

## **CHAPTER IV**

### **RESEARCH FINDINGS AND DISCUSSION**

This chapter presents the findings as the result of analyzing the data. Therefore, this chapter discusses the description of data, the fulfillment of statistical assumptions, the homogeneity of the sample, hypotheses testings, research findings and discussion.

#### **4.1. Data**

The data of this research was obtained after pre-test and post-test applied in the experimental class. The data which were needed to test the hypothesis taken from the test scores of each class.

In collecting the data of the students' ability in English vocabulary mastery in experimental class by using Simile Games technique, the researcher gave multiple choice test, to examine the students' ability. The test was divided into pre-test and post-test. The purpose of this research is to find out whether the students' mastery in English vocabulary of SMP SwastaBPI Paluh Kurau taught by using Simile Games Technique increased or not. The result of this research in English vocabulary mastery in experimental and control class can be seen in the following tables:

**Table 4.1 Score of the Control Class**

<b>No</b>	<b>Name</b>	<b>Pre-test</b>	<b>Post-test</b>	<b>Gained Score</b>
1	SW	70	80	10
2	MO	70	75	5
3	VS	70	70	0
4	SL	70	70	0
5	US	65	70	5
6	VA	65	65	0
7	ZS	65	65	0
8	AN	60	65	5
9	AH	60	60	0
10	NW	60	60	0
11	RA	60	60	0
12	SP	60	65	5
13	WM	60	60	0
14	YI	60	60	0
15	AA	60	60	0
16	AA	55	60	5
17	AI	55	55	0
18	BS	55	55	0
19	ML	55	55	0
20	MIB	55	55	0
21	MR	50	50	0
22	AS	50	55	5
23	SV	50	50	0
24	SS	50	50	0
25	RD	50	50	0
26	AM	50	50	0
27	MAH	45	45	0
	Total score	1575	1615	40
	Mean	58.33	59.81	1.48

**Table 4.2 Score of the Experimental Class**

<b>No</b>	<b>Name</b>	<b>Pre-test</b>	<b>Post-test</b>	<b>Gained Score</b>
1	AAG	80	100	20
2	GS	80	100	20
3	AR	80	100	20
4	AB	75	95	20
5	NS	75	95	20
6	MA	75	95	20
7	SL	75	95	20

8	NM	70	90	20
9	NPW	70	90	20
10	RA	70	90	20
11	YRA	70	90	20
12	NA	70	90	20
13	AI	70	70	0
14	YS	70	70	0
15	SDAH	70	70	0
16	PW	65	85	20
17	RGS	65	85	20
18	RA	65	85	20
19	RA	65	85	20
20	IP	65	85	20
21	MA	65	85	20
22	JN	60	80	20
23	SM	60	80	20
24	SA	60	80	20
25	MT	55	75	20
26	AS	55	75	20
27	MR	55	75	20
	Total Score	1.835	2.315	480
	Mean	67,97	85,74	17.77

#### 4.2. Fulfillment of Statistical Assumptions

Before conducted the research, the researcher tested the validity and reliability. The researcher tested validity and reliability by using SPSS 25 (Statistical Package for the Social Science).

The validity of the test was measured from t-table of Correlation Pearson Product Moment that to find out the significant level. There were 25 questions that was tested which consist of twenty five items to measure students' vocabulary ability and to test the validity of the data pre-test and post-test.

#### 4.2.1. Validity Test

**Table 4.3 Validity Pre-Test**

<b>No Item</b>	<b>R Count</b>	<b>R Table (N-2)</b>	<b>Interpretation</b>
1	0,560	0,381	Valid
2	0,415	0,381	Valid
3	0,415	0,381	Valid
4	0,424	0,381	Valid
5	0,309	0,381	Invalid
6	0,534	0,381	Valid
7	0,309	0,381	Invalid
8	0,445	0,381	Valid
9	0,424	0,381	Valid
10	0,313	0,381	Invalid
11	0,415	0,381	Valid
12	0,326	0,381	Invalid
13	0,445	0,381	Valid
14	0,328	0,381	Invalid
15	0,487	0,381	Valid
16	0,538	0,381	Valid
17	0,472	0,381	Valid
18	0,593	0,381	Valid
19	0,455	0,381	Valid
20	0,560	0,381	Valid
21	0,538	0,381	Valid
22	0,472	0,381	Valid
23	0,593	0,381	Valid
24	0,455	0,381	Valid
25	0,560	0,381	Valid

**Table 4.4 Validity Post-Test**

<b>No Item</b>	<b>R Count</b>	<b>R Table (N-2)</b>	<b>Interpretation</b>
1	0,866	0,381	Valid
2	0,681	0,381	Valid
3	0,581	0,381	Valid

4	0,866	0,381	Valid
5	0,788	0,381	Valid
6	0,866	0,381	Valid
7	0,866	0,381	Valid
8	0,914	0,381	Valid
9	0,568	0,381	Valid
10	0,446	0,381	Valid
11	0,866	0,381	Valid
12	0,415	0,381	Valid
13	0,377	0,381	Invalid
14	0,180	0,381	Invalid
15	0,625	0,381	Valid
16	0,424	0,381	Valid
17	0,740	0,381	Valid
18	0,081	0,381	Invalid
19	0,079	0,381	Invalid
20	0,193	0,381	Invalid
21	0,451	0,381	Valid
22	0,774	0,381	Valid
23	0,774	0,381	Valid
24	0,914	0,381	Valid
25	0,914	0,381	Valid

The result of the data analysis from each score of the test can be obtained with the total score. The value was compared with the value of r-table on 5% significant table with 2 tailed test  $n=$  and the r table can be seen 0,381. Based on the table above, there were 27 students that had been tested using 25 questions. And from 25 questions there were 20 valid questions r-table (0,381), and in the table of post-test, there were 20 valid questions r-table (0,381). T-table shows that significant level to the validity of the study is r-count t-table (0,381). It can be concluded that the instrument used in this study pre-test and post-test was valid.

#### 4.2.2. Reliability Test

In this research, the researcher used SPSS 25 to find the reliability of test instruments. It can be seen in the following table:

**Table 4.5 The Result of Reliability of Pre-Test**

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
, 730	25

**Table 4.6 The Result of Reliability of Post-Test**

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
, 752	25

From the result of the analysis, there were significant result of using simile games to increase students' vocabulary mastery where the reliability of Cronbach's Alpha had to higher than 0,60. Based on the table above, the result of reliability tests of pre-test and post-test showed 0,730 in table 4.5 and 0,752 in table 4.6. It means that the data from each pre-test and post-test were reliable.

#### 4.2.3. Normality of Data

**Table 4.7 The Result of Normality Pre-Test and Post-Test Test of Normality Data**

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sign.
<b>Control</b>	<b>.149</b>	<b>27</b>	<b>.127</b>	<b>.925</b>	<b>27</b>	<b>.052</b>
	<b>.158</b>	<b>27</b>	<b>.082</b>	<b>.954</b>	<b>27</b>	<b>.269</b>

<b>Experiment</b>	<b>,164</b>	<b>27</b>	<b>,059</b>	<b>,937</b>	<b>27</b>	<b>,101</b>
	<b>,135</b>	<b>27</b>	<b>,200</b>	<b>,940</b>	<b>27</b>	<b>,124</b>

Based on the data above, that could be seen the data of pre-test from control and experimental were normal. The writer used the data from Kolmogorov-Smirnov and Shapiro-Wilk to find out the normality. And the result was the higher that the  $\alpha$  (alpha): 0,05, the distributed data become normal. Based on the table above, it showed that significant value of pre-test from Kolmogorov-Smirnov for control class was  $0.127 \geq 0,05$  and from Saphiro Wilk was  $0,052 \geq 0,05$  and for experimental class was  $0,59 \geq 0,05$ . From Saphiro Wilk was  $0,101 \geq 0,05$ . It can be concluded the data from Kolmogorov-Smirnov and Shapiro-Wilk, pre-test experimental and control class were normally distributed. Above, that could be seen the data of pre-test from experimental and control class were normal.

#### 4.2.4. Homogeneity Data

After doing the test of the normality, the writer conducted the homogeneity of the test to find out the similarity of the value for both classes. The researcher use spss statistic test to calculate the homogeneity test. The result are presented as follows

**Table 4.8 Homogeneity Test of Pre-Test**

<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig</b>
,067	1	52	,796

Based on table 4.8 above, the result of homogeneity test in pre-test of control and experimental class was 0.796, so it was higher than the significant 0.05 ( $0.796 > 0.05$ ). It means that the data in pre-test of control and experimental class were homogeneous.

**Table 4.9 Homogeneity Test of Post-Test**

<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig</b>
3.833	1	52	.056

Based on table 4.9 above, the result of homogeneity test in post-test of control and experimental class was 0.056, so it was higher than the significant 0.05 ( $0.056 > 0.05$ ). It means that the data in pre-test of control and experimental class were homogeneous.

### **4.3. Hypotheses Data**

Hypotheses Test is done to answer the hypotheses which was proposed before and to decide whether the hypotheses is accepted or rejected. Based on the analysis that the technique namely result data of students' test that were taught by simile games technique. The hypotheses testing was aimed to know whether there was a significant effect between students who were taught by using Simile Games Technique in experimental class and conventional method in control class. The data was calculated by using mean score of experiment and control class students. The significance value or alpha ( $\alpha$ ) was 5% or 0,05. The result of data hypotheses that can be seen in the following table 4.10.

**Table 4.10 T-test Independent Sample T-test**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
The Result of The Test	Equal variances assumed	3,833	,056	7,578	52	,000	16,481	2,175	12,117	20,846
	Equal variances not assumed			7,578	46,430	,000	16,481	2,175	12,105	20,858

The statistic hypotheses states :

- If probability  $> 0.05$ , then  $H_0$  was rejected ;  $t_{obs} < t_{table}$ , then  $H_0$  was accepted.
- If probability  $< 0.05$ , then  $H_0$  was rejected ;  $t_{obs} > t_{table}$ , then  $H_0$  was rejected

Based on the data above, it was obtained the sig. (2-tailed) was 0,000. The value of sig (2 tailed) was lower than significant level ( $0.000 < 0.05$ ). And then, it showed that  $t_{obs} = 7.578$  and the degree of freedom (df) was 52. Based on the significance, it can be seen on df=52 in significance 5%, the value of the degree significance 2.007.

By comparing the result of  $t_{table}$  and  $t_{obs}$  that in significance 5%  $t_{obs} > t_{table} = 7.578 > 2.007$ . And the value of probability  $< 0.05$  ( $0.000 < 0.05$ ).

Then, Null Hypothesis ( $H_0$ ) was rejected and Alternative Hypothesis ( $H_a$ ) was accepted.

**Table 4.11 Group Statistic**

Group Statistics					
	Kelas	N	Mean	Std. Deviation	Std. Error Mean
Student Learning Outcomes	Post test Control Class	27	59.81	8.490	1.634
	Post test Experimental Class	27	85.74	9.272	1.784

After looking on the table of group statistic above, it has been obtained the value mean of exsperimental class from post-test was  $85.74 > 59.81$  in post-test control class. It denotes that T-test is higher than T-table.

Hence :The null hypotheses ( $H_0$ ) is rejected

The alternative hypotheses ( $H_a$ ) is accepted

It means that there was a significant difference between the students' ability in English vocabulary in experimental class by using Simile Games Technique and in control class by using conventional method.

#### 4.4. Research Finding

In this research, there were two classes that the researcher used as the samples of the research. There were two classes namely VIII A is the control class

that was taught by using conventional method. The experimental class of this research is VIII B that was taught by using simile games technique. In this research, the researcher found many differences in results between score pre-test and post-test for both experimental and control class that included score of Gained score test, validity, reliability, normality, homogeneity, and independent sample T-test. The result of Gainedscore average of experimental class students was higher than Gained score average of control class. ( $17.77 > 1.48$ ). It showed that there was significant differences between for both classes.

From the result of the mean score it has been obtained the value mean of experimental class from post-test was  $85,74 > 59.81$  in post-test control class. It means that the technique of the simile games significantly affects the students' vocabulary mastery.

#### **4.5 Discussion**

From the data analysis, there was any significance effect of using simile games technique to increase students' vocabulary mastery.

In overall, every students felt difficult when they were learning vocabulary without technique. Students also felt bored if the topic just about to remember and learning process become obstructed. Therefore, the researcher used simile games technique also to give a description how to learn vocabulary and remember it and make the students more active in the classroom.

After that, the researcher calculated the data, the finding of this research can be known that the mean of students' scores before being taught by using

Simile Games Technique. Based on the mean of pre-test and post-test, It was known that mean score of post-test higher than mean score pre-test. It means that the students' vocabulary mastery after taught by using Simile Games Technique was improved. Because, by using this technique students capable to remember vocabulary easily and students become more active and students enjoy in classroom.

In the finding equations that increase used the same skill but difference learning technique by Salfa umasugi with the titled "The Scramble Game In Improving Students' Vocabulary At The Seventh Grade Of Mts Lkmd Sawa". She found the use of scramble game in teaching vocabulary is improve. It is proved by  $\alpha$  (0.05) value of the students' posttest was higher than P-value (0.00). It is proved by the mean score of the rate students' post-test result 85.74 was higher than pretest 59.81. It indicated that there was significant improvement of the students' vocabulary. It mean that similarity result of research finding in this research.

The statistical measurement at the finding showed that  $H_0$  (Null Hypothesis) rejected;  $H_a$  (Alternative Hypothesis) was accepted, because value of t-count in higher than t-table (value of critic "t"). It can be conclude : the first is there was a significant difference in students vocabulary mastery by used Simile Games Technique of eight grade students SMP Swasta BPI Paluh Kurau. And second is by using Simile Games Technique in teaching vocabulary was affective to increase students' vocabulary mastery of eight grade students at SMP Swasta BPI Paluh Kurau.

After the researcher applied the Simile games technique to experimental class. The experimental class got average of 85.74. and control class taught by conventional method got average 59.81. This means that the used of simile game technique in increasing students' vocabulary mastery was to be good.

Before conducted the research, the researcher was tested the validity and reliability of 27 students. After tested, there were 20 valid questions. From the data analysis, the result of the post-test in the control class was 59.81 while the experimental class was 85.74.

Through the simile games technique students got more interesting experience in learning, Students can improve their vocabulary mastery by using Simile games technique, students were more active, serious, and easier to understand the material because students were directly involved in learning.

The researcher can considered that the research entitles " The effect of using simile games to increase students' vocabulary mastery in the eighth grade students at the SMP Swasta BPI Paluh Kurau " has not been researched before. Besides that, by the findings of studies that used Simile Games always showed improvement. This gives the researcher that the research can be done as successfully as the previous studies. Based on research at SMP Swasta BPI Paluh Kurau and the results obtained from data, there is a significant effect of simile games technique to ncrease students' vocabulary mastery.