CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

In this chapter, the writer would like to discuss the result of the study which covers the data presentation, the result of data analysis, and discussion.

A. Data Presentation

In this chapter, the writer presented the obtained data. The data were presented in the following steps.

1. Distribution of Pre Test Scores of the Experiment Group

The pre test scores of the experiment group were presented in the following table.

Table 4.1 The Description of Pre Test Scores of The Data Achieved by The Students in Experiment Group

STUDENTS' CODE	SCORES
E1	40
E2	42
E3	52
E4	53
E5	54
E6	48
E7	48
E8	57
E9	63
E10	52
E11	46
E12	57
E13	75
E14	56
E15	55
E16	68
E17	54
E18	70

E19	51
E20	70
E21	70
E22	51
E23	53
E24	48
E25	52
E26	60

The Highest Score (H) = 75

The Lowest Score (L) = 40

The Range of Score (R) = H – L + 1

= 75 – 40 + 1

= 36

The Class Interval (K) = 1 + (3.3) x Log n

= 1 + (3.3) x Log 26

= 1 + (3.3) x 1.41

= 1 + 4.653

= 5.653

= 6

Interval of Temporary (I) $= \frac{R}{K} = \frac{36}{6}$

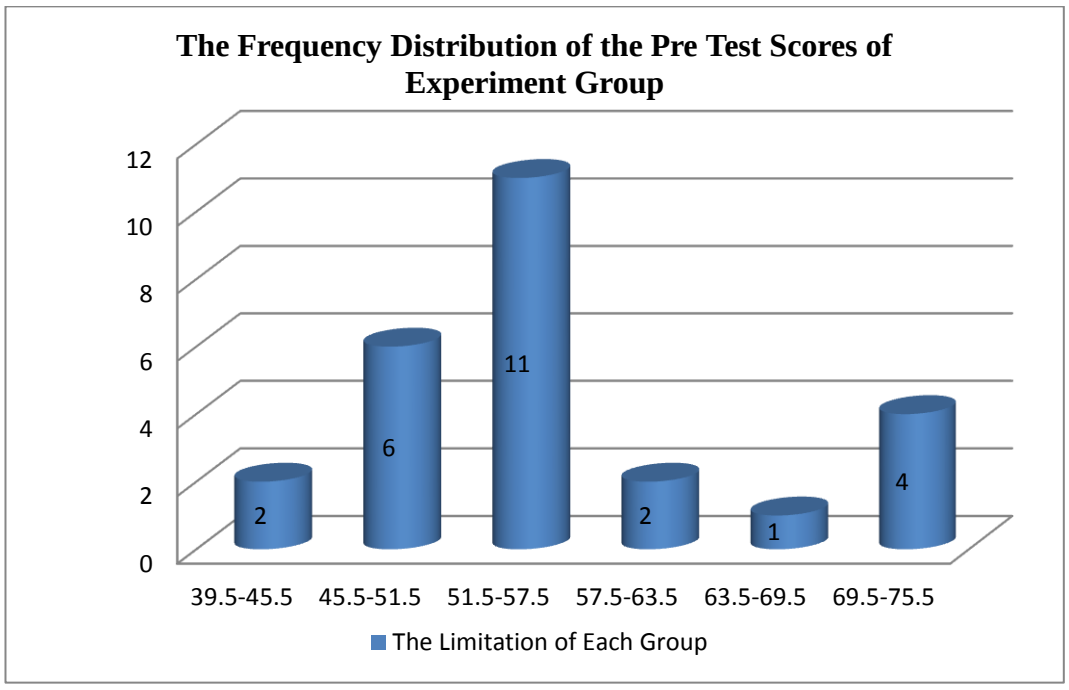
= 6

So, the range of score was 36, the class interval was 6, and interval of temporary was 6. Then, it was presented using frequency distribution in the following table:

Table 4.2 The Frequency Distribution of the Pre Test Scores of the Experiment Group

Class (K)	Interval (I)	Frequency (F)	Midpoint (X)	The Limitation of Each Group	Frequency Relative (%)	Frequency Cumulative (%)
1	70 - 75	4	72,5	69,5 – 75,5	15,384	100
2	64 – 69	1	66,5	63,5 – 69,5	3,846	84,613
3	58 – 63	2	60,5	57,5 – 63,5	7,692	80,767
4	52 – 57	11	54,5	51,5 – 57,5	42,307	42,307
5	46 - 51	6	48,5	45,5 – 51,5	23,076	65,383
6	40 – 45	2	42,5	39,5 – 45,5	7,692	73,075
		$\sum F = 26$			**$\sum F = 100$**	

Figure 4.1. The Frequency Distribution of the Pre Test Score of the Experiment Group



The table and figure above showed the pre test score of students in experiment group. It could be seen that there were 2 students who got score 39,5-45,5. There were 6 students who got score 45,5-51,5. There were 11 students who got score 51,5-57,5. There were 2 students who got score 57,5-63,5. There was 1 student who got score 63,5-69,5. And there were 4 students who got score 69,5-75,5.

The next step, the writer tabulated the scores into the table for the calculation of mean, median, and modus as follows:

Table 4.3 The Calculation of Mean, Median, and Modus of the Pre Test Scores of the Experiment Group

(I)	(F)	(X)	FX	fk (a)	fk (b)
70 - 75	4	72,5	290	4	26
64 – 69	1	66,5	66,5	5	22
58 – 63	2	60,5	121	7	21
52 – 57	11	54,5	467,5	18	19
46 - 51	6	48,5	291	24	8
40 – 45	2	42,5	109	26	2
	N = 26		$\sum FX$ = 1345		

a. Mean

$$Mx = \frac{\sum fX}{N}$$

$$= \frac{1345}{26}$$

$$= 51.7$$

b. Median

$$Mdn = l + \frac{\frac{1}{2}N - fk_b}{f_i} \; x \; i$$

$$= 51.5 + \frac{13-19}{11} \text{ X } 5$$

$$= 51.5 + \frac{-6}{11} \text{ x } 5$$

= 51.5 + (-0.54) x 5
= 51.5 + (-2.72)
= 48.77

c. Modus

Mo $= \ell + \left(\frac{fa}{fa+fb}\right) x\ i$

$$= 51.5 + \left(\frac{2}{2+6}\right) \text{ x } 5$$

$$= 51.5 + \left(\frac{2}{8}\right) \text{ x } 5$$

= 51.5 + 1.25

= 52.75

The calculation above showed of mean value was 51.7, median value was 48.77, and modus value was 52.75 of the pre test of the experiment group. The last step, the writer tabulated the scores of pre test of experiment group into the table for the calculation of standard deviation and the standard error as follows:

Table 4.4 The Calculation of the Standard Deviation and the Standard Error of the Pre Test Scores of Experimental Group

Interval (I)	**f**	**x'**	**fx'**	**x'^{2}**	**fx'^{2}**
70 - 75	4	2	8	4	64
64 – 69	1	1	1	1	1
58 – 63	2	0	0	0	0
52 – 57	11	-1	-11	1	121
46 - 51	6	-2	-12	4	144
40 – 45	2	-3	-6	9	36
	N = 26		fx' = -20		fx'^{2} = 366

a. Standard Deviation

$$SD_1 = i\sqrt{\frac{\sum fx'^2}{N} - \frac{(fx')^2}{N}}$$

$$SD_1 = 5\sqrt{\frac{366}{26} - \left(\frac{-20}{26}\right)^2}$$

$$SD_1 = 5\sqrt{14.076 - (-0.769)^2}$$

$$SD_1 = 5\sqrt{14.076 - 0.591}$$

$$SD_1 = 5\sqrt{13.485}$$

SD_1 = 5 x 3. 672192805395708

SD_1 = 18.360

b. Standard Error

$$SEM_1 = \frac{SD_1}{\sqrt{N_1 - 1}}$$

$$SEM_1 = \frac{18.360}{\sqrt{26 - 1}}$$

$$SEM_1 = \frac{18.360}{\sqrt{25}}$$

$$SEM_1 = \frac{18.360}{5}$$

SEM_1 = 3.672

The result of calculation showed the standard deviation of pre test score of experiment group was 18.360 and the standard error of pre test score of experiment group was 3.672.

2. Distribution of Pre Test Scores of the Control Group

The pre test scores of the control group were presented in the following table.

Table 4.5 The Description of Pre Test Scores of The Data Achieved by The Students in Control Group

STUDENTS' CODE	SCORES
C1	80
C2	70
C3	60
C4	70
C5	56
C6	45
C7	65
C8	50
C9	65
C10	44
C11	53
C12	53
C13	42
C14	60
C15	53
C16	60
C17	55
C18	55
C19	42
C20	48
C21	45
C22	80
C23	75
C24	54
C25	40
C26	48

The Highest Score (H) = 80

The Lowest Score (L) = 40

The Range of Score (R) = H – L + 1

= 80 – 40 + 1

= 41

The Class Interval (K) = 1 + (3.3) x Log n

= 1 + (3.3) x Log 26

= 1 + (3.3) x 1.41

= 1 + 4.653

= 5.653

= 6

Interval of Temporary (I) = $\frac{R}{K} = \frac{41}{6}$

= 6,833

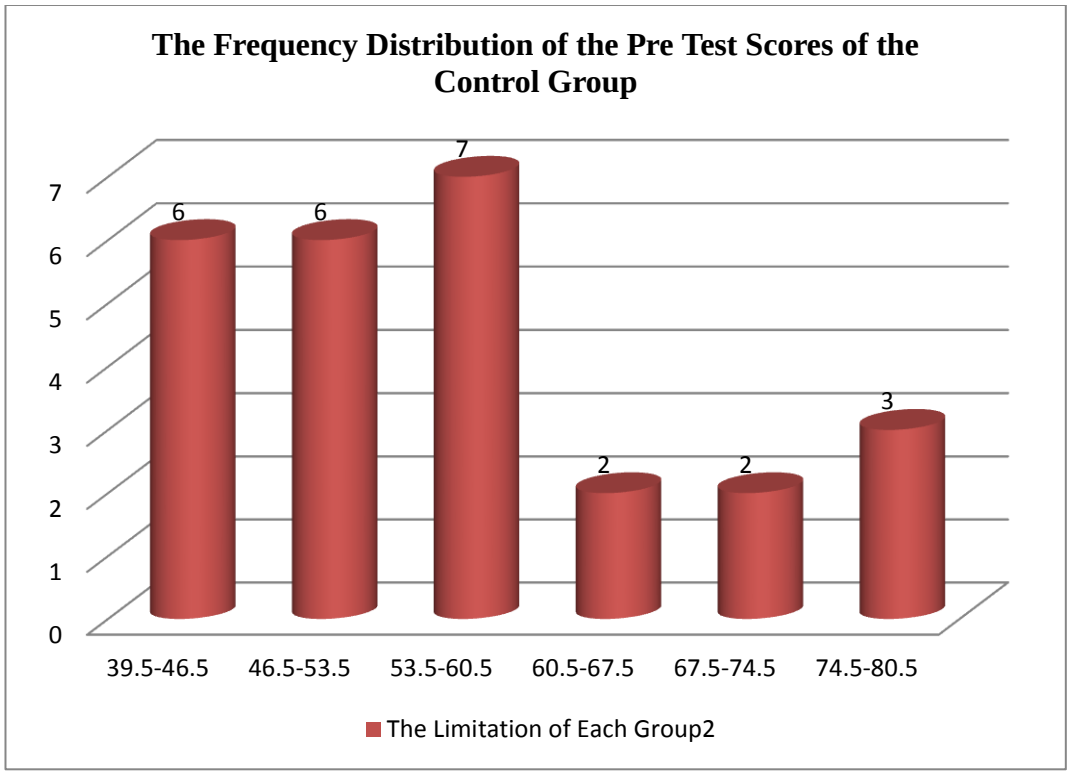
= 7

So, the range of score was 50, the class interval was 6, and interval of temporary was 8. Then, it was presented using frequency distribution in the following table:

Table 4.6 The Frequency Distribution of the Pre Test Scores of the Control Group

Class (K)	Interval (I)	Frequency (F)	Midpoint (X)	The Limitation of Each Group	Frequency Relative (%)	Frequency Cumulative (%)
1	75-80	3	77	74.5-80.5	11,538	100
2	68-74	2	71	67.5-74.5	7,692	87,829
3	61-67	2	64	60.5-67.5	7,692	80,137
4	54-60	7	57	53.5-60.5	26,293	72,445
5	47-53	6	50	46.5-53.5	23,076	46,152
6	40-46	6	43	39.5-46.5	23,076	23,076
		$\sum F$ = 26			**$\sum F$ = 100**	

Figure 4.2 The Frequency Distribution of the Pre Test Scores of the Control Group



The table and the figure showed the pre test score of students in control group. It could be seen that there were 6 students who got score 39.5 – 46.5. There were 6 students who got score 46.5 – 53.5. There were 7 students who got score 53.5 – 60.5. There were 2 students who got score 60.5 – 67.5. There were 2 students who got score 67.5 – 74.5 and there were 3 students who got score 74.5 – 80.5.

The next step, the writer tabulated the score into the table for the calculation of mean, median, and modus as follows:

Table 4.7 The Calculation of Mean, Median, and Modus of the Pre Test Scores of the Control Group

(I)	(F)	(X)	FX	fk (a)	fk (b)
75-80	3	77	231	3	26
68-74	2	71	142	5	23
61-67	2	64	128	7	21
54-60	7	57	399	14	19
47-53	6	50	300	20	12
40-46	6	43	258	26	6
	N = 26		$\sum FX$ = 1458		

a. Mean

Mx $= \frac{\sum fX}{N}$

$= \frac{1458}{26}$

= 56.076

b. Median

Mdn $= l + \frac{\frac{1}{2}N - fk_b}{f_i} x\ i$

= 53.5 + $\frac{13-12}{7}$ X 7

= 53.5 + $\frac{1}{7}$ x 7

= 53.5 + 0.142 x 7

= 53.5 + 1

= 54.5

c. Modus

Mo $= \ell + \left(\frac{fa}{fa+fb}\right) x\ i$

$= 53.5 + \left(\frac{2}{2+6}\right)$ x 7

$= 53.5 + \left(\frac{2}{8}\right)$ x 7

= 53.5 + 0.25 x 7

= 55.25

The calculation above showed of mean value was 56.076, median value was 54.5, and modus value was 55.25 of the pre test of the control group.

The last step, the writer tabulated the scores of pre test of control group into the table for the calculation of standard deviation and the standard error as follows:

Table 4.8 The Calculation of the Standard Deviation and the Standard Error of the Pre Test Scores of Control Group

Interval (I)	f	x'	fx'	x'^2	fx'^2
75-80	3	3	9	9	81
68-74	2	2	4	4	16
61-67	2	1	2	1	4
54-60	7	0	0	0	0
47-53	6	-1	-6	1	36
40-46	6	-2	-12	4	144
	N = 26		fx' = -3		fx'^2 = 281

a. Standard Deviation

$$SD_2 = i\sqrt{\frac{\sum fx'^2}{N} - \frac{(fx')^2}{N}}$$

$$SD\,2 = 7\sqrt{\frac{281}{26} - \left(\frac{-3}{26}\right)^2}$$

$$SD_2 = 7\sqrt{10.807 - (-0.115)^2}$$

$$SD_2 = 7\sqrt{10.807 - 0.013225}$$

$$SD_2 = 7\sqrt{10.793775}$$

SD_2 = 7 x 3.285388104927635

SD_2 = 22.995

b. Standard Error

$$SEM_2 = \frac{SD\,2}{\sqrt{N_2 - 1}}$$

$$SEM_2 = \frac{22.995}{\sqrt{26 - 1}}$$

$$SEM_2 = \frac{22.995}{\sqrt{25}}$$

$$SEM_2 = \frac{22.995}{5}$$

SEM_2 = 4.599

The result of calculation showed the standard deviation of pre test score of control group was 22.995 and the standard error of pre test score of control group was 4.599.

3. Distribution of Post Test Scores of the Experiment Group

The post test scores of the experiment group were presented in the following table.

Table 4.9 The Description of Post Test Scores of The Data Achieved by The Students in Experiment Group

STUDENTS' CODE	SCORES
E1	80
E2	78
E3	65
E4	55
E5	75
E6	83
E7	80
E8	73
E9	78
E10	65
E11	80
E12	63
E13	70
E14	65
E15	57
E16	77
E17	78
E18	65
E19	77
E20	70
E21	76
E22	80
E23	60
E24	75
E25	75
E26	60

The Highest Score (H) = 83

The Lowest Score (L) = 55

The Range of Score (R) = H – L + 1

= 83 – 55 + 1

= 29

The Class Interval (K) = 1 + (3.3) x Log n

= 1 + (3.3) x Log 26

= 1 + (3.3) x 1.41

= 1 + 4.653

= 5.653

= 6

Interval of Temporary (I) $= \frac{R}{K} = \frac{29}{6}$

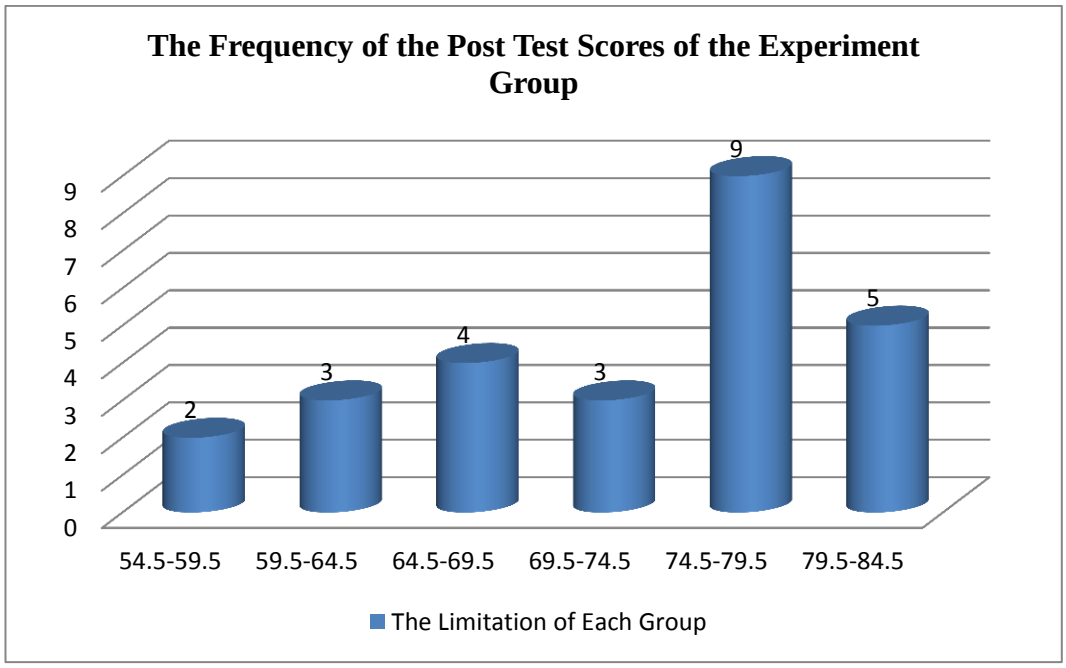
= 4,8 = 5

So, the range of score was 36, the class interval was 6, and interval of temporary was 5. Then, it was presented using frequency distribution in the following table:

Table 4.10 The Frequency Distribution of the Post Test Score of the Experiment Group

Class (K)	Interval (I)	Frequency (F)	Midpoint (X)	The Limitation of Each Group	Frequency Relative (%)	Frequency Cumulative (%)
1	80-84	5	82	79.5-84.5	19.230	100
2	75-79	9	77	74.5-79.5	34.615	80.613
3	70-74	3	72	69.5-74.5	11.384	45.998
4	65-69	4	67	64.5-69.5	15.384	34.614
5	60-64	3	62	59.5-64.5	11.538	19.23
6	55-59	2	57	54.5-59.5	7.692	7.692
		$\sum F$ = 26			**$\sum F$ = 100**	

Figure 4.3 The Frequency Distribution of the Post Test Scores of the Experiment Group



The table and figure above showed the post test score of students in experiment group. It could be seen that there were 2 students who got score 54.5-59.5. There were 3 students who got score 59.5 – 64.5. There were 4 students who got score 64.5 – 69.5. There were 3 students who got 69.5 – 74.5. There were 9 students who got 74.5 – 79.5 and there were 5 students who got 79.5 – 84.5.

The next step, the writer tabulated the score into the table for the calculation of mean, median, and modus as follows:

Table 4.11 The Calculation of Mean, Median, and Modus of the Post Test Scores of the Experiment Group

(I)	(F)	(X)	FX	fk (a)	fk (b)
80-84	5	82	410	5	26
75-79	9	77	693	14	21
70-74	3	72	216	17	12
65-69	4	67	268	21	9
60-64	3	62	186	24	5

55-59	2	57	114	26	2
	N = 26		$\sum FX$ = 1887		

a. Mean

Mx $= \frac{\sum fX}{N}$

$= \frac{1887}{26}$

= 72.576

b. Median

Mdn $= l + \frac{\frac{1}{2}N - fk_b}{f_i} \; x \; i$

= 74.5 + $\frac{13-12}{9}$ X 6

= 74.5 + $\frac{1}{9}$ x 6

= 74.5 + 0.1 x 6

= 74.5 + 0.6

= 75.1

c. Modus

Mo $= \ell + \left(\frac{fa}{fa+fb}\right) x \; i$

$$= 74.5 + \left(\frac{5}{5+12}\right) \text{ x } 6$$

$$= 74.5 + \left(\frac{5}{17}\right) \text{ x } 6$$

$$= 74.5 + 0.29 \text{ x } 6$$
$$= 74.5 + 1.74$$
$$= 76.24$$

The calculation above showed of mean value was 72.576, median value was 75.1, and modus value was 76.24 of the post test of the experiment group.

The last step, the writer tabulated the scores of post test of the experiment group into the table for the calculation of standard deviation and the standard error as follows:

Table 4.12 The Calculation of the Standard Deviation and the Standard Error of the Post Test Scores of Experiment Group

Interval (I)	f	x'	fx'	x'^2	fx'^2
80-84	5	2	10	4	20
75-79	9	1	9	1	9
70-74	3	0	0	0	0
65-69	4	-1	-4	1	4
60-64	3	-2	-6	4	12
55-59	2	-3	-6	9	18
	N = 26		fx' = 3		$fx'^2 = 63$

a. Standard Deviation

$$SD_1 = i\sqrt{\frac{\sum fx'^2}{N} - \frac{(fx')^2}{N}}$$

$$SD_1 = 5\sqrt{\frac{63}{26} - \left(\frac{3}{26}\right)^2}$$

$$SD_1 = 5\sqrt{2.423 - (0.115)^2}$$

$$SD_1 = 5\sqrt{2.423 - 0.013225}$$

$$SD_1 = 5\sqrt{2.409}$$

$SD_1 = 5 \times 1.552$

$SD_1 = 7.76$

b. Standard Error

$$SEM_1 = \frac{SD_1}{\sqrt{N_1 - 1}}$$

$$SEM_1 = \frac{7.76}{\sqrt{26 - 1}}$$

$$SEM_1 = \frac{7.76}{\sqrt{25}}$$

$$SEM_1 = \frac{7.76}{5}$$

$SEM_1 = 1.552$

The result of calculation showed the standard deviation of post test score of experiment group was 7.76 and the standard error of post test score of experiment group was 1.552.

4. Distribution of Post Test Scores of the Control Group

The post test scores of the control group were presented in the following table.

Table 4.13 The Description of Post Test Scores of The Data Achieved by The Students in Control Group

STUDENTS' CODE	SCORES
C1	70
C2	65
C3	65
C4	75
C5	66
C6	72
C7	77
C8	71
C9	65
C10	70
C11	73
C12	60
C13	70
C14	84
C15	73
C16	73
C17	70
C18	64
C19	70
C20	77
C21	70
C22	71
C23	65
C24	77
C25	60
C26	75

The Highest Score (H) = 84

The Lowest Score (L) = 60

The Range of Score (R) = H – L + 1

= 84 – 60 + 1

= 25

The Class Interval (K) = 1 + (3.3) x Log n

= 1 + (3.3) x Log 26

= 1 + (3.3) x 1.41

= 1 + 4.653

= 5.653

= 6

Interval of Temporary (I) $= \frac{R}{K} = \frac{25}{6}$

= 4,167

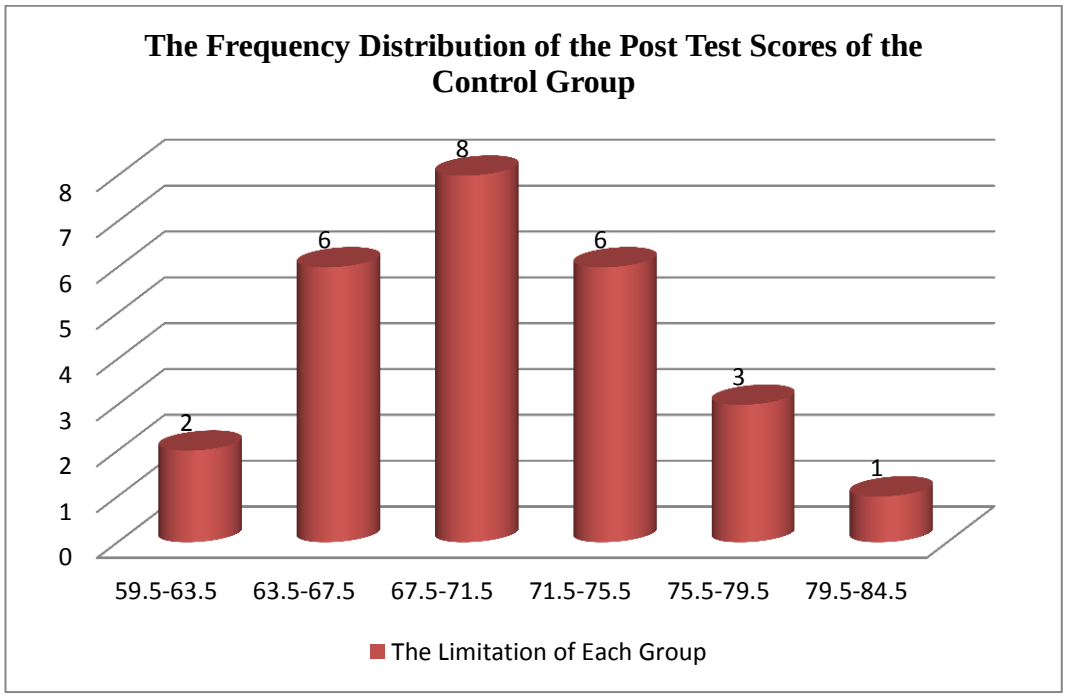
= 5

So, the range of score was 25, the class interval was 6, and interval of temporary was 5. Then, it was presented using frequency distribution in the following table:

Table 4.14 The Frequency Distribution of the Post Test Scores of the Control Group

Class (K)	Interval (I)	Frequency (F)	Midpoint (X)	The Limitation of Each Group	Frequency Relative (%)	Frequency Cumulative (%)
1	80-84	1	82	79.5-84.5	3.846	100
2	76-79	3	77.5	75.5-79.5	11.538	88.458
3	72-75	6	73.5	71.5-75.5	23.076	76.92
4	68-71	8	69.5	67.5-71.5	30.769	53.844
5	64-67	6	65.5	63.5-67.5	23.076	30.768
6	60-63	2	61.5	59.5-63.5	7.692	7.692
		$\sum F$ = 26			**$\sum F$ = 100**	

Figure 4.4 The Frequency Distribution of the Post Test Scores of the Control Group



The table and the figure showed the post test score of students in control group. It could be seen that there were 2 students who got score 59.5 – 63.5. There were 6 students who got score 63.5 – 67.5. There were 8 students who got score 67.5 – 71.5. There were 6 students who got score 71.5 – 75.5. There were 3 students who got score 75.5 – 79.5 and there was 1 student who got score 79.5 – 84.5.

The next step, the writer tabulated the score into the table for the calculation of mean, median, and modus as follows:

Table 4.15 The Table for the Calculation of Mean, Median, and Modus of the Post Test Scores of the Control Group

(I)	(F)	(X)	FX	fk (a)	fk (b)
80-84	1	82	82	1	26
76-79	3	77.5	232.5	4	25
72-75	6	73.5	441	10	22
68-71	8	69.5	556	18	16
64-67	6	65.5	393	24	8
60-63	2	61.5	123	26	2
	N = 26		$\sum FX$ = 1827.5		

a. Mean

$$Mx = \frac{\sum fX}{N}$$

$$= \frac{1827.5}{26}$$

$$= 70.288$$

b. Median

$$Mdn = l + \frac{\frac{1}{2}N - fk_b}{f_i} x\ i$$

$$= 67.5 + \frac{13-8}{6} \text{ X } 5$$

$$= 67.5 + \frac{5}{6} \text{ x } 5$$

$$= 67.5 + 0.83 \text{ x } 5$$

$$= 67.5 + 4.15$$

$$= 71.65$$

c. Modus

$$\text{Mo} = \ell + \left(\frac{fa}{fa+fb}\right) x\ i$$

$$= 67.5 + \left(\frac{6}{6+6}\right) \text{ x } 5$$

$$= 67.5 + \left(\frac{6}{12}\right) \text{ x } 5$$

$$= 67.5 + 0.5 \text{ x } 5$$
$$= 67.5 + 2.5$$
$$= 70$$

The calculation above showed of mean value was 70.288, median value was 71.65, and modus value was 70 of the post test of the control group.

The last step, the writer tabulated the scores of pre test of control group into the table for the calculation of standard deviation and the standard error as follows:

Table 4.16 The Table of Calculation of the Standard Deviation and the Standard Error of the Post Test Scores of Control Group

Interval (I)	**f**	**x'**	**fx'**	**x'^{2}**	**fx'^{2}**
80-84	1	3	3	9	9
76-79	3	2	6	4	12
72-75	6	1	6	1	6
68-71	8	0	0	0	0
64-67	6	-1	-6	1	6
60-63	2	-2	-4	4	8
	N = 26		fx' = 5		fx'^{2} = 41

a. Standard Deviation

$$SD_2 = i\sqrt{\frac{\sum Fx'^2}{N} - \frac{(Fx')^2}{N}}$$

$$SD_2 = 5\sqrt{\frac{41}{26} - \left(\frac{5}{26}\right)^2}$$

$$SD_2 = 5\sqrt{1.576 - (0.192)^2}$$

$$SD_2 = 5\sqrt{1.576 - (0.036864)}$$

$$SD_2 = 5\sqrt{1.540}$$

SD_2 = 5 x 1.240

SD_2 = 6.2

b. Standard Error

$$SEM_2 = \frac{SD_2}{\sqrt{N_1 - 1}}$$

$$SEM_2 = \frac{6.2}{\sqrt{26 - 1}}$$

$$SEM_2 = \frac{6.2}{\sqrt{25}}$$

$$SEM_2 = \frac{6.2}{5}$$

SEM_2 = 1.24

The result of calculation showed the standard deviation of post test score of control group was 6.2 and the standard error of post test score of control group was 1.24.

B. The Result of Data Analysis

1. Testing Hyphothesis Using Manual Calculation and SPSS 16

To test the hypothesis of the study, the writer used t-test statistical calculation. Firstly, the writer calculated the standard deviation and the standard error of X_1 and X_2. It was found the standard deviation and the standard error of post test of X_1 and X_2 at the previous data presentation. It could be seen on this following table.

Table 4.17 The Standard Deviation and the Standard Error of X_1 and X_2

Variables	The Standard Deviation	The Standard Error
X_1	7.76	1.552
X_2	6.2	1.24

Where :

X_1 = Experiment Group

X_2 = Control Group

The table showed the result of the standard deviation calculation of X_1 was 7.76 and the result of the standard error mean calculation was 1.552. The result of the standard deviation calculation of X_2 was 6.2 and the result of the standard error mean calculation was 1.24.

From the calculation can be seen that :

$SE_{m1} - SE_{m2} = \sqrt{SE_{m1}} + SE_{m2}$

$= \sqrt{1.552^2} + 1.24^2$

$= \sqrt{3.946304}$

$= 1.986$

Then, it was inserted to the t_o formula to get the value of t observe as follows:

$$t_o = \frac{M_1 - M_2}{SE_{M1} - SE_{M2}}$$

$$t_o = \frac{72.576 - 70.288}{1.986}$$

$$t_o = \frac{2.288}{1.986}$$

$t_o = 1.152$

With the criteria:

If t-test (t-observed) $\geq t_{table}$,it means Ha is accepted and Ho is rejected.

If t-test (t-observed) $< t_{table}$,it means Ha is rejected and Ho is accepted.

Then, the writer interpreted the result of t- test. Previously, the writer accounted the degree of freedom (df) with the formula:

df = $(N_1 + N_2 - 2)$

= $(26 + 26 - 2)$

= 50

t_{table} at df 50 at 5% significant level = 2.01

The calculation above showed the result of t-test calculation as in the table follows:

Table 4.18 The Result of T-test

Variables	$T_{observed}$	T table		Df/Db
		5%	1%	
X_1-X_2	1.152	2.01	2.68	50

Where:

X_1 = Experimental Group

X_2 = Control Group

t observe = The calculated Value

t table = The distribution of t value

df/db = Degree of Freedom

Based on the result of hypothesis test calculation, it was found that the value of $t_{observed}$ was lower than the value of t_{able} at 1% and 5% significance level or 2.01<1.152>2.68. It meant H_a was rejected and H_o was accepted.

It could be interpreted based on the result of calculation that H_a stating the students taught by Inductive Method applied better grammar than those taught by

non Inductive Method was rejected and H_o stating that the students taught by Inductive Method do not apply better grammar than those taught by non Inductive Method was accepted. Therefore teaching grammar using Inductive Method did not gave significant effect on the students' grammatical use of the second grade students of MTs. Islamiyah Palangkaraya.

2. Testing Hypothesis Using SPSS Program

The writer used SPSS 19 to measure t-value, the result of t-value in the SPSS would be consulted with t-table in the significance at 5%. Here the computation of t-value using SPSS:

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post Test Scores	Equal variances assumed	7.976	.007	.636	50	.528	1.231	1.936	-2.658	5.119
	Equal variances not assumed			.636	44.171	.528	1.231	1.936	-2.670	5.132

The result of calculation using SPSS 19 program also supported the result of manual calculation. From the result of t-value using SPSS above was found that H_0 was accepted. It was found $t_{observed}$ (1.152 or based on SPSS 0.636) was lower than t_{table} (2,01) in the significance level of 5%. Even though, the different calculation of t test between manual calculation and SPSS calculation was 0.516 but it still could be interpreted that alternative hypothesis ($H_{a)}$ was rejected. It meant students who are taught by using Inductive Method did not gave significant effect on the students' grammatical use of the second grade students of MTs. Islamiyah Palangkaraya.

3. Testing Normality and Homogenity Using SPSS Program

a. Normality

The writer used SPSS 16 to measure the normality of the data as the following below.

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		26
Normal Parameters[a]	Mean	.0000000
	Std. Deviation	8.14756193
Most Extreme Differences	Absolute	.187
	Positive	.118
	Negative	-.187
Kolmogorov-Smirnov Z		.955
Asymp. Sig. (2-tailed)		.322

a. Test distribution is Normal.

The criteria of the normality test of pre-test and post-test is the value of r (probability value/critical value) is higher than or equal to the level of significance alpha defined ($r \geq \partial$), it means that the distribution is normal.[1] In fact, based on the calculation above the value of r (probability value) from the test in Kolmogorov-Smirnov table was higher than the level of significance alpha used or r was 0,955 higher than 0,05 (∂ value). Thus, the distribution were normal, it meant that the students' score of the test had normal distribution.

b. Homogeneity

The writer used SPSS 16 to measure the homogeneity of the data as the following below.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Post Test Scores	Based on Mean	7.976	1	50	.007
	Based on Median	3.684	1	50	.061
	Based on Median and with adjusted df	3.684	1	42.485	.062
	Based on trimmed mean	7.539	1	50	.008

[1] Agus Irianto, *Statistik: Konsep Dasar dan Aplikasinya,*Jakarta: Prenada Media, 2004, p.42.

C. Discussion

The result of the analysis shows that Inductive Method did not give significant effect to the students' grammatical use. It could be proved from the students' score; the students taught grammar using Inductive Method reached almost same score than those who taught without using Inductive Method. It was found the mean of experiment group score (X_1) was 72.576 and the mean of control group score (X_2) was 70.288. Then, those results were compared using T-test and it was found $t_{observed}$ computation using manual was 1.152 and t_{table} was 2, 01. It meant, from the computation was found $t_{observed} > t_{table}$.

Those statistical findings were suitable with the theories as mentioned before in chapter 2. Actually, the use of this method has been noted for its success in foreign or second language classroom world-wide. It may help the teacher to vary and organize the lesson, in order to keep classes interesting and motivating for the students. Moreover, learners can improve their learning when they are aware of what they are doing, how they are doing it,and what possibilities are available to them. Inductive method can make grammar lessons enjoyable. They will able to acquire the grammar in an easier manner.[2] But, the result of this research showed that the Inductive Method can not effect the grammar's score of the students.

There are some reasons why using Inductive Method did not give effect on the students' grammar score of the second grade students at MTs. Islamiyah

[2] H. Douglas Brown, *Teaching by Principles : An Interactive Approach to Language Pedagogy, Second Edition,* London : Longman,2001, p.365.

Palangkaraya. Based on the weakness of this method, first, the students can not work out the rules of grammar from the examples by themselves because of their previous method. They were not ready to accept this method. It was in lined with the theory that was mentioned in chapter 2 page 17 about the weakness of inductive method.

Second, Inductive Method was a completely new technique for the students of MTs. Islamiyah Palangkaraya. It was showed from the students' response that they were not very enthusiastic and are confused when they were taught by using Inductive Method.

And the last, Inductive Method has many techniques. All the techniques begin with a challenge, a real world problem and an assignment or cases. It should makes students easier to analyze, resolve, investigate even hypothesize their own solution based on Inductive Method. But, this method also frustrates them because of their personal learning styles or their past learning experience.