

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

This chapter explains about research findings, normality and homogeneity testing, data analysis, hypothesis testing and discussion.

A. Findings

In this part, the researcher presents the students' writing ability before and after taught by using storyboard animation as the media in the teaching writing. The subjects of the research were 36 students of the first grade of SMKN 1 Boyolangu Tulungagung. The researcher used writing test as the instrument of this research. The purpose is to know the difference of students' score before and after taught using storyboard animation. To know students' ability of writing recount text, the researcher gave pre-test and post-test. The form and the instruction of pretest and posttest are same, but it has different topic. In pretest, the topic is last holiday experience, while in posttest is unforgettable experience. Pre-test is a test that given to students before they get treatment. The purpose of pre-test is to know students' ability on writing before they get treatment.

The researcher gave treatment to students after conducted the pre-test. The researcher gave treatment by using storyboard animation as media to the students. The students are given example of storyboard animation. Then, the students try to create storyboard animation based on their experience with the

researcher. Storyboard animation helps the students to display their idea before they arrange into a story. Using storyboard animation give students a time to organize their story, it is train them to break down their idea before arrange a paragraph. So, the students do not lack of ideas in the midst of writing activity. After applying this media each students has different result based on their ability. Based on this research, there are some students who create a complete storyboard animation and some of them did not create a complete a storyboard animation, it is because each student has different ability.

After giving a treatment, the researcher conducted post-test. Post-test is a test that given to students after they get treatment. The purpose of post-test is to know students ability after they get a treatment. The result of post-test shows some students got high score. The final result of students' score from pre-test and post-test was analyzed using scoring rubric.

To know the students' achievement is good or not, the researcher gives criteria. The score's criteria adopted from a thesis Azzahra (2017) because the score's from this data is closely accordance with the score's criteria made by Azzahra (2017). The score's criteria as follows:

Table 4.1 The Score's Criteria

No	Score	Criteria
1	85-100	Excellent
2	70-84	Good
3	55-69	Average
4	40-54	Poor
5	0-39	Very poor

The researcher presented the result of the pre-test that had been done before treatment. Pre-test was held on February, 21th 2019 at 07.10 until 07.50 am. The test was writing achievement test that were in the form of recount text with topic “last holiday experience”. This test was proposed to know the students’ achievement before receiving the treatment.

Table 4.2 Descriptive Statistic of Pre-Test

Statistics		
pretest		
N	Valid	36
	Missing	0
Mean		58.89
Median		60.00
Mode		56 ^a
Std. Deviation		6.511
Variance		42.387
Range		30
Minimum		44
Maximum		74
Sum		2120

a. Multiple modes exist. The smallest value is shown

The table 4.2 above showed descriptive statistics of pretest score. It showed that there are 36 students. The highest score of pretest is 74, while the lowest score is 44. It shown the mean score of pre-test is 58.89. The median score is 60, the mode score is 56, the standard deviation is 6,511. While the variance is 42.387, and the range is 30.

Table 4.3 Frequency of pretest score**PRETEST**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	44	1	2.8	2.8	2.8
	48	2	5.6	5.6	8.3
	52	4	11.1	11.1	19.4
	56	9	25.0	25.0	44.4
	58	1	2.8	2.8	47.2
	60	9	25.0	25.0	72.2
	64	4	11.1	11.1	83.3
	68	5	13.9	13.9	97.2
	74	1	2.8	2.8	100.0
Total		36	100.0	100.0	

It can be seen from the table 4.3 above that, no one of students got very poor score, 6 students got poor score, 28 students got average score, 1 student got good score, and no one of the students got excellent score. Or in other words, it is known that 0% students got very poor score, 16.6% students got poor score, 77.7% students got average score, 2.7% students got good score, and 0% students got excellent score.

The researcher presented the result of the post-test that had been done after treatment. Post-test was held on February, 28th 2019 at 8.25 until 9.15 am. The test was writing achievement test that were in the form of recount text with topic “unforgettable experience”. This test was proposed to know the students’ achievement after the treatment is administered. Table 4.5 displays students’ score after using storyboard animation.

Table 4.4 Descriptive Statistic of Posttest

Statistics		
posttest		
N	Valid	36
	Missing	0
Mean		69.67
Median		72.00
Mode		72
Std. Deviation		7.849
Variance		61.600
Range		32
Minimum		56
Maximum		88
Sum		2508

The table 4.4 above showed the descriptive statistics of pretest score. It showed that there are 36 students. The highest score of posttest is 88, while the lowest score is 56. It shown the mean score of posttest is 69, 67. The median score is 72, the mode score is 72, the standard deviation is 7,849. While, the variance is 61.600, and the range is 32.

Table 4.5 Frequency of posttest score**POSTTEST**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	56	3	8.3	8.3	8.3
	60	6	16.7	16.7	25.0
	68	7	19.4	19.4	44.4
	72	11	30.6	30.6	75.0
	76	5	13.9	13.9	88.9
	80	2	5.6	5.6	94.4
	84	1	2.8	2.8	97.2
	88	1	2.8	2.8	100.0
Total		36	100.0	100.0	

Based from the table 4.5 above, 1 student got excellent score, 19 students got good score, 16 students got average score, and no one of the students got poor and very poor score. In other words, 2.7% students got excellent score, 52.7% students got good score, 44.4% students got average score, and 0% students got poor and very poor score. This findings show that after using storyboard animation, the students' writing ability is significantly increased verified by the progress of pre-test to post-test.

B. Normality and Homogeneity Testing**1. Normality Testing**

Normality testing is used to decide whether the data is normal distribution or not. Normality proposed to show that the sample data come from a normally distributed population. To find the normality of the instrument, the researcher used SPSS.16. *One-Sample Kolmogorov-*

Smirnov test by the value of significance (α) = 0.050. The result can be seen as follows:

Table 4.6 Normality Testing

One-Sample Kolmogorov-Smirnov Test

		PRETEST	POSTTEST
N		36	36
Normal Parameters ^a	Mean	58.89	69.67
	Std. Deviation	6.511	7.849
Most Extreme Differences	Absolute	.154	.172
	Positive	.154	.141
	Negative	-.134	-.172
Kolmogorov-Smirnov Z		.927	1.035
Asymp. Sig. (2-tailed)		.357	.235
a. Test distribution is Normal.			

Based on the table 4.6 above, it showed that the significant value from pre-test is 0.927 and from the post test is 1.035. Both value from pre-test and posttest is higher than 0.05. Then, value from Asymp. Sig. (2-tailed) of pretest is 0.357 it is higher than 0.05 ($0.357 > 0.05$) means that the data is in normal distribution. For the post test score is 0.235 and it is higher than 0.05 ($0.235 > 0.05$) means that the data is in normal distribution. It also means that H_0 is accepted and H_a is rejected. From the data above, can be concluding that pre-test and posttest are normal distribution because the value significant of pre-test and post-test is higher than 0.05.

2. Homogeneity Testing

Homogeneity testing conducted to know that the collected of the data has homogeneous variance or not. To know the homogeneity, the researcher used Levene with SPSS.16 by the value of significance (α) = 0.05. The result can be seen below:

Table 4.7 Homogeneity Testing

Test of Homogeneity of Variances

Writingscore

Levene Statistic	df1	df2	Sig.
1.096	1	70	.299

Based on the table 4.7 above, it is known that the significant value is 0.299. The test is called homogeny if the significant score more than 0.05. Based on the table above, the homogeneity of the test is higher than 0.05 ($0.299 > 0.05$). So, it can be concluded that the data is homogeneity.

C. Data Analysis

Data analysis was done to know the difference score of pretest and posttest. The researcher measured the result of pretest and posttest by using Paired Sample Test in SPSS 16. The researcher previously mentioned that there are two hypotheses in this study: (1) Null hypothesis (H_0) stating that there is no significant different score of the students' writing recount text taught using storyboard animation and taught without using storyboard animation. (2) Alternative hypothesis (H_a) stating that there is significant different score of

the students' writing recount text taught using storyboard animation and taught without using storyboard animation.

Table 4.8 Paired Sample Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	58.89	36	6.511	1.085
	posttest	69.67	36	7.849	1.308

Paired samples statistic tells about the descriptive statistics (mean, N, standard deviation, and standard error mean). Table of paired samples statistics is helpful in writing the result. Based on the table above (table 4.8), output paired samples statistic shows the result of significance mean before and after taught by storyboard animation.

From the table 4.8 the mean of pretest is 58.89, while the mean of posttest is 69.67. Then, the symbol of N shows the total number of subjects involved in this research. The output result shows that the total number (N) of sample both from pretest and posttest is 36. So that, the subjects before and after getting treatment have consistencies. Then, the next column show the standard deviation of pretest is 6,511 and the standard deviation of posttest is 7,849. The next column show the standard error mean from pretest and posttest. Standard error of pretest is 1,085, while standard error of posttest is 1.308.

Table 4.9 Paired Samples Correlations**Paired Samples Correlations**

	N	Correlation	Sig.
Pair 1 PRETEST & POSTTEST	36	.637	.000

Table 4.9 above, showed the correlation between pretest and posttest score. The result of paired samples correlation shows that large correlation before and after students receive treatment, where the correlation is 0.637 at the significance level 0.000. The correlation 0.637 shows that there is significant different before and after students got treatment using storyboard animation. Significant in this table is used to know the result of this research. Significance will be explained as follow:

1. If the Sig. >0.05 , it means that null hypothesis (H_0) is accepted. So, there is no significant difference on the students' writing ability taught using or without using storyboard animation.
2. If the Sig. <0.05 , it means that null hypothesis (H_0) is rejected. So, there is significant difference on the students' writing ability taught using or without using storyboard animation.

Table 4.9 above shows that the Sig. 0.000 is lower than 0.05 ($0.000 < 0.05$), it means that null hypothesis (H_0) is rejected and alternative hypothesis

(Ha) is accepted. So, that there was significant different score between pretest and posttest. Therefore, the researcher concludes that storyboard animation is effective in teaching writing.

Table 4.10 Paired Sample t-test

Paired Samples Test

		Paired Differences								
			Std. Deviat	ion	Std. Error	95% Confidence Interval of the Difference				
						Mean				Mean
Pair 1	PRETEST - POSTTEST	-10.778	6.239	1.040	-12.889	-8.667	-10.366	35	.000	

Table 4.10 shows the paired samples test. Paired sample test is used to know the result of this research. Based on table 4.10 above showed that mean of pre-test and post-test score are -10.778. Mean is to know significant different score in pre-test and post-test. The purpose of mean is to know the average score before and after the students taught by using storyboard animation. The result of mean on table paired samples test is -10.778. The symbol minus (-) means that mean of the post-test is higher than the mean of pre-test. So, there is significant mean indicating that after the students taught by using storyboard animation, students' writing ability is getting improved.

The next columns is standard deviation, it show the result 6.239. Standard deviation is about standard deviation from difference before and after using this media. Next column is standard error, it is mean which shows the result of

computation 1.040. The purpose of standard error mean on paired sample test (table 4.14) is to know the accuracy of mean score of pre-test and post-test.

The following column on paired sample test (table 4.14) is 95% confidence interval of the difference with lower and upper. Column 95% confidence interval is distance score difference that can be acceptance. The interval shows on region that there is difference teaching using storyboard animation at 95% confidence interval. In this column shows the numeral of lower different is -12.889, then the upper different is -8.667. The following column on table 4.14 shows about t-test. T-test in the research is to know the result of the result. T-test shows the result on number -10.366. Another column is df or degree of freedoms, based on table 4.14 the df is 35.

The last column show the Sig. (2-tailed) is 0.000. According to Balnaves&Caputi (2001) as cited by Dewi (2018) that the convention to reject the null hypothesis is when the p-value of the obtained statistics is less than 0.05. From the table 4.14 the Sig. (2-tailed) was less than 0.05 ($0.00 < 0.05$). It can be conclude that the null hypothesis could be rejected and it means using storyboard animation was effective on students' writing ability of recount text.

D. Discussion

The purpose of this study is to find out whether there is different score of first grade students' achievement in writing recount text before and after taught using storyboard animation. The researcher administered writing test that are

pretest and posttest to get the data. After, the data collected the data are analyzed using SPSS 16.

Based on the data analysis, the value of the Sig. (2-tailed) is 0.000 it means less than 0.05 ($0.00 < 0.05$). It means the alternative hypothesis (H_a) is accepted and the Null hypothesis is rejected. Therefore, there is significant different score in writing recount text before and after taught using storyboard animation. From the data the score's result of posttest is higher than pretest. Although, some of students' score of posttest were not perfect but it showed that posttest score were significant than pretest. It means that the students had increased after getting treatment.

Storyboard animation is an alternative media to help students get an idea easily. According to Glebas (2009: 47) as cited by (Hasan & Wijaya, 2016), storyboard is a strategy for the conception of that story. It can be defined as brainstorming the idea before writing those ideas, it means students can arrange their story in a form of picture. While storyboard animation help students to be more motivated to get high achievement in writing recount text. In addition, storyboard as a means for supporting the teaching/learning process of a subject area complies with all ages' interests and preferences (Antoniou-Kritikou, Carayannis, & Katsouros). This finding showed that animation can be the teaching support that can be called as a modern device to help students in understanding the material certainly and in interesting way (Najib & Othman, 2013).

Now days, technology already take position as crucial part in any aspect including in English language teaching. Creating animation refers to a make an object looks alive. Animation is a technique in which the producers give motion to otherwise inanimate objects (Heinich& et al., 2002). Creating storyboard animation involves a technology. With the evolution of computer programs, students are easily to creating animation. There are many applications that can be used to create animation. Storyboard animation as a media in teaching learning can be the alternative way to interest students' enthusiasm in learning. Media make students do more classroom activities they do not only listen to teacher's explanation, but do other activities (Baidawi, 2016). Creating storyboard animation requires the students to active in the classroom.

According to the findings from this study it is proved that using storyboard animation give advantages in teaching writing. One of the advantages of storyboard animation is that students get improve their achievement on writing test. Using storyboard animation in learning was likely to be more interesting, it is showed from the result of pretest and posttest that had a significant different score. Creating storyboard animation helps the students to make a improvement in writing achievement. It is because during the process of creating storyboard students can visualize their idea into an animation. Besides, another advantage of storyboard animation is helps students to breaking down their idea in piece by piece. The ideas will be easy to remember and the students can finish the project efficiently.

Finally it can be proven that using storyboard animation as media in writing can stimulate students' writing better. According to Paridah (2015) the using of storyboard learning technique in teaching and learning English was interesting for the students, and it can help students to learned English writing with fun and easy. As a complementary learning approach, animation can be a tool to encourages students' interest in learning, the main point is teacher have to integrate the animation content into the suitable teaching activities in the classroom (Xiao, 2013). Storyboard animation was effective on the students' achievement in writing recount text and could increase the students' motivation, interest, idea, and score.