

CHAPTER IV

THE RESULT AND DISCUSSION

A. Description of Data

In this chapter the writer would like to present the description of the data obtained. As writer stated at the previous chapter that the population of the student of MTs Negeri 1 Serang and the subject of this research is the third grade students. In this research, the writer divided them into two classes, 36 students as experimental class, it is from class IX-1, and 35 students as control class, it is from IX-2.

To find out the effectiveness of Two Stay Two Stray, the writer identify some result, they are: the score of student before treatment, and the score of student after treatment, the differences between pre-test and post-test scores of students and from the students' condition between the students who are learning by two stay and two stray method and the students who are not learning by two stray two stray method.

To know the effectiveness of Two Stay Two Stray combined with Think Talk Write Method to Improve Students' Writing Skill, the writer gives the test to students as the sample both at the experimental class and at control class. The test used in this research divided into two types, there are pre-test and post-test, the pre-test is the test that is given before treatment, and the post-test is given after treatment.

The maximum score of contents/ ideas was 30, the maximum score of organization is 20, the maximum score of vocabulary was 20, the maximum score of language use was 25, and the maximum score of group discussion was 5. The highest total score of all criteria as 100, and the lowest score of all criteria was 65.

The writer describes the data at experimental and control class as bellow:

1. Experimental Class

The writer described the result of a pre-test and post test at the experimental class by the table as follow:

Table 4.1

The Students' score of pre-test and post test at the experimental class

No.	Respondents	Test	
		Pre-test (X1)	Post-test (X2)
1	AF	74	79
2	ASM	77	82
3	AFN	77	84
4	ANN	83	87
5	ARM	81	85
6	DN	82	86
7	DR	72	74
8	DP	79	83
9	DPW	74	78
10	FO	83	87
11	FC	77	83
12	FAW	83	86
13	IR	69	75
14	IF	75	79
15	ID	78	82
16	IM	71	79
17	IH	75	79

18	KL	76	82
19	KLW	79	84
20	MI	78	86
21	MDJ	72	79
22	MIM	81	86
23	MR	72	79
24	MZR	77	83
25	MS	71	76
26	NRI	77	84
27	PN	78	83
28	RDM	74	79
29	RS	69	74
30	SW	73	79
31	SAF	70	75
32	SAA	72	76
33	SM	73	79
34	SN	73	79
35	WA	77	84
36	ZH	74	78
Total		$\Sigma X_1 = 2726$	$\Sigma X_2 = 2913$
Average		75.72	80.91

The *Table 4.1* above shows that the result of the students' pre-test scores on the criteria in writing text at the experimental class. The data shows that the maximum score in Pre Test was 83 and the minimum score was 69. The different with Post Test score, the maximum score was 87 and the minimum score was 74. While the result of a post-test score at the experimental class got better.

Based on the explanation above, it is shows the result of post-test at the experimental class got the significant improvement after giving treatment, it is seen

from the average of the post-test was better than the average of the pre-test, that $75.72 < 80.91$.

2. Control Class

The writer describes the result of a pre-test at the control class by the table below:

Table 4.2

The Students' score of pre-test and post test at the control class

No.	Respondents	TEST	
		Pre-test (Y1)	Post-test (Y2)
1	AG	79	83
2	AM	68	72
3	AF	69	74
4	AS	77	83
5	BH	67	74
6	BI	70	76
7	DS	80	85
8	FR	68	72
9	HW	68	72
10	HN	70	74
11	HNK	75	77
12	IR	70	76
13	IF	76	80
14	IT	76	77
15	JA	79	85
16	KL	75	79

17	LMJ	78	84
18	MN	67	74
19	MS	69	73
20	MA	77	82
21	MD	69	75
22	MRR	75	78
23	MJ	67	74
24	NP	70	76
25	NS	68	75
26	NL	77	83
27	NK	75	79
28	NAH	69	75
29	NOP	79	84
30	RDP	76	82
31	RPR	67	75
32	RDE	71	77
33	RN	69	73
34	SK	75	79
35	UH	79	84
Total		$\Sigma Y1 = 2544$	$\Sigma Y2 = 2723$
Average		72.68	77.8

The *Table 4.2* shows that the results of the students' pre-test and post test scores on the criteria in writing at the control class. That the data shows the maximum score in pre test was 80, and the minimum score was 67. The different with post test score, the maximum score was 85 and the minimum score was 72. average of score of the pre-test was 72.68. While the result of a post-test score at the experimental class got better.

Based on the explanation above, it is shows the result of post-test at the experimental class got the significant improvement after giving treatment, it is seen from the average of the post-test was better than the average of the pre-test, that $72.68 < 77.8$.

B. Data Analysis

1. Experimental Class

The writer analysis the data by comparing students' score in pre-test and post-test in experimental class. It is explained by the table as follow :

Table 4.3

The different score between pre-test and post-test at experiment class

No.	Respondents	Test		Deviation ($X_2 - X_1$)	Squared Deviation (X^2)
		Pre-test (X_1)	Post-test (X_2)		
1	AF	74	79	5	25
2	ASM	77	82	5	25
3	AFN	77	84	7	49
4	ANN	83	87	4	16
5	ARM	81	85	4	25
6	DN	82	86	4	16
7	DR	72	74	2	4
8	DP	79	83	4	16
9	DPW	74	78	4	16

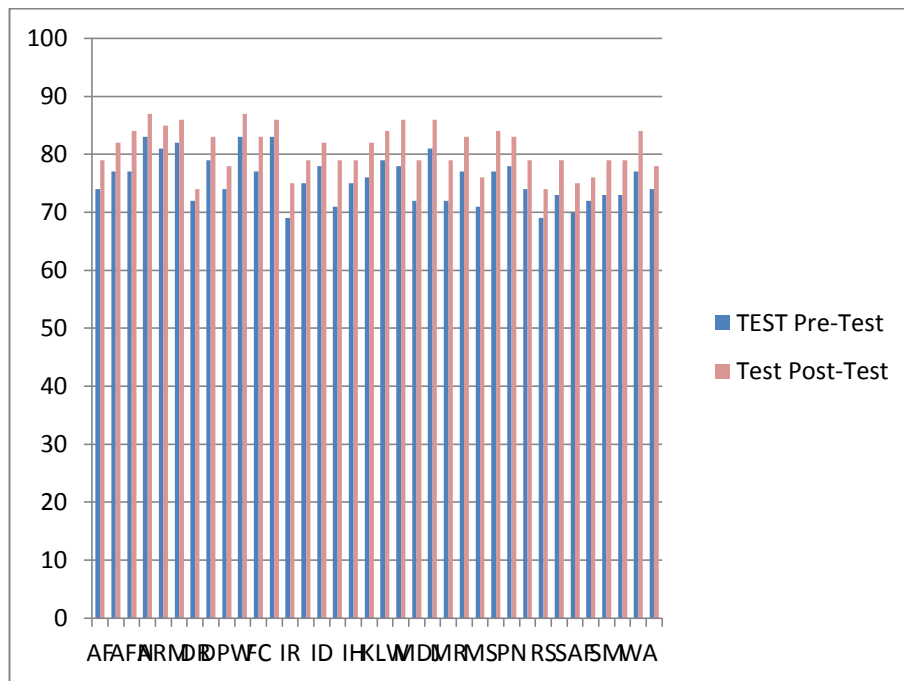
10	FO	83	87	4	16
11	FC	77	83	6	36
12	FAW	83	86	5	25
13	IR	69	75	6	36
14	IF	75	79	4	16
15	ID	78	82	6	36
16	IM	71	79	8	64
17	IH	75	79	4	16
18	KL	76	82	6	36
19	KLW	79	84	5	25
20	MI	78	86	8	64
21	MDJ	72	79	7	49
22	MIM	81	86	5	25
23	MR	72	79	7	49
24	MZR	77	83	6	36
25	MS	71	76	5	25
26	NRI	77	84	7	49
27	PN	78	83	5	25
28	RDM	74	79	5	25
29	RS	69	74	5	25
30	SW	73	79	6	36
31	SAF	70	75	5	25
32	SAA	72	76	4	16
33	SM	73	79	6	36
34	SN	73	79	6	36
35	WA	77	84	7	49
36	ZH	74	78	4	16

Total	$\Sigma X_1 = 2726$	$\Sigma X_2 = 2913$	$\Sigma X = 195$	$\Sigma X^2 = 1075$
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Table 4.3 above shows that the score difference between pre-test and post-test at the experimental class. The difference score was the results from the post-test scores subtract with pre-test score. There was significant difference score between pre-test and post-test at the experimental class, the biggest difference score was 8 and the lowest difference score was 2. It is described by the graphic below:

Graphic 4.1

The difference score between pre-test and post-test of the experimental class



Graphic 4.1 above showed that the results of students' pre-test and post-test scores on the criteria in writing procedure text at the experimental class. Data showed the pre-test score, the maximum score was 83, and the minimum score was 69. There are three students who got the maximum and three students who got the minimum score. For the post-test score, the

maximum score was 87 and the minimum score was 74. There are two students who got the maximum score and two students who got the minimum score.

2. Control Class

The writer analyzed the data by comparing student' score in pre-test and post-test at the control class, explaining by the table below:

Table 4.4

The different score between pre-test and post-test at control class

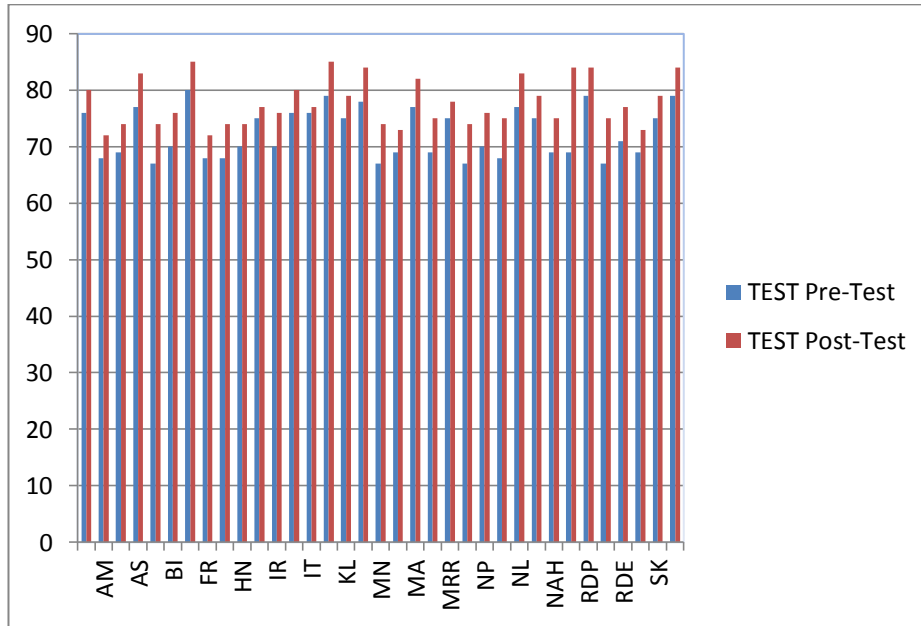
No.	Respondents	TEST		Deviation (Y=Y2-Y1)	Squared Deviation (Y ²)
		Pre-test (Y1)	Post-test (Y2)		
1	AG	79	83	4	16
2	AM	68	72	4	16
3	AF	69	74	5	25
4	AS	77	83	6	36
5	BH	67	74	7	49
6	BI	70	76	6	36
7	DS	80	85	5	25
8	FR	68	72	4	16
9	HW	68	72	6	36
10	HN	70	74	4	16
11	HNK	75	77	2	4
12	IR	70	76	6	36
13	IF	76	80	4	16
14	IT	76	77	1	1
15	JA	79	85	6	36

16	KL	75	79	4	16
17	LMJ	78	84	6	36
18	MN	67	74	7	49
19	MS	69	73	4	16
20	MA	77	82	5	25
21	MD	69	75	6	36
22	MRR	75	78	3	9
23	MJ	67	74	7	49
24	NP	70	76	6	36
25	NS	68	75	7	49
26	NL	77	83	6	36
27	NK	75	79	4	16
28	NAH	69	75	6	36
29	NOP	79	84	5	25
30	RDP	76	82	6	36
31	RPR	67	75	8	64
32	RDE	71	77	6	36
33	RN	69	73	4	16
34	SK	75	79	5	25
35	UH	79	84	5	25
Total		$\Sigma Y_1 = 2544$	$\Sigma Y_2 = 2723$	$\Sigma Y = 177$	$\Sigma Y^2 = 916$

Table 4.4 above shows that the score difference between pre-test and post-test at the control class. The difference score is the results from the post-test score subtract pre-test score. There is significant difference scores between pre-test and post-test at the control class, the biggest difference score was 8, and the lowest different was 1.

Graphic 4.2

The different score between pre-test and post-test of control class



Graphic 4.2 above shows that the results of the students' pre-test and post-test scores on the criteria in writing text at the control class.

The Data showed in the pre-test score the maximum was 80, and the minimum was 67. There is one a student who got the maximum score and four students who got the minimum score. From the post-test score, the maximum score is 85 and the minimum score is 71. There are two students who got the maximum score and one student who got the minimum score.

C. Statistical Hypothesis Testing

To test the hypothesis the data obtained from both pre-test and post-test are analyzed and calculated by using formula. From the above data is gotten, the writer t-test calculated using steps as follow:

1. Determine mean of score experimental class (MX), with formula:

$$\begin{aligned}
 M_X &= \frac{\sum X}{N} \\
 &= \frac{195}{36} \\
 &= 5,41
 \end{aligned}$$

The result above shows about the average score (mean) of the experimental class. The writer got the data from $\sum x_1$, $\sum x_2$, and $\sum x$. Afterwards the researcher calculated the data based on the formula above.

2. Determine mean of score control class (MY), with formula:

$$\begin{aligned}
 M_Y &= \frac{\sum Y}{N} \\
 &= \frac{177}{35} \\
 &= 5,05
 \end{aligned}$$

The result above shows about the average score (mean) of the experimental class. The writer gets the data from $\sum Y_1$, $\sum Y_2$, and $\sum Y$. Afterwards the researcher calculates the data based on the formula above.

3. Determine the total square of error in experimental class, with formula:

$$\begin{aligned}
 \sum x^2 &= \sum x^2 - \frac{(\sum x)^2}{N} \\
 &= 1075 - \frac{(195)^2}{36} \\
 &= 1075 - \frac{38025}{36} \\
 &= 1075 - 1056,25 \\
 &= 18,75
 \end{aligned}$$

The result above shows about the score quadrates at the experimental class. The writer getst the data from $\sum x_1$, $\sum x_2$, $\sum x$ and $\sum x^2$. Afterwards she calculated the data based on the formula above.

4. Determine the total square of error in control class, with formula:

$$\begin{aligned}
 \Sigma Y^2 &= \Sigma Y^2 - \frac{(\Sigma Y)^2}{N} \\
 &= 916 - \frac{(177)^2}{35} \\
 &= 916 - \frac{31329}{35} \\
 &= 916 - 895,11 \\
 &= 20,89
 \end{aligned}$$

The result above showed about the score quadrates at the control class. The writer got the data from ΣY_1 , ΣY_2 , ΣY and ΣY^2 . Afterwards she calculated the data based on the formula above.

5. Calculate the t-Test

$$\begin{aligned}
 t &= \frac{M_x - M_y}{\sqrt{\left(\frac{\Sigma x^2 + \Sigma y^2}{N_x + N_y - 2}\right) \left(\frac{N_x + N_y}{N_x \cdot N_y}\right)}} \\
 &= \frac{5,41 - 5,05}{\sqrt{\left(\frac{18,75 + 20,89}{36 + 35 - 2}\right) \left(\frac{36 + 35}{36 \cdot 35}\right)}} \\
 &= \frac{0,36}{\sqrt{\left(\frac{39,64}{69}\right) \left(\frac{71}{1260}\right)}} \\
 &= \frac{0,36}{\sqrt{(0,53) (0,05)}} \\
 &= \frac{0,36}{\sqrt{0,0265}}
 \end{aligned}$$

$$= \frac{0,36}{0,16}$$

$$= 2,25$$

6. Determine the t_{table} with significance 5%

$$Df = N_X + N_Y - 2$$

$$= 36 + 35 - 2$$

$$= 69$$

$$= 1,995$$

Based on the calculation above is known that t_{table} with significant 5% = 1,995, $t_{observation} = 2,25 > t_{table} = 1,995$. it is conclude that the writer rejected $H_0:t_0 < t_t$: it means there is no significant effect of Two Stay Two Stray combined with Think Talk Write method to improve students' writing skill. And accepted $H_a:t_0 > t_t$: it means there is significant effect of Two Stay Two Stray combined with Think Talk Write method to improve students' writing skill.

From the result of the calculation is obtained the value of the test t_0 2,25. The writer uses degree of significance of the t_{table} of 5%. it can be seen that on the $df = 69$ and on the degree of significance of 5% the value of the degree significance is 1,995, comparing the t_0 with value of degree significance, the result $t_{count} = 2,25 > t_{table} = 1,995$. Since t_0 from score obtained from the result of calculating, the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected.

D. Interpretation of Data

The analysis is aimed to know the effectiveness of two stray two stray combined with think talk write method to improve students' writing skill . we have already known that the mean score of experimental class is 75,72 in pre-test and 80,91 in post-test. But the mean score of control class is 72,68 in pre-

test and 77,8 in post-test. Based on the calculation above the experiment class gets better than control class.

Before deciding the result of hypothesis, the writer purposes the interpretation toward procedure as follow:

- a. If $t_{\text{observation}} > t_{\text{table}}$: it means there is significant effectiveness two stay two stray combined with think talk write method to improve students' writing skill.
- b. If $t_{\text{observation}} < t_{\text{table}}$: it means there is no effectiveness between effectiveness two stay two stray combined with think talk method write to improve students' writing skill.

According to the data, the value of $t_{\text{observation}}$ is bigger than t_{table} .
 $t_{\text{observation}} = 2,25 > t_{\text{table}} = 1,995$ (5%), so H_0 is rejected and H_a is accepted.

From the result above, the writer gives conclusion that it means there is a significant effectiveness of Two Stay Two Stray combined with Think Talk Write method to improve students' writing skill. It can be seen that the student get better score by two stay two stray technique. Two stay two stray structure which is one type of cooperative learning groups provide opportunities to share results and information to other groups, and will lead students to be active, both discussion, asked questions, find answer explaining and listening to material describe by a friends.

This could be seen after comparing the score of pre-test (before using two stay two stray technique) and post-test (after using two stay two stray technique). The result of the student's own creativity. From the activities that students do, students become easier to describe something in writing, because students have been exploring and digging information actively and independently. so the idea of writing to describe something can be easily stated.