

## CHAPTER IV

### RESEARCH FINDING AND DISCUSSION

#### 4.1 Data Description

In this chapter, the researcher presented the common description of the students' scores both of experiment and control class scores of the students. Several parts was described in this chapter, such as test validation, pre-test, post-test, and data analysis.

##### 4.1.1 Test of Instrument Validity and Reliability.

Table 4.1. The Result Of Test Validation.

No. Soal	Pearson Correlation	Sig.	Valid	Not Valid
1	0.637	0.001	Valid	
2	- 0.500	0.005		Not Valid
3	0.612	0.001	Valid	
4	0.260	0.166		Not Valid
5	0.462	0.010	Valid	
6	0.695	0.001	Valid	
7	0.519	0.003	Valid	
8	0.034	0.859		Not Valid
9	0.243	0.196		Not Valid
10	0.357	0.053	Valid	
11	0.626	0.001	Valid	
12	- 0.145	0.445		Not Valid
13	0.814	0.001	Valid	
14	0.301	0.106	Valid	
15	- 0.244	0.194		Not Valid
16	0.653	0.001	Valid	
17	0.168	0.374		Not Valid
18	0.583	0.001	Valid	
19	0.267	0.154		Not

				Valid
20	0.664	0.001	Valid	
21	- 0.010	0.959		Not Valid
22	0.565	0.001	Valid	
23	0.629	0.001	Valid	
24	0.450	0.013	Valid	
25	0.712	0.001	Valid	
26	0.477	0.008	Valid	
27	0.645	0.001	Valid	
28	- 0.374	0.042		Not Valid
29	0.512	0.004	Valid	
30	0.450	0.013	Valid	
31	0.661	0.001	Valid	
32	- 0.143	0.450		Not Valid
33	0.627	0.001	Valid	
34	- 0.161	0.394		Not Valid
35	0.528	0.003	Valid	
36	0.494	0.006	Valid	
37	- 0.052	0.786		Not Valid
38	0.688	0.001	Valid	
39	0.691	0.001	Valid	
40	0.221	0.240		Not Valid
41	0.744	0.001	Valid	
42	0.589	0.001	Valid	
43	0.544	0.002	Valid	
44	0.698	0.001	Valid	
45	0.526	0.003	Valid	
46	0.646	0.001	Valid	
47	0.647	0.001	Valid	
48	0.637	0.001	Valid	
49	- 0.069	0.718		Not Valid
50	0.494	0.006	Valid	

Validity is used to measure the research instrument. It is a necessity to carry out successful analysis since research can be useless if a piece of

research is invalid. Then, the researcher asked the English teacher and trying out to the sample students of Mts N 1 Jepara to test the research instrument before the test was offered to the experiment. According to the table above, the findings of the test validation have shown that the experts have allowed the researcher to test the testing instrument. The result was that the testing instrument was valid and should be used for pre-test and post-test. Reliability is the degree to which a test's consistency measures whatever it is measuring. The researcher used SPSS 21.

**Table 4.2 Case Processing Summary**

		N	%
Cases	Valid	30	100.0
	Excluded	0	.0
	Total	30	100.0

**Table 4.3 Reliability Statistic**

Reliability Statistics	
Cronbach's Alpha	N of Items
.900	50

Based on the table above, we can see that Cronbach's Alpha was 0.900, and the number of items was 50. The score obtained compares to r table of product-moment that the degree of freedom was 38 "r" product moment at the level of 5% is 0.304 and 1% is 0.393. The score obtained of Cronbach's Alpha was 0.900 higher than r table whether 5% and 1% ( $0.304 < 0.900 > 0.393$ ). I mean that the test was reliable.

#### 4.1.2 Pre-Test Score

**Table 4.4 Pre-Test Score Experiment Class and Control Class**

No.	Name	Experiment	Control
1	Student 1	51	57
2	Student 2	57	69
3	Student 3	46	40
4	Student 4	40	57
5	Student 5	54	69
6	Student 6	66	49
7	Student 7	46	46
8	Student 8	40	46
9	Student 9	46	43
10	Student 10	57	74
11	Student 11	43	34
12	Student 12	40	53
13	Student 13	46	46
14	Student 14	43	43
15	Student 15	54	53
16	Student 16	57	40
17	Student 17	53	74
18	Student 18	49	57
19	Student 19	54	60
20	Student 20	40	40
21	Student 21	74	51
22	Student 22	46	66
23	Student 23	63	60
24	Student 24	51	46
25	Student 25	63	34
26	Student 26	43	40
27	Student 27	40	54
28	Student 28		46
29	Student 29		40
30	Student 30		40
31	Student 31		43
<b>Total</b>		1362	1570
<b>Mean</b>		50,44444444	50,64516

From the table above, it was shown that the average pre-test score of students in the experimental class was 50.44, while the mean pre-test

score in the control class was 50.64. The highest score in the experimental class was 74 and the lowest score was 40. On the other side, the lowest score in the control class was 34 and the highest score was 74. It shows that the control class was little higher than the experiment class. The mean difference in score between the two classes was 0.20.

#### 4.1.3 Post-Test Score

**Table 4.5 Post-Test Score Experiment Class and Control Class**

No.	Name	Experiment	Control
1	Student 1	80	74
2	Student 2	80	71
3	Student 3	83	60
4	Student 4	71	69
5	Student 5	83	74
6	Student 6	94	82
7	Student 7	77	77
8	Student 8	71	60
9	Student 9	77	71
10	Student 10	86	88
11	Student 11	83	74
12	Student 12	88	60
13	Student 13	71	69
14	Student 14	74	77
15	Student 15	68	71
16	Student 16	80	69
17	Student 17	80	80
18	Student 18	71	74
19	Student 19	80	82
20	Student 20	74	71
21	Student 21	91	51
22	Student 22	83	66
23	Student 23	80	60
24	Student 24	88	71
25	Student 25	68	86
26	Student 26	74	74
27	Student 27	71	71
28	Student 28		69

29	Student 29		71
30	Student 30		80
31	Student 31		77
<b>Total</b>		2126	2229
<b>Mean</b>		78,74074	71,90323

From the tables above, it was shown that the mean post-test in the experimental class was 78.7, while the control class was 71.9. It means that the mean of the experimental class was increase and higher than the Control class.

#### 4.2 Data Analysis

In this part of the research, the students' data from pre-test and post-test in the experiment class and the control class were analyzed using an independent sample t-test. The researcher used SPSS 21.0 to analyze the result. The pre-test and post-test findings details can be seen as follows:

##### 4.2.1 Pre Test

The students were given a pre-test to the experiment class and the control class in the previous meeting. It used to consider the vocabulary of students before receive treatment in the experiment class. The statistical data analysis of the pre-test in the experiment and control class was illustrated in this part. The review of the results using SPSS 21.0 can be seen as bellow :

##### a. Normality

#### 4.5 Normality Test

##### Test of Normality

Class		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Total Score	Pre-Test Experiment	.171	27	.041	.919	27	.038
	Pre-Test Control	.175	31	.016	.929	31	.041

In this part, the normality test was used to determine whether or not the data collected was normally distributed. When the significant value was greater than 0,05, the data was normal ( $p > 0,05$ ). Then, when the significant value was below 0,05, the data was considered non-normal ( $p < 0,05$ ), according to Sujianti, as referred to in (As'ari, 2018). From the table above, the significant pre-test value in the experimental and control class was shown to be 0.038 ( $p\text{-value} = 0.038$ ). Since the significant value was higher than 0,05, this meant that the data was normal.

##### a. Homogeneity.

Homogeneity was used to determine whether or not those population variations are identical. If the significant value is higher than 0,05, the data is considered homogenous. Then, when the significant value is lower than 0,05, the data is not homogenous.

**Table 4.7 Homogeneity Test.**

##### Test of Homogeneity of Variance

Total Score

Levene Statistic	df1	df2	Sig.
5.921	1	56	.169

From the homogeneity calculation above, the significant value of the data was 0,169. It was more than 0,05. So, it could be concluded that

the data was homogenous.

b. Independent T-test

Independent sample T-test or two sample T-test is used to compare the means of the two groups as the sample which have different populations. An Independent sample t-test can decide whether the research hypothesis is accepted or rejected. The hypothesis testing criteria were as follow:

- a. If  $t_{\text{test}} (t_0) > t_{\text{table}} (t_t)$ , the alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_0$ ) is rejected.
- b. If  $t_{\text{test}} (t_0) < t_{\text{table}} (t_t)$ , the alternative hypothesis ( $H_a$ ) is rejected and the null hypothesis ( $H_0$ ) is accepted.

**Table 4.8 Group Statistic.**

Group Statistics					
Class		N	Mean	Std. Deviation	Std. Error Mean
Total Score	Pre-Test Experiment Class	27	50.44	8.984	1.729
	Pre-Test Control Class	31	50.65	11.312	2.032

The data above explained that the mean score of pre-test in experimental class was 50,44 with the total students was 27. On the other hand, the mean score of pre-test in the control class was 50,65 with the total number of students was 31. The standard deviation in the experimental class was 8.984 and the control class was 11.312. Then, the standard error in the experimental class was 1.729, and the control class was 2.032.



**Table 4.9 Independent Sample T-test of Pre-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
Total Score	Equal variances assumed	1.940	.169	-.074	56	.941	-.201	2.711	-5.631	5.229
	Equal variances not assumed			-.075	55.562	.940	-.201	2.668	-5.546	5.145

According to the table data, the line equal variances assumed could be seen that the t-test was  $-.074$ , df got 56, mean difference was  $-.201$ , the difference in standard error was 2.711, the lowest pretest difference was  $-5.631$  and the highest was  $5.229$ . In this research,  $t_{table}$  was used to determine the significance level of the difference. Because the df (degree freedom) value was 56 and the level of significant 0,05, the value of  $t_{table}$  was 2,004.

After getting the data by using t-test formula, it proved the result of the hypothesis. According to the results of measurement, it could be seen that the value of  $t_{test}$  was  $-.074 < t_{table} 2,004$ . It meant that the null hypothesis was accepted and the alternative hypothesis was rejected because of the value of  $t_{test} < t_{table}$ . So, it could be concluded students have

the same initial abilities before they get treatment.

#### 4.2.2 Post Test.

The post-test was a test offered to the students after the treatment was given in the experimental and control class. It was used to explain the capacity of students' vocabulary mastery when they received treatment. The experimental and the control class got the same test in the post-test section. The researchers showed the statistical data analysis of the post-test in the experimental and control class in this part. The outcome analysis using SPSS 21.0 can be seen as follows:

##### a. Normality

**Table 4.10 Normality Test of Post-Test**

Class		Tests of Normality					
		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Total Score	Post-Test Experiment	.126	27	.200*	.954	27	.262
	Post-Test Control	.167	31	.028	.959	31	.269

According to the table above, it showed that the data distribution was normal because the significant value was 0.262. It meant that the value was higher than 0,05 ( $0,262 > 0,05$ ).

##### b. Homogeneity.

**Table 4.11 Homogeneity of Post-Test**

Test of Homogeneity of Variances			
Score			
Levene Statistic	df1	df2	Sig.
0.109	1	56	.881

Based on the table of homogeneity test above, it showed that the

significant value of the data was 0.881. It was higher than 0,05. So, it could be concluded that the data was homogenous.

c. Independent T-test.

Independent sample T-test or two sample T-test is used to compare the means of the two groups as the sample which have different populations. An Independent sample t-test can decide whether the research hypothesis is accepted or rejected. The hypothesis testing criteria were as follow:

a. If  $t_{test} (t_0) > t_{table} (t_t)$ , the alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_0$ ) is rejected.

b. If  $t_{test} (t_0) < t_{table} (t_t)$ , the alternative hypothesis ( $H_a$ ) is rejected and the null hypothesis ( $H_0$ ) is accepted.

**Table 4.12 Group Statistics**

**Group Statistics**

	Class	N	Mean	Std. Deviation	Std. Error Mean
Total Score	Post-Test Experiment Class	27	78.74	7.053	1.357
	Post-Test Control Class	31	71.90	8.105	1.456

The data above showed that the experimental class with the total number of students of 27 got 78,74 in the post-test score mean. In other side, the control class with a total number of students of 31 got 71,90. Then, the standard deviation of the experimental class was 7,053 while the control class was 8,105. The Standard error of the experimental class was 1,357 while the control class was 1,456.

**Table 4.13 Independent Sample T-test of Post-Test**

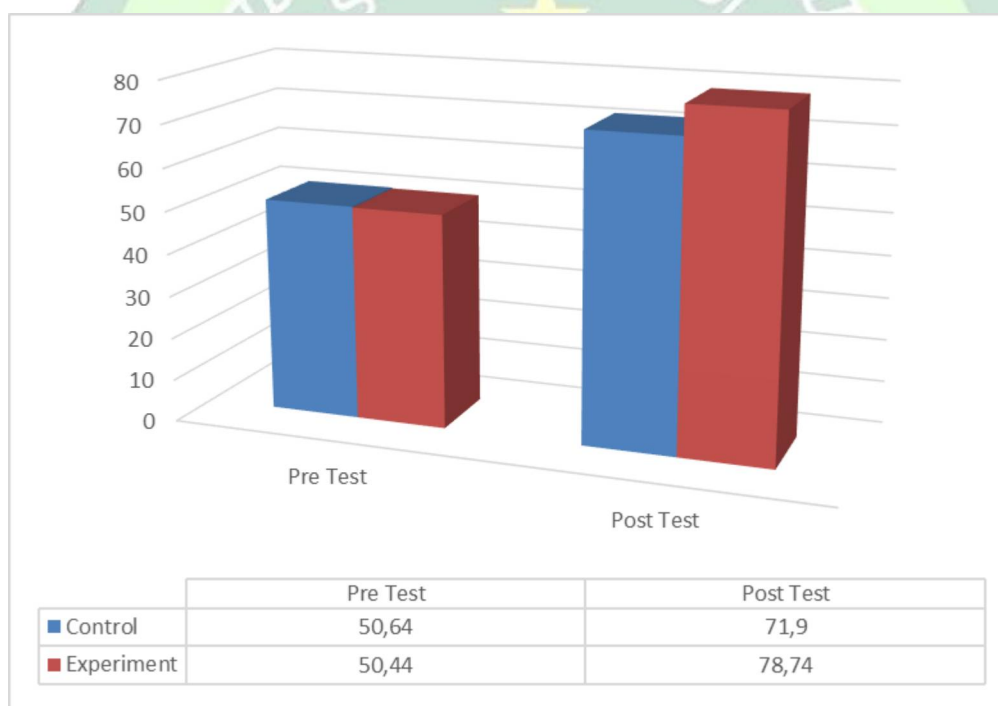
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total Score	Equal variances assumed	.023	.881	3.402	56	.001	6.838	2.010	2.812	10.863
	Equal variances not assumed			3.435	56.000	.001	6.838	1.990	2.851	10.825

Based on the table data above, the line equal variances assumed could be seen that the t-test was 3,402, df got 56, mean difference was 6,838, the difference in standard error was 2,010, the lowest post-test difference was 2,812 and the highest was 10,863. In this research,  $t_{table}$  was used to determine the significance level of the difference. Because the df (degree freedom) value was 56 and the level of significant 0,05, the value of  $t_{table}$  was 2,004.

After getting the data by using t-test formula, it proved the result of the hypothesis. According to the results of measurement, it could be seen that the value of  $t_{test}$  was  $3,402 > t_{table}$  2,004. It meant that the alternative hypothesis ( $H_a$ ) was accepted and the null hypothesis ( $H_o$ ) was rejected because the value of  $t_{test} > t_{table}$ . So, it could be concluded that little stories influenced the media to teach the eighth-grade students of MTs N 1 Jepara in the academic year 2020/2021.

### 4.3 Discussion

The issue of this study was the influence of little stories media toward students' vocabulary at eighth-grade students of MTs N 1 Jepara. Zimmerman (1997) in Coady and Hucki (1997:5) states that vocabulary is central to language and of critical importance to the typical language learner. This research was done in MTs N 1 Jepara, especially at the eighth-grade students. Two classes became the sample. They were VIII I as the experimental class and VIII J as the control class. The researcher gave treatment two times to the experiment and control class. The following graphics were the result of the pre-test and post-test:



#### **The Students' Mean in Pre Test and Post Test of The Experimental and Control Class**

From the diagram above, it explained that the students' mean score of pre-test in experimental class was 50,44 and the students' mean score in control class was 50,64. Then, the students' mean score of post-test in the

experimental class was 78,74 and the students' mean score in the control class was 71,9. It meant that there was a significant score by applying little stories application in the experimental class. Students in experimental classes could increase their vocabulary significantly. It was proved from their mean score, that was students got 50,44 in pre-test while the post-test score was 78,74.

On the other hand, the student's score in the control class was also increased. It proved from their mean score in pre-test and post. Students got 50, 64 on the pre-test while the post-test score was 71,9. In post-test, the students' score of control class was lower than students' score of experiment class. It concluded that students' who were taught by applying little stories media had a significant effect than students who were taught without little stories media at the eight grade student' of MTs N 1 Jepara in the academic year 2020/2021.

**Table 4.14 The Result T-test analyzing in pre and post-test.**

	$T_{test}$	$T_{table}$	<b>T-test Result</b>
<b>Pre-Test</b>	-0,74	<b>2004</b>	Ho was accepted ( $-t_{table} < t_{test} < t_{table}$ ) ( $-2004 < -074 < 2004$ )
<b>Post-Test</b>	3.435	<b>2004</b>	Ha was accepted ( $t_{test} > t_{table}$ ) ( $3435 > 2004$ )

From the calculation table above, it showed that the result of the t-test in pre-test was -0,74, and df (degree of freedom) that was used in the significance level of 5% was 2,004. After comparing the value of  $t_{test}$  and

$t_{table}$ , it could be seen that the calculation result of  $t_{test}$  was lower than  $t_{table}$ . It meant that  $H_0$  (null hypothesis) was accepted and  $H_a$  (alternative hypothesis) was rejected. So, the conclusion was little stories application was not effective toward students' mastering vocabulary of descriptive text because students had not gotten a treatment that was by applying little stories. In this section, students were confused to generate their ideas based on the generic structure of the descriptive text and applied little stories. Meanwhile, the t-test result in the post-test was 3,435, and df (degree of freedom) that was used in the significance level 5% was 2,004. After comparing the  $t_{test}$  and  $t_{table}$ , it could be seen that  $t_{test}$  was higher than  $t_{table}$ . It meant that  $H_a$  (alternative hypothesis) was accepted and  $H_0$  (null hypothesis) was rejected.

Based on the result, it was similar to several previous related finding. The first previous study is written by Ken Dite Asmarani (2015), who researched with the final goal of this research paper is to investigate students' vocabulary learning multimedia. The research using Research and Development (RnD). From the result of this study in the quantitative data, the mean scores in the content and media appropriateness of the interactive multimedia were all in the range of  $>4.2 - 5$ . According to Sudijono (2003), the mean score in the range of  $> 4.20 - 5$  was categorized as very good. It means that the research is a very good result.

The second previous study is from Christian Ludwig (2018), researched with the aim of this research is to investigate the impact of a mobile vocabulary learning app performance and also giving some indications to

students' development of foreign language learner. This study used quasi-experimental. The results of the study showed unexpectedly limited use of the app. They allow assumptions to be made about the reasons which prevented students from using the app more frequently which can influence future researchers' and practitioners' app choices.

The third previous study is written by Imas Febriyansyah (2015), researched with the aim of this research is to improve vocabulary mastery through media play. The researcher used action research. The data of the research were in the form of qualitative and quantitative data. The result of this research showed that the vocabulary mastery of most students improved after Bingo Game was used in the teaching and learning process. It was indicated by the increase of the mean of students' vocabulary scores in the pre-test and post-test (64,3 to 89,1).

The next previous study was written by Zaqiyah Lailatul Farihah and Etiks Rachmawati (2020), this research aimed to investigate the use of digital media to improve students' vocabulary mastery. This research used qualitative and quantitative data. Experimental research was used in this research. The result after using the hangman game showed that to observe was 10.992 and t-critical at  $df = 19$  on level 0.05 with a two-tailed test was 2.093, which means that t-critical was less than t-observ and alternative hypotheses were accepted. Almost all of the students gave good responses in the implementation of the game.



The last previous study is written by Chalifatun Nurizmawati, Rahayu Apriliaswati, Zainal Arifin (2014), research with the aim of this research is to improve the student's ability in comprehending language features using animation video. The writer has conducted classroom action research (CAR). The result is on the first cycle, the student's mean score was 52.12. In the second cycle, students' mean score was 75.78. In the third cycle, the students' mean score was 76.69.

So, the conclusion was there was a significant influence of little stories media toward students' vocabulary mastery at the eighth grade of MTs N 1 Jepara in the academic year 2020/2021. It could happen because students had gotten treatment from the researcher that was by applying little stories media two times. Students could improve their vocabulary, especially in identification the meaning of the text descriptive. Moreover, students were more comfortable in the learning process because little stories media gave a positive atmosphere for the students.