

CHAPTER IV

FINDING AND DISCUSSION

This chapter describes about research finding that have been collected during the research and discussion about the data of the research

A. The Description of Data

In this section, the researcher presents the students' achievement of reading comprehension before and after taught by using graphic organizer as a strategy in the teaching reading. To know students' achievement of reading comprehension, the researcher gave pre-test and post-test in order to know whether there is different score of the students before and after being taught by using graphic organizer strategy. The researcher used three steps: pretest, treatment using graphic organizer strategy and post-test. Pre-test was given to students. They had to answer the questions about narrative text. The test in the form of multiple choice which consists of 20 items. In multiple choice test, every items has five choice, there was A, B, C, D and E. There were 35 students as respondents or subjects of the research.

The test was conducted by the researcher before teaching using graphic organizer strategy. This test was to know the students' reading achievement before students got treatment. After the researcher got

scores from pretest, the researcher gave treatment to the students by using graphic organizer strategy. The researcher asked the students to read the story about report text. After that, the researcher asked the students to find the main idea in the each paragraph into a spider map. When treatment had finished, the researcher gave posttest to know students achievement after being taught using graphic organizer strategy.

The data of students pre-test and post-test can be arranged in the form of frequency and percentage through scoring criteria and it was divided into five criteria, those are: excellent, good, average, poor and very poor.

Table 4.1 Table of criteria students' score

No	Grade	Criteria	Range Score
1	A	Excellent	100 – 85
2	B	Good	84 – 70
3	C	Average	69 – 55
4	D	Poor	54 – 50
5	E	Very poor	49 – 0

Then, the presentation of the data is as follows:

1. Students' Reading Comprehension Achievement before and after taught by Using Graphic Organizer strategy (pre-test and post-test score).

Table 4.2 The Result of the Student's Reading Score Before and After Using Graphic Organizer

No	Student	Pre-test	Post – test
1	ARN	70	85
2	AR	65	90
3	CNH	75	90
4	DYR	70	80
5	DM	70	85
6	ETW	60	85
7	EGA	70	85
8	EY	65	80
9	EA	75	90
10	FER	60	90
11	HF	70	85
12	IMR	70	85
13	IT	65	90
14	LLNH	75	80
15	LN	65	85
16	MI	65	80
17	MNA	75	90

18	MAP	70	85
19	MHJ	60	75
20	MHS	75	90
21	MMZ	70	85
22	MMH	60	80
23	NKU	70	80
24	RW	60	85
25	RAK	70	85
26	RDM	65	85
27	SSK	60	75
28	SO	75	85
29	TW	65	80
30	VRZ	60	85
31	YA	65	80
32	YTFF	60	75
33	YKD	75	90
34	HJ	65	85
35	HF	70	85

This test was intended to know the basic competence of the students reading comprehension before and after giving the treatment. The pre-test was administered on 13nd of April 2016 and the post-test was administered on 4th of May 2016. There were 35 students as subjects or respondents of the research. The highest score

of pre-test was 75 and the lowest score was 50. While the highest score in post-test was 90 and the lowest score was 75.

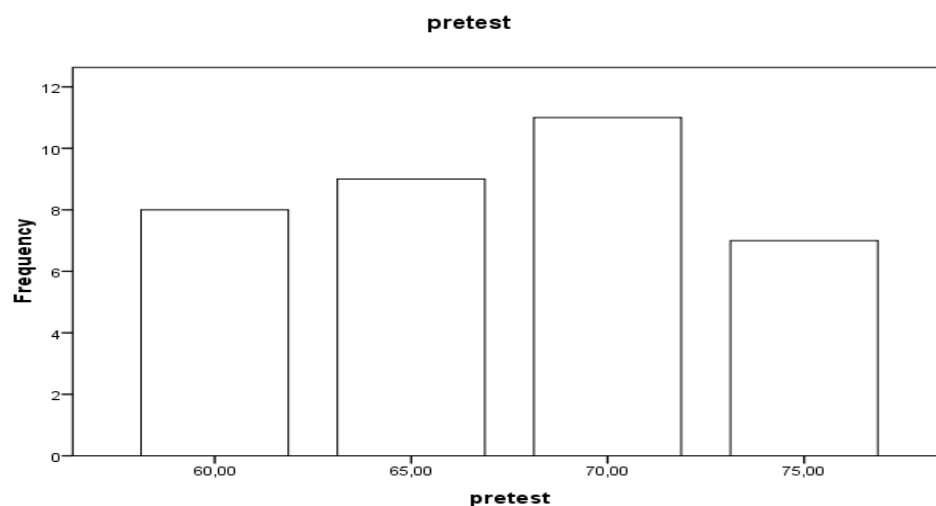
To make the data set meaningful, the researcher organized the frequency and the percentage of score in pre-test by using IBM SPP 16.0. Table 4.3 and figure 4.1 represent the statistical result:

Statistics		
		Pretest posttest
N	Valid	35 35
	Missing	0 0

Table 4.3 Frequency of Score in Pre-test

Pretest					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60	8	22.9	22.9	22.9
	65	9	25.7	25.7	48.6
	70	11	31.4	31.4	80.0
	75	7	20.0	20.0	100.0
Total		35	100.0	100.0	

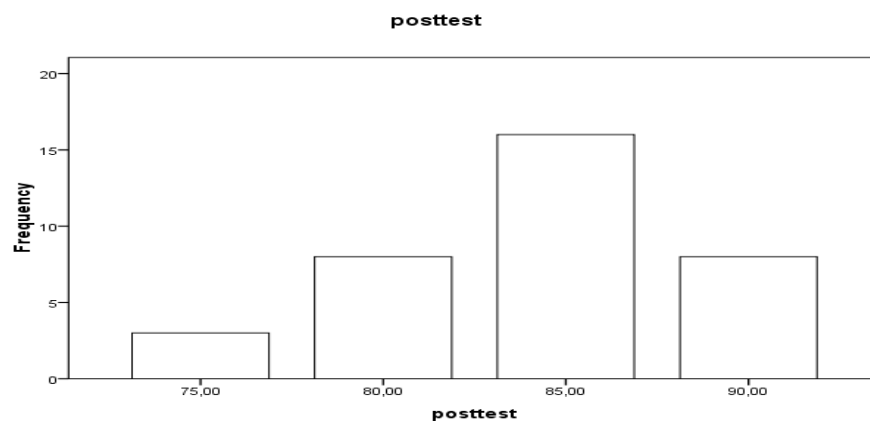
Figure 4.1 The Percentage of Score in Pre-test



As can be seen from table 4.3 and explained by figure 4.1, 8 student got 60, it meant that the ability of students' reading comprehension was average. The students score 65 were 9 students has average ability in reading comprehension. Then, there were 11 students got 70, it meant that the ability of students' reading comprehension was good. And the students got score 75 were 7 students, it meant that the ability of students' reading comprehension was good.

Table 4.4 Frequency of Score in Post-test

Posttest					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	75	3	8.6	8.6	8.6
	80	8	22.9	22.9	31.4
	85	16	45.7	45.7	77.1
	90	8	22.9	22.9	100.0
Total		35	100.0	100.0	

Figure 4.2 The Percentage of Score in Post-test

Then, after accepting the treatment (using Graphic Organizer), the student showed good improvement. As can be seen from the table 4.4 and explained by figure 4.2, there was 3 students got 75, it meant that the ability of students' reading comprehension was good. The students who got 80 were 8 students, it meant that the ability of students' reading comprehension was good. Then, there were 16

students got 85, it meant that the ability of students' reading comprehension was excellent. And there were 8 students got 90, it meant that the ability of students' reading comprehension was excellent

This finding showed that after accepting the treatment, students score significantly increased. Therefore, there were differences of data presentation between before and after taught by using Graphic Organizer strategy in reading comprehension. The data present that the score after taught by using Graphic Organizer strategy was better and higher than before taught by using Graphic Organizer strategy.

After organizing the frequency and the percentage of score from pre-test and post-test, the researcher conducted the rank, the minimum, the maximum, the sum, the mean, the standard deviation, and the variances of the reading comprehension pre-test and post-test by using IBM SPSS Statistics 16.0. Table 4.5 represents the result:

Table 4.5 Descriptive Statistics for Pre-test and Post-test
Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Pretest	35	15.00	60.00	75.00	67.4286	5.33736	28.487
Posttest	35	15.00	75.00	90.00	84.1429	4.45331	19.832
Valid N (listwise)	35						

The table 4.5 showed it can be described that the mean of post – test score (84.14) was larger than the mean of pre-test score (67.42) the mean score of post-test was higher than the mean score of pre-test. The number of subjects or respondents of each sample (N) was 35 students. Meanwhile, standard deviation of pre-test was 5.33 and standard deviation of post-test was 4.45. So, we can conclude that the value increases after being taught using Graphic Organizer strategy in reading comprehension.

Therefore to know whether Graphic Organizer was effective on students reading ability test, the researcher tested the result of pre-test and post-test by using Paired Sample Test in IBM SPSS Statistics 16.0. As what previously mentioned that there were two hypothesis in this research: (1) Null Hypothesis (Ho) stated that there is no any significant difference on student's reading comprehension before and after using Graphic Organizer. And Alternative Hypothesis (Ha) stated that there is any significant difference on reading comprehension before and after using Graphic Organizer. The testing

was done to know whether the null hypothesis could be rejected or not. Table 4.6 showed the result of the correlation and test.

Table 4.6 Paired Sample Correlations

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 pretest & posttest	35	.461	.005

Based on the table above, output Paired Sample Correlation showed the large correlation between samples, where can be seen numeral both correlation was (0.461) and numeral of significance (0.005). For interpretation of decision based on the result of probability achievement that was:

- a. If the probability >0.050 , so the null hypothesis (H_0) accepted
- b. If the probability <0.050 , so the null hypothesis (H_0) rejected

The numeral significant was 0.008 smaller from 0.050 ($0.005 < 0.050$). It meant that the null hypothesis (H_0) was rejected. So, there is any significant difference on reading comprehension before and after using Graphic Organizer at eleventh grade of MAN Trenggalek. Table 4.7 showed the result of calculation of Paired Sample Test as follow:

Table 4.7 Paired Sample Test

Paired Samples Test									
		Paired Differences							
				Std. Error	95% Confidence Interval of the Difference				
					Mean	Deviation			
Pair 1	pretest – posttest	-1.67143E1	5.13678	.86828	-18.47883	-14.94974	-19.250	34	.000

Based on table 4.7, output paired samples test shows the result of compare analysis with using T-test. The difference mean score of pre-test and post-test was 1.67143. Standard deviation was 5.13678, mean standard error was 0.86828, the lower different was -18.47883, while upper different was 14.94974. The result of t_{count} was -19.250 (symbol minus in this matter ignored) with df was 34 and significance (2-tailed) was 0.000.

The significance value was 0.00 and the significance level was 0.05. It means that the significance value was smaller than significance level ($0.00 < 0.05$). So, the alternative hypothesis (H_a) was accepted and null hypothesis (H_o) was rejected. Then, the researcher interpretation with compare t_{count} with t_{table} where degree of freedom is 34. The researcher looked for the score of t_{table} . At the significance level of 0.05, the score of t_{table} was 2.032.

By comparing “t”, the researcher has got the calculation of t_{count} was 19.250 -and the value of “t” on the t_{table} was 2.032. It means that t_{count} was bigger than $t_{\text{table}} = (19.250 > 2.032)$. So, the alternative hypothesis (H_a) is accepted and the null hypothesis (H_o) was rejected.

It meant that there is significant different of students' achievement in reading comprehension before and after taught by using Graphic Organizer strategy.

B. Hypothesis Testing

From the analysis above, the hypothesis of this research which is use in SPSS 16.0 are:

- a. T_{count} was bigger than t_{table} , the alternative hypothesis (H_a) was accepted and null hypothesis (H_o) was rejected. It meant that there is different score of students' achievement in reading before and after taught by using Graphic Organizer strategy. The different is significant.
- b. T_{count} was smaller than t_{table} , the alternative hypothesis (H_a) was rejected and null hypothesis (H_o) was accepted. It meant that there is no different score of students' achievement in reading before and after taught by using Graphic Organizer strategy. The different is not significant.

Referring on the table 4.7, we can see that the t_{count} was 19.250. The way to test whether null hypothesis could be rejected was by comparing the result of t_{count} and t_{table} . If the t_{count} was larger than t_{table} at the level of significance 0.05, the null hypothesis can be rejected. In the contrary, if the result of t_{count} was smaller than t_{table} , the null hypothesis cannot be rejected. In consulting the researcher needed to find out the degree of freedom (df). As can be seen in Table 4.7 that df (Degree of Freedom) was 34, the researcher consulted at the level of significance 0.05, the value of t_{table} , and at the level of significance 0.05, the value t_{table} was 2.032. Comparing to the value of t_{table} , the value of t_{count} was larger ($19.250 > 2.032$). For interpretation of decision based on the result on probability achievement. The null hypothesis couldn't be rejected, if the probability > 0.05 . While the null hypothesis could be rejected, if the probability < 0.05 . As table 4.7 showed, the probability was less than 0.05 ($0.00 < 0.05$).

In this research t_{count} was bigger than t_{table} . So, the alternative hypothesis (H_a) was accepted and the null hypothesis (H_o) was rejected. It means that there was significant difference of students' achievement in reading comprehension before and after being taught by using Graphic Organizer strategy of eleventh grade at MAN Trenggalek. Thus, it can be concluded that by using

Graphic Organizer strategy in teaching reading comprehension of eleventh grade at MAN Trenggalek was effective.

C. Discussion

Based on research method, teaching and learning process was divided into three steps. First step was giving pre-test for students to know the students reading comprehension before being taught by using graphic organizer strategy. This test was given in order to know how far the students' ability in reading comprehension of report text. Pre-test was conducted on April 13nd, 2016. The form of test was multiple choice which consists of 20 questions. There were 35 students as respondents or subjects of this research. The second step was given treatment to the students. The treatment was conducted three times. The first treatment was conducted on May 14th, 2016, the second on May 21st, 2016, the third treatment was conducted on May 28th, 2016. The researcher did treatment by using graphic organizer strategy in teaching reading.

The third step was giving post-test for the students to know the students' achievement in reading comprehension after being taught by using graphic organizer strategy. Post-test was conducted on May 4th, 2015. As the pre-test, the test was multiple choice which consists of 20 questions about report text. There were 35 students as respondents or subjects of this research.

After the data collected, the data analyzed by using SPSS 16.0. The mean score of reading comprehension before being taught using graphic organizer strategy was poor because the mean score was 67.4286. After getting treatment, the mean score was 84.14. It was improved and the mean score of post-test was higher than the mean score of pre-test. After computing T-test, it was found that there was difference of the mean score between pre-test and post-test was 1.67143.

In T-test analysis that was used by the researcher, the result of t_{count} was 19.250. And also, it can be known that the result of statistical computing using t-test, the result showed that t_{count} was higher than t_{table} , it can be indicated that $19.250 > 2.032$. So, the alternative hypothesis (H_a) was accepted. It means that there is significant different of students achievement in reading comprehension before and after being taught by using graphic organizer strategy at MAN 1 Trenggalek. The null hypothesis (H_o) states that there is no significant different score of students' achievement in reading before and after being taught by using graphic organizer strategy was rejected.

This finding is related with the previous study that was using graphic organizer to teaching reading. In the previous study, the using of graphic organizer was also effective to improve the reading achievement of the eight years at MTs Assyafi'iyah by conducting

two cycle on classroom action research (CAR) design (Febrianza, 2014) and the other previous study showed that the teaching of reading by using graphic organizer can improve either students' competence and classroom situation by conducting two cycles on classroom action research (CAR) design (Darmawan, 2010)

Besides the proof gotten the computation, the researcher also see some advantages of using graphic organizer strategy. During research, the students looked focus on learning activity, interest and understand the material easily. Because it can help the students to comprehend their reading easily. By using graphic organizer strategy can make the students understand the text easily, and enthusiastic to study reading comprehension, helped students show their learning or knowledge of a central idea. Using this strategy in teaching reading comprehension was an alternative strategy to make the students feel enjoyable and more active.

In this situation, the result of post-test showed that this strategy was effective toward in teaching and learning reading comprehension. Especially the raising of student's progress of reading comprehension. According to Barron (1969) stated that the strategy that has received the most attention from the research community is the graphic organizer. There are various functions of graphic organizers. In reading comprehension, they assist learners to: Clarify and organize information into categories (main idea, supporting details, topic

sentence, facts, opinion, etc), Organize information in a paragraph for better understanding, construct meaning of difficult words and sentence dividing into lexias, understand the context by associating with prior knowledge and identify conceptual and perceptual errors that may occur in the course of reading a passage.

The result of the research was stating that applying graphic organizer strategy in teaching learning was effective. It was proved by the significant difference score of students' reading comprehension ability between before and after taught by using graphic organizer strategy. So, it meant that the result of this research was verified the theory by to Kintsch and Rawson (2005) stated that comprehension skills aided by graphic organizers help a reader develop his/her reading abilities.

Based on the result above imply that the use of graphic organizers strategy in reading gives positive effect to students' reading comprehension ability. It has been verified by the result of data analysis that there is significant difference between students' reading comprehension ability before and after taught by using graphic organizers strategy. Thus, it can be concluded that the use of graphic organizers strategy is effective to reading comprehension ability of the eleventh grade students of MAN Trenggalek.