

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

In this chapter the researcher presents some points related to this research findings including description of data which discusses the characteristics of each variable and the hypothesis testing reveals whether or not the null hypothesis is rejected. The description of data includes analysis of data. The next is discussion which explains descriptions of the result of the entire study.

A. The Description of Data

In this subheading the researcher serves the data of the research that is the students' vocabulary mastery before and after being taught by using Hyponymy. The aim of the research is to find out the effectiveness of using Hyponymy technique toward students' vocabulary mastery of seventh grade of MTs Al Ma'arif Tulungagung in academic year 2019/2020. The researcher did pre-experimental research design by using one group pre-test post-test with quantitative research approach. Seventh grade students of MTs Al Ma'arif Tulungagung that consist of 33 students, 16 male, and 17 female students were become as experiment and control class. Because the researcher was conducted pre-experimental study so researcher only used one class. The VIIA class was chosen by the researcher to be subject in this research.

The researcher used test as research instrument to get the data, the research used pre-test and post-test developed by researcher. The researcher conducted pre-test and post-test to investigate the students' vocabulary mastery before and after teaching by Hyponymy technique. The research was conducted in five meetings. First meeting was administering pre-test, second, third, and fourth meeting were giving treatment by using Hyponymy technique to teach vocabulary, and the last meeting was administering post-test. From pre-test and post-test the researcher got a score from students. The students' score then computed by using SPSS 25.0 version software. Then the presentation data was as follows:

1. The Students' Vocabulary Mastery before Being Taught by Using Hyponymy Technique

Pre-test was given to the students. The test was conducted by the researcher before teaching by using Hyponymy technique toward vocabulary mastery. The pre-test was held on February, 26th 2020. They had to answer the questions about descriptive text. The test in the form of multiple choice test consist of 25 item questions. Every item has four choices, there were A, B, C, and D. The time allocation was about 45 minutes. This test was intended to know the basic competence of students' vocabulary mastery before giving treatment. The data of pre-test could be seen as follows:

Table 4.1
Students' Score before Being Taught by Using Hyponymy Technique

NO	STUDENTS' INITIAL NAME	PRETEST
1	AAM	64
2	ANA	72
3	AFNU	72
4	AGY	48
5	AW	64
6	ANL	48
7	CAA	72
8	DNRP	52
9	DNAFA	76
10	DKK	64
11	FAA	52
12	FANA	80
13	FAS	60
14	HAM	68
15	INIS	64
16	JPAR	68
17	MZ	48
18	MZN	60
19	MIS	64
20	MAAP	56
21	MGF	48
22	MJS	60
23	MSA	60
24	NINA	76
25	NNEP	64
26	NSS	76
27	NCNA	60
28	NZ	72
29	RRS	60
30	SNN	72
31	VF	48
32	YCP	52
33	MRN	56
	TotalScore	2056

Based on table 4.1 there are 33 students of the seventh grade of MTs Al Ma'arif Tulungagung in the classroom as population also become sample in the research. All of them join pre-test, from the test they get score of pre-test. The lowest score in pre-test was 48 which is gotten by five students and the highest score was 80 which is gotten by only one

student. Furthermore it was presented the statistical data of pre-test in the table below.

Table 4.2
The Statistical data of Pre-test Score

Statistics		
Pretest		
N	Valid	33
	Missing	0
Mean		62.30
Std. Error of Mean		1.652
Median		64.00
Mode		60 ^a
Std. Deviation		9.488
Variance		90.030
Range		32
Minimum		48
Maximum		80
Sum		2056

The table 4.3 above, showed statistical data or descriptive statistic of pre-test score. It is functioning to describe the condition of certain group. In this research, the group was intended to seventh a students of MTs Al Ma'arif Tulungagung. The data showed that there were 33 students as test takers. The mean score was 62.30 meant that the average score of the student was 62.30. Thus includes in average score and still needed improvement. Then the half number of data which determined as median score was 64.00. While the mode score was showed the most frequently appeared number was 60. Meanwhile the standard deviation is to measure how much the variance of the sample for pre-test was 9.488, the range was 32. In addition the minimum score was 48, and the maximum score was 80. The summary showed the total score of the pre-

test was 2056. Then to know how many times the number of score appeared in pre-test, the researcher organized the percentage and the frequency of the test. It is displays in the table 4.3 below:

Table 4.3
Frequency of Data Distribution of pre-test

		Pretest			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	48	5	15.2	15.2	15.2
	52	3	9.1	9.1	24.2
	56	2	6.1	6.1	30.3
	60	6	18.2	18.2	48.5
	64	6	18.2	18.2	66.7
	68	2	6.1	6.1	72.7
	72	5	15.2	15.2	87.9
	76	3	9.1	9.1	97.0
	80	1	3.0	3.0	100.0
	Total	33	100.0	100.0	

The table 4.4 showed the numbers that describe the categorizing based on frequency distribution by considering on qualification of the scoring rubric:

- a. There were 10 students who got score 40-59, it meant that the students' vocabulary mastery was still poor. It needed much improvement.
- b. There were 14 students who got score between 60-70, it meant that the students' vocabulary mastery was average. It also needed the improvement.
- c. There were 9 students who got score 71-84, it meant that the students' vocabulary mastery was good. However it can still be improved.

The researcher also presented a histogram based on the data on students' score in pre-test to make data were clear. The histogram of the result of pre-test score presented in figure 4.1 as below:

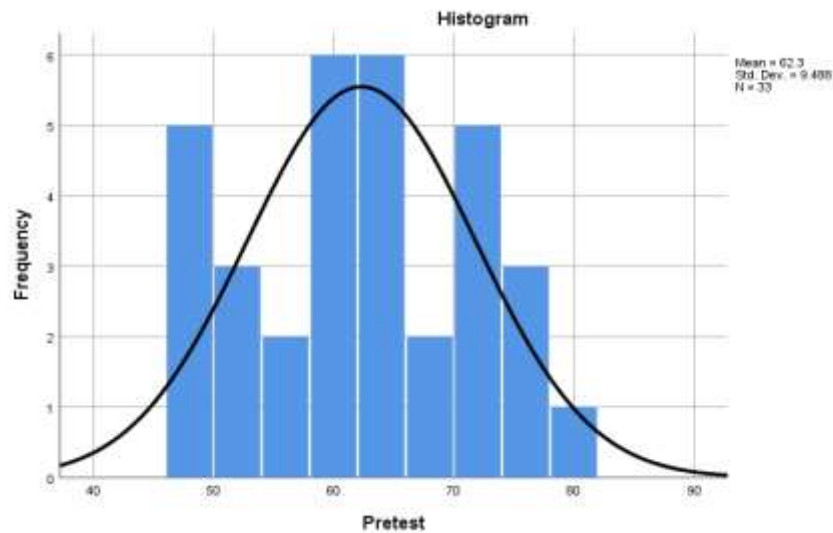


Figure 4.1
The Histogram of Students' Score in Pre-test

Based on the students' score in pre-test, the researcher qualified their ability into 5 categories: Excellent, good, average, poor, and very poor. The categorization can be seen in the table 4.4 as bellow:

Table 4.4
Table of criteria students' score of Pre-test

No	Grade	Criteria	Range Score	Frequency
1	A	Excellent	85 – 100	-
2	B	Good	71 – 84	9
3	C	Average	60 – 70	19
4	D	Poor	40 – 59	5
5	E	Very Poor	0 – 39	-

Based on the table 4.4 above, the result of categorization showed which 5 students who got score between 40-59, it meant that the student in poor vocabulary achievement, and 19 students who got score between 60-

70, it meant that the students in average vocabulary mastery, and 9 students who got score between 71-84, it meant that the students in good vocabulary achievement. The result above showed that the students had good vocabulary mastery, but some of them still in average ability. It could be conclude that the students had to increase their vocabulary mastery.

2. Students' vocabulary Mastery After Being Taught By using Hyponymy Technique (Post-test)

Post-test in this research had been done after treatment. The pre-test was held on March, 11th 2020. The instrument of this research was vocabulary test that consisted of 25 items in the form of multiple choice test. There were also 33 students as subjects of the research. The researcher allocated 45 minutes for conducting post-test. This test was intended to know the students' vocabulary mastery after giving treatment. The data of post-test can be seen as follows:

Table 4.5
Students' Score after Being Taught by Using Hyponymy Technique

NO	STUDENTS' INITIAL NAME	POSTTEST
1	AAM	76
2	ANA	88
3	AFNU	92
4	AGY	76
5	AW	80
6	ANL	56
7	CAA	92
8	DNRP	72
9	DNAFA	100
10	DKK	88
11	FAA	68
12	FANA	100
13	FAS	80
14	HAM	84
15	INIS	84
16	JPAR	88
17	MZ	64
18	MZN	80
19	MIS	84
20	MAAP	76
21	MGF	72
22	MJS	88
23	MSA	84
24	NINA	92
25	NNEP	84
26	NSS	100
27	NCNA	84
28	NZ	72
29	RRS	84
30	SNN	96
31	VF	76
32	YCP	80
33	MRN	76
	TOTAL Score	2716
	ΣMean	82.30

Table 4.5 above presents the post-test score list of 33 students of seventh grade of MTs Al Ma'arif Tulungagung in the classroom as population also become sample in the research. All of them join post-test, from the test they got score of post-test. Meanwhile, the lowest score in post-test was 56 which is gotten by only one student and the highest score was 100 which is gotten by three students. Furthermore it was presented the statistical data of post-test in the table below:

Table 4.6
The Statistical data of Post-test Score

Statistics		
Posttest		
N	Valid	33
	Missing	0
Mean		82.30
Std. Error of Mean		1.776
Median		84.00
Mode		84
Std. Deviation		10.200
Variance		104.030
Range		44
Minimum		56
Maximum		100
Sum		2716

The table 4.6 above, showed statistical data or descriptive statistic of post-test score. The data showed that there were 33 students as test takers. The mean score was 82.30 meant that the average score of the student was 82.30. Thus includes in good score. Then the half number of data which determined as median score was 84.00. While the mode score was showed the most frequently appeared number was 84. Meanwhile the standard deviation is to measure how much the variance of the sample for pre-test was 10.200, the range was 44. In addition the minimum score was

56, and the maximum score was 100. The summary showed the total score of the pre-test was 2716. Then to know how many times the number of score appeared in post-test, the researcher organized the percentage and the frequency of the test. It is displays in the table 4.7 below:

Table 4.7
Frequency Distribution of post-test

		Posttest			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	56	1	3.0	3.0	3.0
	64	1	3.0	3.0	6.1
	68	1	3.0	3.0	9.1
	72	3	9.1	9.1	18.2
	76	5	15.2	15.2	33.3
	80	4	12.1	12.1	45.5
	84	7	21.2	21.2	66.7
	88	4	12.1	12.1	78.8
	92	3	9.1	9.1	87.9
	96	1	3.0	3.0	90.9
	100	3	9.1	9.1	100.0
	Total	33	100.0	100.0	

The table showed the numbers that describe the categorizing based on frequency distribution by considering on qualification of the scoring rubric:

- a. There are only one student who got score score 40-59, it means that the students' score was poor.
- b. There are 2 students who got score between 60-70, it means that the students' vocabulary mastery was average.
- c. There are 19 students who got score between 71-84, it means that the students' vocabulary mastery was good enough.

- d. There are 11 students who got score 85-100, it means that the students' vocabulary mastery was excellent.

In sum, there is differences score between pre-test and post-test. The students showed the significance progress after getting treatment. It means that using Hyponymy technique is effective to improve students' vocabulary mastery.

The researcher also presented a histogram based on the data on students' score in post-test to make data were clear. The histogram of the result of post-test score presented in figure 4.2 as below:

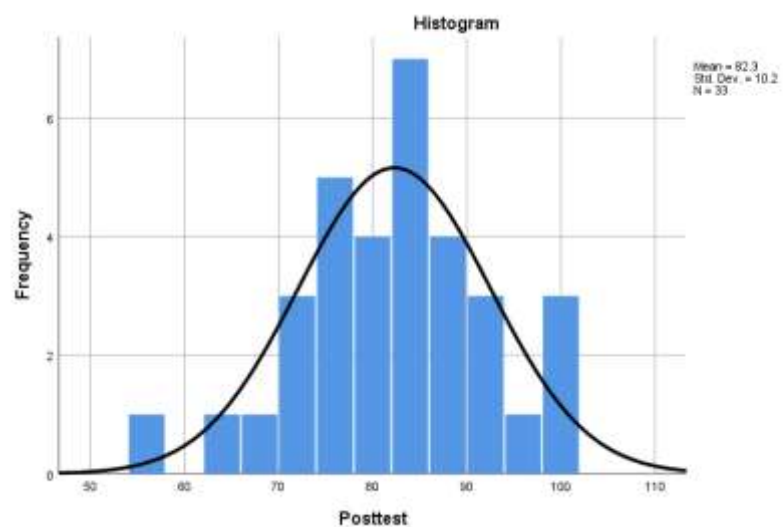


Figure 4.2
The Histogram of Students' Score in Post-test

Based on the students' score in post-test, the researcher qualified their ability in to 5 categories: Excellent, good, average, poor, and very poor. The categorization can be seen in the table 4.8 as bellow:

Table 4.8
Table of criteria students' score

No	Grade	Criteria	Range Score	Frequency
1	A	Excellent	85 – 100	11
2	B	Good	71 – 84	19
3	C	Average	60 – 70	2
4	D	Poor	40 – 59	1
5	E	Very Poor	0 – 39	-

Based on the table 4.8 above, the result of categorization showed that the students' vocabulary mastery in pre-test to post-test was increase from poor vocabulary mastery to average vocabulary mastery, the average vocabulary mastery to good vocabulary mastery and also to excellent vocabulary mastery after being taught by using Hyponymy technique.

B. Analysis of The Data

The analysis of data here is the researcher tries to find both of normality and homogeneity of the data. To analysis the data the researcher used students' score of pre-test and post-test of seventh grade students VIIA of MTs Al Ma'arif Tulungagung. Those analysis are used to determine the next step that is testing the hypothesis. The students' score of pre-test and post-test are presented below:

Table 4.9
Students Score of Pre-Test and Post-Test

NO	INITIAL NAME	PRETEST	POSTTEST	GAIN SCORE
1	AAM	64	76	12
2	ANA	72	88	16
3	AFNU	72	92	20
4	AGY	48	76	28
5	AW	64	80	16
6	ANL	48	56	8
7	CAA	72	92	20
8	DNRP	52	72	20
9	DNAFA	76	100	24
10	DKK	64	88	24
11	FAA	52	68	16
12	FANA	80	100	20
13	FAS	60	80	20
14	HAM	68	84	16
15	INIS	64	84	20
16	JPAR	68	88	20
17	MZ	48	64	16
18	MZN	60	80	20
19	MIS	64	84	20
20	MAAP	56	76	20
21	MGF	48	72	24
22	MJS	60	88	28
23	MSA	60	84	24
24	NINA	76	92	16
25	NNEP	64	84	20
26	NSS	76	100	24
27	NCNA	60	84	24
28	NZ	72	72	0
29	RRS	60	84	24
30	SNN	72	96	24
31	VF	48	76	28
32	YCP	52	80	28
33	MRN	56	76	20
	Total	2056	2716	496
	ΣMean	62.30	82.30	

Based on the table above, it showed that the total score of pre-test was 2056. The mean of students' score of pre-test was 62.30. After post-test the total score showed 82.30. The mean of students' score of post-test was 82.30. It meant that there were difference score from both of pre-test and post-test. It could be concluded that students' vocabulary mastery increased after was

given treatment. Those score of both pre-test and post-test were used to measure the normality and reliability and the result was described below.

a) Normality

To measure the normality the test, the researcher used SPSS 25.0 One-Sample Kolmogorov-Smirnov Test to analyse the data. Here, the result of normality testing in experimental class can be seen in the table 4.9 below:

Table 4.10
The Normality Result of the Data

One-Sample Kolmogorov-Smirnov Test		Pre-test Score	Post-test Score
N		33	33
Normal Parameters ^{a,b}	Mean	62.3030	82.3030
	Std. Deviation	9.48843	10.19952
Most Extreme Differences	Absolute	.119	.112
	Positive	.104	.101
	Negative	-.119	-.112
One-Sample Kolmogorov-Smirnov Test		.119	.112
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

Based on the description of SPSS above, the test distribution is normal. Then after ensuring whether the data has been normal, the next step is calculating the homogeneity of the data

b) Homogeneity

Homogeneity testing is conducted after ensuring whether the data has been normal distribution. Calculating homogeneity testing is used to make sure whether the data has homogeneous or heterogeneous data. The homogeneity testing in this research using statistic computation SPSS 25.0

that is test of *Homogeneity of Variances* by the value of significance (α)=0.05. The formula which is used is Homogeneity of Levene Statistic. The result of homogeneity testing with *Test of homogeneity of Variance* can be seen in the table below:

Table 4.11
The Homogeneity of the Data

Levene Statistic	df1	df2	Sig.
2.018	6	22	.106

According to the table above, it show that significant is 0.106. This means whether the data is homogeneous because of the significance value is higher than (α) 0.05. The data is called as a homogeneous data when significance of value is $0.106 > 0.05$. It can be concluded that the data distribution is homogeneous, then to test hypothesis, the researcher used parametric test within the Paired Sample T-Test.

C. Hypothesis Testing

This research was conducted to know whether there is significant improvement on students' vocabulary mastery of seventh grade students in MTs Al Ma'arif Tulungagung in academic year 2019/2020 by using Hyponymy technique. The hypothesis in this research is stated as follow:

- a. If the Sig. (significant) $< 0,05$ then the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. It means there is any significant improvement on students' vocabulary mastery before and after being taught by Hyponymy technique.

- b. If the Sig. (significant) $> 0,05$ then the alternative hypothesis (H_a) is rejected and the null hypothesis (H_0) is accepted. It means that there is no any significant improvement on students' vocabulary mastery before and after being taught by using Hyponymy technique.

To analyse the significant improvement, the researcher used statistical test by using IBM SPSS 25.0 to analyze the data. And the result shows in the following table:

Table 4.12
Paired Sample Statistic

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre	62.30	33	9.488	1.652
	Post	82.30	33	10.200	1.776

The table above presented the data of students' score which were taught before and after by using Hyponymy technique in vocabulary mastery. The output of paired samples statistics as descriptive statistic showed that mean score or the average score of pre-test was 62.30 and the post-test was 82.30. The number of sample both of pre-test and post-test was 33. While the standard deviation is to measure how much the variance of the sample. The Standard deviation for pre-test was 9.488 for post-test was (9.488<62.30), and the standard deviation of post-test was (10.200<82.30). In other words, if the standard deviation was getting higher than the mean, it meant that the students' score of pre-test was heterogeny and if the standard deviation was getting smaller than the mean, it meant that the students' score of post-test was homogeny. It could be concluded that the standard deviation of pre-test and post-test was

homogeny because there were difference value of standard deviation between pre-test and post-test.

The standard error mean of pre-test was 1.652 and the standard error mean of post-test was 1.776. It could be concluded that the mean or average score of the students in pre-test and post-test was improve, the mean score of pre-test was less than the mean of post-test ($62.30 < 82.30$). Thus, there was increasing score from pre-test to post-test, so there was significant improvement score after the students being taught by using Hyponymy technique.

Table 4.13 showed the result of the correlation and sample. The result show in the following table:

Table 4.13

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Pre & Post	33	.827	.000

Based on the table above, output Paired Sample Correlation showed the large correlation between samples, where can be seen numeral both correlation was (0.827) and numeral of significance (0.000).

Table 4.14 showed the result of calculation of Paired Sample Test as follow:

Table 4.14
Paired Samples T-Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pa ir 1	Pre – Post test	- 20.00 0	5.831	1.015	-22.068	-17.932	-19.704	32	.000

The table above clearly showed the output of paired samples test that the difference of the mean score between pre-test and post-test was -20.000. The standard deviation was 5.831. Standard error mean was 1.015. There are two values in confidence interval of the difference, for the lower difference was -22.068 and the upper difference was -17.932. The result of t was -19.704 with degree of freedom (df) was 32 and the Sig. (2-tailed) was 0.000.

The way to test the null hypothesis can be rejected or not was by comparing p-value with the standard level of significance, 0.05. Based on the table 4.9 above, the significant value of this research was 0.000, standard significant is 0.050. It meant the significant value was smaller than significant level ($0.000 < 0.050$). When the significant value ($0.000 < \text{significant level } (0.050)$), it could be concluded that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected. It meant that there was any significant improvement on students' vocabulary before and after being taught by using Hyponymy technique was effective for teaching vocabulary mastery at the seventh grade of MTs Al Ma'arif Tulungagung.

D. Discussion

The objectives of this research was to find out whether there was any significant improvement on students' vocabulary mastery at seventh grade students of MTs Al Ma'arif Tulungagung in academic year of 2019/2020 before and after being taught by using Hyponymy technique. Based on the result of statistical calculation, the used of Hyponymy technique was effective toward students' vocabulary mastery. It was proved in hypothesis testing by the gained significance value which less than 0.050, when the significance value less than 0.050, thus the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected. It meant there was any significant improvement on students' vocabulary before and after being taught by using Hyponymy technique. The improvement could be seen in the result of pre-test and post-test scores from the mean of pre-test 62.30 become 82.30 in post-test. Thus finding result by using Hyponymy technique, the students' vocabulary mastery was increased.

Using Hyponymy technique is one of the alternatives way to teach vocabulary. It makes teaching and learning process easier and funnier because the words are grouped. So, the students can be more enjoyed used this technique they will easier to remember it too. This technique of teaching vocabulary could improve each aspect of students' vocabulary mastery including definition, word form, word meaning, and word use of vocabulary. Hyponymy is one of techniques that make the student easy to

identify and categorize of the words directly. The student can learn about the words by making a relation between two words. This technique can stimulate the students' ability to differentiate many word based on its category. Through this technique the student will attract to be active in teaching and learning activities.

It had been supported by Nation (2001) he gives an example of class activity of teaching vocabulary using hyponymy. He states the teacher provides the learners with a list of categories like food, household, object, numbers, jobs, etc. Each learner chooses or given one category. The learner then has to write as many words as possible under the category heading on a piece of paper. To make student enjoyable and interested to learn vocabulary, the teacher should give the technique to help the student in teaching learning process. In this case, hyponymy is one of techniques to help student. This technique made student active and achieve the goal when they learn, because this technique are needed that can motivate and can eliminate student' boredom in learning English.

In using hyponymy that was found some problems, because the technique process was conducted in group, it takes a bit long time to prepare. It can present disturbance if teacher cannot control and organize the class to be conducive. Discipline issues, learners may get excessively noisy. The passive students gave their responsibility to the active students because this material was divided into group. Therefore, from the statement above, it can be concluded that the noisy situation may be

happened because all of students were busy in this activity, the teacher should be wise in handling the teaching learning process. To solve the problem, the teacher should be wise to manage the class and give pay attention for the passive students. The result of the research that was done showed that was any effectiveness of using hyponymy towards students' vocabulary mastery.

In addition, some studies dealing vocabulary have been support this study. The first study conducted by Herdayani (2019) found that using hyponymy game improved students' vocabulary mastery in a better achievement at the second grade students in Junior high school. Moreover, the result observation checklists and field notes showed that the students' activities and attitudes in learning process were improved compared to the previous cycle. Furthermore Hidayat (2019) in his study also proved that there was a positive effect of using hyponym game on students' vocabulary achievement to be implemented for all of students' level if it is organized as learning strategy properly and directly especially for the seventh grade students of SMP Daar El Hikam.

The other previous study written by Puspita (2019) conducted research by teaching Hyponymy using picture media as alternative way in improving vocabulary. This research using quantitative method with pre-experimental research design one group pre-test and post-test. The subject study was ninth grade at MTs K.H Wahab Muhsin Tasikmalaya that consist of 30 students. The result of analysis showed the significance

improvement after using Hyponymy as teaching technique. From thus result analysis can be conclude that teaching vocabulary through Hyponymy adequate success in improving students' vocabulary mastery.

Overall From the explanation above, it can be said that Hyponymy technique could become the appropriate alternative teaching technique to help the students' increasing vocabulary achievement. So this research can be concluded that Hyponymy technique was effective on students' vocabulary mastery of seventh grade student at MTs Al Ma'arif Tulungagung.