CHAPTER IV

RESEARCH FINDING

A. Finding

1. The description of data

To find out the effectiveness of Alphabet game between the students who were taught by using Alphabet game and the students who were not taught by using Alphabet game on common vocabulary, especially in MI ISLAMIYAH Cangkringsari Sukodono Kabupaten Sidoarjo the researcher did an analysis of quantitative data. The data was obtained by giving test to the experimental class and control class after giving a different learning both class. The subject of this research were divided into two classes. They are class IV A as an experimental class and class IV B as a control class.

In the first meeting, the researcher conducted a pre test to 24 students from class IV A of MI ISLAMIYAH as an experimental group and also 24 students from class IV B as a control group. Then, the researcher found that the student's achievement still can not gets maximum score yet in vocabulary skill from the result of pre test score.

From the result above, there are some reasons which made the achievement of the students were still low. It is possible that one of the reason is from the teacher, the development of teaching strategy from the teacher are lack then it is need to the teacher to develop the material from the textbook based on the student's interest and also teachers are able to use media to

motivate and support in learning activity. The next reason is the student's motivation in learning English was still low in English subject especially for vocabulary skill.

Thus, the researcher offered Alphabet game to motivate and make the English subject especially in vocabulary skill is more interesting. This way give a fun to the students in learning English and to know more of the words in English.

In the processing of giving treatment of this study, the researcher divided the students into four group. Each group consist of six until seven students. Each group assigns a writer to write on the paper. The writer makes a chart on the paper. The teacher says a letter, for example the letter B. The other students in each group have to mention and dictate the word of the letter and writer will writes word "Bring, bag, banana, etc" on the paper. Then, each group must be write as possible as words in their paper. Groups get 10 points for each answer. The group with the most points wins. During processing of giving treatment of this study, students looking interesting and enjoying to learning English subject.

When the experimental class get the treatment, the control class only taught by their teacher own which is use conventional method without using Alphabet game.

Then, the researcher conducted a post test of both classes. And the result, the score of the experiment class higher than control class. And the calculate of the data will be showed below.

2. The result of quantitative data

In this section the researcher discussed the quantitative data and is included the tables of the pre test and post test score and the calculation of using *paired sample t-test*.

a. Normality test

See the table 4.1 in appendix 1 which showed the student's score of pre test. The pre test was administered for 24 students of class IV A as an experiment class and 24 students of class IV B as a control class. The name of the students are coded into initial E for experiment class and initial C for control class.

Based on the data of table 4.2 (see appendix 2), there is no one student 0f experiment class get excellent and good score, 10 students get average score and 14 students get poor score. In other words, it is known that 41,67% students get average score and 58,33% students get poor score. And for control class, there is also no one student 0f control class get excellent and good score, 8 students get average score and 16 students get poor score. In other words, it is known that 33,33% students get average score and 66,67% students get poor score. Thus, it can be concluded that the result of pre test can not be classified yet to be the good ones.

From table 4.3 (see appendix 3), obtained $\sum X=1296$, $\sum Y=1252$, $\sum x^2=1888$, $\sum y^2=1560$, and N=24.

n. Determine the mean of variable I(X), with formula:

$$M_x \text{ or } M_1 = \frac{\sum X}{N_1}$$

$$= \frac{1296}{24}$$

$$= 54$$

o. Determine the mean of variable II(Y), with formula:

$$M_y \text{ or } M_2 = \frac{\sum Y}{N_2}$$

$$= \frac{1252}{24}$$

$$= 52,17$$

p. Determine the standard deviation of variable X, with formula:

$$SD_x \text{ or } SD_1 = \sqrt{\frac{\sum x^2}{N_1}}$$

$$= \sqrt{\frac{1888}{24}}$$

$$= \sqrt{78,67}$$

$$= 8,87$$

q. Determine the standard deviation of variable Y, with formula:

$$SD_y \text{ or } SD_2 = \sqrt{\frac{\sum y^2}{N_2}}$$

$$= \sqrt{\frac{1560}{24}}$$

$$= \sqrt{65}$$

$$=8,06$$

r. Determine the standard error of variable X, with formula:

$$SD_{M_x} \text{ or } SE_{M_1} = \frac{SD_1}{\sqrt{N_1-1}}$$

$$= \frac{8,87}{\sqrt{24-1}}$$

$$= \frac{8,87}{\sqrt{23}}$$

$$= \frac{8,87}{4,80}$$

$$= 1,85$$

s. Determine the standard error of variable Y, with formula:

$$SD_y \text{ or } SE_2 = \frac{SD_2}{\sqrt{N_2-1}}$$

$$= \frac{8,06}{\sqrt{24-1}}$$

$$= \frac{8,06}{\sqrt{23}}$$

$$= \frac{8,06}{4.80}$$

$$= 1,70$$

t. Determine the difference of standard error between mean variable I and mean variable II, with formula:

$$SE_{M_1-M_2} = \sqrt{SE_{M_1}{}^2 + SE_{M_2}{}^2}$$

$$= \sqrt{1,85^2 + 1,70^2}$$

$$= \sqrt{3,42 + 2,89}$$

$$= \sqrt{6,31}$$

$$= 2,51$$

u. Determine t_o by using the formula:

$$t_o = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

$$= \frac{54 - 52,17}{2,51}$$

$$= 0,73$$

Then, Provide interpretation t_o significansi test, by comparing the magnitude t_o, with the first set degrees of freedom (*df*), which can be obtained by the formula:

$$df = (N_1 + N_2) - 2$$

$$= (24 + 24) - 2$$

$$= 46$$

At *df=46*, obtained 5% significant t_{tablse} =2,02 and 1% *significant* t_{table} =2,69.

By comparing the amount of "*t*" we obtain the calculation (t_o= 0,73) and $t_{table\ 5\%}$ = 2,02 and $t_{table1\%}$ = 2,69, then we know that t_o is lower than t_t, it is:

$$2,02 > 0,73 > 2,69$$

Because t_o lower than t_t, then the null hypothesis is accepted proposed. This means that there are not differences scores in students' vocabulary of fourth grade of MI ISLAMIYAH between experiment and control class.

The conclusion that we can based on the results of these test is not significant difference score between experiment and control class. Its mean that both of classes is normal.

b. Hypothesis test

The table 4.4 (see in appendix 4) which showed the student's score after getting the treatment in the form of post test. The post test was administered for 24 students of class IV A as an experiment class and 24 students of class IV B as a control class. The name of the students are coded into initial E for experiment class and initial C for control class.

Based on the data of table 4.5 (see appendix 5), for experiment class, there 3 students get excellent, 14 students get good score, 7 students get average score and no one of students get poor and very poor score. In other words, it is known that 12,5% students get exellent,5 58,33% students get good, and 29,17% students get average. And for control class, there is also no one student get excellent, 2 students get good, 14 students get average score and 8 students get poor score. In other words, it is known that 8,33% students get good, 58,33% students get average score and 33,34% students get poor score. Thus, it can be concluded that the result of post test, no one students of experiment class get poor and very poor score.

The main issue we have to solve is whether the null hypothesis which states that there are no significant differences in MI ISLAMIYAH before and after the implementation of the method alphabet game was unacceptable because it proved to be true, or whether it should be rejected as unsubstantiated. accept or approve the null hypothesis would be to reject the alternative hypothesis. To test which is true, we will examine the steps that have been mentioned.

In the table 4.6 (see appendix 6), we have obtained and ΣD= 350 and ΣD^2= 8086. From these results we can find a large standard deviation of variable x and variable y by the following formula :

$$SD_D = \sqrt{\frac{\Sigma D^2}{N} - \left(\frac{\Sigma D}{N}\right)^2}$$

$$= \sqrt{\frac{8086}{24} - \left(\frac{350}{24}\right)^2}$$

$$= \sqrt{336,92 - (14,58)^2}$$

$$= \sqrt{336,92 - 212,58}$$

$$= \sqrt{124,34}$$

$$= 11,15$$

With obtained SD_D =11,15 , can be calculated Standard Error of the mean difference, with formula:

$$SE_{M_D} = \frac{SD_D}{\sqrt{N-1}}$$

$$= \frac{11,15}{\sqrt{24-1}}$$

$$= \frac{11,15}{\sqrt{23}}$$

$$= \frac{11,15}{4,80}$$

$$= 2,32$$

Then, Determine t_o by using the formula:

$$t_o = \frac{M_D}{SE_{M_D}}$$

$$= \frac{14,58}{2,32}$$

$$= 6,28$$

Then, Provide interpretation t_o significansi test, by comparing the magnitude t_o, with the first set degrees of freedom (*df*), which can be obtained by the formula:

$$df = N - 1$$

$$= 24 - 1$$

$$= 23$$

At *df=23*, obtained 5% significant $t_{tablse} = 2,07$ and 1% *significant* $t_{table} = 2,81$.

By comparing the amount of "*t*" we obtain the calculation ($t_o=$ 6,28) and $t_{table\ 5\%} = 2,07$ and $t_{table1\%} = 2,81$, then we know that t_o is higher than t_t, it is:

$$2,07<6,28>2,86$$

Because t_o higher than t_t, then the null hypothesis is rejected proposed. This means that there are differences scores in students' vocabulary of fourth grade of MI ISLAMIYAH between before and after taught by using alphabet game, and It is a significant difference.

The conclusion that we can based on the results of these trials is that alphabet game has demonstrated its real effectiveness. Means reliable as a good method to teach vocabulary in elementary school.

B. Discussion

As stated previously, the objectives of this research are to know fourth grade student's vocabulary of MI ISLAMIYAH Cangkringsari Sukodono kabupaten Sidoarjo in academic year 2014/2015 before and after being taught by using alphabet game and to find out whether there is any significant difference between two of them.

In order to achieve the objectives of the research, the researcher did some steps to collect the data. The first step was administering pre-test to know student's vocabulary before using alphabet game.

Then the researcher gave treatment to the students by teaching English

vocabulary using alphabet game. Alphabet game here was a competition game to explore them to know as possible as the words.

The treatment was done in some steps. The first step was pre- vocabulary by sound the alphabet, this activity to activate students' schemata before get ready to mention the words in English.

The second is main activity, starting with divide the students into several group and each group consist of four students. Each group assigns a writer to write on the paper. The writer makes a chart on the paper. The teacher says a letter, for example the letter B. The other students in each group have to mention and dictate the word of the letter and writer will writes word "Bring, bag, banana, etc" on the paper. Then, each group must be write as possible as words in their paper. Groups get 10 points for each answer. The group with the most points wins.

The last step of data collection method was administering post-test. It was intended to measure students' vocabulary before the treatment was given. The researcher wanted to know whether or not there is any improvement on their achievement in vocabulary ability.

After the post test was administered, the researcher got the data in form of pre test and post test score. Then the data were analyzed by using paired sample related. The result of that analyze obtained that the mean of pre test was 54 for experiment class and 52,17 for control class. The value of t_{count}=0,73; with df=46, the value of 5% significant t_{table}=*2,02* and 1% significant t_{table} = 2,69 (2,02>0,73<2,69). It means that there was no significant difference

between experiment and control classes. So, the condition of both classes were normal.

And the result of post test showed that the mean of experiment class was 74,17 and 59,50 for control class. The value of t_{count}=6,28; with df=23, the value of 5% significant t_{table}=2,07 and 1% significant t_{table}=2,86 (2,07<6,28>2,86). It means that there was significant difference between experiment and control classes before and after taught by using Alphabet game.
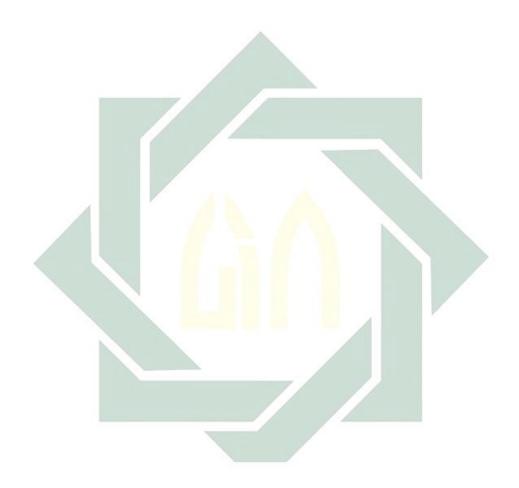
Regarding on the result of data analysis above, it is strongly related to some advantages served by the use of game like alphabet game. Games give advantages that can motivating and challenging, help students to make and sustain the effort of language, provides language practice in the various skills, encourage students to interact and communicate, create a meaningful context for language use.[46]

Then, the analyzed showed that Alphabet game can improve the students vocabulary of fourth grade of MI ISLAMIYAH. Its mean that this method can implementation to taught English vocabulary in elementary school. Because The best way to avoid this is for the teacher and course designer to have set guiding principles that can be applied in a variety of teaching and learning situations.[47] And proved that the games are especially   effective learning

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[46] Lee Su Kim," Creative Games for the Language Class". *Forum*. Vol 33 No.1, Malaysia 1995, 35

[47] David Nunan, *Practical English Language Teaching, First Edition*(America :McGraw-Hill Companies,2003), 135.

because they incorporate fun into the learning process.[48]

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[48] Redjeki Agoestyowati, *102 English Games*(Jakarta: PT Gramedia Pustaka Utama,2008)