CHAPTER IV

RESULT AND DISCUSSION

A. Description of Data

In this chapter, the writer attempt to submit the data as outcome of research at SMP Negeri 2 Cikande. This research is only directed to the students of second grade. To explore student's writing skill by using plot diagram, the writer takes the data by using pre-test and post-test. And the result from both tests will be used as data in this research. In this research the writer divided sample into two classes, 25 students of class VIII C as experimental class, and 25 students of class VIII D as control class.

The writer conducted the research about three weeks which consisted of pre-test on 17th of April, the first treatment at experiment and control class on 18th of April, the second treatment at experiment and control class on 20th of April, the third treatment at experiment and control class on 1st of May, and post-test implemented on 3rd of May.

In this chapter the writer gives the reports concerning of the data description. She compares the achievement of pre-test and post-test, to know whether plot diagram is effective in teaching writing and then the writer makes the table of student's

score. The writer got two data, the first data is the result of pre-test and the second one is the result of post-test. The result of post-test in experimental class is named variable (x) and the result of post-test in control class is named variable (y), the score is as follow:

1. The score of pre-test and post-test of experimental class.

The student's score of VIII C as the experiment class get $\sum x_1$1264 pre-test and $\sum x_2$2003 post-test. The score of pre-test and post-test will be described in the following table:

Table 4.1

The Score of Pre-test and Post-test of Experimental Class VIII C

No	Initial Name	Pre – test (x_1)	Post – test (x_2)	Categorization in Post Test Score
1	AAS	40	78	Good
2	AA	50	80	Good
3	FNS	53	85	Excellent
4	HAR	46	80	Excellent
5	H	56	78	Good
6	INA	51	77	Good
7	IF	46	80	Excellent
8	ICB	51	82	Good
9	J	45	79	Good

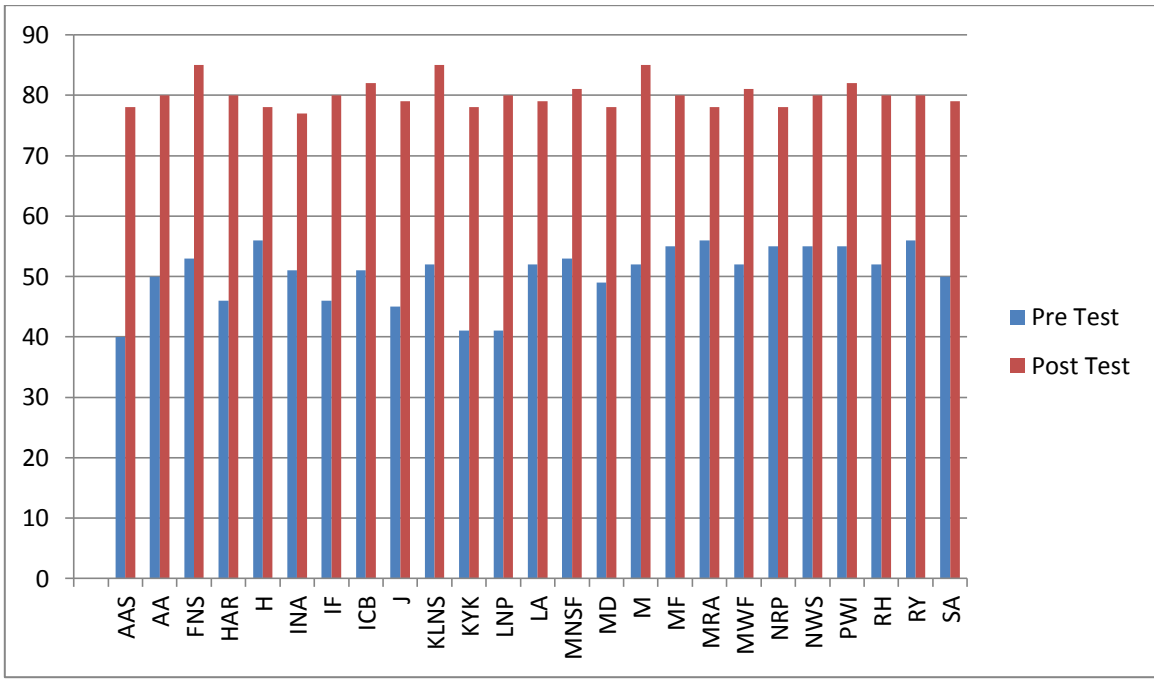
10	KLNS	52	85	Excellent
11	KYK	41	78	Good
12	LNP	41	80	Excellent
13	LA	52	79	Good
14	MNSF	53	81	Excellent
15	MD	49	78	Good
16	M	52	85	Excellent
17	MF	55	80	Excellent
18	MRA	56	78	Good
19	MWF	52	81	Good
20	NRP	55	78	Good
21	NWS	55	80	Excellent
22	PWI	55	82	Excellent
23	RH	52	80	Excellent
24	RY	56	80	Excellent
25	SA	50	79	Good
Total Score		$\sum x_1$ = 1264	$\sum x_2$ = 2003	
		M = 50,56	M = 80,12	

The table 4.1 above showed the result of the students' pre-test score and post-test score at experimental class. The data showed at pre-test the maximum score is 56 and the minimum

score is 40. The student who got the maximum score is three students and the student who got the minimum score is one students. Whereas the data showed at post-test the maximum score is 85 and the minimum score is 77. The student who got the maximum score is three students and the student who got the minimum score is one student. The writer described the student's score of pre-test and post-test of experimental class by the graphic as follow:

Graphic 4.1

The Score Pre-test and Post-test of Experimental class



Based on graphic above, it has showed that the result of experimental class get the significant improvement after giving treatment. It is seem from average score of post-test is better than the average score of pre-test that 80.12>50.56. It means that using plot diagram can improve students' writing skill on narrative text.

Table 4.2

The Score of Pre-test and Post-test of Control Class VIII D

No	Initial Name	Pre - test (x_1)	Post – test (x_2)	Categorization in Post Test Score
1	ARM	48	72	Good
2	AR	58	81	Excellent
3	CC	49	72	Good
4	DY	50	79	Good
5	DR	52	76	Good
6	DAS	49	75	Good
7	EE	45	77	Good
8	FHS	47	76	Good
9	F	47	78	Good
10	HMM	50	70	G00d
11	MD	57	78	Good
12	MA	51	77	Good

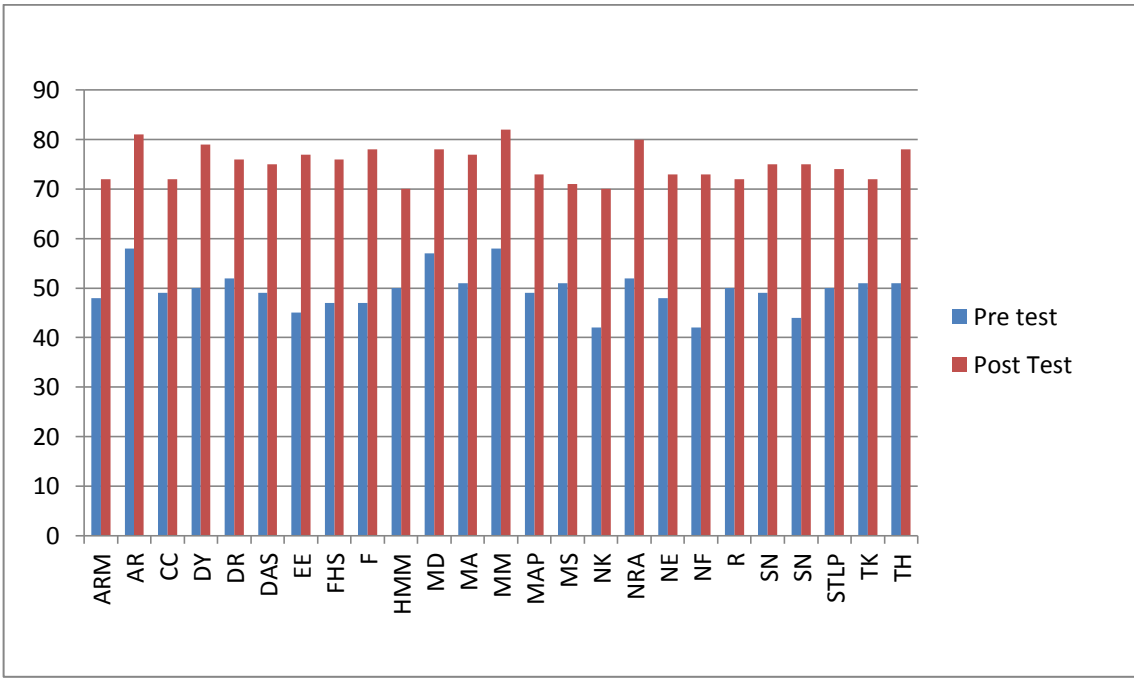
13	MM	58	82	Excellent
14	MAP	49	73	Good
15	MS	51	71	Good
16	NK	42	70	Good
17	NRA	52	80	Excellent
18	NE	48	73	Good
19	NF	42	73	Good
20	R	50	72	Good
21	SN	49	75	Good
22	SN	44	75	Good
23	STLP	50	74	Good
24	TK	51	72	Good
25	TH	51	78	Good
Total Score		$\sum x_1$ = 1240	$\sum x_2$ = 1879	
		M = 49,60	M = 75,16	

The table 4.2 above showed the result of the students' pre-test score and post-test score at control group. The data showed at pre-test the maximum score is 58 and the minimum score is 42. The student who got the maximum score is two student and the student who got the minimum score is two students. While the data showed at post-test the maximum score is 82 and the minimum score is 70. The student who got the maximum score is one student and the student who got the minimum score is two

student. The writer described the student's score of pre-test and post-test of control class by the graphic as follow:

Graphic 4.2

The Score Pre-test and Post-test of Control class



The graphic above has showed about the comparison between score of pre-test and post-test at control class. Based on the graphic above there is no significant improvement in the score of post-test and pre-test. It has showed that the result of control class did not have the significant improvement because there are some students who experience a decline in the score. It is seem from average score of post-test that is score of pre-test75.16 >

49.60. This class also realized can effect improvement but lower than experimental class.

Based on calculation above there was improvement student's achievement before using plot diagram and after using plot diagram. The way could be seen after comparing the score pre-test (before using plot diagram) and post-test (after using plot diagram) in class VIII C as experimental class and VIII D as control class. It means that there is significant effective on student writing skill by using plot diagram.

B. Data Analysis

After getting the data from pre-test and post-test score of two classes then the writer analyzed it by using t-test formula with the degree of significant 5% and 1%, the writer used step as follows:

Table 4.3

The Comparison of Score Each of the Students of the Experiment Class and Control Class

NO	SCORE		X	Y	X^2	Y^2
	x_2	y_2	$(x_2 - M_1)$	$(y_2 - M_2)$		
1	78	72	2.12	3.16	4.4944	9.99
2	80	81	0.12	-5.84	0.0144	34.11
3	85	72	-4.88	3.16	23.8144	9.99
4	80	79	0.12	-3.84	0.0144	14.75
5	78	76	2.12	-0.84	4.4944	0.71

6	77	75	3.12	0.16	9.7344	0.03
7	80	77	0.12	-1.84	0.0144	3.39
8	82	76	-1.88	-0.84	3.5344	0.71
9	79	78	1.12	-2.84	1.2544	8.07
10	85	70	-4.88	5.16	23.8144	26.63
11	78	78	2.12	-2.84	4.4944	8.07
12	80	77	0.12	-1.84	0.0144	3.39
13	79	82	1.12	-6.84	1.2544	46.79
14	81	73	-0.88	2.16	0.7744	4.67
15	78	71	2.12	4.16	4.4944	17.31
16	85	70	-4.88	5.16	23.8144	26.63
17	80	80	0.12	-4.84	0.0144	23.43
18	78	73	2.12	2.16	4.4944	4.67
19	81	73	-0.88	2.16	0.7744	4.67
20	78	72	2.12	3.16	4.4944	9.99
21	80	75	0.12	0.16	0.0144	0.03
22	82	75	-1.88	0.16	3.5344	0.03
23	80	74	0.12	1.16	0.0144	1.35
24	80	72	0.12	3.16	0.0144	9.99
25	79	78	1.12	-2.84	1.2544	8.07
Total Score	2003	1879			120.6400	277.36
Average	**80.12**	**75.16**			**4.8256**	**11.09**

Note:

x_2 = Score Post-test (Experimental Class)

y_2 = Score Post-test (Control Class)

X = x_2 - M (Mean x)

Y = y_2 - M (Mean y)

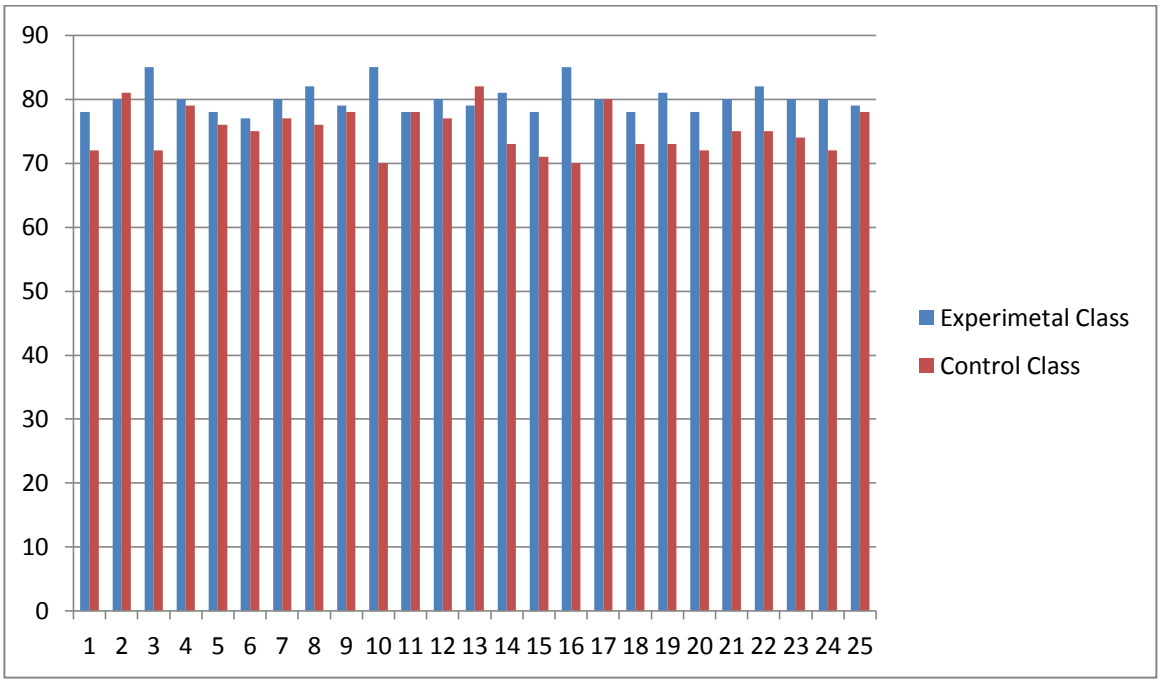
X^2 = the squared value of X

Y^2 = the squared value of Y

The data from table above presented into graphic, it has purpose to collect score between experiment and control class.

Graphic 4.3

The Score of Distribution Frequency



Based on the graphic above, the writer has seen that the comparison between experiment class $\sum x_2$= 2003 and control class $\sum y_2$= 1879 had different values. The experiment class is higher than control class. It is caused by the use of different method of experiment and control class as mentioned above that experiment class used plot diagram technique and control class used explanatory method. For more detail, the writer has written this comparison in statically.

From the table above, the writer get the data $\sum x_2 = 2003$, $\sum y_2 = 1879$, $\sum X^2 = 120.64$ and $\sum Y^2 = 277.36$ whereas N_1=25 and N_2=25. After getting the data from pre-test and post-test, the writer analyzed it by using statistic calculation of t-test formula with the degree of significance 5% and 1% the formula as follow:

1. Determine mean of variable x_2

$$M_1 = \frac{\sum x_2}{N_1}$$
$$= \frac{2003}{25}$$
$$= 80.12$$

2. Determine mean of variable y_2

$$M_2 = \frac{\sum y_2}{N_2}$$
$$= \frac{1879}{25}$$
$$= 75.16$$

3. Determine t-test

$$t_o = \frac{M_1 - M_2}{\sqrt{\left(\frac{\sum X^2 + \sum Y^2}{\square_1 + N_2 - 2}\right)\left(\frac{N_1 + N_2}{N_1 . N_2}\right)}}$$

$$t_o = \frac{80.12 - 75.16}{\sqrt{\left(\frac{120.64 + 277.36}{25 + 25 - 2}\right)\left(\frac{25 + 25}{25.25}\right)}}$$

$$t_o = \frac{4.96}{\sqrt{\left(\frac{398}{48}\right)\left(\frac{50}{625}\right)}}$$

$$t_o = \frac{4.96}{\sqrt{(8.29)(0.08)}}$$

$$t_o = \frac{4.96}{\sqrt{0.66}}$$

$$t_o = \frac{4.96}{0.81}$$

$$= 6.12$$

From the result of the calculation above, it is obtained that the value of t_o (t observation) is 6.12, after found the data the writer compared it with t_t (t table) both in degree significant 5% and 1%

4. df $= N_{1+} N_2 - 2$

$= 25 + 25 - 2$

$= 50 - 2$

$= 48$

C. Data interpretation

After analysing the pre-test and the post-test from two groups, experiment group and control group, the writer get the data of pre-test and post-test score. In the experiment class, the highest score of pre-test is 56 and the lowest score is 40. The highest score of post-test is 85 and the lowest score is 70. The mean of pre-test score obtained by students in this class is 50.56 and the mean of post-test is 80.12. The mean of pre-test and post-test score has improvement it seen 80.12 > 50.56. The improvement caused by the experimental class learns writing skill on narrative text by using plot diagram that not used yet before.

In the control class, the highest score of pre-test is 58 and the lowest score is 42. The highest score of post-test is 82 and the lowest score is 70. The mean of pre-test score obtained by students in this class is 49.60 and the mean of post-test is 75.16. This class also realized improvement but lower than experimental class, it seen from the mean that is 80.12 on experimental class and 75.16 on control class. It means experimental class gets significant improvement be higher than control class that is 80.12 > 75.16.

Then, the writer analysis using t-test after the data has obtained from both pre-test and post-test with the formula as follow:

If $t_0 > t_t$: the alternative hypothesis (H_a) is accepted and null hypothesis (H_o) is rejected. It means there is significant effect of using plot diagram in teaching students' writing skill on narrative text.

If $t_0 < t_t$: the alternative hypothesis (H_a) is rejected and null hypothesis (H_o) is accepted. It means there is no significant effect of using plot diagram in teaching students' writing skill on narrative text.

According to the data, the value of t_o is bigger than t_t. t_o = 6.12 > t_t= 1.67 (5%) or t_o = 6.12 > t_t = 2.40 (1%), so H_o is rejected and H_a is accepted.

Based on the data obtained from control and experimental class among the average scores and *t* observation, the writer summarizes that teaching narrative text through plot diagram has significant effectiveness toward students' writing skill. It has proved that plot diagram could increase students' writing skill on narrative text. Plot diagram is a classroom activity in which students work together in small group to make a task and then they rotate through a variety of tasks to respond the task. This technique serves many different types of students' intelligences and many different ways in which students learn.

Hence, when the students have given the treatment in three meetings, they could be easy to write and understand the narrative text in using plot diagram. Because they have helped by

what they looked on plot diagram, when they had writing post-test, they could be easy to write the narrative text by their own words. The students' writing achievement improved in post-test. It can be seen in the main score which has been mentioned before. Moreover, in applying plot diagram in the classroom, the writer felt that the students could enjoy writing. They could actively involve in teaching and learning activity since the students could use their creativity and imaginary. Plot diagram supplies the story elements that can be drawn by the students. They could use their imaginary and creativity to draw the plot diagram elements and it makes teaching writing narrative text be more fun.

From the explanation above, the writer gives conclusion that there is improvement on students' achievement before using plot diagram and after using plot diagram. The way could be seen after comparing the score pre-test (before using plot diagram) and post-test (after using plot diagram) in class VIII C as experiment class and VIII D as control class. It means that there is significant effect in teaching students' writing skill on narrative text by using plot diagram.