CHAPTER IV

RESEARCH FINDING AND DISCUSSION

In this chapter, the writer presented the result of the study which covers data presentation, the result of data analysis, interpretation and discussion.

A. Data Presentation

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

1. The Time of Try Out, Pre-Test and Post-Test of Experiment and Control Class

The Try out had been conducted on October, 28th 2014 (Tuesday, 10.00 – 10.45) in the XI IIA 5 class. The Pre-test who assigned using outline technique had been conducted on October, 31th 2014 (Friday, 07.15 – 08.45). The Pre-test who assigned using non outline technique had been conducted on November, 7th 2014 (Friday, 07.15 – 08.45). The Post-test who assigned using outline technique had been conducted on December, 5th 2014 (Friday, 07.15 – 08.45). The Post-test who assigned using non outline technique had been conducted on December, 12th 2014 (Friday, 07.15 – 08.45) in the class XI IIS 5 of SMAN-4 Palangka Raya with the number student was 29 students. The Pre-Test and Post-Test scores of both of class were presented in table 4.1 and 4.9:

2. The Result of Pre-Test of Control and Experiment Group

Table 4.1
Pre Test Scores of the Data Achieved by the Students in Control and Experiment Group

No	Students' Initial Names	Control	Experiment
1	AAP1	51	63
2	AAP2	55	64
3	AFR	49	65
4	ARS	47	60
5	BMP	48	61
6	BS	50	60
7	DTU	51	64
8	DI	43	59
9	EB	48	62
10	EV	46	64
11	ES	45	52
12	FR	56	58
13	FN	50	56
14	GIA	48	62
15	HP	46	52
16	JEP	49	63
17	JON	39	60
18	NOP	40	42
19	NUR	46	55
20	RP	47	60
21	RRD	48	62
22	RNP	46	61
23	SH	49	63
24	SUM	40	56
25	TI	44	60
26	TH	49	61
27	YER	50	62
28	YS	49	63
29	YA	47	60
Highest Score		56	65
Lowest Score		39	42
Sum		1376	1730
Mean		47.45	59.66
Standard Deviation		3.860	4.776

Based on the calculation result score of pre-test of control group the highest score was 56, the lowest score was 39, the result of sum was 1376, the result of mean was 47.45 and the result of standard deviation was 3.860. Next, the result score of pre-test of experiment group the highest score was 65, the lowest score was 42, the result of sum was 1730, the result of mean was 59.66 and the result of standard deviation was 4.776.

3. The Result of Post Test of Control and Experiment Group

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

Table 4.2
Post Test Scores of the Data Achieved by the Students in Control and Experiment Group

No	Students' Initial Names	Control	Experiment
1	AAP1	55	61
2	AAP2	59	67
3	AFR	58	65
4	ARS	54	63
5	BMP	55	61
6	BS	53	62
7	DTU	59	68
8	DI	52	57
9	EB	55	63
10	EV	59	60
11	ES	49	54
12	FR	56	64
13	FN	52	61
14	GIA	55	63
15	HP	49	52
16	JEP	54	62
17	JON	57	66
18	NOP	48	53
19	NUR	51	62
20	RP	53	57

21	RRD	58	65
22	RNP	55	63
23	SH	59	64
24	SUM	54	58
25	TI	53	63
26	TH	57	66
27	YER	54	63
28	YS	58	62
29	YA	53	60
Highest Score		59	68
Lowest Score		48	52
Sum		1584	1785
Mean		54.62	61.55
Standard Deviation		3.110	3.969

Based on the calculation result score of post-test of control group the highest score was 59, the lowest score was 48, the result of sum was 1584, the result of mean was 54.62 and the result of standard deviation was 3.110. Next, the result score of post-test of experiment group the highest score was 68, the lowest score was 52, the result of sum was 1785, the result of mean was 61.55 and the result of standard deviation was 3.969.

4. The Comparison Result of Post Test Between Control and Experiment Group

The writer compared the result of post test between control and experiment by using manual calculation. It was done to know the achievement of writing score of students who taught using non outline and taught using outline technique.

Table 4.3
The Comparison Result of Post Test Score of Control and Experiment Group

No	Student' Initial Names	Writing Score		Improvement
		Control Group	Expriment Group	
1	AAP1	55	61	6
2	AAP2	59	67	8
3	AFR	58	65	7
4	ARS	54	63	9
5	BMP	55	61	6
6	BS	53	62	9
7	DTU	59	68	9
8	DI	52	57	5
9	EB	55	63	8
10	EV	59	60	1
11	ES	49	54	5
12	FR	56	64	8
13	FN	52	61	9
14	GIA	55	63	8
15	HP	49	52	3
16	JEP	54	62	8
17	JON	57	66	9
18	NOP	48	53	5
19	NUR	51	62	11
20	RP	53	57	4
21	RRD	58	65	7
22	RNP	55	63	8
23	SH	59	64	5
24	SUM	54	58	4
25	TI	53	63	10
26	TH	57	66	9
27	YER	54	63	9
28	YS	58	62	4
29	YA	53	60	7
Highest Score		59	68	
Lowest Score		48	52	
Sum		1584	1785	
Mean		54.62	61.55	
Standard Deviation		3.110	3.969	

Based on the result above, writing score of control group who using non outline was 50 upper. Then, writing score of experiment group who using outline was average 60 upper. It can be concluded that writing score of students' writing achievement of XI-IIS 5 class as control group and experiment group have different.

5. Normality and Homogeneity

The writer calculated the result of pre-test and post-test score of control and experiment group by using SPSS 16.0 programs. It was done to know the normality of the data that is going to be analyzed having normal distribution or not. Homogeneity test was conducted to know whether data are homogeneous or not.

a. Normality test of Pre Test

Table 4.4
Normality of Pre Test

One-Sample Kolmogorov-Smirnov Test

		control	experiment
N		29	29
Normal Parameters[a]	Mean	47.45	59.66
	Std. Deviation	3.860	4.776
Most Extreme Differences	Absolute	.147	.253
	Positive	.116	.147
	Negative	-.147	-.253
Kolmogorov-Smirnov Z		.791	1.362
Asymp. Sig. (2-tailed)		.559	.049

a. Test distribution is Normal.

Based on the calculation used SPSS program, the Asymp. Sig. (2-tailed) of pre-test of control group was 0.559 and experiment group was 0.049. The table of critical value of Kolmogrov-Smirnov test at the significance level α = 0.05. If Significant value was higher than significant level, so the data was normal. Because significant value was higher than significant level (0.559 > 0.05) and (0.049 > 0.05) , it could be concluded that the data was in normal distribution.

b. Homogeneity Test

Table 4.5
Test of Homogeneity of Variances

Achievement

Levene Statistic	df1	df2	Sig.
.307	1	56	.582

Based on the result of homogeneity test, the F_{value} was 0.307 and the significant $_{value}$ was 0.582. The data are homogeneous if the significant value is higher than significance level α= 0.05. Because the significant value 0.582 was higher than significance level (0.582 > 0.05), it could be concluded that the data were homogeneous.

c. Normality test of Post Test

Table 4.6
Normality of Post Test

One-Sample Kolmogorov-Smirnov Test

		control	experiment
N		29	29
Normal Parameters[a]	Mean	54.62	61.55
	Std. Deviation	3.110	3.969

Most Extreme Differences	Absolute	.107	.169
	Positive	.107	.082
	Negative	-.103	-.169
Kolmogorov-Smirnov Z		.574	.909
Asymp. Sig. (2-tailed)		.896	.380

a. Test distribution is Normal.

Based on the calculation used SPSS program, the Asymp. Sig. (2-tailed) of post-test of control group was 0.896 and experiment group was 0.380. The table of critical value of Kolmogrov-Smirnov test at the significance level α = 0.05. If Significant value was higher than significant level, so the data was normal. Because significant value was higher than significant level (0.896 > 0.05) and (0.380 > 0.05) , it could be concluded that the data was in normal distribution.

d. Homogeneity Test

Table 4.7
Test of Homogeneity of Variances

Achievement

Levene Statistic	df1	df2	Sig.
.750	1	56	.390

Based on the result of homogeneity test, the F_{value} was 0.750 and the significant $_{value}$ was 0.390. The data are homogeneous if the significant value is higher than significance level α= 0.05. Because the significant value 0.390 was higher than significance level (0.390 > 0.05), it could be concluded that the data were homogeneous.

B. The Result of Data Analysis

1. Testing Hypothesis Using Manual Calculation

To test the hypothesis of the study, the writer used t-test statistical calculation. Firstly, the writer was analyzed the data by making the table. It was found mean of difference, the standard deviation of difference, and standard error mean of difference. Finally, the data will be calculated by using t observe formula. It could be seen on the table.

Table 4.8
The Table of Data Analysis for T test

No	Student' Initial Names	Writing Score		D = (X-Y)	$D^2 = (X-Y)^2$
		Control Group	Expriment Group		
1	AAP1	55	61	-6	36
2	AAP2	59	67	-8	64
3	AFR	58	65	-7	49
4	ARS	54	63	-9	81
5	BMP	55	61	-6	36
6	BS	53	62	-9	81
7	DTU	59	68	-9	81
8	DI	52	57	-5	25
9	EB	55	63	-8	64
10	EV	59	60	-1	1
11	ES	49	54	-5	25
12	FR	56	64	-8	64
13	FN	52	61	-9	81
14	GIA	55	63	-8	64
15	HP	49	52	-3	9
16	JEP	54	62	-8	64
17	JON	57	66	-9	81
18	NOP	48	53	-5	25
19	NUR	51	62	-11	121
20	RP	53	57	-4	16
21	RRD	58	65	-7	49
22	RNP	55	63	-8	64

23	SH	59	64	-5	25
24	SUM	54	58	-4	16
25	TI	53	63	-10	100
26	TH	57	66	-9	81
27	YER	54	63	-9	81
28	YS	58	62	-4	16
29	YA	53	60	-7	49
N = 29				**-201**	**= 1549**

a. Mean

$$M_D = \frac{\sum D}{n} = \frac{-201}{29} = -6.93$$

b. Standard Deviation

$$SD_D = \sqrt{\frac{\sum D}{n} - \left(\frac{\sum D}{n}\right)^2}$$

$$= \sqrt{\frac{1549}{29} - \left(\frac{-201}{29}\right)^2}$$

$$= \sqrt{53.414 - (-6.93)^2}$$

$$= \sqrt{53.414 - (48.0249)}$$

$$= \sqrt{5.3891}$$

$$= 2.321$$

c. Standard Error of Mean

$$SE_{MD} = \frac{SD_D}{\sqrt{n-1}}$$

$$= \frac{2.321}{\sqrt{29-1}}$$

$$= \frac{2.321}{\sqrt{28}}$$

$$= \frac{2.321}{5.291}$$

= 0.439

The calculation above showed the result of mean of difference was -6.93, the standard deviation of difference was 2.321, and standard error mean of difference was 0.439. Then, it was inserted to the t_o formula to get the value of $t_{observe}$ as follows:

$$t_o = \frac{M_D}{SE_{MD}}$$

$$= \frac{-6.93}{0.439}$$

= - 15.78

With the criteria:

If t-test $t_{observe} > t_{table,}$ it means H_a is accepted and H_o is rejected.

If t-test $t_{observe} < t_{table}$, it means H_a is rejected and H_o 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)

= (29 – 1)

= 28

t_{table} at df 28 at 5% significant level = 2.05

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

Table 4.9
The Result of T-test

Variable	$t_{observe}$	t_{table}		df/db
		5%	1%	
$X_1 - X_2$	15.78	2.05	2.76	28

Where:

X_1 = Control Group

X_2 = Experiment 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 $t_{observe}$ was higher than value of t_{table} at 5% and 1% significance level or $2.05 < 15.78 > 2.76$. It meant H_a is accepted and H_c is rejected.

It could be interpreted based on the result of calculation that H_a stating that the students who are taught by outline technique have better writing achievement than the students who are taught by non outline technique and H_c stating that the students who are taught by outline technique do not have better writing achievement than the students who are taught by non outline technique. Therefore, teaching writing using outline technique gave significant effect on the students' writing ability at the eleventh grade of SMAN-4 Palangka Raya.

2. Testing Hypothesis Using SPSS Program

The writer applied SPSS 16.0 program to calculate t-test in testing hypothesis of the study. The result of t-test using SPSS was used to support the manual calculation of the t-test.

Table 4.10
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Control	54.62	29	3.110	.578
	Experiment	61.55	29	3.969	.737

The table showed the result of statistics calculation between control and experiment group. For control group, the result of mean was 54.62 with the students' number (N) = 29, the result of standard deviation was 3.110, and the result of standard error of mean was 0.578. Next, the result of mean of experiment group was 61.55 with the students' number (N) = 29, the result of standard deviation was 3.969, and the result of standard error mean was 0.737.

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Table 4.11
Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	control & experiment	29	.804	.000

The table showed the result of calculation correlation between control and experiment. The result of both correlation was 0.804 with the significant value was 0.000.

Hypotheses:

H_a : The students who are taught by outline technique have better writing achievement than the students who are taught by non outline technique.

Ho : The students who are taught by outline technique do not have better writing achievement than the students who are taught by non outline technique.

The criteria:

If $\alpha = 0.05 \leq Sig,$ it means H_o is accepted and H_a is rejected.

If $\alpha = 0.05 \geq Sig,$ it means H_a is accepted and H_o is rejected.

Based on the result above, the significant value is lower than $\alpha = 0.05$ or ($0.05 > 0.000$) so it means H_a is accepted and H_o is rejected. It meant that the students who are taught by outline technique have better writing achievement than the students who are taught by non outline technique.

Table 4.12
Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	control - experiment	-6.931	2.359	.438	-7.828	-6.034	-15.820	28	.000

The table showed the result of $t_{observe}$ was 15.820 with the sig.(2-tailed) was 0.000 with df = N – 1 = 28 so that t_{table} was 2.05 on the significant level (α = 0.05).

Hypotheses:

H_a : The students who are taught by outline technique have better writing achievement than the students who are taught by non outline technique.

Ho : The students who are taught by outline technique do not have better writing achievement than the students who are taught by non outline technique.

The criteria:

If $t_{observe} \geq t_{table}$, so H_a is accepted and H_o is rejected.

If $t_{observe} \leq t_{table}$, so H_o is accepted and H_a is rejected.

Based on the result above, $t_{observe} > t_{table}$ or 15.82 > 2.05, so it meant H_a is accepted and H_o is rejected. So, the students who are taught by outline technique have better writing achievement than the students who are taught by non outline technique.

Table 4.13
The Result of T-Test

Variable	**$t_{observe}$**	**t_{table}**		**df/db**
		5%	**1%**	
$X_1 – X_2$	15.82	2.05	2.76	28

Based on the result of t-test calculation above, it was found that the value of $t_{observe}$ was higher than t_{table} at 5% and 1% significance level or 2.05 < 15.82 >

2.76. It could be interpreted based on the result of calculation that H_a stating that the students who are taught by outline technique have better writing achievement than the students who are taught by non outline technique was accepted and H_o stating that the students who are taught by outline technique do not have better writing achievement than the students who are taught by non outline technique was rejected. It meant that teaching writing using outline technique gave significant effect on the students'writing ability at the eleventh grade students of SMAN- 4 Palangka Raya.

C. Interpretation

From the calculation result t-test, it could be interpreted that:

1. Based on manual calculation, the score of $t_{observe}$ was higher than value of t_{table}, either at 5% and 1% on significance level or 2.05 < 15.78 > 2.76. It could be interpreted that the students who are taught by outline technique have better writing achievement in writing was significant.
2. Based on SPSS 16 program calculation of paired sample test, $t_{observe}$ was higher than $t_{table,}$ either at 5% and 1% significance level or 2.05 < 15.82 > 2.76. It could be interpreted that the students who are taught by outline technique have better writing achievement in writing was significant.
3. T-test calculation showed the correlations between control and experiment group who taught by using non outline and outline which testing hypothesis used paired sample test correlations. Based on the calculation of paired sample correlations, the significant value is lower than $\alpha = 0.05$ or (0.05 > 0.000). It could be interpreted that there is significant

correlations using outline technique and without using outline technique in writing analytical exposition text. It meant that the effect of using outline technique in teaching writing analytical exposition text depend on the students'achievement through the different score of both groups.

D. Discussion

The result of the data analysis showed that outline technique gave significant effect on the students' writing ability at the eleventh grade students of SMAN- 4 Palangka Raya. The students who were taught using outline technique got higher score than students who were taught without using ouline technique. It was proved by the mean score of control group was 54.62 and the mean score of the experimental group was 61.55. Based on the result of testing hypothesis using manual calculation, it was found that the value of $t_{observe}$ was higher than $t_{table,}$ either at 1% and 5% significant level or $2.76 < 15.78 > 2.05$. It meant H_a was accepted and H_o was rejected.

Furthermore, the result of testing hypothesis using SPSS calculation, it was found that the value of $t_{observe}$ was higher than $t_{table,}$ either at 1% and 5% significant level or $2.76 < 15.82 > 2.05$. It meant H_a was accepted and H_o was rejected.

Those statistical findings were suitable with the theories as mentioned before. Outlining is central to writing a good paper. An outline lets you see, and work on, the bare bones of a paper, without the distraction of a clutter of words and sentences. It develops your ability to think clearly and logically. Outlining provides a quick check on whether your paper will be unified. It also suggests

right at the start whether your paper will be adequately supported. And it shows you how to plan a paper that is well organized.[1]

Stanley, Shimkin, and Lanner in Indriani stated that an outline is the pattern of meaning that emerges from the body of notes you have taken. After you have given much thought to your notes and the main ideas under which you arranged this note, you will begin to see how these main ideas are related to one another and which main ideas should precede or follows others. Beginning with a board overview of your topic and ending with more detailed with plan once the direction of your investigation become clearer.[2]

Moreover, according to Fulwiler also stated where outlines prove especially useful is in bigger projects such as long papers, books, and grant proposals, in which it is important that readers receive a map, or a table of contents, to help them through the long written document; in essence, a table of contents is an outline of the work, allowing both writer and reader to find their way.[3]

There are some reasons why using outline technique gives effect on the students'writing score of the eleventh grade students at SMAN-4 Palangka Raya. First, outline help the students could organize their ideas clearly. It was showed from the students' written on their worksheet regularly. Second, outline help the students improved their vocabulary based on their background knowledge before. Third, outline is a new technique in writing for students. It is unfamiliar for them

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[1] John Langan, *College Writing Skills with Reading*, p. 44.

[2] Lilia Indriani, *The Effectiveness of Clustering Technique in Improving Writing of the Third Year Students of SLTP Kristen 3*, p. 83.

[3]Toby Fulwiler, *College Writing A Personal Approach To Academic Writing (third edition)*, Portsmouth: Boynton/Cook Publisher, Inc. 1942, p. 39.

to be learnt but part of students gave interested and enthusiastic when they were taught by using outline technique.