

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

In this section, the researcher explains the findings based on observation and test. The observation answer the statement problem which consist of :the first problem statement is about the students who are taught by using three dimensional aids for improving vocabulary mastery at the third grade student at SDN Sungai Lulut 1 Banjarmasin, and who are taught without using three dimensional aids for improving vocabulary mastery at the third grade student at SDN Sungai Lulut 1 Banjarmasin, and the second problem statement is about Is there significant difference in teaching and learning English vocabulary between control class and experiment class. So, the researcher was held on February, 6st 2017 – April, 6st 2017.

1. Implementation of teaching and learning in control class and experiment class

In this research, researcher is acted as a teacher in applying three dimensional aids media in teaching vocabulary. The material of the teaching and learning is Noun (clothes) at the third grade students with KTSP curriculum that consists of Main competency, basic competence and indicator. For detail, it can be (seen in appendix 6, 7, 8

All of the material of noun (clothes) is explained to the subjects of research, they are third grade students of III A and III B in SDN Sungai Lulut 1 Banjarmasin. Each class is acted as what have decided in research method.

The planning of teaching and learning implementation in experiment class is more complex than in control class. besides, the researcher plans the lesson plan, the materials, the evaluation, and so on (see appendix 12,13, 14)

The researcher must plan and design to teach the students. similar with control class, implementation of teaching and learning is done once for pre test, three times for treatment, and once for post test. Schedule of the teaching and learning implementation can be seen in this table below:

a) Implementation of teaching and learning in experiment class

Before the researcher teaches in the class, the researcher makes planning of all needed in teaching later in experiment class such as the lesson plan, the material, the aids, the evaluation and so on (see appendix 12, 13, 14).

Teaching and learning implementation is done for three times and once for the last test. Schedule of the teaching and learning implementation can be seen in this table below.

Table 4.1. Implementation of teaching and learning in experiment class (III B)

Meeting	Day/Date	Time	Topic
1	Saturday, 6 th February 2017	1-2	Pre Test
2	Wednesday, 10 th February 2017	3-4	Noun (Clothes)
3	Wednesday, 17 th February 2017	3-4	Noun (Clothes)
4	Wednesday, 24 th February 2017	3-4	Noun (Clothes)
5	Monday, 29 th February 2017	5-6	Post Test

- b) Description about teaching and learning activity English vocabulary in experiment class

The researcher conducted the English vocabulary test for the third grade students at SDN Sungai Lulut 1 Banjarmasin on 6th of February and 29th of February in third grade B students. The scoring is based on three type of test, they are : Multiple choice, matching the picture and arrange the word. More information about the test can be seen in (appendix 15, 16)

The researcher use three dimentional aids in teaching English vocabulary to know about the students' vocabulary mastery of experiment class. For more data detail information, the data can be seen in the table below.

Tables 4.2. The result of pre-test in experiment class

Subject Number	Name	Test Type			Scores
		Multiple Choice	Arrange The Word	Matching The Picture	
1	B1	20	0	0	20
2	B2	15	0	8	23
3	B3	45	0	20	65
4	B4	5	0	4	9
5	B5	45	0	20	65
6	B6	50	6	20	76
7	B7	45	0	20	65
8	B8	25	0	4	29
9	B9	35	0	20	55
10	B10	15	0	8	23
11	B11	10	0	0	10
12	B12	15	0	4	19
13	B13	45	6	12	63
14	B14	45	0	20	65
15	B15	35	0	12	47
16	B16	25	0	4	29
17	B17	30	12	4	46
18	B18	30	6	8	44

19	B19	30	6	0	36
20	B20	35	0	8	43
21	B21	10	0	4	14
22	B22	40	0	8	48
23	B23	15	0	0	15
24	B24	35	0	0	35
25	B25	45	0	8	53
Score					997
Average					39.88

To know improving vocabulary mastery for experiment class before the researcher applies of the third grade students at SDN Sungai Lutut 1 Banjarmasin, the researcher uses the accounting of mean score as follow :

$$M_{x1} = \frac{\sum x}{N} = \frac{997}{25}$$

$$M_{x1} = 39.88$$

Based on the pre-test result, it can be seen that improving vocabulary mastery for experiment class at the third grade students of SDN Sungai Lutut 1 Banjarmasin can be conclude in very low category.

Table 4.3. The result of post-test in experiment class

Subject Number	Name	Multiple Choice	Matching The Picture	Arrange The Little	Score
1	B1	45	20	30	95
2	B2	50	16	18	84
3	B3	50	16	18	84
4	B4	45	20	24	89
5	B5	45	12	24	81
6	B6	45	20	30	95
7	B7	50	20	24	94
8	B8	50	16	18	84
9	B9	50	16	18	84
10	B10	50	12	24	86
11	B11	40	20	24	84

12	B12	45	20	24	89
13	B13	50	16	30	96
14	B14	35	20	30	85
15	B15	45	16	30	91
16	B16	50	20	30	100
17	B17	50	12	30	92
18	B18	50	20	18	88
19	B19	45	16	18	79
20	B20	40	12	18	70
21	B21	30	16	24	70
22	B22	45	20	30	95
23	B23	50	20	24	94
24	B24	50	12	24	86
25	B25	35	16	24	75
Score					2,170
Average					86.8

$$M_{x1} = \frac{\Sigma x}{N} = \frac{2,170}{25}$$

$$M_{x1} = 86.8$$

Based on the post-test result, it can be seen in improving vocabulary mastery for experiment class of the third grade students at SDN Sungai Lulut 1 Banjarmasin can be conclude in very good category.

Based interview result with the English teacher, three dimentional aids media is very good for increasing vocabulary in English, because the three dimentional aids media can remember new vocabulary has been learned.

2. Implementation of teaching and learning in control class (III A)

Before the researcher teaches in this class, the researcher makes planning of all needed in teaching later in control class such as the lesson plan, the material he aids, the evaluation, and so on (see appendix 9, 10,11)

Teaching and learning implementation is done once for pre test, three times for treatment, and once for post test. The schedule of the teaching and learning implementation can be seen in this table below:

Table 4.4 Implementation of teaching and learning in control class

Meeting	Day/Date	Time	Topic
1	Monday, 8 th February 2017	1-2	Pre Test
2	Thursday, 11 th February 2017	3-4	Noun (Clothes)
3	Thursday, 18 th February 2017	3-4	Noun (Clothes)
4	Thursday, 25 st February 2017	3-4	Noun (Clothes)
5	Saturday, 27 th February 2017	5-6	Post Test

The researcher conducted the English vocabulary test for the third grade students at SDN Sungai Lulut 1 Banjarmasin on 8th of February and 27th of February in third grade A students. The scoring is based on three type of test, they are: Multiple choice, matching the picture and arrange the word. More information about the test can be seen in (appendix 15, 16).

The researcher do not use three dimentional aids in teaching English vocabulary to know about the students' vocabulary mastery of control class. For more data detail information, the data can be seen in the table below.

Table 4.5. The result of pre-test in control class

Subject Number	Names Of Students	Test Type			Scores
		Multiple Choice	Arrange The Word	Matching The Picture	
1	A1	45	12	12	69
2	A2	50	12	20	82
3	A3	15	0	0	15
4	A4	20	0	8	28
5	A5	30	6	4	40
6	A6	40	6	8	54

7	A7	45	0	12	57
8	A8	15	0	0	15
9	A9	20	18	12	50
10	A10	5	0	4	9
11	A11	30	0	0	30
12	A12	20	6	0	26
13	A13	20	0	0	20
14	A14	15	0	0	15
15	A15	10	0	0	10
16	A16	30	0	4	34
17	A17	15	0	0	15
18	A18	15	0	12	27
19	A19	40	12	4	56
20	A20	40	0	12	52
21	A21	30	0	0	30
22	A22	25	12	4	41
23	A23	20	6	8	34
24	A24	25	0	4	29
25	A25	20	6	4	30
26	A26	10	12	4	26
27	A27	20	0	4	24
Score					918
Average					34

$$M_{x1} = \frac{\sum x}{N} = \frac{918}{27} = 34$$

Based on the pre-test result, it can be seen in improving vocabulary mastery for control class without three dimensional aids media of the third grade students at SDN Sungai Lulut 1 Banjarmasin can be conclude in very low category.

Table 4.6. The result of post-test in control class

Subject Number	Names Of Students	Test Type			Scores
		Multiple Choice	Arrange The Word	Matching The Picture	
1	A1	40	24	20	84
2	A2	45	24	16	85
3	A3	35	18	16	69
4	A4	45	18	16	79
5	A5	40	24	20	84
6	A6	50	24	20	94
7	A7	35	24	12	71
8	A8	40	24	16	80
9	A9	30	18	12	60
10	A10	45	24	20	89
11	A11	35	18	16	69
12	A12	40	24	16	80
13	A13	40	18	20	78
14	A14	30	18	16	64
15	A15	40	24	16	80
16	A16	35	24	16	75
17	A17	50	24	20	94
18	A18	40	18	16	74
19	A19	30	18	20	68
20	A20	35	18	12	65
21	A21	35	18	16	69
22	A22	40	24	20	84
23	A23	50	24	20	94
24	A24	35	18	20	73
25	A25	40	24	16	80
26	A26	40	18	20	78
27	A27	35	18	16	69
Score					208
Average					77.37037

$$M_{x1} = \frac{\sum x}{N} = \frac{2,089}{27} = 77.37$$

Based on the post-test result, it can be seen in improving vocabulary mastery for control class without three dimensional aids media of the third grade students at SDN Sungai Lulut Banjarmasin can be conclude in good category.

Based on observation result about process of teaching vocabulary in control class that was observed by researcher in three meetings is shown teaching vocabulary process in control class that does not use three dimensional aids media as follow: the researcher wrote vocabularies and meaning of vocabularies that are taught in whiteboard and all of students wrote those vocabularies in their book. The researcher asked students to repeat pronunciation of vocabularies that are learned after the researcher pronounced the word and all of students repeat researcher's pronunciation. The last, the researcher indicated every vocabulary and then asked every student to pronounce directly.

Based on observation result in control class without using three dimensional media by the researcher which observed activities, media and technique that is used by researcher, it can be concluded that the researcher used whiteboard and marker as media in teaching process. While, techniques that are used by researcher are translation and drilling. Translation technique is a technique of teaching vocabulary that is shown when researcher wrote meaning of vocabulary in whiteboard and drilling technique is a technique teaching vocabulary that is shown when researcher asked students to pronounce words directly and correctly.

Based on observation result in control class can be seen that researcher used translation and drilling technique is suitable and that researcher used

translation and repetition directly because characteristic of students with mild mental retardation that are slow receiving and difficult remembering lesson.

- a. To difference in improving vocabulary mastery between experiment class by using three dimensional aids and control class without three dimensional aids of the the third grade student at SDN Sungai Lulut 1 Banjarmasin.

To know the comparative study between the experiment class with using three dimensional aids media and the control class without using three dimensional aids media, the researcher uses "t-test". After all the collected data have been process, the researcher analyzes them and makes conclusion by using "t-test" formula.

- 1) Based on the result of the test in appendix, the writer calculated the mean formula of each major student. To keep the subject identify, the researcher just uses number for identifying the subject.

$$M_x \text{ or } M_1 = \frac{\Sigma x}{N_1} = \frac{2,170}{25} = 86.8$$

$$M_y \text{ or } M_2 = \frac{\Sigma x}{N_1} = \frac{2,089}{27} = 77.37$$

M_1 = means of experiment class of SDN Sungai Lulut 1 Banjarmasin

M_2 = means of control class of SDN Sungai Lulut 1 Banjarmasin

- 2) The researcher count standard deviation of each major by using formula:

$$SD_x \text{ or } SD_1 = SD1 = \frac{\sqrt{\Sigma fy^2}}{N} = \frac{\sqrt{1,462}}{25} = \sqrt{58.48} = 7.647$$

$$SD_y \text{ or } SD_2 = SD2 = \frac{\sqrt{\Sigma fx^2}}{N} = \frac{\sqrt{2264.29}}{27} = \sqrt{83.86} = 9.157$$

SD_x or SD_1 = Standard deviation of experiment class of SDN Sungai Lulut 1 Banjarmasin

SD_y or SD_2 = Standard deviation of control class of SDN Sungai Lulut 1 Banjarmasin

- 3) The researcher counts standard error of each major by using formula:

$$SE M_1 = SE_{m1} = \frac{SD1}{\sqrt{N-1}} = \frac{7.647}{\sqrt{25-1}} = \frac{7.647}{\sqrt{24}} = \frac{7.647}{4.898979} = 1.56$$

$$SE M_2 = SE_{m2} = \frac{SD1}{\sqrt{N-1}} = \frac{9.157}{\sqrt{27-1}} = \frac{9.157}{\sqrt{26}} = \frac{9.157}{5.099019} = 1.79$$

$SE M_1$ = Standard Error of Mean of the experiment Class of SDN Sungai Lulut 1 Banjarmasin

$SE M_2$ = Standard Error of Mean of the control Class of SDN Sungai Lulut 1 Banjarmasin

- 4) The researcher counts standard error from both subject by using formula:

$$SE_{m1-m2} = \sqrt{(1.56)^2 + (1.79)^2}$$

$$SE_{m1-m2} = \sqrt{2.4336 + 3.2041}$$

$$SE_{m1-m2} = \sqrt{5.6377}$$

$$= 2.37$$

- 5) The researcher counts t-test by using formula:

$$T \text{ test} = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

$$T \text{ test} = \frac{86.8 - 77.37}{2.37}$$

$$= \frac{9.43}{2.37} = 3.97$$

- 6) Giving interpretation for “t” with consulting t table

Table 4.7. Table “t”

d.b.	Significant degre		d.b.	Significant degre		d.b.	Significant degre	
	5%	1%		5%	1%		5%	1%
1	12.71	63.66	16	2.12	2.92	40	2.02	2.71

2	4.30	9.92	17	2.11	2.90	45	2.02	2.69
3	3.18	5.84	18	2.10	2.88	50	2.01	2.68
4	2.78	4.60	19	2.09	2.86	61	2.00	2.65
5	2.57	4.03	20	2.09	2.84	70	2.00	2.65
6	2.45	3.71	21	2.08	2.83	80	1.99	2.64
7	2.36	3.50	22	2.07	2.82	90	1.99	2.63
8	2.31	3.36	23	2.07	2.81	100	1.98	2.63
9	2.26	3.25	24	2.06	2.80	125	1.98	2.62
10	2.23	3.17	25	2.06	2.79	150	1.98	2.61
11	2.20	3.11	26	2.06	2.78	200	1.97	2.60
12	2.18	3.06	27	2.05	2.77	300	1.97	2.59
13	2.16	3.01	28	2.05	2.76	400	1.97	2.59
14	2.14	2.98	29	2.04	2.76	500	1.96	2.59
15	2.13	2.95	30	2.04	2.75	1000	1.96	2.58
			35	2.03	2.75			

(Source: Murdan, 2005, p.190)

7) After having the t-test score, look at the t-table or “t”

$$\begin{aligned}
 T \text{ table} &= (N_1 + N_2) \\
 &= (25 + 27) - 2 \\
 &= 52 - 2 \\
 &= 50
 \end{aligned}$$

- a) Consulting score of “db/df with “table”
- b) In significant degrees t-table 5% = 2.01%
- c) In significant degrees t-table 1% = 2.68%

After the researcher finds the df (degree of freedom), in this research is 51, the researcher ,makes conclusion. Thus, t table (5%=2.01) < t test (3.97) > t table (1 %= 2.68). It shows that t test is higher than t table 5% and 1%. H_0 (Zero Hypothesis) is rejected and H_a (Alternative hypothesis) is accepted. By the result, the researcher concludes that H_a is accepted. There is significant different in improving vocabulary mastery between experiment class and control class.

B. Discussion

After all the obtained data are presented, then they also need to be analyzed based on the order of issues that have introduced earlier in this research. To know in improving vocabulary mastery of experiment class using post-test result. The researcher give post-test question to students' on Monday 29 february 2017 at SDN Sungai Lulut 1 Banjarmasin. The researcher got document about post-test result of vocabulary. To get post-score, the researcher count score post-test with mean formula. The result students' of experiment class at SDN Sungai Lulut 1 Banjarmasin.

Table 4.10. The result of score post test in experiment class

No.	Number of Students	Score Post-test of Vocabulary
1	B1	95
2	B2	84
3	B3	84
4	B4	89
5	B5	81
6	B6	95
7	B7	94
8	B8	84
9	B9	84
10	B10	86
11	B11	84
12	B12	89
13	B13	96
14	B14	85
15	B15	91
16	B16	100
17	B17	92
18	B18	88
19	B19	79
20	B20	70
21	B21	70
22	B22	95

23	B23	94
24	B24	86
25	B25	75
Score		2,170
Mean		86.8

Table 4.11. The result percentage of score post-test in experiment class

No.	Score	Frequency	Percentage	Category
1.	80 – 100	21	84%	Very good
2.	66 - < 80	4	16%	Good
3.	56 - < 66	0	0	Fair
4.	46 - < 56	0	0	Low
5.	0 - <46	0	0	Very low
Score		25	100%	

From the table above, it can be seen that there is no students (0%) whose score around 0 - <46 that classified in very low category, there is no students (0%) whose score are around 46 - < 56 that classified in low category. There is no students (0%) whose score are around 56 - < 66 that classified in fair category. There are 4 students (16%) whose score are around 66 - < 80 that classified in good category. There are 21 students (84%) whose score are around 80-100 that classified is very good category.

Based on the data above, the researcher get the result score of experiment class are 2170 from 25 students', the mean is 86.8. It can be conclude in improving vocabulary mastery for experiment class of the third grade students at SDN Sungai Lulut 1 Banjarmasin is in good category.

Table 4.12. The result of score Post-test in control class

No.	Numbers of students	Score
1	A1	84
2	A2	85
3	A3	69

4	A4	79
5	A5	84
6	A6	94
7	A7	71
8	A8	80
9	A9	60
10	A10	89
11	A11	69
12	A12	80
13	A13	78
14	A14	64
15	A15	80
16	A16	75
17	A17	94
18	A18	74
19	A19	68
20	A20	65
21	A21	69
22	A22	84
23	A23	94
24	A24	73
25	A25	80
26	A26	78
27	A27	69
Score		2,089
Average		77.37037

Table 4.13. The result of percentage post-test in control class

No	Score	Frequency	Percentage	Category
1.	80 - 100	12	44.444%	Very good
2.	66 - <80	13	48.148%	Good
3.	56 - < 66	2	7.407%	Fair
4.	46 - < 56	0	0	Low
5.	0 - < 46	0	0	Very low
Score		27	100%	

Based on the table above, it can be seen that there is no students (0%) whose score around 0 - <46 that classified in poor category. There is no students (0%) whose score are around 46 - < 56 that classified in low category. There is 2 students (7.407%) whose score are around 56 - < 66 that classified in fair

category. There are 13 students (48.148%) whose score are around 66 - < 80 that classified in good category. There are 12 students (44.444%) whose score are around 80 – 100 that classified in very good category.

Based on the data above, the researcher get the result score of students' of experiment class are 2089 from 27 students', the mean is 77.37037. It can be conclude in improving vocabulary mastery for control class of the third grade students at SDN Sungai Lulut 1 Banjarmasin is in good category.

In the result of the mean score of pre-test is low (39.88) and the mean score of post-test is rise (86.8), from the explanation before the mean score of post-test (86.8) is large than the mean score of pre-test (39.88). The result shows that scores of post-test was better than scores of pre-test. It can be known that student mean score improve up 46.92 points. So, the teaching and learning vocabulary process is effective. It is rifer to the previous study by Sofika Candra Nilawati (2009) and Insani (2013) stated that using hand puppet was effective and makes students felt interesting, enjoyable, and focus in teaching-learning process.

After a calculation in the previous explanation, the result of the last showed that the mean value of experiment class is 86,8 in very good category while the mean value of control class is 77.37037 in good category. The different value between them 9.42963 that showed significant different. Based on the calculation of t test, the value of t table (5%=2.01) < t test (3.97) > t table (1 %=2.68). It shows that t test is higher than t table 5% and 1%. H_0 (Zero Hypothesis) is rejected and H_a (Alternative hypothesis) is accepted. By the result, the researcher concludes that H_a is accepted.

In improving vocabulary mastery for experiment class higher than control class. Therefore, the researcher can conclude that using three dimensional aids media is better than without using three dimensional aids. Based on the researcher observation as English teacher at SDN Sungai Lulut 1 Banjarmasin, the researcher stated that in teaching and learning by using three dimensional aids media can help the teacher to answer the students problem in learning English, especially in vocabulary and also can proof this study. Based on the Kustandi's book said that: using three dimensional aids have some advantages there are: (1)Causing student interest to think and investigate; (2) Learning will run more complete because students can learn directly by using replica materials or similar to the original; (3)Students can understand about the nature of the shape and movement of an object with good premises; (4) Giving experience about the actual state of the object or material; (5) Encourage students to make further studies of media learning; (6) Giving students more opportunities to interact with each other.

Selectively three dimensional aids as media for teaching vocabulary because has some advantages to use in teaching vocabulary. The result from the test, teaching vocabulary using three dimensional aids can be easy to understand in learning vocabulary. The student's difficulty makes the students felt hard to memorize their vocabulary. By three dimensional, the students join the class with interesting and felt enjoy in learning activities. They felt interest and that can make them active in the class, it is appropriate with, Halim (2016) using the puppet, cartoon films, tape recorder, radio, television, computer, etc, are useful to achieve the instructional goals of teaching and learning process, and they can also

be easily found in our daily lives. Having understood that young learners pay short attention and concentration in a learning process, it is better to provide something playful to them. Based on Hamalik (1989 :133), the purpose of teaching English by using models are (a) the larger model can be seen by all children, (b) try to keep the students as much as possible to learn from model by encouraging them to ask questions, discuss, or give criticism, and (c) children will be better aware of the fact, like the researcher know, when the researcher teach with three dimensional aids the students show their imagination with ask many question that shown the students active in the class.

In the field, the students of experiment class seem more active in participate to English writing lesson and the condition and situation for every meeting is better and better. The students in experiment class accepted the three dimensional aids media well in English vocabulary lesson because they felt happy, fun, and interesting to the new teaching and learning activity. It can be understood that English vocabulary using three dimensional aids can improve the students' achievement in vocabulary. The application of three dimensional aids media is one way to that can be chose by teacher to increase the students' English achievement especially in vocabulary. Based on research finding in this research that there are any significant different in vocabulary mastery of students before and after being taught using three dimensional aids. Thus, it can be concluded that the use of three dimensional aids as media is effective in teaching vocabulary at the third grade of SDN Sungai Lulut 1 Banjarmasin academic year 2016/2017.