a significant difference of students' writing performance on descriptive text before and after being taught through concept mapping technique. This research is a quantitative research with pre-test and post-test designs. The population of this study was class X students of SMA NEGERI 1 PUNGGUR for the academic year 2022/2023 with a sample of 34 students. The sampling technique used was purposive sampling. The instrument used in this study was a written test. Pre-test and post-test were used to collect data. The results of this study showed that the students' average scores were 64.41 in the pre-test and 77.58 in the post-test. The calculation results of the Paired sample t-test showed the significance value of 0.000 and the standard of hypothesis testing is $\alpha \leq 0.05$. The results showed that there was a significant difference between students' writing performance in descriptive text before being taught using concept mapping technique and after using concept mapping technique.

Keywords: *Writing, descriptive text, concept mapping.*

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Students' Name : **Nenti Safitri**

Students' Number : **1813042024**

Study Program : **English Education**

Department : **Language and Arts Education**

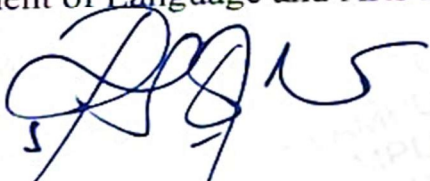Faculty : **Teacher Training and Education**

APPROVED BY

Advisory Committee

Advisor

Co-Advisor

Drs. Huzairin, M.Pd.
NIP 195807041985031006

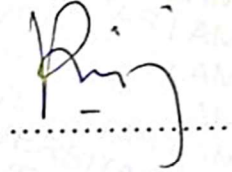**Fajar Riyantika, S.Pd., M.A.**
NIP 199307232019031017

The Chairperson of
The Department of Language and Arts Education

Dr. Sumarti, M.Hum.
NIP 19700318 199403 2 002
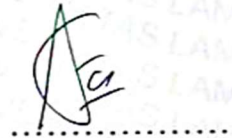
ADMITTED BY

1. Examination Committee

   Chairperson   : Drs. Huzairin, M.Pd.   ....

   Examiner   : Prof. Dr. Patuan Raja, M.Pd.   ....

   Secretary   : Fajar Riyantika, S.Pd., M.A.   ....

2. The Dean of Teacher Training and Education Faculty

   Prof. Dr. Sunyono, M.Si.
   NIP 19651230 199111 1 001

Graduated on: **February 10th, 2023**

LEMBAR PERNYATAAN

Yang bertanda tangan dibawah ini, saya:

Nama   : Nenti Safitri

NPM   : 1813042024

Program Studi   : Pendidikan Bahasa Inggris

Jurusan   : Pendidikan Bahasa dan Seni

Fakultas   : Keguruan dan Ilmu Pendidikan

Judul Skripsi   : Improving Students' Writing on Descriptive Text Through Concept Mapping Technique

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

Bandar Lampung, 10 Februari 2023

Yang membuat pernyataan,

Nenti Safitri

NPM 1813042024

CURRICULUM VITAE

Nenti Safitri was born in Rejo Basuki on August 2nd 2000. She is the oldest daughter from the affectionate couple, Raskud and Siti Muhliyatun. She has two beloved siblings named Dwi Febri Mulyani and Alya Azzahra.

She started her education since the early age by attending RA Al Hikmah. Then, she continued her study to elementary school at SDS Citra Insani in 2006 until 2011. In 2011 she moved to Lampung Tengah in the last year of elementary school, and graduated in 2012. In the next year, she pursued her education at SMPN 1 Punggur. Graduated in 2015, she then went to SMAN 1 Punggur to continue her school. She was involved in several organization such as marching band and English club.

Having an intense enthusiasm in English, she followed SBMPTN program and chose English Education at University of Lampung as the study program that she applied for. Coming as science students, she was very lucky to be accepted in social major. She also got a scholarship named Bidikmisi. She was very glad to be a part of English Department students in 2018. Besides doing her regular activity as an undergraduate, she was active in the organization named Forkom Bidikmisi. She then got chance to teach SMPN 1 Punggur students during her internship in 2021. The program helped her practicing her knowledge that she has gotten during her studies.

MOTTO

"For indeed, with hardship [will be] ease."

(Q.S. 94:5)

"Whoever harms (others), Allah will harm him, and whoever is hard (hard with others), Allah will be hard with him."

(Sunan Abu Dawud: 3635, Grade: Hasan)

DEDICATION

In the name of Allah Subhanahu Wa Ta'Ala who always bless my life and give me strength, this script is devoted to my father, my dearest family who shared endless support, lecturers, and all of my beloved friends.

ACKNOWLEDGEMENT

Alhamdulillahirobbil'alamiin, praise is merely to the Mightiest Allah SWT for the gracious mercy and tremendous blessing that enables the author to accomplish this undergraduate thesis entitled "Improving Students' Writing on Descriptive Text through Concept Mapping Technique". This work is submitted as one of the requirements to get her Bachelor degree at English Education Study Program, Faculty of Teacher Training and Education, University of Lampung.

Having completed this work, the author realized that there are many people who have whole-heartedly helped her by giving generous feedbacks for finishing this paper; therefore, the author would like to express her sincere gratitude and greatest honor to:

1. Drs. Huzairin, M.Pd. as the first advisor, for his constructive ideas, encouragement, and support that help me to finish this script.

2. Fajar Riyantika, S.Pd., M.A. as the second advisor who has given dexterous assistance, worthwhile suggestion, and evaluation. A genuine thankfulness for his patience and kindness in guiding the author to complete this script.

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6. The lecturers and administration staff of English Department for practical knowledge and technical help.

Finally, the author believes that her work is still far from perfection. There might be flaws in this research. Therefore, comments, suggestions, and constructive feedbacks are always acceptable for better research. The author hopes that this research could give practical contribution to the educational development, to the readers and to those who want to conduct further study.

Bandar Lampung, February 2023
The author,

Nenti Safitri
NPM 1813042024

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I. INTRODUCTION

This chapter consists of some points as the prior information of the research to be indicated. They are background, research question, objectives of the research, uses of the research, scope, and definition of term.

1.1 Background

Writing is an important language skill. Because of that, writing skill has to be mastered by students. Writing is also the most complicated skills to be learned compared to other language skills and it is difficult (Purnomo, 2014). Writing becomes difficult because when we write, we pay attention not only to the writing aspect but also to other aspects such as listening, speaking and reading. However, writing helps develop all of these aspects because they are interrelated with writing (Saed and Al-Omari, 2014). Unlike other aspects, writing is also a long process where good writing takes time to be created. Most people are impatient in developing their writing and tackle the entire writing process for good results.

Writing does not only stimulate thinking, compel students to concentrate and organize their ideas, and cultivate their abilities to summarize, analyze, and criticize. At the same time, writing also emphasizes continuous learning, deep thinking, and reflection in English (Maghsoudi and Haririan, 2013) Mastering vocabularies and structures become the main key to get a good writing. Students need to choose appropriate vocabularies to compose words to be a sentence and develop it to be paragraph. Besides that, students also need to use a compatible structure to express an event in certain time.

Because writing is the most difficult language skill, students face a lot of problems (Purnomo, 2014). In this research, the writer focused on descriptive text. The students could not describe things, places, and a person in detail because they do not have any ideas when they are asked to describe them. They were lazy and bored if the teachers asked them to write something even if it is just to write a

descriptive text. There were many students that lack of motivation in writing, so there were many of them got bad score in writing. Besides that, some of them did not know what they should write. The other problems which also emerged were choosing the topic, arranging paragraph and using of vocabulary.

The problems above are also faced by students in SMAN 1 PUNGGUR. According to the observations of the English teacher, they faced serious problem in constructing and arranging sentences. They were confused to determine words to describe something. They used to make mistake when they used simple present tense. Sometimes, they forgot to add "-s / -es" on the verb when they used third person singular pronoun as a subject. They usually used pattern of past tense to make a paragraph of descriptive text. Moreover, they found it difficult to describe their memory about things which they wanted to describe. In the other case, they wrote similar description with their chair mate. They did not have enough self-confident to make their own sentences.

In order to solve the problems, the researcher tries to apply a teaching model named concept mapping technique. Novak and Gowin (2006) stated that Concept maps emphasize the organization and instruction of knowledge that fosters meaningful learning. This strategy can make students remembered things they wanted to describe easily. It can be supported with several things such as pencil color, paper, etc. And, it can be connected with lines in order to make their imagination colorful and more interesting toward writing skill.

The concept mapping strategy is one of the effective strategies in teaching writing. A concept map is considered a diagram used to represent the relationship of words, ideas, tasks, or other items connected to and arranged around a central key word or idea (Deshatty and Mokashi, 2013). It is an effective tool to aid in studying and organizing information as well as writing. It helps students to associate ideas, promote creative thinking, and establish meaningful connections among ideas (Buzan, 2010).

This research is focusing on the ability in writing descriptive text especially in describing people. The researcher concerned on the students' improvement of

content, organization, vocabulary, language use, and mechanics in writing descriptive texts. It will be known by pre-test and post- test phases.

1.2 Research Question

Based on the limitation in the background, the researcher specified the following research question: Is there any significant difference of students' writing performance on descriptive text before and after being taught through concept mapping technique?

1.3 Objective of the Research

The objective of this research is to find out whether there is significant difference of students' writing performance on descriptive text before and after being taught through concept mapping technique.

1.4 Uses of the Research

The uses of this research are:

1. Theoretically

This research used as a contribution for English teachers and researchers in conducting further research in the same field.

2. Practically

The use of this research especially for teacher, it helps English teachers to provide appropriate materials and use of media for classroom learning. The result can be served as a guide for further research related to the subject.

1.5 Scope of the Research

This study was quantitative research that focuses on the performance to write descriptive text especially in describing people using concept mapping. The subjects of the research were students from SMAN 1 PUNGGUR. The researcher

concerned on the students' improvement of content, organization, vocabulary, language use, and mechanics in writing descriptive texts. This is known through pre-test and post- test phases.

1.6 Definition of Term

There are the definitions that related to what researcher want to used, the researcher defines as follows:

1. Writing

Larry (2003: 121) states that writing is the process of transferring thoughts from mind into paper to share with readers while readily admitting that composing text to communicate their ideas is tough sledding.

On the other side, Gelb (1962) explains that writing is clearly a system of human intercommunication by mean of conventional visible mark. Writing began at the time when man learned how to communicate his thought and feeling by means of visible signs, understandable not only to himself but also to all other people more or less initiated into the particular system.

2. Concept Mapping

Concept mapping is a relational device, which has a hierarchical 'tree' structure with super-ordinate and subordinate parts (primary, secondary and tertiary ideas). Concept mapping often begins with a word or concept or phrase that represents the focus of a question that requires an answer (Novak and Canas, 2006).

The concept mapping strategy can be used to explore almost topics in writing such as narrative, descriptive, recount, persuasive, argumentative, essay, and etc. Students can improve their ideas and lend themselves to discussing ideas in groups. According to Buzan (2006: 31), concept mapping can be used in many activities, such as to communicate, do presentation, and to plan family activities.

3. Descriptive text

According to Gerot and Wignell (1994), descriptive text is the type of text that we use when something seen, smelled, tasted, acted, tasted, heard, etc. wants to be told. Basically, the text provides details about the characteristics of things, people and places. The details are used to assist the reader in creating an image.

Those are background, research questions, objectives, uses, scope, and definition of terms that were used in this research. Further elaborations on the theories are discussed in the next chapter.

II. LITERATURE REVIEW

This chapter is provided by some theories. It consists of concept of writing, aspects of writing, teaching writing, process of writing, concept of descriptive text, concept of concept mapping, teaching writing through concept mapping, procedures of teaching writing by using concept mapping, theoretical assumption, and hypotheses.

2.1 Previous Studies

There are several studies dealing with the topic of this research. Accordingly, some relevant research concerning the area of writing and the use of concept mapping are described further in the purpose of references for this research.

The first study is from Pishghadam and Ghanizadeh (2006). The title is "On the Impact of Concept Mapping as a Prewriting Activity on EFL Learners' Writing Ability". In this study, the researcher used a method in which the students were divided into two groups, the control and experimental groups. Each group was given different treatment in order to know the difference. Based on the two groups, there was a significant difference, that the experimental group had an improvement in writing, especially in terms of quantity and quality of generating, organizing, and associating ideas. Novak and Gowin (2006) also stated that concept mapping can help teachers make their own students learning meaningfully.

The second finding is about "Using Concept Mapping and Mind Mapping in Descriptive and Narrative Writing Classes" from Marashi and Kangani (2018). In this study, researchers compared concept mapping with mind mapping using two experimental groups. Each group received different treatments. One group used mind mapping and the other used concept mapping. After the treatment, a post test

was given which consists of a descriptive and a narrative writing. From the post test, it was found that students who were given mind mapping treatment got a higher mean than who were given concept mapping. In line with that, Davies, M (2010) stated that unlike mind mapping, concept mapping is more structured, and less pictorial in nature.

The next study is from Aruwiyantoko, A (2021) this research also uses concept mapping as a reference in writing texts. He stated that concept mapping effectively guides students in writing texts, so that the results of student texts in terms of content and organization of texts become wider, deeper, and have good cohesion between paragraphs. Therefore the application of concept mapping makes students have a higher competence in writing expository text than students who are taught without using any technique. Rahman and Ambreen (2018) also stated that students who were taught using concept maps showed better results in the post test compared to the control group.

Based on previous study above, the researcher intends to discuss about students' writing performance in descriptive text after being taught through concept mapping technique. Difference between studies and this study is the researcher tries to use a different method to measure whether it will be as significant as the previous method.

2.2 Concept of Writing

Writing is a human communication system through visible conventional signs (Gelb, 1962 cited in Purnomo, 2014). People begin to write when they learn how to communicate the thoughts and feelings that are within them so that they can be understood by others, not only themselves.

As one of the language skill, students must be able to master writing which means productive skill. Writing is an activity where students can express their ideas, thought, and beliefs in the form of structured texts that can be well understood by readers. Klimova (2013) stated that writing skills enable learners to create language in a demanding way, when they are trying to express ideas in written form. In order for their ideas to be conveyed well, students are required to be able

to develop their thoughts into paragraphs while still considering the organization of the statement. As stated by Kurniawan et al. (2019) that it is important for students to be able to write well, because they will face several writing tasks in learning English. However, writing is still difficult because you have to pay attention to some writing aspects such as grammar, vocabulary, mechanics, fluency and organization in writing ideas.

Based on the statement above, writing is something that is done to convey an idea, thoughts, and understanding that we have in writing, where we must pay attention to various aspects so that our message can be conveyed properly to the reader.

2.3 Aspects of Writing

We can express our ideas and thoughts in our efforts to make meaning in written form, but we need to pay attention to some aspects of writing, so that readers can understand the point of ideas or messages. The aspects of writing are five which must be considered in order to make the writers successful in their writing (Jacobs et al, 1981). They are as follow:

a. The content contains things that refer to the substance of the writing. By paying attention to the topic sentence, we can recognize this. The topic sentence should represent the main idea and the entire paragraph.

b. Organization refers to the logical organization of content (coherence). This relates to every idea that exists must be combined into a complete paragraph and run smoothly.

c. Vocabulary refers to the choice of words according to the content. This can be recognized by looking at the diction used to convey meaning to the reader.

d. Language use refers to the use of correct grammatical forms and syntactic patterns. This can be recognized through the construction of well-formed sentences.

e. Mechanics refers to the conventional graphic use of the language. This can be identified by showing the use of spelling, punctuation, and the use of capital letters in paragraphs.

The aspects above are used by the writer to test students' writing to get their test scores. Also, teachers need to apply these aspects in the teaching process. Therefore, during learning, these aspects should be considered by students as their standard of writing.

2.4 Teaching Writing

The reason for teaching writing to students English as a foreign/second language are as a reinforcement, language development, language style, and most significantly writing as a skill in itself (Harmer, 2002). Reinforcement means that some students acquire language by speaking, but most of us understand language better by looking at written language. Language development here means the actual writing process (more like the speaking process) helps us to learn as we go. Learning style means that some students are very fast in picking up language just by looking and listening. The last one is writing as a skill, by far the most important reason to teach writing is basic language skills, just as important as speaking, listening and reading. Students need to know how to write a letter, how to compile a written report, how to reply to an advertisement, etc.

2.5 Process of Writing

There are some steps in writing process must be followed by the writers. Here, Brereton (1982, as cited in Jayanti, 2019) states six separate steps most good writers follow:

a. Discovering a topic

Students should read for overview of various topics. By searching from various sources, students then continue to think of ideas that will be used in writing. After that, the students decide which topic or details that they are going to put on their

writing. They can also work together with their friends to exchange information and opinions.

b. Planning an approach

The details/topics selected must be compiled into a concept map or outline. This means that they must know what they are going to talk about in each paragraph. Students will be encouraged to seek out as many resources as possible for their writing and then developing their ideas.

c. Writing a rough draft

After getting the details, the writer starts to write the draft. At this stage, students must develop their outlines into sentences and paragraphs. They can brainstorm in elaborating ideas so that their writing has coherence and is well organized. Every detail should connect with each other to make the reader get the message easily. Students begin with the most important information and end with the least important information or additional information that strengthens their writing. However, they still have to pay attention to the writing aspect.

d. Revising

The next step is revising. Revising was made to improve the quality of students' writing by changing some parts of their writing. Students can ask for corrections by the teacher or other students. By correcting and highlighting errors made by students, the corrector tries to review the students' first draft as there will be many mistakes. The most mistakes made by students are usually in grammar and structure such as hanging or misplaced modifiers, lack of appropriateness of subject and verb and word fragments.

e. Writing a final draft

After getting a revision from the corrector, students begin to review their writing and turn it into a final draft. The final draft is the writing that will be submitted as your final work. Students should make their final draft the most important assignment, as this is their last chance to perfect their paper and correct any flaws.

f. Proofreading

Sometimes, providing a few revisions and making a final draft is not enough to improve students' writing, so students have to go through proofreading for the final step. This is a crucial stage for finding errors that have been revised by students, whether they are correct or not. In addition, sometimes it is difficult to check all errors at once. Therefore, with proofreading, the writing will be double-checked to maximize its quality. All you have to do is check for indentation, capitalization, and punctuation. In other words, it is said that this step is a further revision.

The six steps of writing above should be implemented in students' writing in order to gain better writing performance. And also those processes must be carried out by students in making texts using concept mapping.

2.6 Concept of Descriptive text

Text is a written or printed work that is formed from original words. In other words, the text consists of spoken or written words that have the purpose of conveying the author's message (Jayanti, 2019). This means that text is created by putting words together in order to convey meaning or to send a message.

As stated by Usman (2020) that descriptive means drawing, illustrating or describing objects, places and people for visual appearance described object. Drawing has a process that usually starts from naming, classifying, and handling attributes, behaviors, functions, and so on. Thus, the reader may be able to know what is being explained as well as possible.

Jayanti (2019) also stated that texts are often said as structures in several ways to realize their purpose. For example, the aim of descriptive text is to explain a something, place or people.

According to Gerot and Wignell (1994), descriptive text is the type of text that we use when something seen, smelled, tasted, acted, tasted, heard, etc. wants to be told. Basically, the text provides details about the characteristics of things, people and places. The details are used to assist the reader in creating an image.

Moreover, descriptive constructed from a schematic structure called identification and description (Butt, Fahey, Feez, Spinks, and Yallop, 2000; Derewianka, 1990; Gerot and Wignel, 1994; Knapp and Watkins, 2005). Identification aims to introduce and identify things such as people, objects, places, animals, and events. Description, on the other hand, aims to describe a thing from its appearance, characteristics, personality, and habits or qualities.

In order to linguistic features, Derewianka (1990); Emilia and Christie (2013); Gerot and Wignell (1994); and Knapp and Watkins (2005) stated that descriptive texts have the subsequent characteristics:

(a) Focus on certain participant as the main character,

(b) Using the present tense as the main tenses,

(c) Often use connecting verbs or relational processes

(d) In giving additional description regarding action and behavior done by the participants in text, use action verbs or material processes and behavioral processes

(e) When describing feelings, use mental verbs or mental processes

(f) To add information to nouns and verbs, usually using adjectives and adverbs

(g) To add further information and explanation also use adverbial phrases which functions as circumstances

In descriptive text, several rules must be followed and applied in order to become a text that can be understood by the reader. Not only the meaning, the purpose of writing a text must also be considered so that the text becomes good and correct.

2.7 Concept of Concept Mapping

Davies (2010) stated that concept mapping allows students to understand the relationships between concepts and hence understand those concepts themselves and the domain to which they belong. Concept mapping is a relational device. A

concept map has a hierarchical ''tree'' structure with super-ordinate and subordinate parts (primary, secondary and tertiary ideas).

The researcher used spider map which spider map is a type of concept map that starts with a key concept and branches out into related ideas. The map normally begins with a word or concept or phrase which represents a focus question that requires an answer (Novak and Canas 2006). Cross-links using connective terms (usually prepositional phrases) such as ''leads to'', ''results from'', ''is part of'', etc., are used to show relationships between concepts represented. To create a spider map, start by drawing a circle in the center of a sheet of paper. Write the central ideas in the circle, then draw lines out from the circle and label them with related concepts. Continue adding concepts (and sub-concepts) until you have a web of ideas that covers the page.
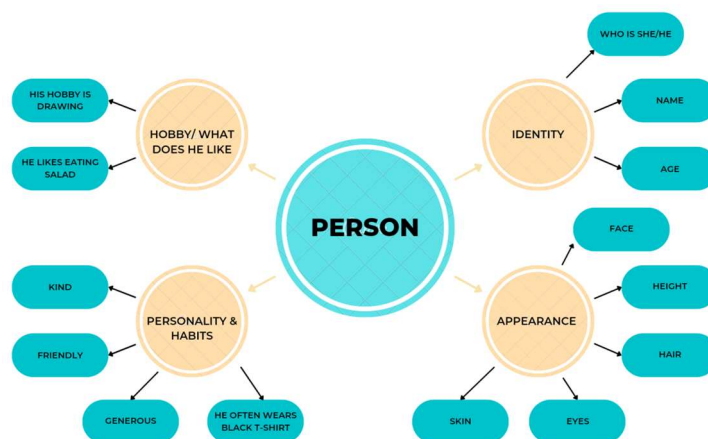
Fig.1 A Concept Map

2.8 Teaching Writing through Concept Mapping

Novak (1990) stated that Concept maps are useful for representing changes in students' knowledge structures over time, and also helping them to "learn how to learn". Not only that, Concept maps are useful for representing knowledge in any discipline and help in organizing and understanding new subject matter. Concept mapping plays a key tool, helping students take charge of their own meaning-making (Novak, 1985). In the work they have done by their students, other colleagues at Cornell University and elsewhere since 1975, concept mapping has

become an important tool for helping students learn meaningfully, and helping teachers become more effective teachers.

In other work, Novak and Gowin (2006) stated that Concept maps emphasize the organization and instruction of knowledge that fosters meaningful learning and "the creation of robust knowledge frameworks that not only enable knowledge utilization in temporary contexts but also retention of knowledge for long periods of time"

In line with that, researcher is motivated to conduct research related to the application of concept maps in making descriptive texts to improve students' writing skills. According to her, concept maps can be used as a medium for students to make it easier to make texts and also make student learning more meaningful. In addition, it can also facilitate collaborative writing in the classroom and stimulate ideas among students. Students will be encouraged to think in a structured and free way, making their writing more natural. That is why the researcher wants to know about the effect of concept maps on their writing performance in descriptive texts. She wanted to know whether concept maps could encourage students to be more creative in writing. For this reason, the researcher decided to conduct a research on the use of concept maps in descriptive texts to improve students' writing performance.

2.9 Advantages and disadvantage of Concept Mapping

The main advantage of concept mapping is that it allows relational relationships to be made between relevant concepts. In an educational context, it is argued that meaningful learning is best accomplished by associating new concepts with existing knowledge (Craik and Lockhart 1972; Maas and Leauby 2005). Concept maps allow [learning] elements to relate to how cognitive knowledge is structurally developed by the learner' (Maas and Leauby 2005, p 77).

The main disadvantage of concept mapping is that it is limited to the relationships between concepts. Many problems require more than identifying relationships between concepts; they need arguments to explain an issue. Of course, this is a

limitation of concept mapping and has led to a new kind of tool, a tool for mapping arguments.

2.10 Procedures of Teaching Writing by Using Concept Mapping

Harris and Graham (2007, as cited in Nosratinia, Amini, and Sarabchian, 2013) state five stages for concept mapping: strategy description, discussion of goals and purposes, strategy modeling, student strategy mastery, and guided practice and feedback. The following is a description of these stages:

1. Strategy description. As an introduction, at this stage students are told that they will learn about Concept Mapping strategies that can be used to categorize information in graphic form through drawing.

2. Discussion of the goals and purposes of the strategy. Here, Students are told that Concept Mapping is strategy that can help students develop their writing.

3. Strategy modeling. Students are explained the step for making Concept Mapping as follows:

Step 1: The students are asked to identifying the main topic such as people, and brainstorm everything they know about it. Use relevant content from course material.

Step 2: Organize their information into main points

Step 3: Start creating your map. Begin with your main topic then branch out to major points and supporting details

Step 4: Reviewing your map and look for more connections. Use arrows, symbols, and colors to show relationship between ideas.

Step 5: Include details: definitions, equations, and diagrams are all useful.

Step 6: Analyzed and improve your map. In this step you can ask yourself "How do the ideas fit together?" "Have you made all necessary connection?" "Is the map accurate, logical and detailed?"

Step 7: As you learn more, update your concept map to reflect your better understanding

4. Students' mastery of strategy. During this stage, the teacher encourages students to draw the other parts of the Concept Mapping for the rest of the members. Then, the teacher selected some students to show their maps to the classmates.

5. Guided practice and feedback. In this stage, the teacher collected the maps of the students and after reviewing them and correcting the mistakes, returned the corrected Concept Mappings to the students. Subsequently, the teacher gave the students a copy of a Concept Mapping from Learning How to Learn (Novak and Gowin, 2006) to use it as a guide and become more familiar with the strategy.

There are the procedures of teaching writing that should be implemented in students' writing in order to gain better writing performance. And also those processes must be carried out by students in making texts using concept mapping.

2.11 Theoretical Assumption

As a form of communication, writing is a skill that is considered difficult to learn. Therefore, students experience many difficulties, one of them is writing descriptive text. In writing descriptive text, students are required to explain something specifically and structured. However, students have difficulty explaining this. In this regard, the researcher implemented Concept mapping to help students write descriptive texts. Using concept mapping, students are directed to create an understanding structure from facts that are linked to subsequent knowledge, and to learn how to organize things from information, facts and concepts into an understanding context, so that a good understanding is formed. Thus, the researcher assumes that concept mapping will help students to write better descriptive texts.

2.12 Hypothesis

In quantitative research, it is needed to compose the hypothesis based on the problem formulated in the first chapter. According to the problem that was found out in the first chapter, the hypotheses which were proposed in this research is concerned with:

There is significant difference of students' writing skill on descriptive text before and after being taught through concept mapping technique.

Some theories that has been discussed in this chapter are concept of writing, aspects of writing, teaching writing, process of writing, concept of descriptive text, concept of concept mapping, teaching writing through concept mapping, procedures of teaching writing by using concept mapping, theoretical assumption, and hypotheses.

III. METHODS

This chapter will discuss about research design, variable of research, population and sample, sampling technique, data collecting technique, research procedures, research instrument, reliability and validity, rubric scoring system, data analysis, and data treatment.

3.1 Research Design

In quantitative research, statistics or numbers are used by researchers to measure the world and statistics help us to understand the world (Stockemer, 2019). With quantitative research, several things need to be found out. In this research, the researcher tries to find out the significant difference of students' writing performance after being taught through concept mapping using quantitative research approach through direct observation which is the researcher observe in the class directly. The researcher used experimental design 'before and after without control design' by Kothari (2004). A single test group was selected and the dependent variable is measured before the introduction of the treatment. The treatment is then introduced and the dependent variable is measured again after the treatment has been introduced. The effect of the treatment would be equal to the level of the phenomenon after the treatment minus the level of the phenomenon before the treatment.

3.2 Variable of Research

Research variable are basically everything in any form determined by the researcher to be studied so that information is obtained about it then conclusions are drawn (Sugiyono, 2013).

Sugiyono also stated that there are various kinds of variables when viewed from the relationship between one variable and another variable. The variables that used in this research are the dependent variable and the independent variable.

 a. Independent Variable

The independent variable is a variable that affects or is the cause of the change or the emergence of the dependent (bound) variable. (The use of Concept Mapping)

b. Dependent Variable

The dependent variable is the variable that is affected or the result, because of the independent variable. (Student's writing performance on Descriptive text)

3.3 Population and Sample

Sugiyono (2013) stated that population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics determined by the researcher to be studied and then drawn conclusions. The populations in the study are Students of SMAN 1 PUNGGUR from 10th grade. Due to time and energy limitations, the researchers used samples taken from the population. For the sample which means the part of population are 34 students in 10th grade.

3.4 Sampling Technique

The researcher used purposive sampling. Sugiyono (2013) stated that purposive sampling is a sampling technique with certain considerations. The researcher considered sampling based on responsive classes so that data collection can be carried out optimally. Therefore, X 2 at SMAN 1 Punggur was chosen as the sample because it is considered the most responsive class according to teaching and learning activities that had been carried out by the English teacher in the classroom.

3.5 Data Collecting Technique

Instrument was used to gain the data for the purpose of this research. The tests in the form of writing tasks were given to the students to get their writing scores which were used to identify their writing enhancement. The data collected from the subject were students' writing which was submitted before and after the treatment was conducted. It was used to know the significant difference of students' writing before and after being taught through Concept mapping technique.

1. Pre test

Pretest is given at the first meeting before students get treatment. This means that students need to write before being taught through concept maps. This kind of test is given to determine the students' current knowledge and ability in writing. In addition, another purpose of this test is to find out whether the students' writing ability increases from pretest to posttest after treatment. However, the teacher needs to provide brief explanations and directions related to the writing that students must make.

2. Treatment

After doing the pretest, treatment was given to students were carried out directly using a concept map. The students have to attend the learning process three times. The type of text that students learn is descriptive. By using the lesson plans provided, the teacher prepares descriptive text material and the use of concept maps in making the text.

3. Post test

Other tests are also given to students in the form of writing assignments. The second test (T2) is an assessment of student writing which is carried out after being taught through the concept map technique. The materials and directions used for this test are based on the material the students learned during the treatment. However, in the posttest, students must write based on a more specific topic. The students' writing on the posttest was checked by the teacher based on

the aspects of writing and proofreading carry out by the English teacher at SMAN 1 PUNGGUR.

3.6 Research Procedures

The procedures of this research are as follows:

1. Determining the population and the sample

The population of this research was 10th grade students in SMAN 1 Punggur. The researcher chose the class which consists of approximately 34 students.

2. Determining Materials

The material is based on a high school syllabus which focuses on making short descriptive texts. However, there are some topics that are discussed during the learning process. Researchers use concept mapping as background students to construct writing. In addition, at the pretest and posttest, students are asked to make a short descriptive text with the theme given by teacher.

3. Administering pre-test

The researcher conducted the pre-test before giving the treatments in the first meeting. The pre-test was conducted to know the students' ability about their descriptive text writing before the researcher started the treatment. In the pre-test the students were asked to write a descriptive text and were provided with four options of topics and they could choose one of those four topics available.

4. Conducting the treatments

After giving the pre-test to the students, the class was given treatment in 3 meetings. They were given the treatment to learn to write descriptive text writing by using concept mapping while also explained about the descriptive text materials.

5. Administering post-test

The post-test was conducted to measure the students' descriptive text writing improvement after the implementation of concept mapping. The test was in

writing form. The students were asked to choose one topic from four topics available and they were asked to write the descriptive texts based on the topics that they have chosen.

6. Analyzing the Result

All of tests were assessed based on the writing aspects from Jacobs (1981). Then, the scores were compared to see students' progress from the first test to the second test. However, the researcher used two raters in order to avoid the subjectivity of the researcher. The first rater was the researcher and the second rater was the English teacher of the class. Furthermore, to know the improvement, the result of the test will be investigated.

3.7 Research Instrument

The data used in this research was quantitative data, where quantitative data were collected from pretest and post-tests of the students' ability in writing descriptive text when they wrote it before implementing concept mapping and after implementing it, after that the data transformed into writing score using scoring rubric from Jacob et al. (1981). The instruments used in this research are pre-test and post-test questions. The specification of the research instrument can be seen in the following specification table:

Table 3.1 Specification of Research Instruments

Instrument	Form of the Test	Aspect	Scoring
Pre-Test	Essay (1 question, four options of topics)	Creating their own descriptive texts with five aspects of writing	Scoring Rubric
Post-Test	Essay (1 question, four options of topics)	Creating their own descriptive texts with five aspects of writing	

3.8 Reliability and Validity of Instrument

Gay (2012) stated that Validity refers to the extent to which a test measures what it is supposed to measure and, consequently, allows obtaining an appropriate score. Therefore, according to him, validity is "the most fundamental consideration in developing and evaluating tests."

3.8.1 Validity of Writing Test

1. Content Validity

According to Gay (2012) content validity is the degree to which a test measures an intended content area. If the test does not measure what students are taught and should be learning, then the test scores cannot accurately reflect student achievement. Content validity will be questioned if the test covers topics that are not taught or if they do not cover topics that have been taught. Therefore, for the instrument in the form of a test, the examiner compares the contents of the instrument with the subject matter that has been taught. In this study, the researcher used a syllabus made by the teacher in order to prepare materials and activities to be tested on the contents of the test. The test is considered valid because the test and the material used are selected based on the syllabus for 1st grade high school students and this study used a descriptive text writing test which is expected to be understood by 1st grade high school students.

2. Construct Validity

Construct validity reflects the degree to which a test measures an intended hypothetical construct (Gay, 2012). Determining construct validity usually involves gathering a number of pieces of evidence to demonstrate validity; no single validation study can establish the construct validity of a test. To test construct validity, theory from expert can be used (Sugiyono, 2013). Since this research was intended to find out data about students' descriptive text writing, the instrument then must be truly examine students' ability in writing descriptive text. Thus related to this statement, the test should involve five aspects of writing namely content, organization, vocabulary, language use

and mechanics (Jacob et al. 1981). The test is meeting the construct validity criteria because it uses these five aspects to test students' writing abilities.

3.8.2 Reliability of Writing Test

Reliability is related to the degree of consistency and stability of the data or findings. In the positivistic (quantitative) view, a data is declared reliable if two or more researchers are on the same object produce the same data, or the same researcher at different times produce the same data, or a group of data when split into two shows data that is not different (Sugiyono, 2013).

The reliability of writing test in this research was measured by computing the mean score from each corrector or tester. The score of writing test was the mean score between the first and second rater. To measure how reliable the scoring was, the researcher used inter-rater reliability. The reliability of pre-test and post-test was measured by conducting the data of the tests after that it was counted by using SPSS 25 version.

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

Table 3.2 Reliability Interpretation

Alpha Coefficient Range	Range Strength of Association
<0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
0.9 to < 0.95	Excellent
≥0.95	Too high, items are redundant.

Hair *et.al* (2016)

The result of reliability of the tests in this research is presented below:

Table 3.3 Reliability of Raters in Pre-test

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.794	.847	2

Table 3.4 Reliability of Raters in Post-test

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.817	.819	2

The reliability of the pre-test is 0.794 and the reliability of the post-test 0.817. From the table 3.2 it is clearly seen that the tests have a good and very good reliability.

3.9 Scoring Rubric System

In evaluating students' descriptive texts writing, the results of students' descriptive texts writing was analyzing by researcher and the teacher. In this process, the researcher and the teacher analyzed students' descriptive texts writing by adopting scoring rubric proposed by Jacob et al. (1981). This scoring rubric concerned with five aspects of writing namely content, organization, vocabulary, language use and mechanic. The rubric can be seen as follows:

Table 3.5 Scoring Rubric

CONTENT	30-27	EXCELLENT TO VERY GOOD: substantive, thorough development of topic, effective and appropriate details of topic or story
	26-22	GOOD TO AVERAGE: adequate range, adequate development of topic, sufficient details of topic or story
	21-17	FAIR TO POOR: little substance, inadequate development of topic and detail
	16-13	VERY POOR: non-substantive, not pertinent, or not enough to evaluate

ORGANIZATION	20-18	EXCELLENT TO VERY GOOD: fluent expression, ideas clearly stated/supported, well-organized, logical sequencing, cohesive
	17-14	GOOD TO AVERAGE: somewhat choppy, loosely organized but main ideas stand out, logical but incomplete sequencing
	13-10	FAIR TO POOR: non – fluent, ideas confused or disconnected, lacks logical sequencing
	9-7	VERY POOR: does not communicate, no organization, or not enough to evaluate
VOCABULARY	20-18	EXCELLENT TO VERY GOOD: effective word/idiom choice and usage, word form mastery
	17-14	GOOD TO AVERAGE: occasional errors of word/idiom form, choice, usage but meaning not obscured
	13-10	FAIR TO POOR: frequent errors of word/idiom form, choice, usage, meaning confused or obscured
	9-7	VERY POOR: little knowledge of English vocabulary, idioms, word form, or not enough to evaluate
LANGUAGE USE	25-22	EXCELLENT TO VERY GOOD: effective complex constructions, few errors of agreement, tense, number, word order/function, articles, pronouns, prepositions
	21-18	GOOD TO AVERAGE: effective but simple construction, minor problems in complex construction, several errors of agreement, tense, number, word order/function, articles, pronouns, prepositions but meaning seldom obscured
	17-11	FAIR TO POOR: major problems in simple/complex constructions, frequent errors of negation, agreement, number, word order/function, articles, pronouns, prepositions and/or fragments, run-ons, deletion, meaning confused or obscured
	10-5	VERY POOR: virtually no mastery of sentence construction rules, dominated by errors, does not communicate, or not enough to evaluate
MECHANICS	5	EXCELLENT TO VERY GOOD: demonstrates mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing
	4	GOOD TO AVERAGE: occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured
	3	FAIR TO POOR: frequent errors of spelling, punctuation, capitalization, paragraphing, poor handwriting, meaning confused or obscured
	2	VERY POOR: no mastery of conventions, dominated by errors of spelling, punctuation, capitalization, paragraphing, handwriting illegible, or not enough to evaluate

3.10 Data Analysis

The analysis of quantitative data was used to define the use of collaborative concept mapping in improving students' writing skill in the teaching and learning activity, also, to observe whether there were differences before and after being taught concept maps. In this research, the quantitative data was collected from pre-test and post-tests were analyzed by using scoring rubric from Jacob et al. (1981). After that, the mean score of students in each test was measured by using SPSS statistic program. The procedures used were:

1. Tabulating the result of pre test and post-test.

2. Obtaining the mean of students' score by calculating the result using this formula:

$$\underline{x} = \frac{\sum x_n}{N}$$

$\underline{x}$ = Average count

$\sum$ = Sigma

If there is x_i this means from the first X to x_n

x_n = symbol for the last in that N from the data

N = the total population in that distribution.

(Yusuf, 2014)

3.11 Data Treatment

3.11.1 Normality Test

For data treatment, the researcher used normality test. This test was used to measure whether the data were normally distributed or not. The criteria of normal distributions are:

H0: The distribution of the data is normal

H1: The distribution of the data is not normal

The H0 would be accepted if the result of the normality test was higher than 0.05 (sig>a). In this case the researcher used the One Sample – Kolmogorov-Smirnov Test (SPSS) for normality test.

Table 3.6 Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Pre-test	.131	34	.146	.955	34	.174
Post-test	.111	34	.200*	.953	34	.149

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

After looking at table 3.6, it shows that H0 is accepted since the significant pre-test (0.174) and post-test (0.149) higher than (0.05) and the data is normally distributed.

3.11.2 Hypothesis Testing

The researcher was used Paired Sample T-Test to analyze the hypotheses. The formula can be seen as follows:

$$H = Sig. < 0.05$$

H0: There is no significant difference of students' writing performance on descriptive text before and after being taught through concept mapping technique.

H1: There is significant difference of students' writing performance on descriptive text before and after being taught through concept mapping technique.

If the significance of t measure is more than $\alpha = 0.05$, then H0 is accepted, or there is no significant difference before and after being taught through concept mapping technique with students' writing skills on descriptive text. On the other hand, if the significance of F is less than $\alpha = 0.05$, then H1 is accepted, or there is a significant difference before and after being taught

through concept mapping technique with students' writing skills on descriptive text.

Briefly, this chapter covers the methodology of the research which is concerned with research design, variable of research, population and sample, sampling technique, data collecting technique, research procedures, research instrument, reliability and validity, rubric scoring system, data analysis, and data treatment.

V. CONCLUSION AND SUGGESTIONS

This chapter consists of the conclusions of the research and suggestion for English teachers who wants to use the same method and for those who want to conduct similar research.

5.1 Conclusion

The used of concept mapping techniques can improve students' writing skills, especially in compiling descriptive texts. Students got higher scores after receiving treatment using concept mapping where the posttest average (77.58) is higher than the pretest average (64.41). Teaching writing by using concept mapping can make it easier for students to generate and organize ideas when they write.

This increase was also due to the processes experienced by students. During the process, students were taught what can and cannot be done in descriptive text. Grammatical errors, the use of inappropriate words, or repetitive words have decreased during the post-test. Students have experienced a reduction in errors during the post-test and also experienced an increase in writing descriptive texts using concept mapping, hence the post-test results got a higher average score than the pre-test. Therefore, the researcher claims that the concept mapping technique is a good alternative in teaching writing, especially for teaching writing descriptive text.

5.2 Suggestion

Based on the research results, here are some suggestions from the researchers:

1. English teachers can use concept mapping as a writing teaching technique because the research results have provided evidence that concept mapping can be effective for improving students' writing performance in descriptive texts.

2. Concept mapping is very useful for students. Researchers suggest students to use concept mapping in everyday life in addition to writing multiple types of texts in order to improve students' critical thinking.

3. Future researchers are advised to continue and improve the application of concept mapping by giving students more opportunities and more time to write several types of texts in online platform for each week. Furthermore, they can check students' writing progress by analyzing each weekly post made by students over a set period of time.

4. It is important for future researchers to examine other aspects that can improve the use of concept mapping in writing texts.

After all, those are the conclusion of this study after implementing concept mapping on writing descriptive text. Moreover, the suggestion can be accounted to conduct further research with concept mapping.

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