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 Daarul Muttaqien Tangerang. The writer takes 50 students as a subject this research. It is divided into two classes. They are 25 students from IX A as the control class and 25 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 Near Peer Role Modeling 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.

NO	Respondents	SCORE				
		Main idea	General information or overview	Comprehending	Grammar	vocabulary
		PRE-TEST			POST-TEST	
1	AA	50			80	
2	AE	65			70	
3	AES	65			80	
4	AF	70			85	
5	AS	60			70	
6	ASS	55			65	
7	DAA	65			70	
8	DFA	70			80	
9	DKN	55			75	
10	EE	50			60	
11	FH	60			70	
12	FNJ	55			65	
13	FRS	60			70	
14	IF	65			75	
15	KN	50			75	
16	KS	60			70	
17	LL	55			65	
18	LM	55			65	
19	LTL	45			70	
20	MF	60			75	
21	MS	40			65	
22	NR	60			60	
23	PDS	60			80	
24	PW	60			70	
25	RY	55			90	

∑X1	1445	1800
M1	57.8	72

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

Mean by formula:

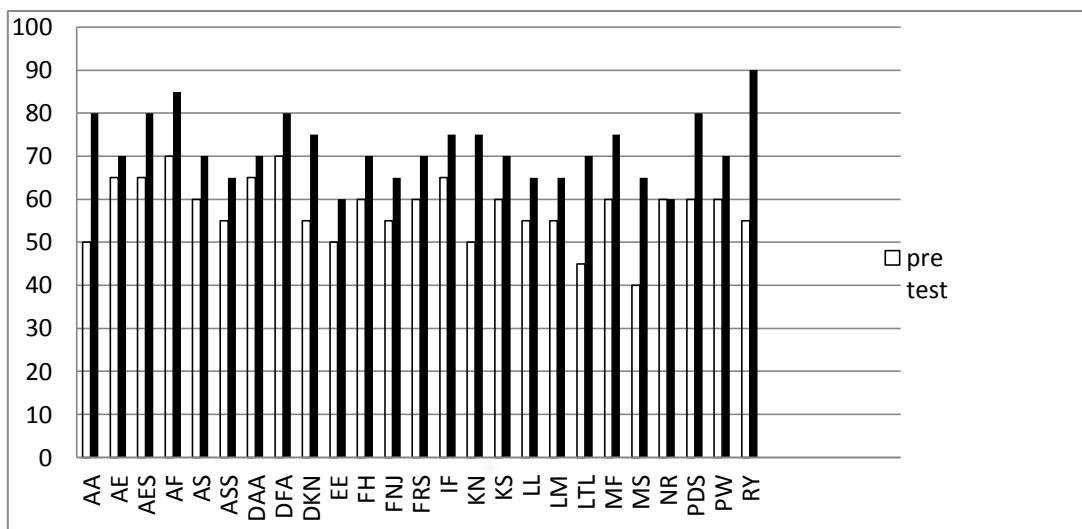| Pre-test	Post-test
$M_1 = \dfrac{\sum X1}{N_1}$	$M_1 = \dfrac{\sum X1}{N_1}$
$M_1 = \dfrac{\sum 1445}{25}$	$M_1 = \dfrac{\sum 1800}{25}$
$=57.8$	$=72$

Note:

∑X1   : The score of pre-test and post-test experimental class

M_1 : Mean of pre-test and post-test experimental class

N_1 : 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 72 >57.8 , it means that using Near Pear Role Modeling 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

NO	Respondents	SCORE				
		Main idea	General information or overview	Comprehending	Grammar	vocabulary
		PRE-TEST			POST-TEST	
1	AAS	55			60	
2	AAL	50			60	
3	CA	70			65	
4	DF	60			60	
5	EAS	65			60	
6	EK	50			55	
7	FFZ	70			70	
8	FAMN	55			60	
9	IPS	70			60	
10	IF	55			50	
11	RTY	60			60	
12	RWN	55			60	
13	SD	65			70	
14	SZ	60			55	
15	SWP	70			65	
16	SNH	45			50	
17	SK	55			60	
18	SA	55			55	
19	VC	50			60	
20	VW	40			55	
21	WPL	55			60	
22	AZ	65			55	
23	ARP	70			60	

24	ES	69	65
25	LFR	75	70
$\sum X1$		1480	1500
M1		59.2	60

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

Mean by formula :

Pre-test   Post-test

$M_2 = \dfrac{\sum X2}{N_2}$ $M_2 = \dfrac{\sum X2}{N_2}$

$M_2 = \dfrac{\sum 1480}{25}$ $M_2 = \dfrac{\sum 1500}{25}$

$= 59.2$ $= 60$

Graphic 4.2

The Score in Pre-test and Post-test in control group
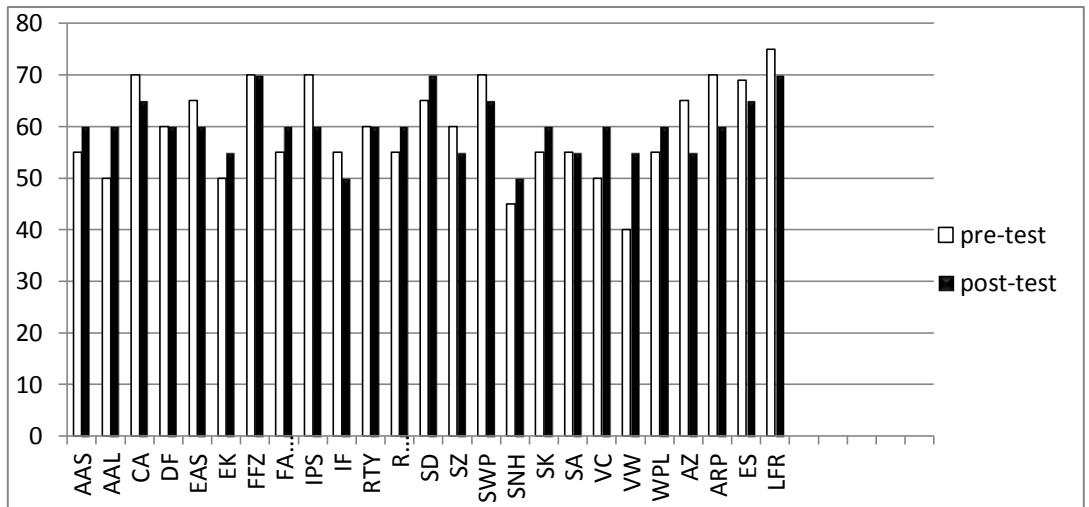
Based on graphic above, it showed that the result of control class did not have the significant improvement, It is seem from average score of post-test that is score of pre-test 60> 59.2. This class also realized can effect improvement but lower than experimental class.

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	(X1-M_1)	(X2-M_2)		
1	80	60	8	0	64	0
2	70	60	-2	0	4	0
3	80	65	8	5	64	25
4	85	60	13	0	169	0
5	70	60	-2	0	4	0
6	65	55	-7	-5	49	25
7	70	70	-2	10	4	100
8	80	60	8	0	64	0
9	75	60	3	0	9	0
10	60	50	-12	-10	144	100
11	70	60	-2	0	4	0
12	65	60	-7	0	49	0
13	70	70	-2	10	4	100
14	75	55	3	-5	9	25
15	75	65	3	5	9	25

16	70	50	-2	-10	4	100
17	65	60	-7	0	49	0
18	65	55	-7	-5	49	25
19	70	60	-2	0	4	0
20	75	55	3	-5	9	25
21	65	60	-7	0	49	0
22	60	55	-12	-5	144	25
23	80	60	8	0	64	0
24	70	65	-2	5	4	25
25	90	70	18	10	324	100
Σ	1800	1500			1350	700
AVERAGE	72	60				

Note:

X1   = Score Post-Test (Experimental Class)

X2   = Score Post-Test (Control Class)

X_1 = X1-M_1 (Mean X1)

X_2 = X2-M_2 (Mean X2)

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
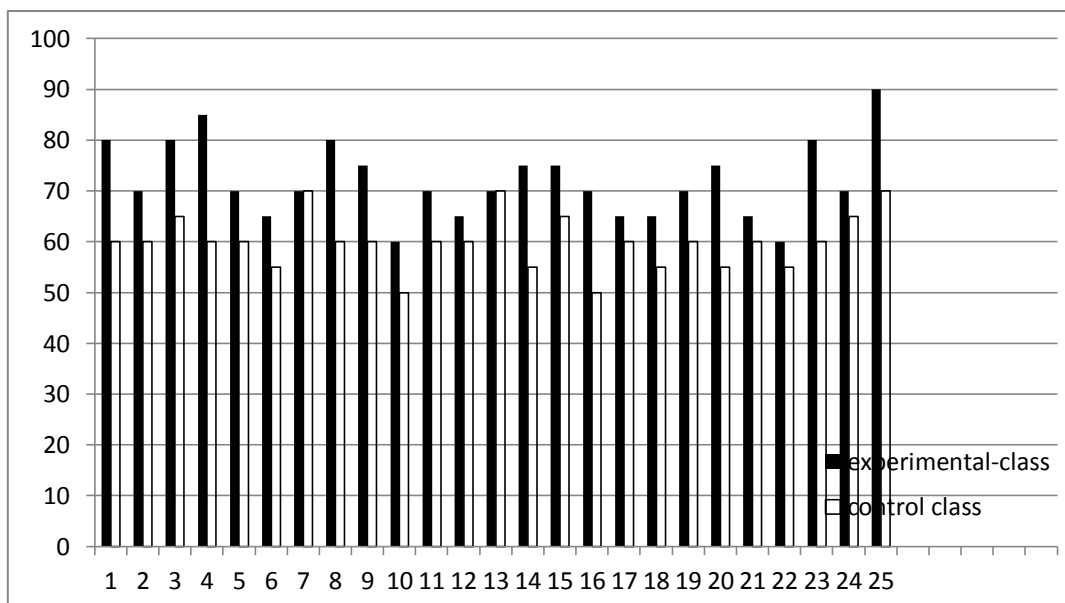
Based on the graphic above the experimental class= 1800 that higher than control class= 1500 had different value. The experimental class was higher than the control class.

From the table above, the writer got the data $\sum X1=1800$, $\sum X2=1500$, $\sum X_1^2=1350$, and $\sum X_2^2= 700$, where as $N_1=25$ 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 X1and X2

Variable X1   Variable X2

$M_1 = \dfrac{\sum X1}{N_1}$ $M_2 = \dfrac{\sum X2}{N_2}$

$M_1 = \dfrac{\sum 1800}{25}$ $M_2 = \dfrac{\sum 1500}{25}$

   $=72$ $=60$

2. Determine t-test

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

$$t = \frac{72 - 60}{\sqrt{\left\{\dfrac{1350 + 700}{25 + 25 - 2}\right\}\left\{\dfrac{25 + 25}{25.25}\right\}}}$$

$$t = \frac{12}{\sqrt{\left\{\dfrac{2050}{48}\right\}\left\{\dfrac{50}{625}\right\}}}$$

$$t = \frac{12}{\sqrt{\{42.70\}\{0.08\}}}$$

$$t = \frac{12}{\sqrt{3.41}}$$

$$t = \frac{12}{1.84}$$

$$t = 6.52$$

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 = N1+N2-2

    = 25+25-2

    = 48

  There is no degree of freedom for 48, so the writer uses the closer df from 48. In degree of significance 5% from 48 t_t = 1.67 and in degree of significance 1% from 48 t_t = 2.40.

  Based on the result statistic calculation, it is obtained that the score of t_o is = 6.52> t_t = 1.67 in degree of significance 5%. The score of t_o = 6.52 > t_t = 2.40 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 $t_{observation}$> t_{table} :   The alternative hypothesis is accepted. It means there is a significant effectiveness of Using Near Peer Role Modeling Method on Students' Reading Ability.

If $t_{observation}$< t_{table} :   The alternative hypothesis is rejected. It means there is no significant effectiveness of Using Near Peer Role Modeling Method on Students' Reading Ability.

C. Interpretation of Data

From the result of pre-test and post-test in experimental class, the writer can be concluded 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 Near Peer Role Modeling toward student's reading comprehension of narrative text and also conducted post-test. The lowest score in post-test is 60 and the highest score in post- test is 90.

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

a. H_a: $t_{observation} > t_{table}$ = It means there is a significant of Using Near Peer Role Modeling Method on Students' Reading Ability.

b. Ho: $t_{observation} < t_{table}$ = It means there is no significant effectiveness of Using Near Peer Role Modeling Method on Students' Reading Ability.

According to the data, the value of $t_{observation}$ is bigger than tt_{able}. $t_{observation} = 6.52 > t_{table} = 1.67$ (5%) or $t_{observation} = 6.52 > t_{table} = 2,40$ (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 using Near Peer Role Modeling toward student's reading comprehension of narrative text. It can be seen that the student got better score by Near Peer Role Modeling Method. This could be seen after comparing the score of pre-test (before Near Peer Role Modeling Method) and post-test (after using Near Peer Role Modeling Method).

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 Near Peer Role Modeling Method has significant effectiveness toward

students' reading comprehension. It has proved that Near Peer Role Modeling Method could increase students reading comprehension of narrative text. Near Peer Role Modeling Method 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 Near Peer Role Modeling. Because they were familiar with the Near Peer Role Modeling, 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 Near Peer Role Modeling 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. Near Peer Role Modeling supplies the story of narrative text that can be drawn by the students. They could use their imaginary and creativity to draw the story of narrative text to understand the story content and it will make teaching reading narrative text be more fun.

The result of the research shows that the experimental class (the students who are taught using Near Peer Role Modeling) has the mean value (72), meanwhile the control class (the students who are not taught using Near Peer Role Modeling Method) has the mean value (60). It can be said that the achievement score of experimental class is higher than control class. The following was the table of pre-test and post-test students' average score.

Table 4.4

The Pre-Test and Post Test Students' Average of

the Experimental and Control Class

Class	The Average of Pre-Test	The Average of Post-Test
Experimental	57.8	72
Control	59.2	60

Based on the result of pre-test and post-test, it could be concluded:

Near Peer Role Modeling was effective to teach narrative text at the third grade of SMP Daarul Muttqien

Tangerang. It can be seen from the result of analysis by using t test formula:

1. The achievement of narrative text of experimental and control group before treatment is equal. It can be seen from the mean of pre-test of experimental class (57.8) and the mean of control group (59.2) before the treatment. There is no significant difference in students' achievement between experiment and control group.

2. The achievement of narrative text of experimental group after treatment was better than experimental group before treatment. It can be seen from the mean of post-test in the experimental class (72) is higher pre-test in experimental class (57.8).

3. The achievement of narrative text of control group after learning process is higher than control group before learning process. It can be seen from the mean of post-test of control class (60) is higher than the mean of pre-test of control class (59.2) after the treatment.

4. The achievement of narrative text of experimental group after treatment is better than control group after treatment. It can be seen from the mean of post-test of the experimental class (72) is bigger than the mean of post-test of control class (60) after the treatment.

5. The case in both groups is the same that there is an improvement in each group's cognitive achievement. However, the improvement on control group is not as much as on the experimental group. It is convinced by the statistical result of the hypothesis test. The test by means of t-test formula shown that t_o= 6.52 >t_{table}= 1.67 at 5% in degree of significance with df = 25+25-2 = 48, and t_o= 6.52 >t_{table}= 2.40 at 1%. From the result of calculation t-test = 6.52. If compared between t_o and t_{table}, t_o>t_{table}. It means H_o is rejected and H_a is accepted. There is a significance difference of average score from pre-test and post-test of control class. From the calculation of interaction A and B, there was a different significance between students who taught by Near Peer Role Modeling Method and students who taught by using non Near Peer Role Modeling Method.

So, it could be concluded Near Peer Role Modeling Method 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.