## CHAPTER IV <br> RESEARCH FINDINGS AND DISCUSSION

In this chapter presents the findings as the result of analysing data. It discussed data description, hypothesis testing, and discussion.

## A. Data Description

In this sub chapter the researcher presents the descriptive statistics of the research. The result of the students' writing dialog on pre-test and post-test. It was given to VIII A as experimental group that consist of 30 students and VIII B as control group that consist of 30 students. The experimental class which was given the treatment by using cartoon story maker and the control group which was not given treatment by cartoon story maker.

The purpose of the research was to know the effectiveness of using cartoon story maker on the students' writing achievement at the second of SMPN 1 Ngantru. The data were collected from students' score in pre-test and post-test of the two classes. Then, to determine the significance different whether using cartoon story maker was effective or not, the researcher did not use individual scores for comparison. But, it used the results of class scores or mean of the scores in writing a dialog using simple past tense.The students score in pre-test and post-test were presented as follow:

## 1. The Students' Score in Experimental Class

a. Pre-test of Experimental Class

The pre-test was done on April $18^{\text {th }}, 2019$. The subject of study consists of 30 students in VIII A. The highest score was 80 and the lowest score was 45 . By using SPSS 18.0, it was known that the mean of students' score in pre-test was 63.00 , the median was 62.50 and the mode was 60 .

Table 4.1 Descriptive statistic of Experimental pre-test

|  |  | Pretest <br> experimental |
| :--- | :--- | :--- |
| N | Valid | 30 |
|  | Missing | 0 |
| Mean |  | 63.00 |
| Median | 62.50 |  |
| Mode | $60^{\mathrm{a}}$ |  |
| Std. Deviation | 9.523 |  |
| Range | 35 |  |
| Minimum | 45 |  |
| Maximum | 80 |  |
| Sum |  | 1890 |
| Percentiles | 25 | 55.00 |
|  | 50 | 62.50 |
|  | 75 | 70.00 |

Table 4.2 Frequency of Experimental pre-test

|  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| :---: | ---: | ---: | ---: | ---: |
| Valid 45 | 1 | 3.3 | 3.3 | 3.3 |
| 50 | 4 | 13.3 | 13.3 | 16.7 |
| 55 | 4 | 13.3 | 13.3 | 30.0 |
| 60 | 6 | 20.0 | 20.0 | 50.0 |
| 65 | 4 | 13.3 | 13.3 | 63.3 |
| 70 | 6 | 20.0 | 20.0 | 83.3 |
| 75 | 3 | 10.0 | 10.0 | 93.3 |
| 80 | 2 | 6.7 | 6.7 | 100.0 |
| Total | 30 | 100.0 | 100.0 |  |

b. The students' score in Post-Test

The post-test was done in May $4^{\text {th }}, 2019$. The subject of post-test consist of 30 students in VIII A. The highest score was 100 and the lowest score was 70 . By using SPSS 18.0, it was known that the mean of students' score in post-test was 82.50 , the median was 82.00 and the mode was 75 .

Table 4.3 Descriptive statistic of Experimental Post-Test

|  | Posttest experimental |
| :---: | :---: |
| N Valid | 30 |
| Missing | 0 |
| Mean | 82.50 |
| Median | 82.50 |
| Mode | $75^{\text {a }}$ |
| Std. Deviation | 7.399 |
| Range | 30 |
| Minimum | 70 |
| Maximum | 100 |
| Sum | 2475 |
| Percentil 75 | 75 กn |

Table 4.4 Frequency of Experimental Post-test

|  | Frequenc <br> $y$ | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid 70 | 2 | 6.7 | 6.7 | 6.7 |
| 75 | 7 | 23.3 | 23.3 | 30.0 |
| 80 | 6 | 20.0 | 20.0 | 50.0 |
| 85 | 7 | 23.3 | 23.3 | 73.3 |
| 90 | 6 | 20.0 | 20.0 | 93.3 |
| 95 | 1 | 3.3 | 3.3 | 96.7 |
| 100 | 1 | 3.3 | 3.3 | 100.0 |
| Total | 30 | 100.0 | 100.0 |  |

## 2. The Students' Score in Control Class

a. Pre-test of Control class

The pre-test was done on April $16^{\text {th }} 2019$. The subject of study consists of 30 students in VIII B. The highest score was 80 and the lowest score was 40. By using SPSS 18.0, it was known that the mean of students' score in pre-test was 60.17 the median was 60.00 and the mode was 60 .

Table 4.5 Descriptive Statistic of Control Pre-Test

|  |  | Pretest <br> control |
| :--- | :--- | ---: |
| N | Valid <br> Missing | 30 |
| Mean | 0 |  |
| Median | 60.17 |  |
| Mode | 60.00 |  |
| Std. Deviation | $60^{\mathrm{a}}$ |  |
| Range | 10.787 |  |
| Minimum | 40 |  |
| Maximum | 40 |  |
| Sum | 80 |  |
| Percentil 25 | 1805 |  |
| es | 50 | 60.00 |
|  | 75 | 70.00 |

Table 4.6 Frequency of Control pre-test

|  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| ---: | ---: | ---: | ---: | ---: |
| Valid 40 | 1 | 3.3 | 3.3 | 3.3 |
| 45 | 4 | 13.3 | 13.3 | 16.7 |


| 50 | 3 | 10.0 | 10.0 | 26.7 |
| :--- | ---: | ---: | ---: | ---: |
| 55 | 4 | 13.3 | 13.3 | 40.0 |
| 60 | 5 | 16.7 | 16.7 | 56.7 |
| 65 | 4 | 13.3 | 13.3 | 70.0 |
| 70 | 5 | 16.7 | 16.7 | 86.7 |
| 75 | 3 | 10.0 | 10.0 | 96.7 |
| 80 | 1 | 3.3 | 3.3 | 100.0 |
| Total | 30 | 100.0 | 100.0 |  |

b. Post-test control class

The post-test was done on Thursday, May $2^{\text {th }}$ 2019. The subject of study consists of 30 students in VIII B. The researcher conducted the post-test in control class to know the improvement of students' achievement in writing simple dialogue using simple past tense. The highest score was 85 and the lowest score was 55. By using SPSS 18.0, it was known that the mean of students' score in pretest was 71.33 , the median was 70.00 and the mode was 70 .

Table 4.7 Descriptive statistic of Control Post-Test

|  |  | Posttest control |
| :--- | :--- | ---: |
| N | Valid | 30 |
|  | Missing | 0 |
| Mean |  | 71.33 |
| Median |  | 70.00 |
| Mode | $70^{\mathrm{a}}$ |  |
| Std. Deviation | 7.871 |  |
| Range | 30 |  |
| Minimum |  | 55 |
| Maximum |  | 85 |
| Sum |  | 2140 |
| Percentiles | 25 | 65.00 |
|  | 50 | 70.00 |
|  | 75 | 76.25 |

Table 4.8 Frequency of Control Post-test

|  |  | Frequency | Percent | Valid <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid 55 | 1 | 3.3 | 3.3 | Cumulative <br> Percent |
| 60 | 4 | 13.3 | 13.3 | 16.3 |
|  | 65 | 4 | 13.3 | 13.3 |

## 3. The Difference of Statistical Data in Post-test of Control and Experimental

## Class

The researcher only compared the students score in post-test, because the students' score in pre-test between control group and experimental group were normal. The result of statistical calculation will be shown below:

Table 4.9 Descriptive Statistic Post-test of Experimental and Control Group

|  | Posttest control | Posttest experime ntal |
| :---: | :---: | :---: |
| N Valid | 30 | 30 |
| Missing | 0 | 0 |
| Mean | 71.33 | 82.50 |
| Median | 70.00 | 82.50 |
| Mode | $70^{\text {a }}$ | $75^{\text {a }}$ |
| Std. Deviation | 7.871 | 7.399 |
| Range | 30 | 30 |
| Minimum | 55 | 70 |
| Maximum | 85 | 100 |
| Sum | 2140 | 2475 |
| Percent 25 | 65.00 | 75.00 |
| iles 50 | 70.00 | 82.50 |
| 75 | 76.25 | 90.00 |

Based on the table above, the highest score of control group was 85 and the lowest was 60 . The mode of control group was 70 , the median was 70 and the mean was 71.83 . While in experimental group the highest score was 100 and the lowest score was 70 . The mean of experimental group was 82.50 , then the median was 82.50 and the mode was 75 .

## B. The Result of Normality and Homogeneity Testing

## 1. The result of Normality Testing

Normality testing is conducted to determine whether the gained data was normal distribution or not. The researcher used SPSS 18.0 One Sample Kolmogorov-Smirnove test by the value of significance $(\alpha)=0.05$ The result can be seen in table below:

## Table 4.10 Normality Testing

One-Sample Kolmogorov-Smirnov Test

|  | Pretest control | Posttest control | Pretest experimental | Posttest experimental |
| :---: | :---: | :---: | :---: | :---: |
| N | 30 | 30 | 30 | 30 |
| Normal Mean | 60.17 | 71.33 | 63.00 | 82.50 |
| Paramet Std. ers $^{\text {a,b }} \quad$ Devi | 10.787 | 7.871 | 9.523 | 7.399 |
| ation |  |  |  |  |
| Most Abso | . 119 | . 146 | . 136 | . 145 |
| Extreme lute |  |  |  |  |
| Differen Positi | . 094 | . 101 | . 124 | . 145 |
| ces ve |  |  |  |  |
| Nega | -. 119 | -. 146 | -. 136 | -. 132 |
| tive |  |  |  |  |
| Kolmogorov- | . 652 | . 800 | . 742 | . 792 |
| Smirnov Z |  |  |  |  |
| Asymp. Sig. (2- | . 789 | . 545 | . 640 | . 557 |
|  |  |  |  |  |

a. Test distribution is Normal.
b. Calculated from data.
a. $\mathrm{H}_{0}$ : Data is in normal distribution
b. $\mathrm{H}_{1}$ : Data is not normal distribution

Based on the result above is known that the significance value from pretest experimental and control class were 0.640 and 0.789 it is bigger than 0.05 $(0.640>0.05),(0.789>0.05)$ it means that $\mathrm{H}_{0}$ is accepted and $\mathrm{H}_{1}$ is rejected, so, the data is in normal distribution. While, the result of the significance value of post-test experimental and control class were 0.557 and 0.545 it is bigger than $0.05(0.557>0.05),(0.545>0.05)$ it means that $\mathrm{H}_{0}$ is accepted and $\mathrm{H}_{1}$ is rejected, so,
the data is in normal distribution. Thus, it can be concluded that both pre-test and post-test are in normal distribution.

## 2. The Result of Homogeneity Testing

Homogeneity testing is intended to prove that sample taken from the population have the same variance and show no significant difference. The researcher analysed the data by using Test of Homogeneity of Variance with statistical instrument SPSS 18.0 by the value of significance $(\alpha)=0,05$. The result can be seen bellow:

Table 4.11 Homogeneity Testing
Test of Homogeneity of Variances
Posttest

| Levene <br> Statistic | df1 | df2 | Sig. |
| :---: | ---: | ---: | ---: |
| .056 | 1 | 58 | .813 |

a. $\mathrm{H}_{0}$ : Data is homogeny
b. $\mathrm{H}_{1}$ : Data is not homogeny

Based on the table above, the test is homogeny because the significance value was 0.813 it means bigger than 0.05 and it means that $\mathrm{H}_{0}$ is accepted and $\mathrm{H}_{1}$ is rejected. It can be concluded that the students of VIIIA has homogeny of variances.

## C. Hypothesis Testing

The hypothesis testing of this study as follow:

1. Null hypothesis (Ho)

There is no significant different score on the students writing achievement that are taught by using cartoon story maker and taught by using conventional method.
2. Alternative Hypothesis (H1)

There is significance different score on the students writing achievement that are taught by using cartoon story maker and taught by using conventional method.

The hypothesis testing of this study followed the rule as follows:

1. If the significant value is less than 0.05 , the null hypothesis $(\mathrm{H} 0)$ is rejected and alternative hypothesis (H1) accepted.
2. If the significant value is more than 0.05 , the alternative hypothesis $(\mathrm{H} 1)$ is rejected and null hypothesis ( H 0 ) is accepted.

To know whether there were any significance different score on students' writing achievement between the students' taught by using cartoon story maker and those taught by using conventional method, the calculating result should show whether H 0 is rejected meanwhile H 1 is accepted. To analyzed data the researcher used SPSS 18.0 for windows, the result can be seen on Table 4.12 below:

Table 4.12 Descriptive Statistic of Post-test in Two Groups

## Descriptive Statistic

|  | Class |  |  | Std. <br> Deviation | Std. Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| posttest | experiment | 30 | 82.50 | 7.399 | 1.351 |
|  | control | 30 | 71.33 | 7.871 | 1.437 |

Based on the table above, it showed there were two classes, experimental class and control class. Experimental class showed there were 30 students', Mean of score experimental class was 82.50 Standard Deviation for experimental classs was 7.399 Meanwhile, in the control class, showed there were 30 students', Mean of score control class was 71.33, Standard Deviation for control class was 7.871 . In addition, to know the significance different score in Experimental and Control class, while used descriptive statistics the researcher also used independent sample T-test. The purpose was to know the effectiveness of Cartoon story Maker in writing achievement. To analyzed the result of t-test testing the researcher used SPSS 18.0 for windows. The result can be seen on Table 4.13 as follow:

Table 4.13 Independent Sample T-Test

|  | Levene's <br> Test for Equality of Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | Sig. | t | df | Sig. (2tailed ) | Mean Differe nce | Std. <br> Error <br> Differe <br> nce | 95\% <br> Confidence Interval of the Difference |  |
|  |  |  |  |  |  |  |  | Lower | Upper |
| Ni Equal <br> lai varian <br> 1 ces <br> assum <br> ed | . 056 | . 813 | $5.662$ | $58$ | . 000 | 11.167 | 1.972 | 7.219 | 15.115 |
| Equal <br> varian <br> ces <br> not <br> assum <br> ed |  |  | 5.662 | $\begin{array}{r} 57.77 \\ 9 \end{array}$ | . 000 | 11.167 | 1.972 | 7.218 | 15.115 |

The table of Independent Sample Test showed that the significant value (sig-2 tailed) was 0.000 . According to the hypothesis testing rule, if the significant value is less than 0,05 , the null hypothesis $(\mathrm{H} 0)$ is rejected and alternative hypothesis (Ha) accepted. And if the significant value is more than 0.05 , the alternative hypothesis (Ha) is rejected and null hypothesis (H0) is accepted. The significant value (sig-2 tailed) was 0.000 and it was smaller than $0.05(0.00<0.05)$ it means that H0 was rejected and Ha was accepted. Thus, it can be interpreted that there was significant different score on students' writing achievement between the
students' taught by using cartoon story maker and those taught by using conventional method. It means that using cartoon story maker was improve the students' writing.

## D. Discussion

In this part, the researcher present the discussion of analysed data that has been presented in the previous sub chapter.

This research talked about the use of Cartoon Story Maker to Teach writing dialogue using simple past tense at the Second Grade of SMPN 1 Ngantru. This research used quasi-experimental design. This part was intended to analyze the result of research finding based on the related theory. All data collected from the research instrument provided information of the research finding. The result of the students' score was calculated by using t -test.

Based on the research method in chapter III. In this research, the teaching and learning process was divided into three steps both in experimental and control class. First step, the researcher administering pre test to know the student's writing ability. The second step was given treatment by using Cartoon story maker in writing a dialogue using simple pat tense in experimental class and without using cartoon story maker to the control class. After getting treatment both in experimental and control class, the writer conducted post-test to know the achievement the students' score in writing after get the treatment.

According to the result of data analysis, the significant value of $t$-test was that the P-value or sig was 0.000 and smaller than 0.05 . So, the null hypothesis $\left(\mathrm{H}_{0}\right)$ is rejected, so based on those result, and the alternative hypothesis $\left(\mathrm{H}_{1}\right)$ was
not rejected (accepted). It can be stated that the cartoon story maker is effective to teach writing a dialogue. So, media is needed in teaching learning process. The function of instructional media are make the students more interest and attractive to the lesson especially in writing skill.

Based on Adekola (2010) Instructional media are channels of communication trough which information passes for usage in conjunction with the instructor. Besides that, the learning objectives must be from Syllabus.

The previous researchers also had proved that Cartoon Story Maker could be effective to teach writing. It was supported by some researchers, The research about using cartoon story maker through project based learning in teaching creative writing by Listiana Nurhayati Hakim. From the research finding, it could be concluded that the cartoon story maker has given significant effect towards students' creative writing skill. They concluded that cartoon story maker is effective to teach writing than comic life through project based learning.

The other recommendations that are research about the use of cartoon story maker to master writing ability in composing simple sentence by Ifkin Iftah Rohmatika. The purpose of the research are to know the significant differences of students' writing ability in composing simple Research about the use of cartoon story maker to master writing ability in composing simple sentence by Ifkin Iftah Rohmatika. The purpose of the research are to know the significant differences of students' writing ability in composing simple sentences before and after they are taught using cartoon story maker. The result stated that cartoon story maker was effective in improving students' score in writing simple sentence. Cartoon Story

Maker was very good to generate imagination, and created fun atmosphere in learning the learning process.

Finally, the conclusion of this discussion was the students' of experimental group have better score than control group. It can be concluded that the Cartoon Story Maker is effective to Teach Writing at the Second Grade of SMPN 1 Ngantru.

