CHAPTER IV
RESEARCH FINDINGS AND ANALYSIS

A. Description of the Result of Research

The research was conducted in MA Sunan Kalijaga Bawang. This research is found that there were different result between experimental class which was taught using think pair share technique and control class which was taught without using think pair share technique in teaching speaking. Test to experimental class and control class were given to obtain the data. It was given before and after teaching and learning process.

The subjects of this research were experimental class X.1 and control class X.2 of MA Sunan Kalijaga Bawang. There were test for pre-test that was given to experimental class and control class before teaching and learning process, whereas post-test was given after teaching and learning process. The researcher prepared the materials, technique and lesson plan before conducted teaching and learning process.

The researcher analyzed the data after it was collected. The first analysis of the data analysis was conducted analysis of pre-test score both experimental class and control class. It was applied to know the normality, homogeneity and similarity of pre-test of experimental class and control class. It is used to know what two groups were

normal and had same variant. The second analysis of data analysis was taken from post-test score. It was applied to know the normality, homogeneity and similarity of post-test of experimental class and control class. It used to know what two groups were normal and had same variant. Both test used to prove the truth of hypothesis that has been planned.

B. The Data Analysis and Test of Hypothesis

1. The Data Analysis of Pre-test Score of The Experimental Class and Control Class

a. The Normality Experimental and Control Class of Pre-test

Table 4.1

The List of Experimental and Control Class Pre-test Score

EXPERIMENT			CONTROL		
NO	CODE	SCORE	NO	CODE	SCORE
1	E-1	65	1	C-1	60
2	E-2	60	2	C-2	60
3	E-3	55	3	C-3	55
4	E-4	50	4	C-4	70
5	E-5	60	5	C-5	65
6	E-6	70	6	C-6	60
7	E-7	60	7	C-7	75
8	E-8	65	8	C-8	55

9	E-9	70	9	C-9	60
10	E-10	55	10	C-10	80
11	E-11	60	11	C-11	60
12	E-12	65	12	C-12	55
13	E-13	65	13	C-13	65
14	E-14	55	14	C-14	50
15	E-15	80	15	C-15	65
16	E-16	60	16	C-16	70
17	E-17	65	17	C-17	55
18	E-18	70	18	C-18	60
19	E-19	55	19	C-19	70
20	E-20	65	20	C-20	65
21	E-21	70	21	C-21	55
22	E-22	50	22	C-22	75
23	E-23	70	23	C-23	60
24	E-24	60	24	C-24	60
25	E-25	65	25	C-25	70
26	E-26	55	26	C-26	80
27	E-27	80	27	C-27	65
28	E-28	60	28	C-28	60
29	E-29	65	29	C-29	70
30	E-30	75	30	C-30	60
Sum		1900			1910
n		30			30

$\bar{x}$ average	63,3333			63,66667
Variant (s^2)	59, 1954			58,50575
Standard of Deviation (S)	7,69385			7,648905

1) The normality of the experimental class of the pre-test

The normality test was used to know whether the data that obtained was normally distributed or not. Based on the table above, the normality test was:

Hypothesis:

Ha: The distribution list was normal

Ho: The Distribution list was not normal

Test of Hypothesis:

The formula was used:

$$\chi^2 = \sum_{i=1}^{k} \frac{(O_i = E_i)^2}{E_i}$$

The computation of normality test:

Maximum score = 80

Minimum score = 50

K/ Number of class = 5

S = 74, 32

n = 30

Range = 30

Length of class = 5

$\bar{x}$ = 62, 90

Table 4.2

The Frequency Distribution of Experimental Class Pre-test

Class	f_i	X_i	X_i^2	$f_i.X_i$	$f_i.X_i^2$
50 – 55	7	52,5	2756,3	367.5	19294
56 – 61	7	58,5	3422,3	409,5	23956
62 – 67	8	64,5	4160,3	516	33282
68 – 73	5	70,5	4970,3	352,5	24851
74 – 79	1	86,5	5859,3	76,5	5852,3
80 – 85	2	82,5	6806,3	165	13613
Sum	30			1887	120848

Table 4.3

The Frequency Observation of Experimental Class Pre-test

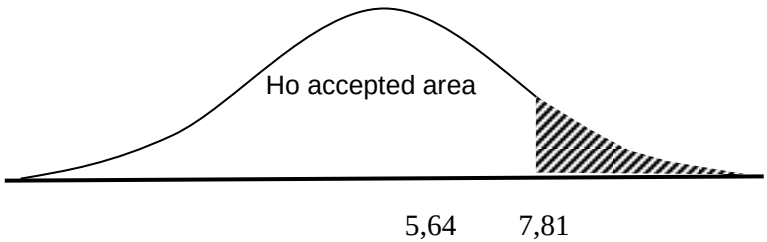
Class	Bk	Z_i	$P(Z_i)$	Wide Area	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	49,5	-1,55	-0,4400				
50 – 55		0,60		0,1353	4,1	7	2,1314
	61,5	-0,86	-0,3047				
56 – 61		0,66		0,2402	7,2	7	0,0058
	67,5	-0,16	-0,0645				

62 – 67		0,73		0,2677	8,0	8	0,0001
	73,5	0,53	0,2032				
68 – 73		0,79		0,1874	5,6	5	0,0687
	79,5	1,23	0,3906				
74 – 79		0,86		0,0823	2,5	1	0,8752
	85,5	1,93	0,4729				
80 – 85		0,93		0,0227	0,7	2	2,5543
	91,5	2,62	0,4956		0,2990		
		#REF !			χ^2 =		5,64

χ^2_{count} = 5, 64 for a= 5%, dk = 6 - 3 = 3 was gotten χ^2_{table} = 7, 81

Figure 4.1

Normality test of Experimental Class of Pre-test



With α = 5% and dk = 6 - 3 = 3, from the chi-square distribution table, it was obtained χ^2_{table} = 7, 81. Because χ^2_{count} = 5, 64 was lower than χ^2_{table} = 7, 81 (5, 64< 7, 81). So the distribution list was normal.

2) The Normality of the Control Class of Pre-test

Hypothesis:

Ho: The distribution list was normal.

Ha: The distribution list was not normal.

Test of hypothesis:

The formula was used:

$$\chi^2 = \sum_{i=1}^{k} \frac{(O_i = E_i)^2}{E_i}$$

The computation of normality test:

Maximum score	= 80
Minimum score	= 50
K/ Number of class	= 6
S	= 8, 87
n	= 30
Range	= 35
Length of class	= 6
$\overline{X}$	= 63, 10

Table 4.4

Table Frequency Distribution of the Control Class Pre-test

Class	f_i	X_i	X_i^2	$f_i.X_i$	$f_i.X_i^2$
50 – 55	6	52,5	2756,25	315	16537,5
56 – 61	10	58,5	3422,25	585	34222,5
62 – 67	5	64,5	4160,25	322,5	20801,25
68 – 73	5	70,5	4970,25	352,5	24851,25
74 – 79	2	76,5	5852,25	153	11704,5
80 – 85	2	82,5	6806,25	165	13612,5
Sum	30			1893	1217230

Table 4.5

Table Frequency Observation of the Control Class Pre-test

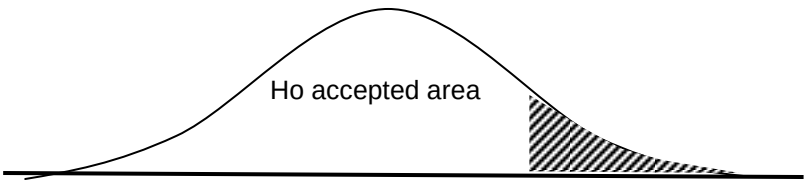
Class	Bk	Z_i	$P(Z_i)$	Wide Area	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	49,5	-1,53	-0,4374				
50 – 55		0,60		0,1332	4,0	6	1,0065
	55,5	-0,86	-0,3043				
56 – 61		0,66		0,2327	7,0	10	1,3066
	61,5	-0,18	-0,0716				
62 – 67		0,73		0,2617	7,9	5	1,0348
	67,5	0,50	0,1901				
68 – 73		0,79		0,1894	5,7	5	0,0821
	73,5	1,17	0,3795				

74 – 79			0,86		0,0883	2,6	2	0,1584
		79,5	1,85	0,4678				
80 – 85			0,93		0,0264	0,8	2	1,8350
		85,5	2,53	0,4942		0,2990		
			#REF!			χ^2 =		5,42

χ^2_{count} = 5, 42 for a= 5%, dk = 6 - 3 = 3 was gotten χ^2_{table} = 7,81

Figure 4.2

Normality test of Control Class of Pre-test



5,42 7,81

With α = 5% and dk = 6 - 3 = 3, from the chi-square distribution table, it was obtained χ^2_{table}= 7, 81. Because χ^2_{count} = 5, 42 was lower than χ^2_{table} = 7, 81 (5, 42 < 7, 81). So the distribution list was normal.

b. Homogeneity Experimental and Control Class of Pre-test

Hypothesis

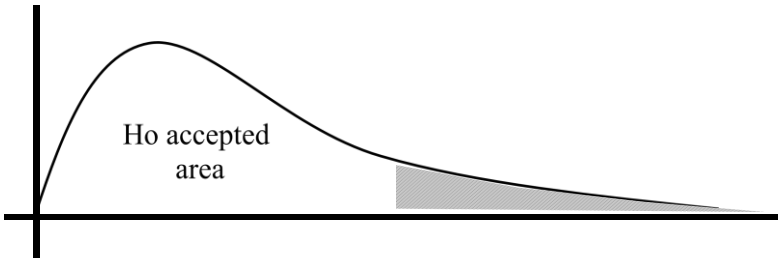
$H_o : \sigma_1^2 = \sigma_2^2$

$H_a : \sigma_1^2 \neq \sigma_2^2$

The Calculation Formula:

$$F = \frac{\text{The biggest Variants}}{\text{The smallest Variants}}$$

Ho is accepted if $F \leq F_{(1-a)\,(nb-1):\,(nk-1)}$



$F_{(1-a)\,(nb-1):(nk-1)}$

Table 4.6

Homogeneity test of Experimental and Control Class Pre-test

Variation Source	Experiment	Control
Sum	1900	1910
N	30	30
$\overline{X}$	63,333	63,667
Variant (s^2)	59, 195	58,506
Standard of deviation (s)	7,694	7,649

$$F = \frac{59,195}{58,506} = 1,012$$

For a = 5% with:

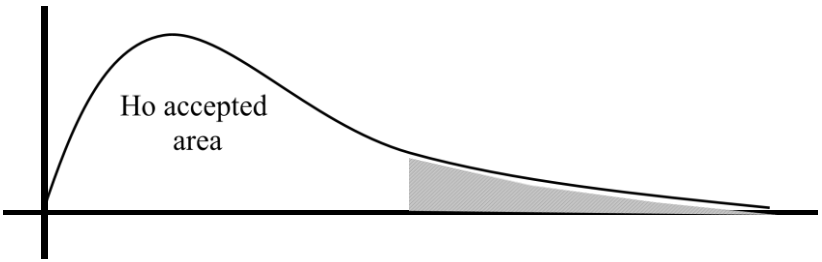
df1 = nb – 1 = 30 - 1 = 29

Df2 = nk -1 = 30 - 1 = 29

$F_{(0.05)(29:29)} = 1,861$ `

Figure 4.3

Homogeneity Experimental and Control Class of Pre-test



1, 012 1,861

Because $F_{count} < F_{table,}$ the experimental and control group had the same variance with α = 5% and dk = (30-1=29) : (30-1=29), it obtained $F_{table} = 1, 861$. Because F_{count} was lower than F_{table} (1, 012 < 1, 861). So, Ho was accepted and two groups had same variant/ **homogenous.**

c. The Hypothesis Test of Pre-test

In this research, because $H_0 : \sigma_1^2 = \sigma_2^2$ (has same variant), the t-test formula was as follows:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

The Average Similarity Test of Experimental and Control Class Pre-test

Variation Source	Experiment	Control
Sum	1900	1910
n	30	30
$\bar{X}$	63,333	63,667
Variants (s^2)	59,195	58, 506
Standard of deviation (s)	7,694	7,649

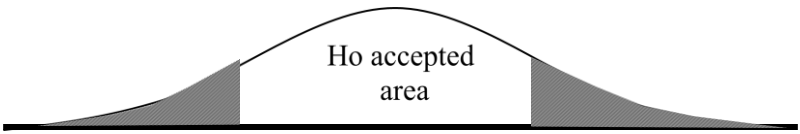
$$s = \sqrt{\frac{(30-1)59{,}195 + (30-1)58{,}506}{30 + 30 - 2}} = 7{,}6714$$

$$t = \frac{63{,}33 - 63{,}67}{7{,}88\sqrt{\frac{1}{30} + \frac{1}{30}}} = -0{,}168$$

With a = 5% with dk = 30 + 30 – 2 = 58, it obtained $t_{(0, 05)(58)}$ = 2, 00

Figure 4.4

The Average Similarity Test of Pre-test



Because t_{count} was lower than t_{table} (-0, 168< 2,00). So, Ho was accepted and there was no difference of pre-test average score from both of experimental and control groups.

2. **The Data Analysis of Post-test Score of the Experimental Class and Control Class**

   a. **The Normality experimental and control class of post-test**

Table 4.8

The list of experimental and control class post-test score

EXPERIMENTAL			CONTROL		
NO	CODE	SCORE	N0	CODE	SCORE
1	E-1	85	1	C-1	75
2	E-2	90	2	C-2	65

3	E-3	70	3	C-3	65
4	E-4	80	4	C-4	65
5	E-5	85	5	C-5	65
6	E-6	80	6	C-6	75
7	E-7	70	7	C-7	60
8	E-8	55	8	C-8	60
9	E-9	85	9	C-9	75
10	E-10	75	10	C-10	80
11	E-11	60	11	C-11	70
12	E-12	75	12	C-12	55
13	E-13	75	13	C-13	75
14	E-14	80	14	C-14	60
15	E-15	70	15	C-15	70
16	E-16	65	16	C-16	80
17	E-17	70	17	C-17	50
18	E-18	65	18	C-18	60
19	E-19	70	19	C-19	50
20	E-20	60	20	C-20	75
21	E-21	75	21	C-21	55
22	E-22	80	22	C-22	70
23	E-23	80	23	C-23	65
24	E-24	70	24	C-24	70
25	E-25	65	25	C-25	70

26	E-26	75	26	C-26	85
27	E-27	65	27	C-27	75
28	E-28	70	28	C-28	70
29	E-29	60	29	C-29	80
30	E-30	70	30	C-30	60
Sum		2175			2030
n		30			30
$\bar{x}$ average		72,5			67,667
Variants (s^2)		73,707			82,299
Standard of deviation (S)		8,585272			9,07187

1) The normality of the of Experimental Class Post-test

The normality test was used to know whether the data that obtained was normally distributed or not. Based on the table above, the normality test was:

Hypothesis:

Ha: The distribution list was normal

Ho: The distribution list was not normal

Test of Hypothesis:

The formula was used:

$$\chi^2 = \sum_{i=1}^{k} \frac{(O_i = E_i)^2}{E_i}$$

The computation of normality test:

Maximum score = 90

Minimum score = 55

K/ Number of class = 6

s = 11, 14

n = 30

Range = 35

Length of class = 6

$\bar{x}$ = 75, 50

Table 4.9

The Frequency Distribution of the Experimental Class Post Test

Class	f_i	X_i	X_i^2	$f_i.X_i$	$f_i.X_i^2$
55 – 61	4	58	3364	232	13456
62 – 68	4	65	4225	260	16900
69 – 75	8	72	5184	576	41472
76 – 82	5	79	6241	395	31205
83 – 89	5	86	7396	430	36980
90 – 96	4	93	8649	372	34596
Sum	30			2265	174609

Table 4.10

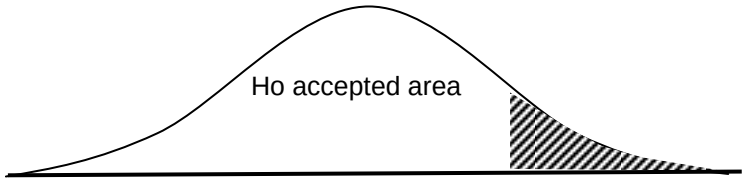
Table Frequency Observation of the Experimental Class Post-Test

Class	Bk	Z_i	$P(Z_i)$	Wide Area	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	54,5	-1,88	-0,4702				
55 – 61		0,60		0,0748	2,2	4	1,3772
	61,5	-1,26	-0,3955				
62 – 68		0,66		0,1604	4,8	4	0,1375
	68,5	-0,63	-0,2350				
69 – 75		0,73		0,2350	7,1	8	0,1276
	75,5	0,00	0,0000				
76 – 82		0,79		0,2350	7,1	5	0,5967
	82,5	0,63	0,2350				
83 – 89		0,86		0,1604	4,8	5	0,0072
	89,5	1,26	0,3955				
90 – 96		0,93		0,0748	2,2	4	1,3772
	96,5	96,5	0,4702		0,2990		
		#REF!			χ^2 =		3,62

χ^2_{count} = 3, 62 for a= 5%, dk = 6 - 3 = 3 was gotten χ^2_{table} = 7,81

Figure 4.5

The normality Test of experimental class of post-test



With $\alpha = 5\%$ and dk = 6 - 3 = 3, from the chi-square distribution table, it was obtained $\chi^2_{table} = 7, 81$. Because $\chi^2_{count} = 3, 62$ was lower than $\chi^2_{count} = 7, 81$ (3, 62< 7, 81). So the distribution list was normal.

2) The Normality of the Control Class of Post-test

Hypothesis:

Ho: The distribution list was normal.

Ha: The distribution list was not normal.

Test of hypothesis:

The formula was used:

$$\chi^2 = \sum_{i=1}^{k} \frac{(O_i = E_i)^2}{E_i}$$

The computation of normality test:

Maximum score	= 85
Minimum score	= 50
K/ Number of class	= 6
S	= 8, 99
n	= 30
Range	= 35
Length of class	= 6
$\overline{X}$	= 67, 47

Table 4.11

The Frequency Distribution of Control Class Post-test

Class	f_i	X_i	X_i^2	$f_i.X_i$	$f_i.X_i^2$
50 – 56	4	53	2809	212	11236
57 – 63	5	60	3600	300	18000
64 – 70	11	67	4489	737	49379
71 – 77	6	74	5476	444	32856
78 – 84	3	81	6561	243	19683
85 – 91	1	88	7744	88	7744
Sum	30			2024	138898

Table 4.12

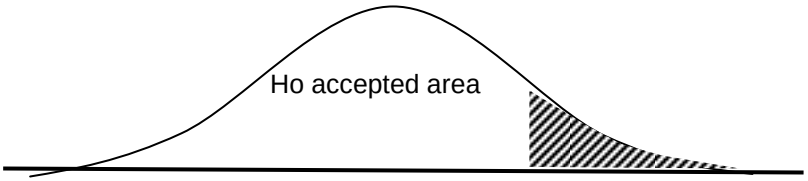
The Frequency Observation of Control Class Post-test

Class	Bk	Z_i	$P(Z_i)$	Wide Area	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	49,5	-2,00	-0,4771				
50 – 56		0,77		0,0885	2,7	4	0,6825
	56,5	-1,22	-0,3887				
57 – 63		0,86		0,2182	6,5	5	0,3656
	63,5	-0,44	-0,1704				
64 – 70		0,96		0,3025	9,1	11	0,4087
	70,5	0,34	0,1321				
71 – 77		1,05		0,2357	7,1	6	0,1619
	77,5	1, 12	0,3677				
78 – 84		1,14		0,1032	3,1	3	0,0029
	84,5	1,89	0,4709				
85 – 91		1,23		0,0253	0,8	1	0,0755
	91,5	2,67	0,4962		0,2219		
		#REF!			χ^2	=	1,70

χ^2_{count} = 1, 70 for a= 5%, dk = 6 - 3 = 3 was gotten χ^2_{table} = 7,81

Figure 4.6

The Normality of the Control Class of Post-test



1,70 7,81

With α = 5% and dk = 6 - 3 = 3, from the chi-square distribution table, it was obtained χ^2_{count} = 7, 81. Because χ^2_{count} = 1, 70 was lower than χ^2_{table} = 7, 81 (1, 70< 7, 81). So the distribution list was normal.

b. Homogeneity Experimental and control class of Post-test

Hypothesis

$H_O : \sigma_1^2 = \sigma_2^2$

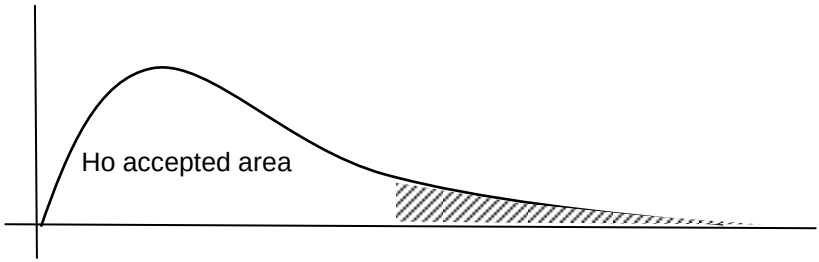
$H_a : \sigma_1^2 \neq \sigma_2^2$

The Calculation

Formula:

$$F = \frac{\text{The biggest Variants}}{\text{The smallest Variants}}$$

Ho is accepted if $F \leq F_{(1-a)\,(nb-1):\,(nk-1)}$



$F_{(1-a)\,(nb-1):(nk-1)}$

Table 4.13

Homogeneity test of Experimental and Control Class of Post-test

Variation Source	Experiment	Control
Sum	2175	2030
N	30	30
$\overline{X}$	72,500	67,667
Variant (s^2)	73,707	82, 299
Standard of deviation (s)	8,585	9,072

$$F = \frac{82,2989}{73,7069} = 1,117$$

For a = 5% with:

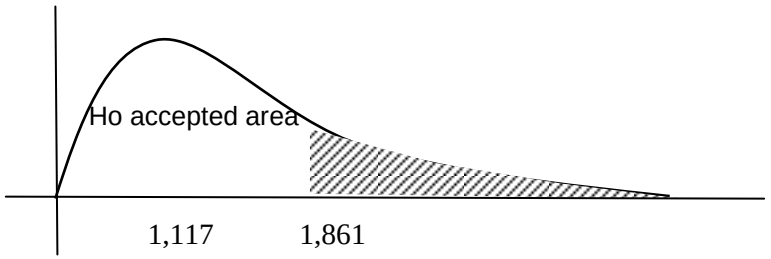
df1 = nb – 1 = 30 - 1 = 29

df2 = nk -1 = 30 - 1 = 29

$F_{(0.05)(29:29)}$ = 1,861

Figure 4.7

Homogeneity Experimental and Control Class of Post-test



Because $F_{count} < F_{table,}$ the experimental and control group had the same variance with α = 5% and dk = (30-1=29) : (30-1=29), it obtained F_{table} = 1, 861. Because F_{count} was lower than F_{table} (1, 117< 1, 861). So, Ho was accepted and two groups had same variant/ **homogenous.**

c. The Hypothesis Test of Post-test

In this research, because $H_0 : \sigma_1^2 = \sigma_2^2$ (has same variant), the t-test formula was as follows:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Ha is accepted if $t_{count} > t_{(1-a)(n1+n2-2)}$

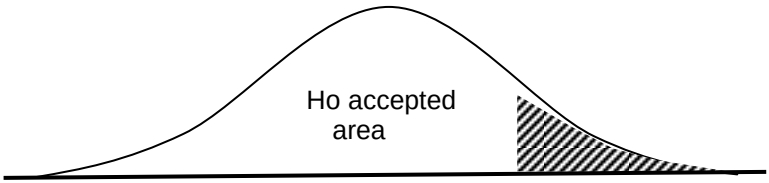


Table 4.14

The Average Similarity Test of Experimental and Control Class of Post-test

Variation Source	Experiment	Control
Sum	2175	2030
n	30	30
$\overline{X}$	72,500	67,667
Variant (s^2)	73,707	82, 299
Standard of deviation (s)	8,5850	9, 072

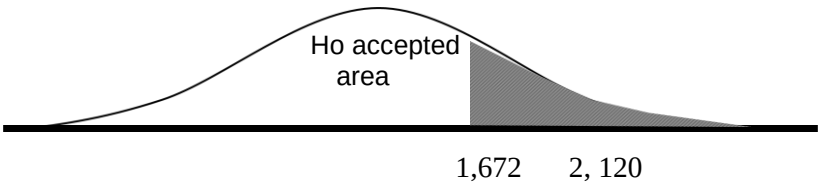
$$s = \sqrt{\frac{(30 - 1)73{,}7069 + (30 - 1)82{,}2989}{30 + 30 - 2}} = 8{,}8319$$

$$t = \frac{72{,}50 - 67{,}67}{8{,}8319\sqrt{\frac{1}{30} + \frac{1}{30}}} = 2{,}120$$

With a = 5% with dk = 30 + 30 – 2 = 58, it obtained $t_{(0,\,05)(58)} = 1{,}672$

Figure 4.8

The Average Similarity Test of Post-test



Since $t_{count} > t_{table}$ meant that there was a significant difference between experimental and control class on the post test. The experimental class was higher than the control class.

Based on the computation above, by α = 5% of significance and dk = 30 + 30 - 2 = 58. It was obtained t_{table} = 1, 672 while t_{count} = 2, 120. So, it can be concluded that Ho was rejected, Ha was accepted because t_{count} was higher than the critical score on the t_{table} (2, 120>1, 672).

Based on the result, the hypothesis in this research could be concluded that there was a significance difference in the result score of

descriptive text between experimental class and control class which was taught speaking descriptive text by using think pair share technique in experimental class and control class taught without using think pair share technique.

C. Discussion of the Research Finding

1. The score of initial ability (pre-test)

   Based on the calculations of normality and homogeneity test from class X.1 as the experimental class and X.2 as the control class was normal distribution and homogeneous.

2. The score of final ability (Post-test)

   The result of this research is obtained the average score of experimental class was 72,500 which were higher than the result of control class was 67,667.

   The average score of experimental class was 72, 500 and (S) Standard of deviation was 8, 585. Teaching speaking of descriptive text in experimental class by using think pair share technique can encourage the students to be more active and interactive. They were also easy to understand the material when teaching and learning process conducted by using think pair share technique. It can be seen on the result of average score of experimental class which better than control class.

The average score of control class was 67, 667 and (S) Standard of deviation was 9, 072. The teaching speaking of descriptive text in control class by using lecturing method made students felt bored with the text that was presented because the teaching-learning process was monotonous. So, the students couldn't understand the teaching-learning process optimally.

Based on the result of calculation t-test was obtained t_{count} = 2, 120 and t_{table}= 1, 672. This showed that $t_{count} > t_{table}$ (t_{count} higher than t_{table}). Thus, it meant that there was a significant difference between descriptive result score of students who taught speaking descriptive text by using think pair share technique and without think pair share technique in the teaching speaking of descriptive text.

D. Limitations of the Research

The researcher realized that this research had not been conducted optimally. There were constraints and obstacles faced during the research process. Some limitations of this research were:

1. The researcher was still lack of experience and knowledge of teaching-learning. It made the implementation process of this research was less smooth. But the researcher tried as maximal as possible to do this research.

2. The researcher was limited at MA Sunan Kalijaga Bawang in the academic year 2015/2016. When the same research is conducted in others school, it was still possible that will be gained different score.

Considering all those limitations, there was a need to do more researches about teaching speaking of descriptive text using think pair share technique or different technique. Hopefully, there will be better and has an optimal result.