

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

A. Description of the Data

In this chapter, the writer explains the result of the research. The writer will attempt to submit the data as outcomes of research has hold in third Grade of SMP Al-Mansyuriyah Tangerang. The writer takes 60 students as a subject this research. It is divided into two classes. They are 30 students from IX A as the control class and 30 students from IX B as the experimental class.

The data of this research were the score of the students' pre-test and post-test both experimental class and control class. The score of pre-test was taken before the treatment, while the score of post-test was taken after the treatment. The result of pre-test is to know students' reading comprehension before receiving the treatment, meanwhile the result of post-test is to give the information whether there is any improvement on students' reading comprehension achievement of narrative text after receiving the treatments. In this research, the writer gave treatments to experimental class and control class related to narrative text material. In the experimental class, the writer applied story grammar strategy to teach reading narrative text, while in control class the writer applied conventional technique. Conventional technique is a technique which is usually used by the teacher such as asking the students to read the narrative text, translate and answer the questions based on the text. The writer measured

students' reading comprehension achievement by using a test in multiple choice and essay forms. Below are the data of pre-test and post-test in experimental and control class.

1. The Score of Pre-test and Post-test of Experimental Class

Table 4.1

The Result Score of Pre-test and Post-test in Experimental Class

NO	NAME	SCORE	
		PRE-TEST	POST-TEST
1	ADSR	55	85
2	ARMN	70	75
3	ASBM	75	85
4	AYHS	60	90
5	DN	65	70
6	DS	65	70
7	DW	60	65
8	FS	75	85
9	HK	60	75
10	IN	55	65
11	KWP	75	95
12	LB	65	70
13	MM	65	75
14	MS	70	80
15	NKLF	55	65
16	NS	65	75
17	NSV	60	70
18	RH	60	70
19	SAF	50	65
20	SAP	50	75

21	SH	65	70
22	SK	70	75
23	SKM	65	80
24	SM	65	75
25	SML	60	70
26	SN	50	65
27	YM	40	65
28	YRFI	75	90
29	YW	75	85
30	ZN	60	70
$\sum X_1$		1880	2250
M ₁		62.66	75

Mean by formula:

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

$$M_1 = \frac{\sum 1880}{30}$$

$$= 62.66$$

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

$$M_1 = \frac{\sum 2250}{30}$$

$$= 75$$

Note:

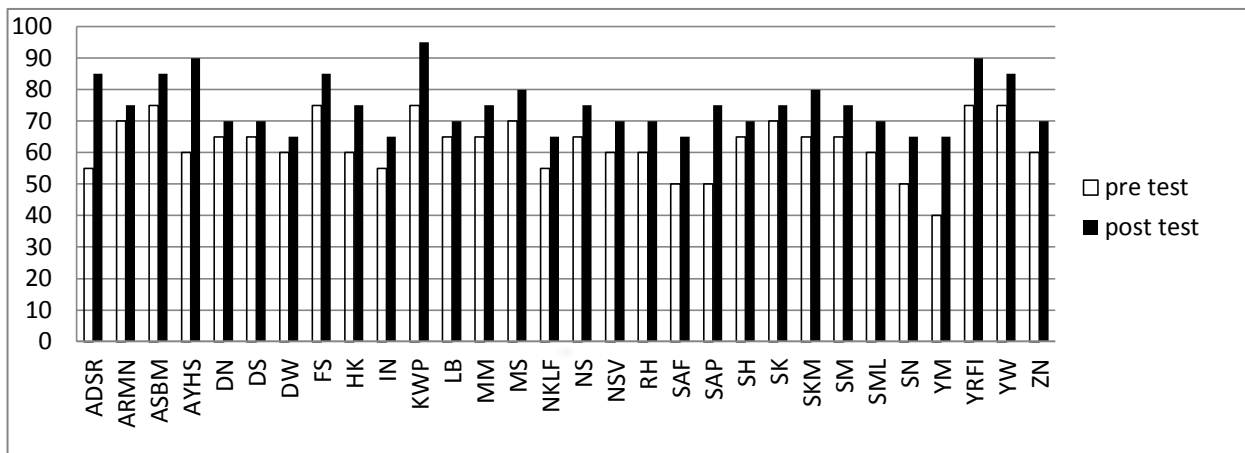
$\sum X_1$: The score of pre-test and post-test experimental class

M₁: Mean of pre-test and post-test experimental class

N₁: Numbers of students of experimental class

Graphic 4.1

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



Based on graphic above, it showed that the result of experimental class got 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 $75 > 62.66$, it means that using Story grammar strategy can effect to improve students' reading comprehension on Narrative text.

2. The Score of Pre-test and Post-test of Control Class

Table 4.2

The Result of Pre-test and Post-test in Control Class

NO	NAME	SCORE	
		PRE-TEST	POST-TEST
1	AA	70	75
2	ADAS	45	55
3	AI	75	70
4	ANF	65	65
5	EM	70	65
6	FD	55	60
7	FF	75	75
8	FN	60	65
9	HH	75	65
10	HN	60	55
11	JNS	65	60
12	LP	60	65
13	MR	70	75
14	MT	65	60
15	NA	75	75
16	NI	50	55
17	NR	60	65
18	NRD	60	60

19	NRH	65	75
20	PS	45	55
21	RO	60	65
22	RU	60	50
23	SFA	75	65
24	SHB	65	70
25	SNM	70	70
26	SYSW	60	50
27	VIR	65	75
28	VN	45	55
29	ZSF	70	65
30	ZSR	60	60
ΣX^2		1895	1920
M2		63.16	64

Mean by formula :

Pre-test

$$M_2 = \frac{\Sigma X^2}{N_2}$$

$$M_2 = \frac{\Sigma 1895}{30}$$

$$= 63.16$$

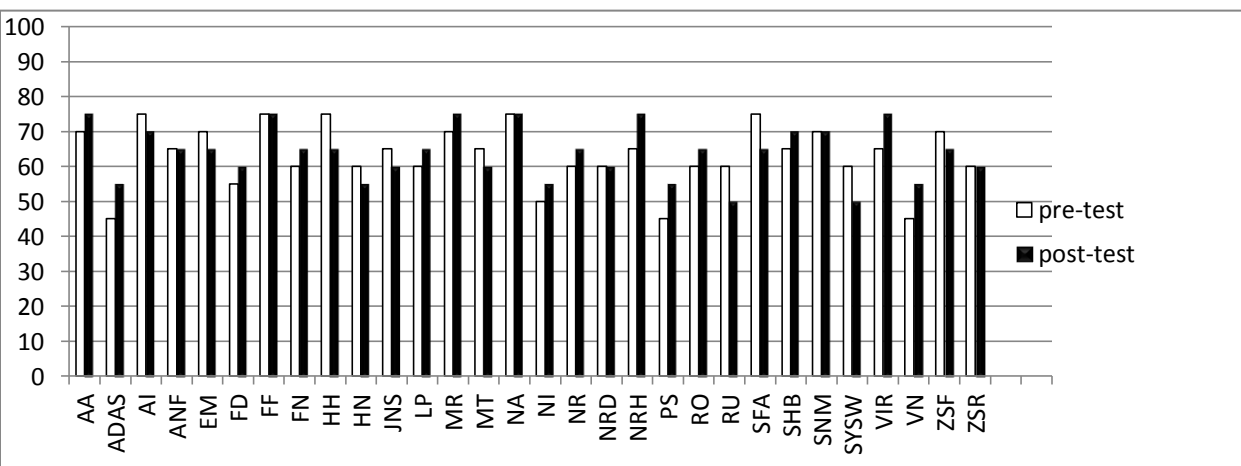
Post-test

$$M_2 = \frac{\Sigma X^2}{N_2}$$

$$M_2 = \frac{\Sigma 1920}{30}$$

$$= 64$$

Graphic 4.2
The Score in Pre-test and Post-test in control group



Based on graphic above, it showed that the result of control class did not have the significant improvement, It is seem from average score of post-test that is score of pre-test $63.16 > 64$. This class also realized can effect improvement but lower than experimental class.

B. Analysis of Data

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 Score of Distribution Frequency

NO	SCORE		X_1	X_2	X_1^2	X_2^2
	X1	X2	$(X_1 - M_1)$	$(X_2 - M_2)$		
1	85	75	10	11	100	121
2	75	55	0	-9	0	81
3	85	70	10	6	100	36
4	90	65	15	1	225	1
5	70	65	-5	1	25	1
6	70	60	-5	-4	25	16
7	65	75	-10	11	100	121
8	85	65	10	1	100	1
9	75	65	0	1	0	1
10	65	55	-10	-9	100	81
11	95	60	20	-4	400	16
12	70	65	-5	1	25	1
13	75	75	0	11	0	121
14	80	60	5	-4	25	16
15	65	75	-10	11	100	121
16	75	55	0	-9	0	81
17	70	65	-5	1	25	1
18	70	60	-5	-4	25	16
19	65	75	-10	11	100	121
20	75	55	0	-9	0	81
21	70	65	-5	1	25	1

22	75	50	0	-14	0	196
23	80	65	5	1	25	1
24	75	70	0	6	0	36
25	70	70	-5	6	25	36
26	65	50	-10	-14	100	196
27	65	75	-10	11	100	121
28	90	55	15	-9	225	81
29	85	65	10	1	100	1
30	70	60	-5	-4	25	16
Σ	2250	1920			3000	1720
AVERAGE	75	64				

Note:

X_1 = Score Post-Test (Experimental Class)

X_2 = Score Post-Test (Control Class)

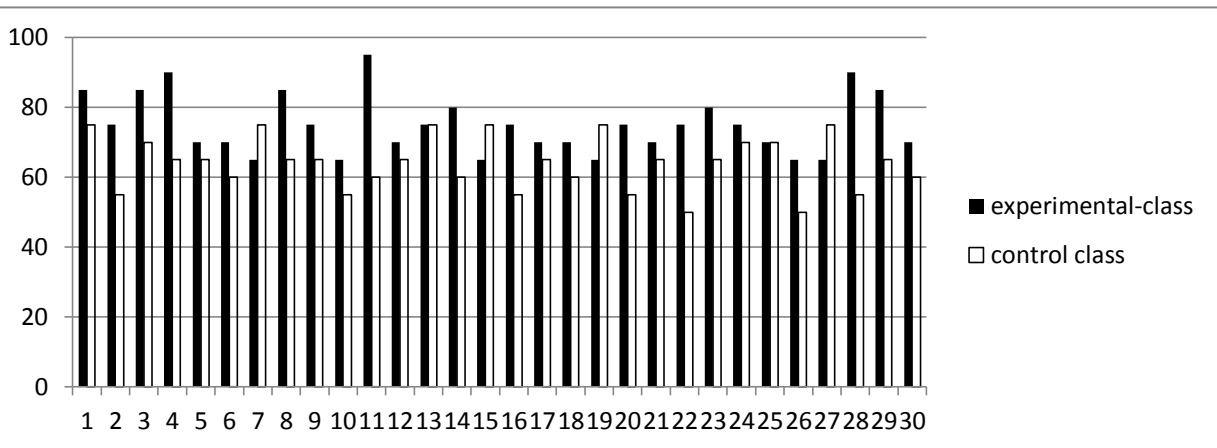
X_1 = $X_1 - M_1$ (Mean X_1)

X_2 = $X_2 - M_2$ (Mean X_2)

X_1^2 = The squared value of X_1

X_2^2 = The squared value of X_2

Graphic 4.3
The Score of Distribution Frequency



Based on the graphic above the experimental class= 2250 that higher than control class=1920 had different value. The experimental class was higher than the control class.

From the table above, the writer got the data $\sum X_1=2250$, $\sum X_2=1920$, $\sum X_1^2=3000$, and $\sum X_2^2=1720$, whereas $N_1=30$ and $N_2=30$.

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 X1 and X2

Variable X1

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

Variable X2

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

$$M_1 = \frac{\sum 2250}{30}$$

$$= 75$$

$$M_2 = \frac{\sum 1920}{30}$$

$$= 64$$

2. Determine t-test

$$t = \frac{M_1 - M_2}{\sqrt{\left\{ \frac{\sum X_1^2 + \sum X_2^2}{N_1 + N_2 - 2} \right\} \left\{ \frac{N_1 + N_2}{N_1 \cdot N_2} \right\}}}$$

$$t = \frac{75 - 64}{\sqrt{\left\{ \frac{3000 + 1720}{30 + 30 - 2} \right\} \left\{ \frac{30 + 30}{30 \cdot 30} \right\}}}$$

$$t = \frac{11}{\sqrt{\left\{ \frac{4720}{58} \right\} \left\{ \frac{60}{900} \right\}}}$$

$$t = \frac{11}{\sqrt{\{81.37\} \{0.07\}}}$$

$$t = \frac{11}{\sqrt{5.69}}$$

$$t = \frac{11}{2.38}$$

$$t = 4.62$$

Note :

M_1 = The average score of experimental class (Mean X1)

M_2 = The average score of control class (Mean X2)

$\sum X_1^2$ = Sum of the squared deviation score of experimental class

$\sum X_2^2$ = Sum of the squared deviation score of control class

N_1 = The number of student of experimental class

N_2 = The number of student of control class

2 = Constant number

3. Degree of Freedom

$df = N_1 + N_2 - 2$

$= 30 + 30 - 2$

$= 58$

There is no degree of freedom for 58, so the writer uses the closer from 58. In degree of significance 5% from 58 $t_t = 1.67$ and in degree of significance 1% from 58 $t_t = 2.39$.

Based on the result statistic calculation, it is obtained that the score of t_o is $= 4.62 > t_t = 1.67$ in degree of significance 5%. The score of $t_o = 12.23 > t_t = 4.62$ in degree of significance 1%. To prove the hypothesis, the data obtained from the experimental class is calculated by using t-test formula with assumption as follow:

If $t_{\text{observation}} > t_{\text{table}}$: The alternative hypothesis is accepted. It means there is a significant effectiveness of story grammar strategy toward student's reading comprehension of narrative text.

If $t_{\text{observation}} < t_{\text{table}}$: The alternative hypothesis is rejected. It means there is no significant effectiveness of story grammar strategy toward student reading comprehension of narrative text.

C. Interpretation of Data

From the result of pre-test and post-test in experimental class, the writer can conclude that from the lowest score in pre-test is 40 and the highest score in pre-test is 75. After the writer conducted treatment of story grammar strategy toward student's reading comprehension of narrative text and also conducted post-test. It is

founded the lowest score in post-test is 65 and the highest score in post-test is 95.

Before deciding the result of hypothesis, the writer proposes interpretation towards with procedure as follow:

- a. $H_a: t_{\text{observation}} > t_{\text{table}}$ = It means there is a significant effectiveness of story grammar strategy toward student's reading comprehension of narrative text.
- b. $H_o: t_{\text{observation}} < t_{\text{table}}$ = It means there is no significant effectiveness of story grammar strategy toward students reading comprehension of narrative text.

According to the data, the value of $t_{\text{observation}}$ is bigger than t_{table} . $t_{\text{observation}} = 4.62 > t_{\text{table}} = 1.67$ (5%) or $t_{\text{observation}} = 4.62 > t_{\text{table}} = 2,39$ (1%), so H_o is rejected and H_a is accepted.

From the result above, the writer give conclusion that it means there is a significant effectiveness of story grammar strategy toward student's reading comprehension of narrative text. It can be seen that the student got better score by story grammar strategy .This could be seen after comparing the score of pre-test (before story grammar strategy) and post-test (after using story grammar strategy).

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 Story grammar strategy has significant effectiveness toward students' reading comprehension. It has proved that story grammar strategy could increase students reading comprehension of narrative text.

Story grammar strategy provides elements of story that make students be easier to read the story in narrative text. Hence, when the students were given the treatment in three meetings, they could be easy to read the narrative text in using story grammar. Because they were familiar with the story grammar elements, when they had reading post-test, they could be easy to read the passage and answer it. The students' reading achievement improved in post-test. It can be seen in the main score which has been mentioned before. Moreover, in applying story grammar in the classroom, the writer felt that the students could enjoy reading. They could actively involve in teaching and learning activity since the students could use their creativity and imaginary.

The result of the research shows that the experimental class (the students who are taught using story grammar strategy) has the mean value (75), meanwhile the control class (the students who are not taught using story grammar strategy) has the mean value (64). It can be said that the achievement score of experimental class is higher than control class.

So, it could be concluded that story grammar strategy is effective to facilitate students' reading comprehension on narrative Text in experimental group. It can be seen at mean value of both groups. There is significant difference in the students' writing achievement between experimental and control group.