

## **CHAPTER IV**

### **RESEARCH FINDING**

#### **A. Description of Data**

In this chapter, the writer would like to present the description of the data. The sample of this research was the students of the second grade of SMPN 1 Sukamulya, as tested in this chapter, the writer divide them in two groups. The first is experimental class that consistsof 35 students from class VIII A and the second is control class that consist 38 students from VIII B.

The goal of this research is to know the effectiveness of vocabulary self-collection (VSS) strategy toward students' reading comprehension and to give the report of the data description and to analyze the score of pre-test and post-test of the experiment and control class. The writer did an analyze of quantitative data. The data is obtained by giving test to the experiment class and control class after giving a different both classes.

The students have poor ability in some test before using vocabulary self-collection (VSS) strategy. The students have the difficulties in understand a text and they have poor on reading comprehension but after used vocabulary self-collection (VSS)

strategy, the students' reading comprehension increased so that they easier in the test. It can be seen from the result of the pre-test and post-test and the students' work when learning process. in learning process of reading comprehension that use vocabulary self-collection (VSS) strategy the students understood one by one the step of vocabulary self-collection (VSS) strategy and the students' work was appropriated with the procedure of vocabulary self-collection (VSS) strategy.

To know the effectiveness of vocabulary self-collection (VSS) strategy toward students' reading comprehension, the writer gave the test to students as sample both at the experimental class and control class. The test that used in this research divided in two types, they are pre-test and post-test. The pre-test and post-test. The pre-test is given before treatment and post-test is given after giving treatment. Both the reading comprehension tests, pre-test and post-test which the writer gave to the students were questions those are 25 (twenty five) multiple choices, the correct answer is given score 1 (one) and the incorrect answer is 0 (zero) in multiple choices.

The writer describe the students' result of pre-test and post-test and post-test in experimental class and control class by the table below:

**Table 4.1**  
**Data from Pre-test and Post-test of Experiment Class**

No	Name of students	Pre-test	Post-test	Gained
1.	AS	44	48	4
2.	ASY	56	72	16
3.	AT	72	56	-16
4.	ABS	60	76	16
5.	AN	52	80	28
6.	AAP	52	64	12
7.	AR	48	80	32
8.	DP	60	68	8
9.	DA	52	60	8
10.	DS	64	52	-12
11.	DAP	48	48	0
12.	DR	64	72	8
13.	DAT	56	76	20
14.	ED	52	64	12
15.	FIS	56	64	8
16.	HCA	60	64	4
17.	JS	56	68	12
18.	JAAS	64	64	0
19.	KR	56	60	4
20.	M	44	60	16
21.	MG	56	56	0
22.	MRA	56	64	8
23.	MA	52	68	12

24.	MAP	64	64	0
25.	MDK	52	52	0
26.	MRZ	64	80	16
27.	NH	52	56	4
28.	NR	48	76	28
29.	NY	48	56	8
30.	PA	52	60	8
31.	RH	56	64	8
32.	R	60	64	4
33.	SL	44	64	20
34.	SN	44	68	24
35.	UM	44	48	4
N=35	TOTAL SCORE	1908	2236	340
	AVARAGE	54,51	63,88	

Determine mean score pre-test and post-test of experimental class, the writer follows the formula :

$$M_1 = \frac{\Sigma X_1}{N_1}$$

$$= \frac{1908}{35}$$

$$= 54.51$$

$$M_2 = \frac{\Sigma X_2}{N_2}$$

$$= \frac{2236}{35}$$

$$= 63.88$$

Determine mean with the formula :

$$\begin{aligned} M &= M_2 - M_1 \\ &= 63.88 - 54.51 \\ &= 9.37 \end{aligned}$$

Note : M = Mean  
 $M_1$  = Mean of Pre-test  
 $M_2$  = mean of Post-test  
 $X_1$  = Students' score of Pre-test  
 $X_2$  = students' score of Post-test  
N = Number of Students

The table above showed the students' score of pre-test and post-test at the experimental class. The highest score of pre-test was 72, it was gotten by one student and the lowest score was 44, it was gotten by five students and the average of pre-test score was 54.51. then, the highest score of post-test was 80, it was gotten by three students and the lowest score of post-test was 48, it was gotten by three students and the average score of post-test was 63.88. The students' result can show that the post-test is higher score after applied vocabulary self-collection (VSS) strategy. From the calculation of the determine mean the

experimental class, the average between the pre-test and post-test increase amount 9.37.

**Table 4.2**

**Data from Pre-test and Post-test of Control Class**

No	Name of students	Pre-test	Post-test	Grained
1.	AB	52	44	-8
2.	AS	40	44	4
3.	AF	40	52	12
4.	A	48	52	4
5.	ASP	60	60	0
6.	AR	36	40	4
7.	AD	36	52	16
8.	ES	40	44	4
9.	EAP	36	40	4
10.	EN	36	44	8
11.	EDO	52	56	4
12.	ENS	44	44	0
13.	FSA	40	52	12
14.	H	44	48	4
15.	IH	48	68	20
16.	J	36	40	4
17.	K	36	52	16
18.	LN	48	44	-4
19.	MA	48	48	0
20.	M	36	44	8

21.	MD	40	52	12
22.	MA	40	52	12
23.	MAD	40	52	12
24.	MF	36	44	8
25.	MGK	40	56	16
26.	MD	36	48	12
27.	NY	40	52	12
28.	NN	56	68	12
29.	NF	52	44	-8
30.	RA	56	64	8
31.	R	44	68	8
32.	RPY	52	48	16
33.	RAM	48	44	0
34.	RI	36	48	8
35.	SA	40	68	8
36.	SL	40	56	28
37.	SS	40	48	16
38.	SST	36	48	12
N=38	TOTAL SCORE	1628	1932	304
	AVERAGE	42.84	50.84	

Determine mean score of pre-test and post-test control class, the writer follows the formula :

$$M_1 = \frac{\Sigma Y_1}{N_1}$$

$$M_2 = \frac{\Sigma Y_2}{N_2}$$

$$\begin{array}{rcl}
 = \frac{1628}{38} & & = \frac{1932}{38} \\
 = 42.84 & & = 50.84
 \end{array}$$

Determine mean with the formula :

$$\begin{aligned}
 M &= M_2 - M_1 \\
 &= 50.84 - 42.84 \\
 &= 8
 \end{aligned}$$

Note :

- M = Mean
- $M_1$  = Mean of Pre-test
- $M_2$  = Mean of Post-test
- $Y_1$  = Students' score of Pre-test
- $Y_2$  = Students' score of Post-test
- N = Number of Students

The table 4.2 showed that lowest score of pre-test 36, it was gotten by eleven students and the highest score of post-test is 60, it was gotten by one students and the average score of pre-test was 42.84. Then, highest score of post-test was 68, it was gotten by four students andThe lowest score of post-test 40, it was gotten by three students and the average score of post-test was 50.84. The students' score in control



class was less because in this class not use vocabulary self-collection (VSS) strategy. After the calculation of the determine mean the control class, the average between the pre-test and post-test increase amount 8.

After comparison between the score of pre-test and post-test in experimental class and control class, the writer calculates deviation and squared deviation. The result of the calculation by using the formula t-test can be seen at the analysis of the data.

### **B. Analyzing the Data**

After the writer got the data from pre-test and post-test score from experimental and control class. The writer analyzed the data by t-test formula with the degree of significance 5% and the writer used steps of formula.

**Table 4.3**

#### **The Score of Distribution Frequency**

N0	X	Y	X	Y	$x^2$	$y^2$
1	48	44	-15.88	-6.84	252.17	46.78
2	72	44	8.12	-6.84	65.93	46.78
3	56	52	-7.88	1.16	62.09	1.34
4	76	52	12.12	1.16	146.89	1.34
5	80	60	16.12	9.16	259.85	83.90
6	64	40	0.12	-10.84	0.01	117.50
7	80	52	16.12	1.16	259.85	1.34
8	68	44	4.12	-6.84	16.97	46.78

9	60	40	-3.88	-10.84	15.05	117.50
10	52	44	-11.88	-6.84	141.13	46.78
11	48	56	-15.88	5.16	252.17	26.62
12	72	44	8.12	-6.84	65.93	46.78
13	76	52	12.12	1.16	146.89	1.34
14	64	48	0.12	-2.84	0.01	8.06
15	64	68	0.12	17.16	0.01	294.46
16	64	40	0.12	-10.84	0.01	117.50
17	68	52	4.12	1.16	16.97	1.34
18	64	44	0.12	-6.84	0.01	46.78
19	60	48	-3.88	-2.84	15.05	8.06
20	60	44	-3.88	-6.84	15.05	46.78
21	56	52	-7.88	1.16	62.09	1.34
22	64	52	0.12	1.16	0.01	1.34
23	68	52	4.12	1.16	16.97	1.34
24	64	44	0.12	-6.84	0.01	46.78
25	52	56	-11.88	5.16	141.13	26.62
26	80	48	16.12	-2.84	259.85	8.06
27	56	52	-7.88	1.16	62.09	1.34
28	76	68	12.12	17.16	146.89	294.46
29	56	44	-7.88	-6.84	62.09	46.78
30	60	64	-3.88	13.16	15.05	173.18
31	64	52	0.12	1.16	0.01	1.34
32	64	68	0.12	17.16	0.01	294.46
33	64	48	0.12	-2.84	0.01	8.06
34	68	44	4.12	-6.84	16.97	46.78
35	48	48		-2.84		8.06
36		68		17.16		294.46
37		56		5.16		26.62
38		48		-2.84		8.06
$\Sigma$	2236	1932	16.08	0.08	2268.65	1912.08

Note :

X : Score Post-test of the Experimental Class

Y : Score Post-test of the Control Class

x : Deviation of Experimental Class

y : Deviation of Control Class

$x^2$  : The Squared Deviation of Experimental Class

$y^2$  : The Squared Deviation of Control Class

- a. Determining mean of variable X (variable I) with formula:

$$\begin{aligned} M_x &= \frac{\Sigma X}{N_1} \\ &= \frac{2.236}{35} \\ &= 63.88 \end{aligned}$$

- b. Determining mean of variable Y (variable II) with formula:

$$\begin{aligned} M_y &= \frac{\Sigma Y}{N_2} \\ &= \frac{1932}{38} \\ &= 50.73 \end{aligned}$$

- c. Determining deviation standard of variable I with formula:

$$SD_x = \sqrt{\frac{\Sigma x^2}{N_1}}$$

$$\begin{aligned}
 &= \sqrt{\frac{2268.65}{35}} \\
 &= \sqrt{64.81} \\
 &= 8.05
 \end{aligned}$$

- d. Determining deviation standard of variable II with formula:

$$\begin{aligned}
 SD_y &= \sqrt{\frac{\Sigma Y^2}{N_1}} \\
 &= \sqrt{\frac{1912.08}{38}} \\
 &= \sqrt{50.31} \\
 &= 7.09
 \end{aligned}$$

- e. Determining standard error of mean variable I with formula:

$$\begin{aligned}
 SE_{M_x} &= \frac{SD_x}{\sqrt{N_1 - 1}} \\
 &= \frac{8.05}{\sqrt{35 - 1}} \\
 &= \frac{8.05}{\sqrt{34}}
 \end{aligned}$$

$$\begin{aligned}
 &= \frac{8.05}{5.83} \\
 &= 1.38
 \end{aligned}$$

- f. Determining standard error of mean variable II with formula:

$$\begin{aligned}
 SE_{M_y} &= \frac{SD_2}{\sqrt{N_2 - 1}} \\
 &= \frac{7.09}{\sqrt{38 - 1}} \\
 &= \frac{7.09}{\sqrt{37}} \\
 &= \frac{7.09}{6.08} \\
 &= 1.16
 \end{aligned}$$

- g. Determining standard error of mean difference variable I and variable II with formula:

$$\begin{aligned}
 SE_{M_1 - M_2} &= \sqrt{SE_{M_1}^2 + SE_{M_2}^2} \\
 &= \sqrt{1.38^2 + 1.16^2} \\
 &= \sqrt{1.90 + 1.34} \\
 &= \sqrt{3.24} \\
 &= 1.8
 \end{aligned}$$

- h. Analyzing the result by using calculation of the t-test as follow:

$$\begin{aligned}
 t_o &= \frac{M_1 - M_2}{SE_{M_1 - M_2}} \\
 &= \frac{63.88 - 50.73}{1.8} \\
 &= \frac{13.15}{1.8} \\
 &= 7.30
 \end{aligned}$$

- i. Determining degrees of freedom (df) with formula:

$$\begin{aligned}
 df &= (N_1 + N_2) - 2 \\
 &= (35 + 38) - 2 \\
 &= 73 - 2 \\
 &= 71
 \end{aligned}$$

From the data, that mean of pre-test score obtained by students of VIII A as experimental class = 54.51 and the pre-test score obtained by students of VIII B as a control class = 42.84. the highest score in two classes was different that was VIII A as experimental class got 72 and VIII B as control class got 60. And the lowest score of pre-test in both classes was 44 for experimental class and 36 for control class.

Then, the means of post-test at experimental score = 63.88 was greater than control class = 50.84 the highest score of post-test at experimental class got 80 and control class got 68. The lowest post-test score of experimental class is 48, and the lowest post-test score of control class is 40.

According to the statistical calculation above, the value of  $t_o$  is 7.30 and the degree of freedom is 71 with 5% degree of significance used by the writer. Based on the significance, it can be seen that on  $df = 71$  in significance 5% the value of  $t_{table}$  1.99 by comparing the result of the  $t_{table}$  and  $t_o$  in the degree of significance of 5%,  $t_o \geq t_{table} = 7.30 \geq 1.99$ . From the result of statistical calculation, it was obtained the t-observation  $t_o$  was 7.30; meanwhile, the t-table ( $t_{table}$ ) of  $df$  71 in significance 5% was 1.99. It means t-observation ( $t_o$ ) was higher than t-table ( $t_{table}$ ), so null hypothesis ( $H_o$ ) rejected and alternative hypothesis ( $H_a$ ) is accepted.

### **C. Interpretation of the Data**

In this research, the writer described the interpretation of the research finding and summarized the hypothesis. The research was held to answer the question How is students' reading comprehension at the

second grade of SMPN 1 Sukamulya before and after using vocabulary self- collection (VSS) Strategy? How is the effectiveness of using vocabulary self- collection (VSS) Strategy towards students' reading comprehension at the second grade students of SMPN 1 Sukamulya?in order to answer the question the writer formulated the Null Hypothesis ( $H_o$ ) and the Alternative Hypothesis ( $H_a$ ) as follow :

$H_a$  (Alternative Hypothesis) : there is a significant difference of students' reading comprehension achievement between students who are taught using vocabulary self-collection (VSS) strategy and students who are taught without using vocabulary self-collection (VSS) strategy.

$H_o$  ( Null Hypothesis) : there is not significant difference of students reading comprehension achievement between students who are taught using vocabulary self-collection (VSS) strategy and students who are taught without using vocabulary self-collection (VSS) strategy.

The assumption of this hypothesis as follow :

If  $t_o \geq t_{table}$  the Null Hypothesis is rejected and Alternative Hypothesis is Accepted. It means there is a significant difference of students' reading comprehension achievement between students who



are taught using vocabulary self-collection (VSS) strategy and students who are taught without using vocabulary self-collection (VSS) strategy.

The writer summarized that  $t_o \geq t_{table}$  it means that the Null Hypothesis is rejected and the Alternative Hypothesis is accepted. The writer analyzed the result of calculation that  $H_o$  rejected and  $H_a$  is accepted.

Based on the data obtained from experimental class and control class the writer can be inferred that vocabulary self-collection (VSS) strategy has effect on students' reading comprehension. Based on the data above, it has found that the increasing of learning reading skill caused by using vocabulary self-collection (VSS) strategy to solve the problem that has thought in the statement of problem. The writer used VSS strategy to give motivation in learning reading. As the writer state above that the problem of students in learning reading is difficult or problem like pronounce the word, difficult vocabulary the text itself. So that, the writer used VSS strategy to teach reading comprehension by content area in which the students can interpret the text based on the context. The students can choose the word based on their interest or those which are important to know and then define the words based on the context of the text.

Besides that, the writer used VSS strategy by gesture to facilitate communication, understanding and participation. The student will therefore be more engaged and more likely to retain what they are being taught in the classroom.

Additionally, gesturing can help the students elicit certain key vocabulary and phrases without having to directly translate, and also it will help the student associate common words and phrases with certain actions, which will accelerate their learning and give them more confidence.