

## **CHAPTER IV**

### **RESEACRH FINDING AND DISCUSSION**

This chapter describe about finding that include data of research finding, hypothesis testing, data analysis and discussion.

#### **A. Data of research finding**

In this chapter, the researcher presented the data on students writing achievement before and after being taught using mind mapping as a technique in the process of teaching writing descriptive text. In this finding, the researcher presented and analyzed the data which had been collected thought two kind of tests, they are pretest and posttest. As mentioned before, the researcher used test as the instrument in collecting data. It was given to class VIII-E students of MTsN Tulungagung that consist of forty students.

The form of writing test in pretest and posttest was a bit different in term of the picture, but the kind of text and the high of difficulty which the researcher selected in both tests were same. The topic of picture in the test is about animal pet. In pre-test, the researcher chose cow, rabbit and cat. While in the post-test, the researcher chose horse, goat and rooster or cock. In the both of test, the students should write a describe text about the characteristic of the animal. The instruction was researcher wrote in the writing prompt of student task.

The frequency of pretest score of students in pretest was very variety, but the range of score was under seventy. It means that the students' achievement in writing around the criteria of poor, fair and good. There were many students get the score under the criteria of pass. The criteria of pass in this exam was good, it means that the minimum of students 'score is 55. There were 25 students get the score under the criteria of good. It means that generally the students' writing ability in descriptive text was less. The tables of student's frequency in pretest see the appendix 3.

To know the student's achievement was good or not, the researcher gave the criteria as follow:

**Table 4.1 Criteria of Students' Score**

<b>Grade</b>	<b>Interval class</b>	<b>Criteria</b>
<b>A</b>	<b>85-100</b>	<b>Excellent</b>
<b>B</b>	<b>70-85</b>	<b>Very good</b>
<b>C</b>	<b>55-70</b>	<b>Good</b>
<b>D</b>	<b>40-55</b>	<b>Fair</b>
<b>E</b>	<b>0-40</b>	<b>Poor</b>

**Table 4.2 Descriptive Statistic of Pretest Score**

N	Valid	40
	Missing	0
Mean		51,1000
Median		52,0000
Mode		50,00
Std. Deviation		9,60182

Based on the table 4.3 above, we can be seen that there are 40 students as a subject or participant. The mean of students score in pretest is 51, 1000. It means that the average of 40 students score in pretest was 51, 1. Based on the criteria of students' achievement in table above, the student means 51, 1 was in the category of fair score. Then, the median score was 52. It means that the middle score of pretest above was 52 in 40 students. The mode of pretest was 50; there were five students who get the score of fifty. And the standard deviation was 9, 60182.

**Table 4.3 Descriptive statistics of Posttest score**

N	Valid	40
	Missing	0
Mean		67,1000
Median		71,0000
Mode		72,00 <sup>a</sup>
Std. Deviation		9,38028

Based on the table 4.5 above, the mean of students score in posttest was 67, 1000. It means that the average of 40 students score in posttest was 67, 1. Based on the criteria of students' achievement in table above, the student means 67, 1 was in the category of good score. Then, the median score was 71. It means that the middle score of pretest above was 71 in 40 students. The mood of pretest was 72 and 75. There were eight students who get the score of 72 and 75. And the standard deviation was 9, 38028.

## **B. Hypothesis testing**

The hypothesis in this research as follow as:

### **1. Alternative hypothesis (Ha):**

The significant level  $<$  the standard level of significant 0. 05, the alternative hypothesis (Ha) is accepted and the Null hypothesis is rejected. It means

that, there is different score of students' achievement before and after taught using mind mapping technique.

2. Null hypothesis (Ho):

The significant level  $>$  the standard level of significant 0. 05, the null hypothesis (Ho) is accepted and the alternative hypothesis is rejected. It means that, there is no significant different score of students' achievement before and after taught using mind mapping.

### C. Data analysis

**Table 4.4 Paired Samples Statistics**

**Paired Samples Statistics**

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 VAR0000 1	51,1000	40	9,60182	1,51818
Pair 2 VAR0000 2	67,1000	40	9,38028	1,48315

As Table 4.4 shows the pairs sample statistics ,the standard deviation from pretest is 9, 60182 and the standard error mean of pretest is 1, 51818. While, the standard deviation of posttest is 9, 38028 and standard error mean of posttest is 1, 48315. The mean of post-test scores (67.1) is larger than the mean of pre-test scores (51.1). It indicates that on average, the use of mind mapping

has caused the improvement of students' achievements and improved is better that without mind mapping technique.

**Table 4.5 Paired Samples Correlations**

**Paired Samples Correlations**

	N	Correlation	Sig.
Pair 1 VAR00001 & VAR00002	40	,846	,000

**Table 4.6 Paired Samples Test**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 VAR00001 - VAR00002	-16,00000	5,26722	,83282	17,68454	14,31546	-19,212	39	,000

By computing of t-test in above, it can be seen that the t-value is 19, 212 with the degree of freedom (Df) is 39. The score of writing achievement before being taught using mind mapping technique is fair because the mean score of writing is

51, 1000. After getting the treatment, the mean score is 67, 1000. It means that the students' score improved in category of good. The negative which appear in t-value above means the mean before treatment is lower than after treatment. Therefore, by using mind mapping technique improve writing achievement of the students.

Then the researcher gave interpretation the result of the data from Statistics. Firstly, the researcher considered the Df. Df means the sum of subject minus one ( $df = N - 1$ ). So, the df is  $40 - 1 = 39$ . After that, the researcher had seen the score in the level significant 2 tails in the table above. If the significance level (2 tails) in the table above  $<$  than the standard level of significant 0.05, it means that there is significant different score of students' achievement before and after taught using mind mapping technique. On the contrary, if the significance 2 tails was bigger than the level significant, it means that there is no different score of students' achievement before and after taught using mind mapping.

#### **D. Discussion**

Based on the data of research finding, the mean score of posttest was bigger than the mean score of pretest and by calculated using SPSS Statistics 20 in the significant of two tails shown the result was 0,000, it means that the result of the significant level  $<$  the standard significant level ( $0,00 < 0,05$ ). Therefore, the using of mind mapping technique was affective and improves the students' achievement in writing descriptive text.

Mind mapping technique is an alternative to support the student easier to get an idea. Mind mapping helps student in aspect of how to describe something. Before writing, student can write the part of thing that they want describe. In this case, students know what thing that they should describe in next. The interesting of student when write descriptive text also will be improved. Students are demanded to be more creative when describe using mind mapping as a technique. The combination of picture and illustrate the specific part of animal make the students think and analyze again. Consequently, the score of the students after taught using mind mapping technique is better and higher. Besides that, students more interested enthusiast to make mapping picture before describing animal. It could be seen in the posttest that was given.

Mind mapping technique has some benefit for the students. For students, mind mapping technique helped to get an idea, organizing ideas, increase vocabulary, improving creativity and arranging sentences. This technique also helped student to think systematically and develop their brain to think and imagine before describe something. It is also improving the students' ability to explain more clearly in the aspect of describe from general to specific part of animal. So, this finding was supported by the theory from Buzan (1993: 59) said that "Mind mapping can help student to associate idea, think creatively, and systematically". The mind mapping strategy can be used to explore almost any topic, though narrative, recount and descriptive work particularly well as they front students' ideas and lend them to discussing idea in groups. Buzan



(2005:6) said that a mind map is a power graphic technique which provides a universal key to unlock the potential of the brain. Hedge (2005: 58) also states 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. So, mind mapping can give students a way to begin writing assignments.

The finding in this research showed the score of student's writing before and after the treatment. The score of students change to be better. It made both teacher and students are possible to implement this technique to support students' writing achievement. Besides that, the technique of mind mapping was not applied for teacher and students in MTsN Tunggangri. It means by this research the teacher and student can think about the way to support student in writing descriptive and this technique can be one of the choice.

This theory from Buzan above was in line from the finding of this research about mind mapping which can be used in all the aspect that used the potential of the brain. The mind mapping can be applied to every aspect of life where improved leaning and clearer thinking well enhance human performance.

The relation this finding to the reality in the field is the theory of mind mapping can support students in the aspect of thinking and doing the assignment. The researcher knows the improvement of students during and after the treatment. It is known by the result of posttest student after the researcher applied the treatment. Students are interesting, open-ended, and

interactive in the teaching learning process and when they have problem during the treatment.

The theory of mind mapping from Buzan explained the step how to make mind mapping such as: use in the center of page, using single word, use line or circle, use pencil color and make related with other circle. Mind mapping in this research improve students' writing descriptive text in some way. First, this technique support students to get the idea. In getting the idea, students are helped by using own mapping picture and the detail of their branch in each picture. After the step in getting picture, students continue in write sentence, supporting sentence and specific sentence. In this case, what will be described and explanation about the object is founded and ready to explain by students. Next, students can continuous writing and based on the mapping before. Lastly, student continuous write and describe in writing descriptive and the result from their writing is clear in describe, systematically when describe the part of object and correct in arrange the sentences.

The implication of this technique makes student easier to describe something, students also interesting and motivated when writing English. This technique also help student in memorize something. So, student are creative and quickly when thinking and doing the assignment. Finally, the students' achievements in writing descriptive text is improve better than before. From the teacher, the implication of this theory and technique can made one of the ways to support during teaching writing descriptive text. This technique can be implemented in teaching learning process in order to support students more

understand and easy in writing. In general, the implication of theory mind mapping in teaching and learning can support both teacher and student in many aspects. In the aspect of time the teacher and student can save their time because of this technique support student to think creative and systematic. In aspect of material, they make lesson more spontaneous, creative and enjoyable. They automatically inspire interest to the student, thus making them more receptive and co-operative in the classroom.