# **CHAPTER IV**

## **RESEARCH FINDING AND DISCUSSION**

This chapter presented about research findings and discussion that include; A) The Description of Data, B) Analysis of the Data, C) Hypothesis Testing, D) Findings and E) Discussion.

#### A. The Description of Data

In this chapter, the researcher presented the students' writing score before and after being taught by using picture series as technique in developing narrative text. In this presentations, the researcher presented and analyzed the data which had been collected through two kinds of tests, they are pre-test and post-test. It was conducted for thirty one students, because one student did not attend in the class during research was held and the researcher not be able to look for replacement.

As mentioned before, the researcher used test as the instrument in collecting data. It was given to class X MIA 2 students of MAN Trenggalek. The both of pre-test and post-test was giving instruction to students for writing narrative text by their own language contains 3 paragraph more or less 300 word. The differences between both of test are in the entitled and on the post-test the researcher served picture series.

The pre-test was given before being taught by applying picture series as media and post-test was given after being taught by applying picture series as media. The collected data were described in the form of table that includes the pre-test and post-test score in the one-group. The students' writing score was scored by using analytic analytic scoring guide of writing test. The elements of writing that were rated on the table, such as content, organization, vocabulary, grammar, and mechanics. The students' pre-test and post-test score can see on appendix 10.

## 1. Frequency of Data

To analyze the frequency of the data both pre-test and post-test, the researcher uses SPSS version 16.0. The description of frequency is used to see how many times the score of the students appear. The frequency of data both pre-test and post-test displays in the table below:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	1	3.2	3.2	3.2
	10	2	6.5	6.5	9.7
	11	1	3.2	3.2	12.9
	13	2	6.5	6.5	19.4
	14	3	9.7	9.7	29.0
	15	2	6.5	6.5	35.5
	16	2	6.5	6.5	41.9
	17	5	16.1	16.1	58.1
	18	3	9.7	9.7	67.7
	19	4	12.9	12.9	80.6
	20	1	3.2	3.2	83.9
	21	4	12.9	12.9	96.8
	22	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

 Table 4.1 Frequency of Pre-Test Score

PRETEST

	POSTTEST								
	-				Cumulative				
		Frequency	Percent	Valid Percent	Percent				
Valid	18	4	12.9	12.9	12.9				
	19	4	12.9	12.9	25.8				
	20	9	29.0	29.0	54.8				
	21	7	22.6	22.6	77.4				
	22	4	12.9	12.9	90.3				
	23	3	9.7	9.7	100.0				
	Total	31	100.0	100.0					

## **Table 4.2 Frequency of Post-Test Score**

# 2. The Descriptive Statistic of the Data

Descriptive statistics of both pre-test and post-test are needed in describing data. The researcher uses SPSS version 16.0. The descriptive statistics is displayed in the table below:

Table 4.3 Descriptive Statistic of the DataDescriptive Statistics

	N Minimum		Maximum	Mean	Std. Deviation	
PRETEST	31	8.00	22.00	16.4516	3.61330	
POSTTEST	31	18.00	23.00	20.3871	1.47597	
Valid N (listwise)	31					

The data above presents whether the minimum score of pre-test is 8 meanwhile the maximum score is 22. Then, the mean is 16.4516. The mean of the students includes in low score. After the researcher gave treatment by using picture series as media, the result displays whether the minimum score of post-test is 18 meanwhile the maximum score is almost same, which is 23. The mean of the students' post-test is 20.3871. Furthermore, the students have an improvement score in posttest than score in pre-test after being given a treatment picture series as media.

## 3. Chart of the Data

After the researcher got the data above, then the researcher made a chart to compare the mean of pre-test, post-test, and gained score of them to see the improvement score which was obtained by the students after implementing picture series as media. The Chart is presented as in the table below:



#### **B.** Analysis of the Data

This section is intended to answer the research question whether picture series media is effective to improve students' writing skill in developing narrative text at tenth grade of MAN Trenggalek. The analysis of data here is the researcher tries to find both of normality and homogeneity of data. To find normality and homogeneity, the researcher uses SPSS version 16.0. Those analyses are used to determine the next step that is testing the hypothesis. The result of measuring both normality and homogeneity are presented below.

### 1). Normality

Normality testing are used to determine whether a data set is well-modeled by a normal distribution or not, or to compute how likely an underlying random variable is to be normally distributed. Normality test is intended to show that the sample data come from a normally distributed population. The normality of both pre-test and post-test was measured by using SPSS version 16.0. The researcher uses the formula of One Sample Kolmogorov Smirnov – Test. The result is shown in the table below:

		Unstandardized Residual
N	-	31
Normal Parameters <sup>a</sup>	Mean	.0000000
	Std. Deviation	3.31573423
Most Extreme Differences	Absolute	.281
	Positive	.182
	Negative	281
Kolmogorov-Smirnov Z		1.564
Asymp. Sig. (2-tailed)		.015

 Table 4.5 The Normality Result of the Data

**One-Sample Kolmogorov-Smirnov Test** 

a. Test distribution is Normal.

The hypothesis for testing normality are:

- a. H<sub>0</sub>: Data is in normal distribution
- b. H<sub>1</sub>: Data is not in normal distribution.

Based on the description of the SPSS table above, the table is shown that the test distribution is normal. After ensuring whether the data has been normal, the next step that has to be done by researcher is calculating the homogeneity of the data.

2). Homogeneity

The researcher calculates homogeneity after ensuring whether the data has been normal distribution. Homogeneity testing is intended to make sure that the collected manipulation data in analysis is truly taken from population which is too different each other. The aim of calculating homogeneity is to see whether the data includes to homogenous or heterogeneous data. The researcher used SPSS 16.0 to calculate the homogeneity of the data. The researcher used the formula of Levene Statistic. The result is presented in the table below:

Table 4.6 The Homogeneity Result of the DataTest of Homogeneity of Variances

posttest

Levene Statistic	df1	df2	Sig.	
5.163	8	18	.002	

Based on the table above, the significance value is 0.002. It means whether the data is heterogeneous because of the significance value is lower than 0.05 ( $\alpha < 0.05$ ) and the data is called as a homogeneous data when significance of value is higher than 0.05 ( $\alpha >$ 0.05). However, the data result above shows that the significance value is 0.002 < 0.05. So, the data includes in heterogeneous data. Then, to test the hypothesis the researcher uses SPSS version 16.0 Non-Parametric Test within the Wilcoxon formula.

### C. Hypothesis Testing

To analyze the significant difference of data, the researcher uses SPSS version 16.0 T-test formula. This aim is to prove statistically whether there is significant difference between students' writing achievement in developing narrative text taught before and after being taught by using picture series media (pre-test and post-test). The hypotheses testing of this study are as follow:

- a. If sig > 0.05 the null hypothesis (H<sub>0</sub>) is accepted. It means that there is no significant difference of students' writing achievement by using picture series as media and before using picture series as media of the tenth grade students at MAN Trenggalek.
- b. If sig < 0.05 the null hypothesis (H<sub>0</sub>) is rejected. It means that there is significant difference of students' writing achievement by using picture series as media and before using picture series as media of the tenth grade students at MAN Trenggalek.

Hence, the researcher to get the significant difference between pretest and post-test, the result should show whether  $H_0$  is rejected meanwhile  $H_a$  is accepted. T-test was used to answer the research question by using SPSS 16.0.

 Table 4.7 T-test Paired Samples Statistics

		Mean	Ν	Std. Deviation	Std. Error Mean			
Pair 1	pretest	16.4516	31	3.61330	.64897			
	posttest	20.3871	31	1.47597	.26509			

Paired Samples Statistics

Based on the table 4.7 shows that the mean of pre-test is 16.4516 and post-test 20.3871, while N for each cell there are 31. Besides, the Standard Deviation for pre-test is 3.61330 and post-test 1.47597. The last is Standard Error Mean for pre-test is .64897 and post-test .26509.

Paired Samples Correlations						
	N	Correlation	Sig.			
Pair 1 pretest & posttest	31	.397	.027			

 Table 4.8 T-test Paired Samples Correlations

*Output Paired Samples Correlations* show the correlation between both of samples (scores of pre-test and scores of post-test), where it can be seen from the correlation value of pre-test and post-test 0.397 and the significant value 0.027. For the interpretation of decision based on the result of probability which achieved as follow:

- a. If probability > 0.05 the null hypothesis (H<sub>0</sub>) is accepted.
- b. If probability < 0.05 the null hypothesis (H<sub>0</sub>) is rejected.

The significant value 0.027 is lower than 0.05. It means that the hypothesis which states that there is no correlation between pretest and posttest is rejected. In the other word that between pre-test and post-test there is significant correlation.

## **Table 4.9 T-test Paired Samples Test**

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Co Interva Diffe Lower	onfidence al of the erence Upper	t	df	Sig. (2- tailed)
Pai pretest - r 1 posttest	-3.93548	3.31598	.59557	-5.15179	-2.71917	-6.608	30	.000

#### Paired Samples Test

The table 4.10 shows the compare analysis by using T-test. *Output Paired Samples Test* shows mean of pre-test and pos-test is -3.93548, Standard Deviation 3.31598, and Standard Error Mean .59557. The lower difference of both -5.15179, while the upper difference -2.71917. The resulf of  $t_{count}$  is -6.608 with df (41-1= 30) and significant value 0.00.

The interpretation the data was based on the results of significance level. The decision based on the assumption are:

- a. If sig > 0.05 the null hypothesis ( $H_0$ ) is accepted.
- b. If sig < 0.05 the null hypothesis (H<sub>0</sub>) is rejected.

With significant 0.00 means the level of significance is lower than 0.05. It means that the hypothesis which states that there is no difference score of students' writing achievement before and after being taught by using picture series media ( $H_0$ ) is rejected. In the other word, there is a significant difference score of students' writing achievement before and after being taught by using picture series media. Where the differences of mean shows that mean of post-test (20.3871) higher than mean of pre-test (16.4516). It can be concluded that the use of picture series media is effective to improve students' writing skill in developing narrative text.

## **D.** Finding

In this section, the researcher interprets the calculated data. Based on the description of data, the mean score of pre-test is 16.4516 meanwhile the mean score of post-test is 20.3871. This means that the mean score of post-test is higher than the mean of pre-test score within the gained score is 3.9355. In other word, after the researcher implemented the treatment (picture series media), the mean score of the students significantly rises up. From this explanation, it can be concluded that picture series media is an effective media to be applied or implementing in writing narrative text. Although the score is significantly rises up, it cannot be judged in such condition. It has to be proved. The next calculating must be interpreted to ensure that the media is truly effective to improve students' writing skill in developing narrative text.

In the data analysis section, the researcher used SPSS version 16.0 by using One-Sample Kolmogorov-Smirnov Test formula to find the result of the normality data. The normality data result shows that the test distribution is normal. It means whether the next analysis which is finding the homogeneity of the data should be continued. The researcher uses SPSS version 16.0 within Levene Statistics formula. Based on the homogeneity result, it shows that the significant value of the data is 0.002. The finding of homogeneity significant value is under a 0.05 (0.002 < 0.05). It means that the data is not homogeneous, but the data is heterogeneous. Then, the researcher uses T-test formula to test the hypothesis.

After the researcher analyzed the data, the researcher did the final calculation in hypothesis testing by using SPSS 16.0 within T-test formula. The result shows that all of students (31 students) got post-test score higher than pre-test score. It means that there is no students who got post-test score lower than pre-test score. it means that the picture series media

is an effective media to improve students' writing skill in developing narrative text indicated by the students' mean score of post-test is higher than the mean score of pre-test.

The data that calculated by using SPSS version 16.0 within T-test formula, the value of  $T_{count}$  is -6.608 and the significant value is shown 0.00. It means that the significant value is < 0.05. Therefore, it can be concluded whether there is a significant difference between pre-test and post-test or there is significant difference between before and after being taught by using picture series media.

In conclusion, there is a difference students' mean score before and after being taught by using picture series media. The mean score of pretest is 16.4516; meanwhile the mean score of post-test is 20.3871. Besides that, the significant difference of students score both in pre-test and posttest also was found after being calculated by using SPSS version 16.0 within T-test formula. So, it can be concluded whether picture series media is an effective media to improve students' writing skill in developing narrative text.

#### E. Discussion

From the research method in Chapter III in this research, teaching and learning process is divided into three steps. First step is the researcher administrated pre-test by giving writing test narrative text. It is used to know the students' earlier writing skill in writing narrative text before they get treatment. The second is given treatment to the students. The treatment here is teaching writing narrative text by using picture series media. The material is about narrative text. After the student got treatment, the last step was giving post-test to the students after they got treatment.

From the research finding in chapter IV, the mean score of pre-test is 16.4516 and the mean score of post-test is 20.3871. Besides that, the mean of gained score is 3.9355 increased, and the significant value from T-test formula is shown 0.00. It means that the significant value is < 0.05. Therefore, it can be concluded whether there is a significant difference between pre-test and post-test or there is significant difference between before and after being taught by using picture series media. It means that picture series is an effective media to be applied. The implementation of picture series in this research brought some successful improvements in the students' writing skills in developing narrative text. Hence, it can be grasped that implementation picture series as media at tenth grade MAN Trenggalek is an effective media to improve students' writing skill in developing narrative text.

The effectiveness of using picture series media has been proven by the previous researchers. This media helped writer to express their idea more easily what was being thought by them to write a good writing. Raimes quoted by Ariningsih (2010: 23) supports the notion that because everybody likes to look at pictures, their use in the classroom provides a stimulating focus for students' attention. Pictures bring the outside world into the classroom in a vividly concrete way. So a picture is a valuable resource as it provides: (1) a shared experience in the classroom; (2) a need for common language forms to use in the classroom; (3) a variety of task; and (4) a focus of interest for students. Pictures as media of teaching are the best-known sensory aids. Picture series can stimulate students to find new imagination in writing. It also can interest students to pay attention to focus on it. Besides that, Wright (1989) quoted by Puspitasari (2014: 92) who states that picture series contribute to a specific important point or stimulus. Picture series which were provided during the process of teaching and learning of writing could stimulate the students to generate the ideas. It could help them to brainstorm the important ideas that they had to write. This finding was also in line with Wright (1989) and Smaldino (2005) who state that one of the benefits of picture series is that it contributes to make the students interested and motivated. Thus, the students' writing skills in writing narrative text was improved after the implementation of picture series which was also combined with some picturebased activities.

As the comparison of this research, here are some researchers of The Effectiveness of Using Picture Series to Improve Students' Writing Skill in Developing Narrative Text. The first is Puspitasari (2014) entitled The Use Of Picture Series To Improve The Writing Skills Of Tenth Grade Students Of SMA N 1 Srandakan In Writing Narrative Texts In The Academic Year Of 2013/2014 (Classrom Action Research study), and Yusnita (2012) entitled Improving Students' Recount Text Writing by Using Picture Series (Classroom Action Research to the Tenth Grade Students' of SMK Panca Bhakti Kubu Raya in Academic Year 2011/2012). For the first researcher, Puspitasari (2014) entitled *The Use Of Picture Series To Improve The Writing Skills Of Tenth Grade Students Of SMAN 1 Srandakan In Writing Narrative Texts In The Academic Year Of 2013/2014.* In her thesis, she used Classroom Action Research to solve the problem about writing Narrative in SMA Negeri 1 Srandakan. She found that, the result of the research indicated that the use of picture series effectively improved the students' ability in writing narrative texts. The strategy made a quite much improvement of the students writing in the aspects of content, organization, language use, vocabulary, and mechanic. She also found that the use of picture series also improved the teaching and learning process of writing such as the students' motivation and classroom interaction. So, in the conclusion the research on using picture series to improve the students' writing skills on writing narrative texts could be considered successful.

In a similar way, for the next researcher is Yusnita (2012) entitled *Improving Students' Recount Text Writing by Using Picture Series* (Classroom Action Research to the Tenth Grade Students' of SMK Panca Bhakti Kubu Raya in Academic Year 2011/2012). She was found out that using picture series improved the students' recount text writing. The result of this research has shown that the students progress in improves writing in each cycle. First cycle was 61.5 (less than 65, not achieved). The second cycles, was 66.0 (Achieved) which was higher than the KKM score. So, the use of picture series will help the students in improving recount text writing. As conclusion, picture series is effective to improve students'

recount text writing to the tenth grade students' of SMK Panca Bhakti Kubu Raya.

The study above has both the similarities and the differences with the researcher's study. The similarities are having same media (picture series) and using test as the instrument and choosing narrative text as the materials.

Based on the result of researcher finding, it can be concluded that picture series as media is surely shows the real effectiveness, because this media is easy to apply and interesting to apply in teaching writing narrative text, then the students more enjoy and won't be easy to feel boring when they are study writing and this media can give spirit, imagination, and motivation in teaching learning process for the tenth grade of MAN Trenggalek. Besides that, implementing picture series as media is an alternative media that easily to be applied in teaching and learning English. Picture series media is surely showed the real effectiveness in students' writing skill in developing narrative text because it especially of the tenth grade students of MAN Trenggalek.