

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

In this chapter, the writer would like to present the description of the data obtained. The population of this study was the students at MTs KH. M. NOER Kedung Mangu Masjid Surabaya in academic year 2012/2013. The sample was chosen by using random-sampling technique, so the sample in this study divided into two class; they are: VIII B as the experimental class (treatment with semantic mapping) and VIII A as the control class (treatment without semantic mapping), the total number of the sample is 48 students. In this study there are two test as the data, pretest and posttest

Description in this chapter is divided into three parts, as follows:

1. The first part shows observation that consist of activity during teaching learning process in the class.
2. The second part shows the description of the data, this part has an aim to present the students' reading comprehension scores before after receiving the treatment.
3. In the last part is result of data analysis that consists of hypothesis testing based on the result of the statistical computation of t-tes.

The following is the explanation for each part:

4.1. The Result of data observation

Semantic mapping which is used to teach reading comprehension, with good preparation will make them enjoy and interested in the subject being taught. In this section, the preparation, presentation of teaching reading comprehension through semantic mapping strategy will be explained

4.1.1. Preparation

Before starting to teach reading comprehension in the classroom, the first step of activities was making mapping and listing vocabulary that related to the topic. In fact very large vocabulary has to prepare before teaching. Descriptive text is a material was taught by using semantic mapping so, students have to mastery adjective and noun as much as possible or synonym the word is related. Reading some books help to find many adjective and idea for teaching reading comprehension that used descriptive text as material through semantic mapping strategy. Browsing in internet and English in focus and scaffolding books are used.

The next step was selecting the books to be used as material source. The teacher suggested to see the book that she used as the material source to the class. The book was a work book (LKS). In this case, participant observations were used take a data. She was allowed to teach a subject on august in fasting sesion. Although the book was used as the main sources, the other book also used.

To teach reading comprehension in the class, the teacher was given two weeks, three meeting in a week. It is about 240 minutes long, in each meeting

semantic mapping was used, it need 40 minutes. In the first meeting, concept mapping was used, story mapping in the second meeting, and the word mapping in third meeting. After the kind mapping had decided, the text was going to be used as the reference for constructing the mapping was read and looking for some word that were going to be used as the material.

The next step was constructing the lesson plan and worksheet. Lesson plan is very important for the teaching learning activities. It has to be constructing before the lesson is taught, so that every teacher would know the steps he or she must take in teaching the subject to the students.

4.1.2. Presentation

Before starting the lesson, At the beginning of study, the students in the class are divide into five group and each of them have five members, inside each group, we put one clever two everage and two weak student and this selection is based on the result of pretest.

At the first session the students are asked to make a quiz and they are given an example before doing it. After doing quiz as a warming up activity the teacher asked students to pay attention the topic which had been written on the white board and also asked to start their work in each group. They write on the paper the vocabulary related with the topic as much as possible individually, and then the teacher instructs representation of each group to write the result their work.

In the middle activity, students asked to read a descriptive text that is distributed by teacher and write vocabulary which is unfamiliar. After reading a text individually, they discuss with their group until they could comprehend successfully the text and complete or answer the related question during this project; mistakes of every member of group are considered as mistakes to other member at the same group.

At the post activity, the teacher asked each group to mention vocabulary what they do not know. The aim this activity to solve the problem of each group who do not comprehend the text, then the teacher instruct one students to be volunteer to read by translation at the end the teacher read the text completely.

4.1.3. Evaluation

It was done by teacher to measure how far the student achieved after the learning activities. Evaluation is not only done after teaching learning activities have been conducted, but also done while the students do activities in the class. The evaluation was verbally the meaning of difficult word. In the evaluation activity, the teacher also discussed the students' mistake in doing the exercise. The teacher also gave the confirmation about the pronunciation and spelling of the word. The result of the evaluation could be used as feed back for better preparation as well as presentation.

4.2. Description of the Data

To describe the comprehensive data gained, the writer firstly presented the students' score before receiving treatment. There are 48 students which had been named. Below are the descriptions of data of students' reading comprehension scores for experimental group and control group:

Table 4.2.1. Data pre-test of students' reading comprehension scores

NO	NAMA/KLS VIII B	NILAI	NAMA/KLAS VIII A	NILAI
1	ABDUL KODIR JAILANI	47	AINUL MUSTOFA	45
2	AHMIDA	60	ARDIANSYAH ZULKIFLI	42
3	ALFIYAN ROMADHON	45	ARIS OKTARIAS SIREGAR	27
4	ARIF KURNIAWAN PUTRA	45	ARYA NATA BAGASKARA	50
5	AULIA CAHAYA PUTRA	45	CALVIN DITO PRATAMA	47
6	DWI LUTFI IRWANTO	15	DEFNI RAMADANTI	30
7	HELMI RAMADHANI	30	FAHRIL MUHAMMAD	22
8	IZZTUL . M	35	FAHRUDDIN MUHAMMAD	25

9	KHOIRUL ANAM	40	FIRDHA MEI ZAHRAZAQ	52
10	LAILATUL FITRIYA	60	FITRI SUGIARTI	60
11	LINDA RAHMAWATI	45	GAVIN ANDRE IRHANDY	25
12	LINDA WATI	67	GERHOBBI FILARDHI RENANTO	35
13	MASTURO	50	HUSNUL HOTIMAH	60
14	MILA	45	ISNAINI MUFIDAH	40
15	M. FAIZAL	37	LIA FARADILA	35
16	M. SURYANDARU	30	MOCH. ZAINUL ABIDIN	67
17	NABILA KHOIRUN NISA'	67	MUHAMMAD WAHYU PRASETNO	30
18	PUTRI DELLA SAFIRA	67	NANDA BAGUS RIZQI	30
19	RENATA	40	NASHIH ZUHAIR DWI SANTOSO	25
20	RIO HALIAL FARIS	25	NIENA AWALYA	43
21	RINI EVANDARI	57	NOVA ALIYA FAIZAH	40
22	SAHNUL	37	RENALDY DICKLES	37

			PURWANTO	
23	SYAHNUL AHMAD	43	RIZKA MAULIDIA	37
24	ZAINI	30	SITI HAALIMAH	57

Table 4.2.1. shows result of pre test experimental group and control group. Pre test was conducted before students were taught with semantic mapping. In pre test students were required to answer questions on reading comprehension test. In this phase students were not taught any technique. They answered the reading comprehension without prior training in using any strategies. In this phase they were required to read the text and answer the questions.

After administering pre test, the writer analyzed the results and found that students performed satisfactorily level. Their average score is C and the higher mark obtained was 67. Then, the writer implements semantic mapping technique to the experimental group.

Table 4.2.2. Data post-test of students' reading comprehension scores

no	NAMA/KLS VIII A	NILAI	NAMA/KLAS VIII B	NILAI
1	ABDUL KODIR JAILANI	60	AINUL MUSTOFA	50
2	AHMIDA	70	ARDIANSYAH ZULKIFLI	42

3	ALFIYAN ROMADHON	55	ARIS OKTARIAS SIREGAR	30
4	ARIF KURNIAWAN PUTRA	52	ARYA NATA BAGASKARA	55
5	AULIA CAHAYA PUTRA	65	CALVIN DITO PRATAMA	47
6	DWI LUTFI IRWANTO	25	DEFNI RAMADANTI	30
7	HELMI RAMADHANI	45	FAHRIL MUHAMMAD	25
8	IZZTUL . M	55	FAHRUDDIN MUHAMMAD	25
9	KHOIRUL ANAM	65	FIRDHA MEI ZAHRAZAQ	25
10	LAILATUL FITRIYA	72	FITRI SUGIARTI	70
11	LINDA RAHMAWATI	85	GAVIN ANDRE IRHANDY	27
12	LINDA WATI	85	GERHOBBI FILARDHI RENANTO	37
13	MASTURO	65	HUSNUL HOTIMAH	65
14	MILA	57	ISNAINI MUFIDAH	55
15	M. FAIZAL	55	LIA FARADILA	47
16	M. SURYANDARU	45	MOCH. ZAINUL ABIDIN	70

17	NABILA KHOIRUN NISA'	80	MUHAMMAD WAHYU PRASETNO	35
18	PUTRI DELLA SAFIRA	82	NANDA BAGUS RIZQI	25
19	RENATA	55	NASHIH ZUHAIR DWI SANTOSO	25
20	RIO HALIAL FARIS	50	NIENA AWALYA	47
21	RINI EVANDARI	62	NOVA ALIYA FAIZAH	50
22	SAHNUL	25	RENALDY DICKLES PURWANTO	30
23	SYAHNUL AHMAD	55	RIZKA MAULIDIA	42
24	ZAINI	42	SITI HAALIMAH	57

Tabel 4.2.2. shows result of post test experimental group and control group. The writer taught the students of experimental group with semantic mapping technique while the control group without semantic mapping technique. Firstly, teacher wrote a topic on the white board, then students were asked to think word is related it, after that shows a picture that related to the topic and students were asked to describe it. The last they were distributed a reading text to do in their group. By doing this, students could easily understand what they were reading and how to answer the questions. The students were taught this technique for two weeks. After

that, post test was conducted. In this post test, the students were asked to answer the reading comprehension test.

4.3. Result of the Data Analysis

In analyzing the data, the writer interpreted the data from the table of t-test. The following table shows the summary result of t-test.

Table 4.3.1. Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 with semantic mapping	58.6250	24	16.06187	3.27862
without semantic mapping	42.1250	24	14.80104	3.02125

Paired sample statistic is used to simplify the organization and presentation of data. In this study the writer intended to paired sample statistic to organize the score that has been obtained into some comprehensible form so that any trends in the data can be seen easily and communicated to others. Paired sample statistic were used as the graphical representation. Comparisons of the two variable were statically described using the bar chart presentation.

The Table 4.3.1 shows the difference mean and standard deviation scores between students who are taught with semantic mapping and without semantic mapping that were obtained in post test. The mean score with semantic mapping was 58.6250 whereas the mean scores without semantic mapping was 42.1250. The standard deviation with semantic mapping was 16.06187 and witout semaantic mapping was 13.80104. This results show that with using semantic mapping

technique has a greater value than without semantic mapping, indicating in better performance of students in reading comprehension after the semantic mapping treatment. It related with the result of t-test that show the significant effect of semantic mapping on the students' reading comprehension achievement.

To know the correlation value between treatment with semantic mapping and without semantic mapping, the paired samples correlations for treatments (with semantic mapping and without semantic mapping) can be presented as follows:

Table 4.3.2. Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 with semantic mapping & without semantic mapping	24	-.034	.875

Paired sample correlations is used to indicate the correlation between variables who are taught with semantic mapping and without semantic mapping and significance value. ” If there is a perfect linear relationship with negative slope between the two variables, we have a correlation coefficient of -1; if there is negative correlation, whenever one variable has a high value, the other has a low value. A correlation coefficient of 0 means that there is no linear relationship between the variables. If there is perfect linear relationship with positive slope between the two

variables, we have a correlation coefficient of 1; if there is positive correlation, whenever one variable has a high value, so does the other”.¹

Table 4.3.2. shows the correlation value and significance value. It clearly indicates that the correlation between treatment with semantic mapping is negative value. It means the value is negative correlation between two variables, the experimental group have high value, while the control group have low value. In other words, for a negative correlation, the variables work opposite each other. It showed that experimental group increase their reading comprehension using semantic mapping strategy.

Table 4.3.3. 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 with semantic mapping - without semantic mapping	1.65000E1	22.20850	4.53329	7.12217	25.87783	3.640	23	.001

¹ http://www.stats.gla.ac.uk/steps/glossary/paired_data.html#pairsampt. Retrive on september 14 2012

From the table above, it can be found general result that the treatments with semantic mapping have effect to the students' reading comprehension achievement. In chapter I of this study, there are two hypotheses, null hypothesis (H_0) and alternative hypothesis (H_a) that should be proved. The conclusion based on the significant value and t-test will calculate based on hypotheses as follows:

4.3.4. Testing hypothesis

The hypothesis of this study, states that:

H_a : There is significant effect of treatment with semantic mapping on the reading comprehension achievement of the second grade students at MTs KH. M. NOER Kedung Mangu Masjid Surabaya.

H_0 : There is no significant effect of treatment with semantic mapping on the reading comprehension achievement of the second grade students at MTs KH. M. NOER Kedung Mangu Masjid Surabaya.

Related to the hypothesis and the summary result of t-test in table 4.3.4, it can be seen that the t- value of Treatments is $t = 3.640$ with significance value = $.001$. Since significance value = $.001 < 0.05$, H_0 is rejected and H_a is accepted. To determine the statistical significance of it, the t-table consulted by checking at the critical value of t-test at $0,05$ level of significance with 23 df(degree of freedom) and the result was 2.069. From the calculation, it can be seen the observed of t-test was higher than t-table $3.640 > 2.069$, which mean the different score between

experimental group and control group was significance. So, based on calculation of t-test above, it can be said, “There is significant effect of treatment with semantic mapping on the reading comprehension achievement of the second grade students at MTs KH. M. NOER Kedung Mangu Masjid Surabaya.”