## CHAPTER IV RESEARCH FINDING AND ANALYSIS

This chapter is related to analysis of data collection from the research finding and discussion. This research was intended to find out the degree of the effectiveness of using Song in teaching Simple Past Tense.

## A. Description of Research

Finding of this research described that there were different result between experimental class which was taught by using Song and control class which was taught by using conventional method in teaching simple past tense. The research was conducted in MTs. Miftahul Ulum Weding Demak with Eight grades in the academic year of 2015/ 2016.

NO	Activity		N	lonth/	' Date	)	
NU	Activity			April-			
	Pre test	21 <sup>st</sup>	$27^{\text{th}}$	$28^{\text{th}}$	3 <sup>rd</sup>	$4^{\text{th}}$	5 <sup>th</sup>
1	a. Experimental Class						
	b. Control Class						
2	Treatment in						
	experimental class						
3	Conventional teaching					$\checkmark$	
	in control class						
	Post test						
4	a. Control Class						
	b. Experimental Class						

Table	4.1
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The researcher gave pre-test on 21<sup>st</sup> April 2016 in control and experimental class. After giving pre-test, the researcher determined the materials and lesson plans of learning activities. Pre-test was conducted to both classes to know that two classes were normal and homogeneous.

After knowing the control class and experimental class had same variant. Before giving the treatment and conventional method, the researcher prepared lesson plan and material to learning activity. The researcher conducted the conventional teaching in control class on 28<sup>th</sup> April and 04<sup>rd</sup> Mei 2016. Control class was taught by using conventional method, without giving variation on special treatment in learning process. The treatment for experimental class was conducted on 27<sup>th</sup> April and 04<sup>th</sup> Mei 2016 by using Song.

After giving treatment in experimental class and conventional method in control class, the researcher gave post-test to both classes. The researcher gave post-test on 05 Mei 2016.

## **B.** Data Analysis

1. First Phase Analysis

It was done to know the normality and homogeneity of the initial data in the experimental and control class.

a. Normality Test

Normality test is used to know whether the data is normally distributed or not. To find out the distribution data, it is used normality test with Chi Square. Ho: the data distributed normally

Ha: the data did not distribute normally

With the criteria:

Ho accepted if  $\chi^2_{count} < \chi^2_{table}$ Ho rejected if  $\chi^2_{count} > \chi^2_{table}$ 

Table 4.2 The Normality Result Pre-test in Experimental and Control Class

Class	$\chi^2$ count	$\chi^2$ table	criteria
Experimental	5.80755525	16.9	Normal
Control	7.8330268	14.1	Normal

Based on analysis above, it can be seen that  $X^2_{count}$  of both classes is lower than  $\chi^2_{table}$  ( $\chi^2_{count} < \chi^2_{table}$ ), so Ho is accepted. The conclusion is distribution of data of experimental class and control class is normal.

b. Homogeneity Test

Homogeneity test is used to know whether the group of sample is taken from population is homogeneous or not.

Ho:  $\sigma_1^2 = \sigma_2^2$ Ha:  $\sigma_1^2 \neq \sigma_2^2$ 

Table 4.3The Result of Homogeneity Test of Pre-test of<br/>Experimental Class and Control Class

Class	Variance (S <sup>2</sup> )	N	Df	F count	F table	Criteria
Experimental	161.6643	38	37	1.2445	1.744	homogeneous
Control	129.916	35	34	1.2443	1./44	homogeneous

According to the formula above, it is obtained that:

$$F = \frac{Vb}{Vk}$$

$$F = 161.6643/129.916$$

$$= 1.244375887$$

Based on the computation above, it is obtained that F  $_{count}$  is lower than F  $_{table}$ , so Ho is accepted. It can be concluded that the data of pre-test from experimental class and control class has the same variance or homogeneous.

Testing the similarity of average of the initial data between experimental and control class. To test the difference average, used t-test.

Ho:  $\mu_1 = \mu_2$ 

Ha:  $\mu_1 \neq \mu_2$ 

Where:

 $\mu_1$ : average data of experimental class

 $\mu_2$ : average data of control class

Table 4.4 The Result of Average Similarity Test of Pre-test of Experimental and Control Class

Variation source	Experimental	Control	Criteria
Sum	1410	1530	
Ν	38	35	Но
Average	37.10526	43.71429	accepted
Variance	161.6643	129.916	accepted
Standard deviation	12.71473	11.39807	

### According to the formula above, it is obtained that:

### Table 4.5

							or Equality of Equality of M			
						Sig. (2-	Mean	Std. Error	959 Confid Interval Differe	ence of the
		F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
nilai	Equal variances assumed	.083	.775	2.331	71	.023	-6.609	2.835	-12.262	956
	Equal variances not assumed			2.342	70.953	.022	-6.609	2.822	-12.237	981

#### Independent Samples Test

From the calculation above, it is seen that t count was -2.331. With  $\alpha$ = 5% and df= 38+35-2= 71, obtained t <sub>table</sub> = 1.993943368. From the result of calculation t-test, t <sub>count</sub>= -2.331. Because t <sub>count</sub> was lower than t <sub>table</sub> (1.993943368> -2.331) so Ho was accepted.

## 2. End Phase Analysis

It was done to answer hypothesis of this research. The used data were the result of post-test of both classes. The final analysis contained of normality test, homogeneity test and the hypothesis test.

a. Normality Test

Ho: the data distributes normally Ha: the data does not distribute normally With the criteria: Ho accepted if  $\chi^2_{\text{count}} < \chi^2_{\text{table}}$ Ho rejected if  $\chi^2_{\text{count}} > \chi^2_{\text{table}}$ With a= 5% and df= k-1

# Table 4.6 The Result of Normality Test of Post-test of Experimental Class and Control Class

Class	$\chi^2$ count	$\chi^2$ table	Criteria
Experimental	8.14766697	9.49	Normal
Control	3.99069598	14.1	Normal

Based on analysis above, it can be seen that  $\chi^{2}_{count}$  of both classes are lower than  $\chi^{2}_{table}$  so Ho is accepted. The conclusion is the distribution data of experimental class and control class are normal.

b. Homogeneity Test

The homogeneity test is used to know whether the group sample that is taken from population is homogeneous or not.

Ho:  $\sigma_1^2 = \sigma_2^2$ Ha:  $\sigma_1^2 \neq \sigma_2^2$ 

Table 4.7 The Homogeneity Result of Post- test Experimental Class and Control Class

Class	Variance (S <sup>2</sup> )	N	df	F count	F table	criteria
Experiment	51.93812	38	37			
al				1.687	1.744	homogeneous
Control	87.60504	35	34			

According to the formula above, it is obtained:

$$F = \frac{Vb}{Vk}$$
$$= \frac{87.60504}{51.93812} = 1.686719$$

Based on computation above it is obtained that  $F_{count}$  is lower than  $F_{table}$  so Ho is accepted. It can be conclude that post-test data from experimental class and control class have the same variance or homogeneous.

c. Hypothesis Test

Testing the similarity of average of the initial data between experimental and control class. To test the difference average, used t-test. Ho: F <sub>count</sub> < F <sub>table</sub> and Ha: F <sub>count</sub> > F <sub>table</sub> Where:

Group of Test (Factor A): 1= Pre-test

2= Post-test

Group of Methods (Factor B):

1= Using song

2= Conventional

The table is as follows:

## Table 4.8

DATA ANALISIS VARIAN FAKTORIAL (ANAVA FAKTORIAL)

Notico	KELOMPOK	KELOMPOK	SKOR
NOMOR	Tes	Metode	Hasil Belajar
RESPONDEN	(FAKTOR A)	(FAKTOR B)	(Y)
1	1	1	40
2	1	1	40
3	1	1	40
4	1	1	60
5	1	1	50
6	1	1	40
7	1	1	50
8	1	1	50
9	1	1	40
10	1	1	30
11	1	1	30
12	1	1	20
13	1	1	30
14	1	1	20
15	1	1	40
16	1	1	50
17	1	1	20
18	1	1	40
19	1	1	40
20	1	1	40
21	1	1	30
22	1	1	40
23	1	1	20
24	1	1	30
25	1	1	30
26	1	1	20
27	1	1	70
28	1	1	60
29	1	1	50
30	1	1	30
31	1	1	50

32	1	1	20
33	1	1	20
34	1		40
35		1	40
36	1	1	
	1	1	40
37	1	1	30
38	1	1	20
39	1	2	50
40	1	2	40
41	1	2	40
42	1	2	50
43		2	40
44	1	2	60
45	1	2	40
46	1	2	50
47	1	2	60
48	1	2	30
49	1	2	30
50	1	2	70
51	1	2	40
52	1	2	50
53	1	2	30
54	1	2	60
55	1	2	60
56	1	2	40
57	1	2	30
58	1	2	30
59	1	2	50
60	1	2	40
61	1	2	50
62	1	2	30
63	1	2	60
64	1	2	40
65	1	2	40
66	1	2	50
67	1	2	50
67	1	2	50

68	1	2	30
69	1	2	30
70	1	2	50
71	1	2	30
72	1	2	50
73	1	2	30
74	2	1	80
75	2	1	75
76	2	1	85
77	2	1	90
78	2	1	75
79	2	1	70
80	2	1	80
81	2	1	85
82	2	1	75
83	2	1	90
84	2	1	75
85	2	1	65
86	2	1	85
87	2	1	85
88	2	1	80
89	2	1	75
90	2	1	75
91	2	1	85
92	2	1	70
93	2	1	70
94	2	1	85
95	2	1	75
96	2	1	90
97	2	1	85
98	2	1	80
99	2	1	90
100	2	1	85
101	2	1	85
102	2	1	80
103	2	1	70

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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
108         2         1         80           109         2         1         65           110         2         1         65           111         2         1         65           112         2         2         8           113         2         2         7           114         2         2         7           115         2         2         6           116         2         2         7           118         2         2         7           119         2         2         7           120         2         2         7           121         2         2         9           123         2         2         8
109         2         1         65           110         2         1         75           111         2         1         65           112         2         2         8           113         2         2         7           114         2         2         7           115         2         2         66           116         2         2         7           118         2         2         7           119         2         2         7           120         2         2         7           121         2         2         9           122         2         9         9           123         2         2         8
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
111     2     1     65       112     2     2     8       113     2     2     7       114     2     2     7       115     2     2     6       116     2     2     8       117     2     2     7       118     2     2     7       119     2     2     7       120     2     2     7       121     2     2     8       123     2     2     8
112     2     2     8       113     2     2     7       114     2     2     7       115     2     2     6       116     2     2     8       117     2     2     7       118     2     2     7       119     2     2     7       120     2     2     7       121     2     2     9       123     2     2     8
113       2       2       7         114       2       2       7         115       2       2       6         116       2       2       8         117       2       2       7         118       2       2       7         119       2       2       7         120       2       2       7         121       2       2       9         123       2       2       8
114         2         2         7           115         2         2         66           116         2         2         8           117         2         2         7           118         2         2         7           119         2         2         7           120         2         2         7           121         2         2         8           122         2         9         9           123         2         2         8
115         2         2         6           116         2         2         8           117         2         2         7           118         2         2         7           119         2         2         7           120         2         2         7           121         2         2         8           122         2         9         9           123         2         2         8
116         2         2         8           117         2         2         7           118         2         2         7           119         2         2         7           120         2         2         7           121         2         2         8           122         2         9         9           123         2         2         8
117         2         2         7           118         2         2         7           119         2         2         7           120         2         2         7           121         2         2         8           122         2         9         9           123         2         2         8
118         2         2         7           119         2         2         7           120         2         2         7           121         2         2         8           122         2         2         9           123         2         2         8
119         2         2         7           120         2         2         7           121         2         2         8           122         2         2         9           123         2         2         8
120         2         2         7           121         2         2         8           122         2         9         9           123         2         2         8
121         2         2         8           122         2         2         9           123         2         2         8
122 2 2 9 123 2 2 8
123 2 2 8
125 2 2 6
126 2 2 7
127 2 2 6
128 2 2 5
129 2 2 6
130 2 2 7
131 2 2 7
132 2 2 7
133 2 2 7
134 2 2 7
135 2 2 9
136 2 2 9
137 2 2 7
138 2 2 7
139 2 2 8
140 2 2 8
141 2 2 7
142 2 2 7
143 2 2 7
144 2 2 7
145 2 2 7
146 2 2 8

 Table 4.9
 HASIL ANALISIS STATISTIK DESKRIPTIF UNTUK VARIABEL :

Hasil Belajar

		Tes (Faktor A)		Total	
		A1	A2	Faktor B	
		N11= 38	N21= 38	N•1= 76	
	<b>B1</b>	M11= 37.105	M21= 78.816	M•1= 57.961	
Metode		s11= 12.715	s21= 7.207	s•1= 23.369	
(Faktor B)		N12= 35	N22= 35	N•2= 70	
	B2	M12= 43.714	M22= 73.571	M•2= 58.643	
		s12= 11.398	s22= 9.360	s•2= 18.256	
	Total	N1•= 73	N2•= 73	N••= 146	
	Faktor A	M1•= 40.274	M2•= 76.301	M••= 58.28	
		s1•= 12.469	s2•= 8.661	s••= 21.004	

## **Table 4.10**

### RANGKUMAN HASIL ANALISIS VARIAN

SUMBER VARIAN		JUMLAH KUADRAT (JK)	DERAJAT KEBEBASAN (DK)	RERATA KUADRAT (RK)	F	F-KRITIS PADA Taraf 5%	KESIMPULAN
Tes (	(A)	47376.027	1	47376.027	439.728	3.908	Signifikan
Metode (	(B)	16.965	1	16.965	0.157	3.908	Tidak Sign.
INTERAKSI (A*	B)	1279.922	1	1279.922	11.880	3.908	Signifikan
DALAM		15299.004	142	107.739			
TOTAL		63971.918	145				

Variabel dependen: Hasil Belajar

### **Table 4.11**

	UJI LANJUT I	NTERAKSI AB						
	Kriteria Signifikansi pada taraf				6 =	'F	=	11.723
		A1B1	A1B2					
A1B2	Έ;	7.386						
	Kesimpulan:	Tidak Sign.						
A2B2	Έ;	224.871	144.797					
	Kesimpulan:	Signifikan	Signifikan					

Based on the computation above, it can be seen that F  $_{count}$  is higher than F  $_{table}$ . F  $_{count}$  is 11.880 and F  $_{table}$  is 3.908. It can be concluded that Ho is rejected and Ha is accepted, so there is a significance difference between students who are taught by using song and those taught by using conventional method where the average score of experimental class is higher than average score of control class and also it can be seen from the average score of both classes. The average score of control class is 73.571. The researcher concluded that using song as a medium is a good way for teaching Simple Past Tense.

## C. Discussion of the Research Findings

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

Based on the calculation of normality and homogeneity from class VIII D as the experimental class and

class VIII E as the control class is normal distribution and homogeneous.

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

Based on the calculation of two ways ANOVA, F  $_{count}$  is higher than F  $_{Table,}$  so it can be concluded that there is a different significance between experimental class and control class where score of experimental class is higher than control class.

### **D.** Limitation of the Research

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

- This research was limited at MTs Miftahul Ulum Weding Bonang Demak in the academic year of 2015/2016. When the same researches conducted in other schools, it is still possible that different result will be gained.
- 2. In conducting this research, the researcher has short time, so, it could not be done maximally, but if the research conducted in long time, it will gain a good result.