

CHAPTER IV

THE RESEARCH FINDING AND DISCUSSION

A. Description of Data

In this chapter, there were some descriptions would present the data which had been collected from research in the field. The important point of this chapter was to answer the problem of the study. It would be described the data analyze based on the obtained data of improvement the students' vocabulary after and before taught by using flashcard media. The presented data consisted Pre Test (Students Pre Test Score, Frequency Distribution, Mean, Median, Modus, Standard Deviation, Standard Error of Pre Test), Post Test (Students Post Test Score, Frequency Distribution, Mean, Median, Modus of Post Test, Standard Deviation, Standard Error of Post Test), Result of Data Analysis and the figure.

1. The Result of the Pre-Test

The pre-test was conducted to find out the data of the students' level mastery in mastering English vocabulary before the treatment given. The result of the test is presented in the table below.

Table 4.1
The Description Data of Students' Pre Test Score

| NO | CODE | SCORE | CRITERIA | |
|----|------|-------|----------|------|
| | | | PASSED | FAIL |
| 1 | X1 | 18 | 0 | FAIL |
| 2 | X2 | 86 | PASSED | 0 |
| 3 | X3 | 54 | 0 | FAIL |
| 4 | X4 | 75 | PASSED | 0 |

| | | | | |
|-------------------|-----|--------------|--------------|--------------|
| 5 | X5 | 43 | 0 | FAIL |
| 6 | X6 | 61 | 0 | FAIL |
| 7 | X7 | 50 | 0 | FAIL |
| 8 | X8 | 86 | PASSED | 0 |
| 9 | X9 | 68 | 0 | FAIL |
| 10 | X10 | 75 | PASSED | 0 |
| 11 | X11 | 43 | 0 | FAIL |
| 12 | X12 | 54 | 0 | FAIL |
| 13 | X13 | 75 | PASSED | 0 |
| 14 | X14 | 54 | 0 | FAIL |
| 15 | X15 | 32 | 0 | FAIL |
| 16 | X16 | 68 | 0 | FAIL |
| 17 | X17 | 61 | 0 | FAIL |
| 18 | X18 | 82 | PASSED | 0 |
| 19 | X19 | 32 | 0 | FAIL |
| 20 | X20 | 54 | 0 | FAIL |
| 21 | X21 | 57 | 0 | FAIL |
| 22 | X22 | 68 | 0 | FAIL |
| 23 | X23 | 32 | 0 | FAIL |
| 24 | X24 | 36 | 0 | FAIL |
| 25 | X25 | 18 | 0 | FAIL |
| 26 | X26 | 54 | 0 | FAIL |
| TOTAL | | 1446 | 6 | 20 |
| AVERAGE | | 55.58 | | |
| PERCENTAGE | | | 23,08 | 76,92 |

Table above was describing the score of each students and show the students who passed and failed the test,. It can be seen that there were six students who passed the test or 23.08% and there were 20 students who failed the test or about 76.92%.

From the data above, it can be seen that the students' highest score was 86 and the students' lowest score was 18. However, based on the Evaluation standard of English subject, there were 20 students who failed since they got

fewer than 70. It meant that, most students still did not master about vocabulary especially name of animals.

Table 4.2
The Frequency Distribution of the Pre Test Score

| Class (K) | Interval (I) | Frequency (F) | Midpoint (X) | The Limitation of Each Group | Relative Frequency (%) | Cumulative Frequency (%) |
|------------------|---------------------|----------------------|---------------------|-------------------------------------|-------------------------------|---------------------------------|
| 1 | 75-86 | 6 | 80,5 | 73,5-86,5 | 23,077 | 100 |
| 2 | 63-74 | 3 | 68,5 | 60,5-73,5 | 11,538 | 76,923 |
| 3 | 51-62 | 8 | 56,5 | 47,5-60,5 | 30,769 | 65,385 |
| 4 | 39-50 | 3 | 44,5 | 34,5 - 47,5 | 11,538 | 34,615 |
| 5 | 27-38 | 4 | 32,5 | 21,5 - 34,5 | 15,385 | 23,077 |
| 6 | 15-26 | 2 | 19 | 8,5 - 21,5 | 7,692 | 7,692 |
| | | $\Sigma P = 26$ | | | $\Sigma P = 100$ | $\Sigma P = 100$ |

Table above was describing how percentage of students in each scores. It can be seen the higher percentage in score between 51-62 there were 8 students and about 19,23% in percentage. The distribution of students' pretest score can also be seen in the following figure.

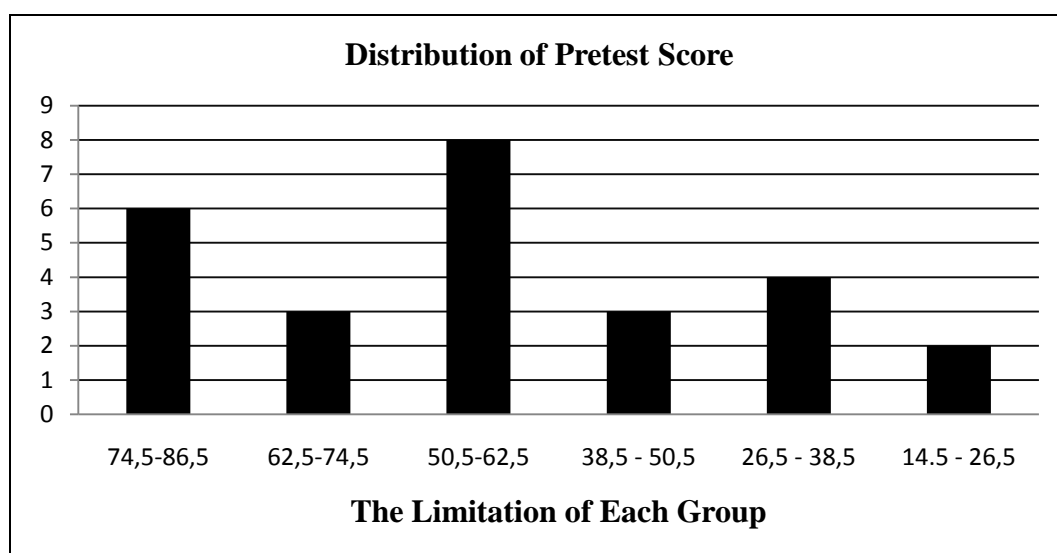


Figure 4.1
The Frequency Distribution of the Pre Test Score.

From the table and figure about the pre test score of students, it could be seen that there are 6 students who got score 74.5-86.5. There are 3 students who got score 62.5-74.5. There are 8 students who got score 50.5-62.5. There are 3 students who got score 38.5-50.5. There are 4 students who got score 26.5-38.5 and there are 2 students who got score 14.5-26.5

The writer tabulated the score into the table for the calculation of mean, median, and modus as follows:

Table 4.3
The table for calculating Mean, Median and Modus of The Pre Test Score.

| I | F | X | FX | Fkb | Fka |
|----------|-----------------|----------|--------------------|------------|------------|
| 75-86 | 6 | 80,5 | 483 | 26 | 6 |
| 63-74 | 3 | 68,5 | 205,5 | 20 | 9 |
| 51-62 | 8 | 56,5 | 452 | 17 | 17 |
| 39-50 | 3 | 44,5 | 133,5 | 9 | 20 |
| 27-38 | 4 | 32,5 | 130 | 6 | 24 |
| 15-26 | 2 | 20,5 | 41 | 2 | 26 |
| | $\Sigma F = 26$ | | $\Sigma fX = 1445$ | | |

From the table above, it could be calculate the mean, median and modus of the pretest. The result of mean calculation was 55. 58. The result of median calculation was 56.5. The Result of modus calculation was 56.5. The process of calculation used formula below:

a. Mean

$$M_x = \frac{\Sigma fX}{N}$$

b. Median

$$M_{dn} = \ell_+ + \frac{\left[\frac{1}{2}N - f_{kb} \right]}{F_i} X_i$$

c. Modus

$$Mo = \ell + \frac{f_a}{f_a + f_b} X_i$$

The detail process of calculation can be seen in appendix at the Data Calculation of posttest Scores.

Afterward, the writer tabulated the score of pretest into the table of the calculation of standard deviation and the standard error as follows:

The Table 4.4
The Table of Calculation of the standard Deviation and the Standard Error
of the Pre test

| I (Interval) | f | X | x' | fx' | x' ² | f x' ² |
|--------------|------|------|----|-----------|-----------------|------------------------|
| 75-86 | 6 | 80,5 | 2 | 12 | 4 | 24 |
| 63-74 | 3 | 68,5 | 1 | 3 | 1 | 3 |
| 51-62 | 8 | 56,5 | 0 | 0 | 0 | 0 |
| 39-50 | 3 | 44,5 | -1 | -3 | 1 | 3 |
| 27-38 | 4 | 32,5 | -2 | -8 | 4 | 16 |
| 15-26 | 2 | 20,5 | -3 | -6 | 9 | 18 |
| | N=26 | | | Σfx' = -2 | | Σfx' ² = 64 |

The tabel above used for calculate standar deviation and standard error by calculate mean first. The process of calculation used formula below:

a. Mean

$$M_x = \frac{\Sigma fX}{N}$$

b. Standard Deviation

$$SD_D = \sqrt{\frac{\Sigma fx'^2}{N} - \left[\frac{fx'}{N} \right]^2}$$

c. Standard Error

$$SEM = \frac{SD}{\sqrt{N-1}}$$

Based on the table above and the result of calculation, it found the standard deviation of pretest score was 18.63 and the standard error of pretest score was 3.726

2. The Result of Post Test

In order to analyze the mastery of students' vocabulary after conducting treatment. In the following table it showed that there was an improvement of the students in mastering English vocabulary after giving a treatment by the use of flashcard Media.

Table 4.5
The Description Data of Students' Post Test Score

| NO | CODE | SCORE | CRITERIA | |
|----|------|-------|----------|------|
| | | | PASSED | FAIL |
| 1 | X1 | 61 | 0 | FAIL |
| 2 | X2 | 100 | PASSED | 0 |
| 3 | X3 | 93 | PASSED | 0 |
| 4 | X4 | 93 | PASSED | 0 |
| 5 | X5 | 71 | PASSED | 0 |
| 6 | X6 | 71 | PASSED | 0 |
| 7 | X7 | 82 | PASSED | 0 |
| 8 | X8 | 100 | PASSED | 0 |
| 9 | X9 | 89 | PASSED | 0 |
| 10 | X10 | 96 | PASSED | 0 |
| 11 | X11 | 100 | PASSED | 0 |
| 12 | X12 | 93 | PASSED | 0 |
| 13 | X13 | 96 | PASSED | 0 |
| 14 | X14 | 61 | 0 | FAIL |

| | | | | |
|-------------------|-----|--------------|--------------|--------------|
| 15 | X15 | 75 | PASSED | 0 |
| 16 | X16 | 93 | PASSED | 0 |
| 17 | X17 | 57 | 0 | FAIL |
| 18 | X18 | 100 | PASSED | 0 |
| 19 | X19 | 75 | PASSED | 0 |
| 20 | X20 | 64 | 0 | FAIL |
| 21 | X21 | 75 | PASSED | 0 |
| 22 | X22 | 96 | PASSED | 0 |
| 23 | X23 | 50 | 0 | FAIL |
| 24 | X24 | 71 | PASSED | 0 |
| 25 | X25 | 93 | PASSED | 0 |
| 26 | X26 | 86 | PASSED | 0 |
| TOTAL | | 2142 | 21 | 5 |
| AVERAGE | | 82,39 | | |
| PERCENTAGE | | | 80,77 | 19,23 |

The table above was describing the score of each student who passed and failed the test. It shows, there were twenty one students who passed the test or about 80.77% in percentage and there were five students who failed the test or about 19.223% in percentage.

From the data explained above, it can be seen that the students' highest score was 100 and the students' lowest score 50. However, based on the evaluation standard of English subject, there were twenty one students who passed the test since they got more than 70. It meant that, there were most students master about vocabulary especially names of animal and there were only five students who failed the test since they got less than 70 based on the evaluation standard of English subject.

Table 4.6
The Frequency Distribution of the Post Test Score

| Class (K) | Interval (I) | Frequency (F) | Midpoint (X) | The Limitation of Each Group | Relative Frequency (%) | Cumulative Frequency (%) |
|-----------|--------------|-----------------|--------------|------------------------------|------------------------|--------------------------|
| 1 | 92-100 | 12 | 96 | 91.5 - 100.5 | 46,154 | 100 |
| 2 | 83-91 | 2 | 87 | 82.5 - 91.5 | 7,692 | 53,846 |
| 3 | 74-82 | 4 | 78 | 73.5 - 82.5 | 15,385 | 46,154 |
| 4 | 65-73 | 3 | 69 | 64.5 - 73.5 | 11,538 | 30,769 |
| 5 | 56-64 | 4 | 60 | 55.5 - 64.5 | 15,385 | 19,231 |
| 6 | 47-55 | 1 | 51 | 46.5 - 55.5 | 3,846 | 3,846 |
| | | $\Sigma P = 26$ | | | $\Sigma P = 100$ | $\Sigma P = 100$ |

Table above was describing how percentage of students in each scores. It can be seen the higher percentage in score between 92-100 there were 12 students and about 46.154% in percentage. The distribution of students' pretest score can also be seen in the following figure.

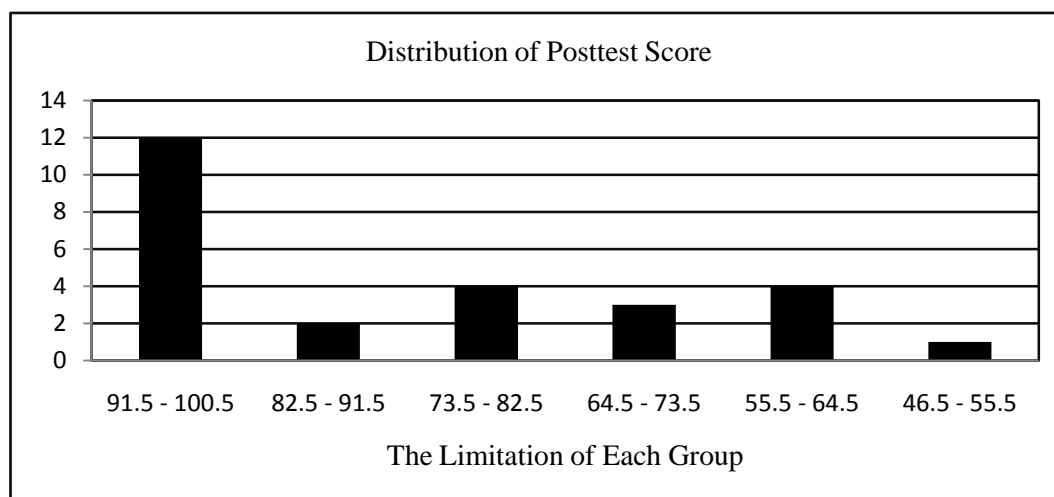


Figure 4.2
The Frequency Distribution of the Post Test Score.

From the table and figure about the pre test score of students above. It could be seen that there are 12 students who got score 91.5-100.5. There are 2 students who got score 82.5-91.5. There are 4 students who got score 73.5-82.5.

There are 3 students who got score 64.5-73.5. There are 4 students who got score 55.5-64.5 and there is 1 student who got score 46.5-55.5.

Afterward, the writer tabulated the score into the table for the calculation of mean, median, and modus as follows:

Table 4.7
The table for calculating Mean, Median and Modus of PostTest Score.

| I | F | X | FX | Fkb | Fka |
|----------|-----------------|----------|--------------------|------------|------------|
| 92-100 | 12 | 96 | 1152 | 26 | 12 |
| 83-91 | 2 | 87 | 174 | 14 | 14 |
| 74-82 | 4 | 78 | 312 | 12 | 18 |
| 65-73 | 3 | 69 | 207 | 8 | 21 |
| 56-64 | 4 | 60 | 240 | 5 | 25 |
| 47-55 | 1 | 51 | 51 | 1 | 26 |
| | $\Sigma F = 26$ | | $\Sigma fX = 2136$ | | |

From the table above, it can be calculated the mean, median, and modus of the post test score. The result of mean calculation was 82.154. the result of median calculation was 87. The result of modus calculation was 91.5. The process of calculation used formula below:

a. Mean

$$M_x = \frac{\Sigma fX}{N}$$

b. Median

$$M_{dn} = \ell + \frac{\left[\frac{1}{2}N - f_{kb} \right]}{f_i} X_i$$

c. Modus

$$M_o = \ell + \frac{f_a}{f_a + f_b} X_i$$

The detail process of calculation can be seen in appendix at the Data Calculation of posttest Scores.

Afterward, the writer tabulated the score of pretest into the table of the calculation of standard deviation and the standard error as follows:

The Table 4.8
The Table of Calculation of the Standard Deviation and the Standard Error of the Post Test

| Interval | f | X | x' | Fx' | x' ² | fx' ² |
|----------|----|----|----|-------------|-----------------|-------------------------|
| 92-100 | 12 | 96 | 0 | 0 | 0 | 0 |
| 83-91 | 2 | 87 | -1 | -2 | 1 | 2 |
| 74-82 | 4 | 78 | -2 | -8 | 4 | 16 |
| 65-73 | 3 | 69 | -3 | -9 | 9 | 27 |
| 56-64 | 4 | 60 | -4 | -16 | 16 | 64 |
| 47-55 | 1 | 51 | -5 | -5 | 25 | 25 |
| | | | | Σfx' = - 40 | | Σfx' ² = 134 |

The tabel above used for calculate standar deviation and standard error by calculate mean first. The process of calculation used formula below:

a. Mean

$$M_1 = \frac{\sum fX}{N}$$

b. Standard Deviation

$$SD_D = \sqrt{\frac{\sum fx^2}{N} - \left[\frac{fx'}{N} \right]^2}$$

c. Standard Error

$$SEM = \frac{SD}{\sqrt{N-1}}$$

Based on the table above and the result of calculation, it found the standard deviation of posttest score was 15.03 and the standard error of posttest score was 3.006.

3. The Result of Calculation T-test using Manual Calculation

By using Manual Calculation, the data could be first distributed by the following table:

Table 4.9
The calculation Data of Pretest and Posttest

| Students' Code | Score of Pretest | Score of Posttest | D (X-Y) | D² (x-y)² |
|-----------------------|-------------------------|--------------------------|----------------|--|
| X1 | 18 | 61 | -43 | 1849 |
| X2 | 86 | 100 | -14 | 196 |
| X3 | 54 | 93 | -39 | 1.521 |
| X4 | 75 | 93 | -18 | 324 |
| X5 | 43 | 71 | -28 | 784 |
| X6 | 61 | 71 | -10 | 100 |
| X7 | 50 | 82 | -32 | 1.024 |
| X8 | 86 | 100 | -14 | 196 |
| X9 | 68 | 89 | -21 | 441 |
| X10 | 75 | 96 | -21 | 441 |
| X11 | 43 | 100 | -57 | 3.249 |
| X12 | 54 | 93 | -39 | 1.521 |
| X13 | 75 | 96 | -21 | 441 |
| X14 | 54 | 61 | -7 | 49 |
| X15 | 32 | 75 | -43 | 1.849 |
| X16 | 68 | 93 | -25 | 625 |
| X17 | 61 | 57 | 4 | 16 |
| X18 | 82 | 100 | -18 | 324 |
| X19 | 32 | 75 | -43 | 1.849 |
| X20 | 54 | 64 | -10 | 100 |
| X21 | 57 | 75 | -18 | 324 |
| X22 | 68 | 96 | -28 | 784 |
| X23 | 32 | 50 | -18 | 324 |

| | | | | |
|----------------|-------|-------|-------------------|----------------------|
| X24 | 36 | 71 | -35 | 1.225 |
| X25 | 18 | 93 | -75 | 5.625 |
| X26 | 54 | 86 | -32 | 1.024 |
| TOTAL | 1445 | 2142 | $\Sigma D = -706$ | $\Sigma D^2 = 26205$ |
| AVERAGE | 55.23 | 82.39 | | |

From the table above, the data could be inserted into the formula of Mean,

Median and Modus below:

a. Mean

$$M_D = \frac{\Sigma D}{N}$$

$$M_D = \frac{-706}{26}$$

$$M_D = -27.154$$

b. Standard Deviation

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

$$SD_D = \sqrt{\frac{26.205}{26} - \left[\frac{-706}{26} \right]^2}$$

$$SD_D = \sqrt{1.007.885 - 737.340}$$

$$SD_D = \sqrt{270.545}$$

$$SD_D = 16.448$$

c. Standard Error

$$SE_{MD} = \frac{SD}{\sqrt{N-1}}$$

$$SE_{MD} = \frac{16.448}{\sqrt{25}}$$

$$SE_{MD} = \frac{16.448}{5}$$

$$SE_{MD} = 3.290$$

d. T observe

$$t_0 = \frac{MD}{SEMD}$$

$$t_0 = \frac{-27.154}{3.290}$$

$$t_0 = 8.253$$

Degree of Freedom

$$df = N-1$$

$$df = 26-1$$

$$df = 25$$

$$\begin{array}{ccccc} 5\% & & t_0 & & 1\% \\ 2.060 & < & 8.253 & > & 2.787 \end{array}$$

The detail process of calculation can be seen in the appendix at the Calculation data of Pretest and Post Test. Based on the result of Manual calculation, it can be presented by the following table.

Table 4.10
The Result of T-test

| M_D | SD_D | SE_{MD} | t_o | t_t 5% | Df |
|--------|--------|-----------|-------|----------|----|
| 27.154 | 16.448 | 3.290 | 8.253 | 2.060 | 25 |

Where:

M_D = Mean of difference

SD_D = Standard Deviation of Mean of Difference

SE_{MD} = Standard error of Mean of Difference

t_o = The Value of t_{observe}

t_t = The Value of t_{table}

df = Degree of Freedom

Since the calculated value of t_{observed} (8.253) was higher than t_{table} a 5% (2.060) significant level or $8.252 > 2.060$.

B. DISCUSSION

In teaching learning process, media is a tool using by the teacher to teach the students. Media can make a good interaction between teacher and students. From the result of analysis, it can be seen from the score of students how the use of media giving positive effects for students vocabulary. It meant media has important role in teaching learning process.

Therefore From the data above that supported by theories in chapter II, it can be known that teaching vocabulary by using flashcard as the media of learning process give significant effects toward students' English vocabulary. Based on Suyanto.KE (Chapter II p.26) states about the advantages of flashcard as teaching vocabulary media, the result of the study showed that Teaching Vocabulary by using Flashcard Media gives effect toward the Fourthgrade students. It can be seen first from the means score between Pretest and Posttest. The mean score of Posttest reached higher score than the mean score of Pretest

($X=55.23 < Y=82.38$). It indicated that the students' score increased after conducting treatment. In other words, teaching vocabulary by using Flashcards media gave significant effect toward the students' vocabulary. Related to Azhar Arsyad (chapter II page 24), Basuki, Farida (chapter II page 26), and also Suyanto (chapter II page 26).

Meanwhile, after the data was calculated using the t_{test} formula using manual calculation showed that the t_{observed} was 8.253. By comparing the t_{observed} with the t_{table} , it was found that the t_{observed} was higher than t_{table} at 5% level significance or $t_{\text{observed}} = 8.253 > t_{\text{table}} = 2.060$.

Besides those findings, using flashcards to teach vocabulary also influenced the students' motivation. The students' motivation increased during the action. They kept enthusiastic, happier, and more interest to the lesson. Besides, the students could focus to the teacher more and followed the teacher's instructions. They were also more active to state their answers or opinions. They also became brave and confident to compete in class activity.

During conducting this study the writer also found some problems while conducting the study. First, the flashcard that writer used was not big enough to cover all students in the class room. It will be better if the students sit in half of circle. Second, the allocation times for English subject at MIS NU Palangka Raya only thirty five minutes each meeting, it will be better if the time longer. Third, many of them were still confuse in spelling the English alphabet, it also influence the students ability in pronunciation and also in writing the vocabulary given.