CHAPTER IV

RESULT AND DISCUSSION

This chapter explain the result and discussion from researcher. Based on data analysis and findings which explore about the result from data which has been analyzed.

A. Description of Data

The researcher did the research and got the complete data from the research instrument includes pre test and post test. To gain the objectives of the research, the researcher had analyzed the data systematically and accurately. The data was analyzed in order to explain conclusion about the objective of the study.

The researcher collecting the data from observing first grade senior high school student's MAN 2 KOTA SERANG, with choosing X-Bahasa class and X-IPA 1 class. The X-Bahasa class as experimental class and X-IPA 1 as controll class. To collect the data, pre test and post test was given to the students. After the test was given, the researcher analyzed the data to found out significant difference between summarizing technic using manga as media learning and summarizing technic without using manga as media learning. The resarcher describes the data as bellow:

1. Experimental Class

The writer describes the result of pre test of the experimental class on the table below:

Table 4.1

The students' pre test score at experimental class

No	NAME	SCORE
1	FA	74
2	MNB	74
3	FPN	74
4	ANF	74
5	YA	74
6	GNH	75
7	NNH	75
8	FM	75
9	AM	75
10	NS	75
11	MNB	75
12	W	75
13	NJ	75
14	HZH	69
15	KRT	69
16	RAZ	69

17	SS	69
18	RR	70
19	NS	70
20	TAQ	70
21	GNN	70
22	TY	65
23	KSN	65
24	NAM	65
25	NS	65
26	AS	66
27	A	66
28	R	66
29	E	66
N=29	TOTAL	2050
	AVERAGE	70,68966

The table 1 above shows the result of the students' pre test scores in writing summarizing story before the researcher give them a treatment using manga as a teaching media and before explain the summarizing story procedure. The data shows that the maximum score is 75 and the minimum score is 65. There are 8 students who got maximum score and there

are only 4 students who got minimum score. The average score of experimental class pre test is 70,68. While the result of post test of the experimental class are better after the researcher give students the treatment. It can described as follow:

Table 4.2

The students' post test score at experimental class

No	NAME	SCORE
1	FA	82
2	MNB	82
3	FPN	82
4	ANF	90
5	YA	90
6	GNH	90
7	NNH	90
8	FM	90
9	AM	90
10	NS	90
11	MNB	90
12	W	90

13	NJ	90
14	HZH	85
15	KRT	85
16	RAZ	82
17	SS	85
18	RR	90
19	NS	90
20	TAQ	90
21	GNN	90
22	TY	79
23	KSN	90
24	NAM	90
25	NS	90
26	AS	82
27	A	82
28	R	82
29	E	82
N=29	TOTAL	2520
	AVERAGE	86,89655

The table 2 above shows the result of the students' post test scores in writing summarizing story after the researcher give them a treatment using manga as a teaching media and after explain the summarizing story procedure. The data shows that the maximum score is 90 and the minimum score is 79. There are 17 students who got maximum score and there are only one students who got minimum score. The average score of experimental class post test is 86,89.

Based on the explanation above, the researcher gets the result that there is a significance improvement after given treatment. It can be seen from the average score of pre test that 70,68<86,89. It means that using manga as teaching media to improve students writing skill in story summarizing was success.

2. Control Class

The writer descibes the result of pre test of the control class on the table belows:

Table 4.3

The students' pre test score at control class

NO	NAMA	SCORE
1	GI	67

2	RA	67
3	TQ	67
4	YF	67
5	AJ	67
6	RBS	67
7	MAS	67
8	AIL	67
9	NST	67
10	MFH	67
11	ASA	75
12	FA	75
13	KNA	75
14	NA	75
15	WRNS	75
16	ZKM	75
17	AZ	65
18	DA	65
19	MZ	65
20	SN	65
21	TH	65

22	FH	75
23	IAR	75
24	NFH	75
25	SZ	75
26	SR	75
27	AFA	67
28	FBR	67
29	RH	67
N=29	TOTAL	2021
	AVERAGE	69,68966

The table 3 above shows the result of the students' pre test scores in writing summarizing story. The data shows that the maximum score is 75 and the minimum score is 65. There are 11 students who got maximum scores and there are only 5 students who got minimum scores. The average score of control class pre test is 69,68. While the result of post test of the control class are better after the researcher give students the treatment. It can be described as follow.

Table 4.4

The students' post test score at control class

NO	NAME	SCORE
1	GI	75
2	RA	75
3	TQ	75
4	YF	75
5	AJ	75
6	RBS	75
7	MAS	75
8	AIL	75
9	NST	75
10	MFH	75
11	ASA	80
12	FA	80
13	KNA	80
14	NA	80
15	WRNS	80
16	ZKM	80
17	AZ	75

18	DA	75
19	MZ	75
20	SN	75
21	TH	75
22	FH	79
23	IAR	79
24	NFH	79
25	SZ	79
26	SR	79
27	AFA	75
28	FBR	75
29	RH	75
N=29	TOTAL	2225
	AVERAGE	76,72414

The table 4 above shows the result of the students' post test scores of control class in writing summarizing story. The data shows that the maximum score is 80 and the minimum score is 75. There are 6 students who got maximum scores and there are 18 students who got minimum scores. The average score of control class post test is

76,72. While the result of post test of the control class are better after the researcher give students the treatment. It can described as follow

Based on the explanation above, it shows that the result of control class doesn't have the significance improvement after given treatment. It can be seen from the average score of post test that is 76,72>69,68. This class also experienced improvement but lower than experimental class.

B. Data Analysis

1. Experimental Class

The researcher write show the analysis data by comparing student's score in pre test and post test. It can be seen on the table belows:

Table 4.5

The difference score between pre test and post test experiment class

NO	NAMA	TEST		DEVIATION	SQUARRED DEVIATION
		X1	X2	(X=X2-X1)	x^2
1	FA	74	82	8	64
2	MNB	74	82	8	64
3	FPN	74	82	8	64
4	ANF	74	90	16	256
5	YA	74	90	16	256

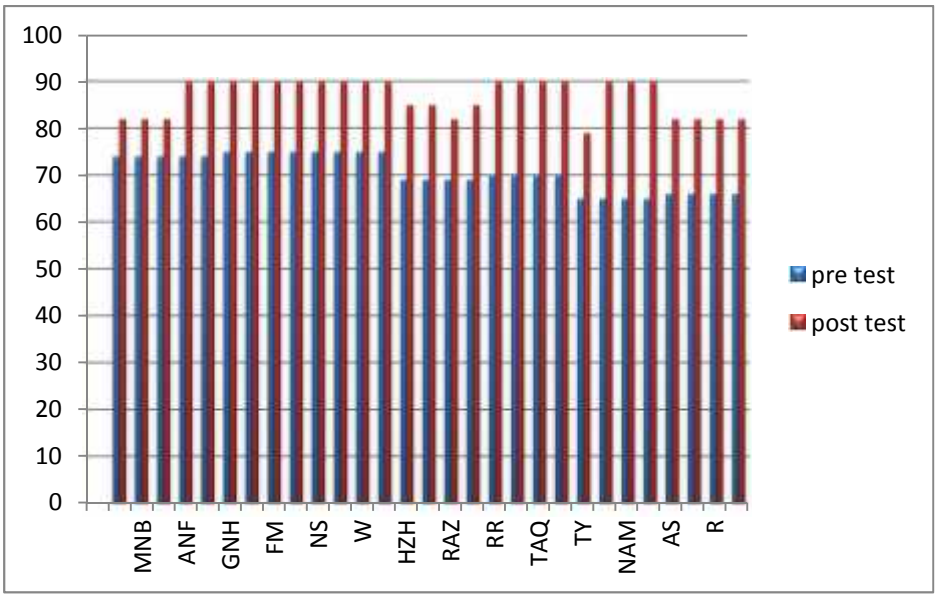
6	GNH	75	90	15	225
7	NNH	75	90	15	225
8	FM	75	90	15	225
9	AM	75	90	15	225
10	NS	75	90	15	225
11	MNB	75	90	15	225
12	W	75	90	15	225
13	NJ	75	90	15	225
14	HZH	69	85	16	256
15	KRT	69	85	16	256
16	RAZ	69	82	13	169
17	SS	69	85	16	256
18	RR	70	90	20	400
19	NS	70	90	20	400
20	TAQ	70	90	20	400
21	GNN	70	90	20	400
22	TY	65	79	14	196
23	KSN	65	90	25	625
24	NAM	65	90	25	625
25	NS	65	90	25	625
26	AS	66	82	16	256
27	A	66	82	16	256

28	R	66	82	16	256
29	E	66	82	16	256
TOTAL		2050	2520	470	6936

The table 5 above shows that there are the differences between pre test and post test score of the experimental class. The different score is the result of the post test score is subtracted by pre test score. So that, there are significant differences between pre test and post test score of the experimental class, the highest difference score is 25 and the lowest is 8. It also can be seen on the graphic belows

Graphic 4.1

The difference score between pre test and post test experiment class



The graphic 1 above shows the result of students' pre test and post test scores of experimental class. In the pre-test score, the maximum score is 75 and the minimum score is 65. There are 8 students who got maximum score and there are only 4 students who got minimum score. While in the post-test score, maximum score is 90 and the minimum score is 79. There are 17 students who got maximum score and there are only one students who got minimum score.

2. Control Class

The researcher write show the analysis data by comparing student's score in pre test and post test. It can be seen on the table belows:

Table 4.6

The difference score between pre test and post test control class

NO	NAMA	TEST		DEVIATION	SQUARRED DEVIATION
		X1	X2	(X=X2-X1)	X2
1	GI	67	75	8	64
2	RA	67	75	8	64
3	TQ	67	75	8	64
4	YF	67	75	8	64
5	AJ	67	75	8	64
6	RBS	67	75	8	64

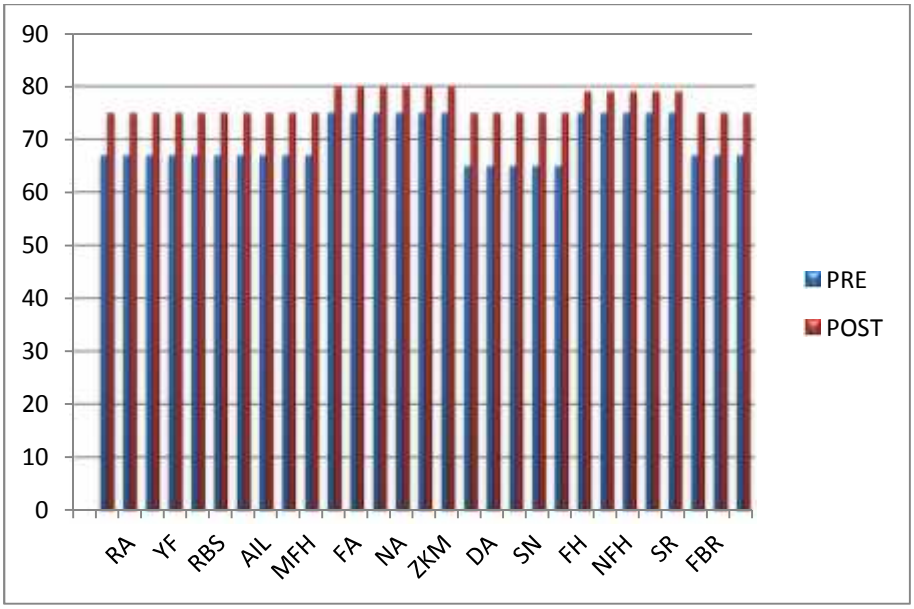
7	MAS	67	75	8	64
8	AIL	67	75	8	64
9	NST	67	75	8	64
10	MFH	67	75	8	64
11	ASA	75	80	5	25
12	FA	75	80	5	25
13	KNA	75	80	5	25
14	NA	75	80	5	25
15	WRNS	75	80	5	25
16	ZKM	75	80	5	25
17	AZ	65	75	10	100
18	DA	65	75	10	100
19	MZ	65	75	10	100
20	SN	65	75	10	100
21	TH	65	75	10	100
22	FH	75	79	4	16
23	IAR	75	79	4	16
24	NFH	75	79	4	16
25	SZ	75	79	4	16
26	SR	75	79	4	16
27	AFA	67	75	8	64
28	FBR	67	75	8	64

29	RH	67	75	8	64
TOTAL		2021	2225	204	1562

The table 6 above shows that there are the differences between pre test and post test score of the control class. The different score is the result of the post test score is subtracted by pre test score. So that, there is no significant differences between pre test and post test score of the control class, the highest difference score is 10 and the lowest is 4. It also can be seen on the graphic belows:

Graphic 4.2

The difference score between pre test and post test control class



The graphic 2 above shows the result of students' pre test and post test scores of control class. In the pre-test score, the maximum score is 75

and the minimum score is 65. There are 11 students who got maximum scores and there are only 5 students who got minimum scores. While in the post-test score, the maximum score is 80 and the minimum score is 75. There are 6 students who got maximum scores and there are 18 students who got minimum scores.

From the data that was explained above, the researcher use t-test formula by the following steps as follow:

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

$$MX = \frac{\sum X}{N}$$

$$= \frac{470}{29}$$

$$= 16{,}20$$

The result above showed about the average score (mean) at the experimental class. The researcher got the data from $\sum X_1$, $\sum X_2$, $\sum$X. The researcher calculated the data based on the formula above.

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

$$MY = \frac{\sum Y}{N}$$

$$= \frac{204}{29}$$

$$= 7{,}03$$

The result above showed about the average score (mean) at the control class. The researcher got the data from $\sum Y_1$, $\sum Y_2$, $\sum$Y. The researcher calculated the data based on the formula above.

3. Determine the total square of error in experiment class (X), with:

$$\sum X = \sum X^2 - \frac{(\sum X)^2}{N}$$

$$= 8136 - \frac{(470)^2}{29}$$

$$= 8136 - \frac{220900}{29}$$

$$= 8136 - 7617{,}24$$

$$= 518{,}76$$

The result above showed about the quadrates score at the experimental class. The researcher got the data from $\sum X_1$, $\sum X_2$, $\sum$X. The researcher calculated the data based on the formula above.

4. Determine the total square of error in control class (Y), with:

$$\sum Y = \sum Y^2 - \frac{(\sum Y)^2}{N}$$

$$= 1562 - \frac{(204)^2}{29}$$

$$= 1562 - \frac{41616}{29}$$

$$= 1562 - 1435{,}03$$

$$= 126{,}96$$

The result above showed about the quadrates score at the control class. The researcher got the data from $\sum Y_1$, $\sum Y_2$, $\sum Y$. The researcher calculated the data based on the formula above.

5. Calculation T-Test

$$t = \frac{MX - MY}{\sqrt{\left(\frac{\sum X^2 + \sum Y^2}{NX + NY - 2}\right)\left(\frac{1}{29} + \frac{1}{29}\right)}}$$

$$t = \frac{16{,}20 - 7{,}03}{\sqrt{\left(\frac{518{,}76 + 126{,}96}{29 + 29 - 2}\right)\left(\frac{1}{29} + \frac{1}{29}\right)}}$$

$$t = \frac{9{,}17}{\sqrt{\left(\frac{645{,}72}{56}\right)\left(\frac{1}{29} + \frac{1}{29}\right)}}$$

$$t = \frac{9{,}17}{\sqrt{(11{,}53)(0{,}068)}}$$

$$t = \frac{9{,}17}{\sqrt{0{,}784}}$$

$$t = \frac{9{,}17}{0{,}885}$$

$$t = 10{,}36$$

The result above showed about the calculating t-test after the researcher got the data from MX, MY, $\sum X^2$, and $\sum Y^2$. The researcher calculated the data based on the formula above.

6. Determine the degree of freedom, with formula:

   Df = Nx + Ny – 2

   = 29 + 29 – 2

   = 56

The result above showed the score of sample both experiment and control class. The researcher used 58 students as sample for this research. 29 students are from X BAHASA as experimental class and 29 students are from X IPA 1 as control class.

Comparing “t” has been tested in calculating (t=10,36) and the degree of freedom (df)) for 56, the writer uset the closest “df” from 58-2=56. So, the degree of freedom is 56. It has been tested on the t-table(t_o= 5% = 2,00 and t_t= 1% = 2,66). It can be known that t_o> t_t5% and t_o> t_t1%. It means 2,00 < 10,36 > 2,66.

C. The Interpretation of Data

The data shows that the students writing skill in story summarizing at tenth grade of MAN 2 Kota Serang before conducted by experiment to apply Manga as teaching media between X Bahasa as an experimental class and X IPA 1 as control class is not different significally. The mean of the pre test scores obtained by X Bahasa students’ as experimental class was 70,68 and pre test scores obtained by X IPA 1 students’ as controll class was 69,68. The highest score of both classes were same in

class X Bahasa as experimental class got 75 and in the class X IPA 1 as control class got 75. For the lowest score of both classes were same too in class X Bahasa got 65 and in the class X IPA 1 got 65.

Besides the data also shows that the students writing skill in story summarizing at tenth grade of MAN 2 Kota Serang after conducted by experiment to apply Manga as teaching media between X Bahasa as an experimental class and X IPA 1 as control class is different significally. The mean of the post test scores obtained by X Bahasa students' as experimental class was 86,89 and post test scores obtained by X IPA 1 students' as controll class was 76,72. The highest score in class X Bahasa as experimental class got 90 and in the class X IPA 1 as control class got 80. For the lowest score of both classes were same too in class X Bahasa got 79 and in the class X IPA 1 got 75. The distribution scores of experimental class was 86,89 - 79 = 7,89 . While in the control class was 76,72 – 75 = 1,72.

By the degree of freedom (df) = 56 and analyzed by using t-test, the researcher tested there is an effectiveness of using manga as teaching media to improve students writing skill in story summarizing, because t-count is higher than t-table in lever significance 5% and 1%. The table with the level signifance of 5% is 2,00 and the lever significance of 1% is 2,66.

Based on the interpretation above t-couny > t-table. It means that there are significant effect of using manga as teaching media to improve students' writing skill in story summarizing. Hypothesis testing is used to know the significance of both variables, and tested as follow:

Ha = $t_o > t_t$

Ho = $t_o < t_t$

Notes:

Ha = Alternative Hypothesis

Ho = Null Hypothesis

t_o = The value of t-observation

t_t = The value of t-table

To prove the data hypothesis, the data obtained from an experimental class and control class are calculated by using t-test formula with the assumption below:

If $t_o > t_t$: The alternative hypothesis is accepted. It means there is a significant effect in using Manga as teaching media to improve students writing story summarizing skill at tenth grade senior high school in the academic year of 2018/2019.

If $t_o < t_t$: The alternative hypothesis is rejected. It means there is no significant effect in using Manga as teaching media to improve students

writing story summarizing skill at tenth grade senior high school in the academic year of 2018/2019.

From the result conclution above, the value of t_o= 10,36 the degree of freedom (df) = 56. The researcher use degree of significant 5% = 2,00 and 1% = 2,66. It's mean that Ha (Alternative Hypothesis) of the research is accepted and Ho (Null Hypothesis) of the research is rejected.

After calculating the data, the researcher compares both degree of significance 5% and 1% $t_o > t_t$ and $t_o > t_t$ 1%, 2,00<10,36>2,66. It means that the alternative hypothesis of this research is accepted. So, it can be conclude, there is a significant effect in using Manga to improve students writing story summarizing skill at tenth grade senior high school.