## CHAPTER IV

## RESEARCH FINDING AND DISCUSSION

## A. Data Description

As mentioned before, this research is conducted to know whether Biographical Film is effective to develop students' skill on writing descriptive text. To know the effectiveness of Biographical Film in developing students' skill on writing descriptive text, the writer did a pre-experimental research with one group pretest-posttest as the design and involved nineteen students of Class X of MA Mursyidatul Jannah as sample of this research.

The data were collected through administering test. The first test was pre-test done before the treatment applied to the students. The purpose was to know the students' skill on writing descriptive text before treatment given. Then, after giving treatment, the writer provided test as the post-test. The purpose was to know the students' skill on writing descriptive text after treatment given.

The description was about person. In pre-test, the writer gave instruction to the students to write a description about first president of Indonesia 'Soekarno' without any treatment before. In post-test, the writer gave instruction to the students to watch a Biographical Film.

The film used for post-test is 'Ali' film. Then, the writer asked the students to write a description about the main figure of the film 'Muhammad Ali', the legend of boxing, by following the general structure and the language feature of descriptive text.

The following is the students' score on writing descriptive text before and after using biographical film.

Table 4.1
Students' Score on Writing Descriptive Text Before and After
Using Biographical Film

| No | Students | Pre-test Score | Post-test Score |
| :---: | :--- | :---: | :---: |
| 1 | A | $\mathbf{3 5}$ | $\mathbf{4 0}$ |
| 2 | A.P | 50 | 50 |
| 3 | D.L | 45 | 60 |
| 4 | E.M | 45 | 50 |
| 5 | F.W | 45 | 65 |
| 6 | H.I | 45 | 55 |
| 7 | H.M.D | 50 | 60 |
| 8 | H.S | $\mathbf{6 5}$ | 65 |
| 9 | N.A | 50 | 65 |
| 10 | N.K | 45 | $\mathbf{7 0}$ |
| 11 | R | 40 | 45 |
| 12 | R.W | 50 | 60 |
| 13 | S.A.L | 50 | 50 |
| 14 | S.A.N |  | 65 |


| 15 | S.A.P.S | 45 | 55 |
| :---: | :--- | :---: | :---: |
| 16 | S.H | 40 | 50 |
| 17 | S.N.M | 55 | 50 |
| 18 | S.S.F | 55 | 65 |
| 19 | U.W.Y | 45 | 55 |
|  | Total | $\mathbf{9 2 0}$ | $\mathbf{1 0 7 5}$ |

In pre-test data set, the lowest score is 35 and the highest score is 65 . Score 35 is gained by one student, score 40 is gained by two students, score 45 is gained by six students, score 50 is gained by four students, score 55 is gained by three students, score 60 is gained by one student, and score 65 is gained by one student.

Meanwhile, in post-test data set, the lowest score is 40 and the highest score is 70 . Score 40 is gained by one student, score 45 is gained by one student, score 50 is gained by five students, score 55 is gained by three students, score 60 is gained by three students, score 65 is gained by five students, and score 70 is gained by one student.

The following tables is the details of students' score on pre-test and post-test seen from each aspect of descriptive text assessment.

Table 4.2
The Details of Students' Score on Pre-test Seen from Each Aspect of Descriptive Text Assessment

| No | Students | Aspects |  |  |  |  | Total | Final Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{C}$ | $\mathbf{O}$ | $\mathbf{G}$ | $\mathbf{V}$ | $\mathbf{M}$ |  | 7 |
| 1 | A | 2 | 1 | 1 | 2 | 1 | 7 | $\mathbf{3 5}$ |
| 2 | A.P | 2 | 2 | 2 | 2 | 2 | 10 | 50 |
| 3 | D.L | 1 | 2 | 2 | 2 | 2 | 9 | 45 |
| 4 | E.M | 2 | 2 | 2 | 2 | 1 | 9 | 45 |
| 5 | F.W | 2 | 2 | 2 | 2 | 1 | 9 | 45 |
| 6 | H.I | 2 | 2 | 2 | 2 | 1 | 9 | 45 |
| 7 | H.M.D | 3 | 3 | 1 | 2 | 1 | 10 | 50 |
| 8 | H.S | 2 | 3 | 3 | 3 | 2 | 13 | $\mathbf{6 5}$ |
| 9 | N.A | 2 | 3 | 2 | 3 | 2 | 12 | 60 |
| 10 | N.K | 3 | 3 | 1 | 2 | 2 | 11 | 55 |
| 11 | R | 3 | 2 | 1 | 2 | 1 | 9 | 45 |
| 12 | R.W | 2 | 2 | 2 | 1 | 1 | 8 | 40 |
| 13 | S.A.L | 2 | 3 | 2 | 2 | 1 | 10 | 50 |
| 14 | S.A.N | 2 | 2 | 2 | 2 | 2 | 10 | 50 |
| 15 | S.A.P.S | 2 | 2 | 2 | 2 | 1 | 9 | 45 |
| 16 | S.H | 2 | 2 | 1 | 2 | 1 | 8 | 40 |
| 17 | S.N.M | 3 | 3 | 2 | 2 | 1 | 11 | 55 |
| 18 | S.S.F | 2 | 2 | 2 | 3 | 2 | 11 | 55 |
| 19 | U.W.Y | 2 | 2 | 2 | 2 | 1 | 9 | 45 |
| The final score is the result of total score : 20 (maximal score) x 100 | 9 |  |  |  |  |  |  |  |

The table above shows the detail of pre-test score for each descriptive text assessment aspects.

The following is the percentage of the score gained by the students seen from each aspect of descriptive text assessment.

## Table 4.3

## The Percentage of Students' Score on Pre-test Seen from Each

Aspect of Descriptive Text Assessment

| Score | Aspects |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{C}$ | $\mathbf{O}$ | $\mathbf{G}$ | $\mathbf{V}$ | $\mathbf{M}$ |
| Score 1 | $5.3 \%$ | $5.26 \%$ | $26.32 \%$ | $5.26 \%$ | $\mathbf{6 3 . 1 6} \%$ |
| Score 2 | $\mathbf{7 3 . 7} \%$ | $\mathbf{6 3 . 1 5} \%$ | $\mathbf{6 8 . 4 2} \%$ | $\mathbf{7 8 . 9 4} \%$ | $36.84 \%$ |
| Score 3 | $21 \%$ | $31.59 \%$ | $5.26 \%$ | $15.8 \%$ | $0 \%$ |
| Score 4 | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |

The table above shows that, for content, organization, grammar and vocabulary aspect, the students who got score 2 is the highest and the highest score is 3 . For mechanic aspect, the students who got score 1 is the highest and the highest score is 2 . Meanwhile, there was no students got score 4 for every aspects.

The following is the details of students' score on post-test seen from each aspect of descriptive text assessment.

Table 4.4
The Details of Students' Score on Post-test Seen from Each Aspect of Descriptive Text Assessment

| No | Students | Aspects |  |  |  |  | Total | Final Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | C | O | G | V | M |  |  |
| 1 | A | 2 | 2 | 1 | 2 | 1 | 8 | 40 |
| 2 | A.P | 3 | 3 | 1 | 2 | 1 | 10 | 50 |
| 3 | D.L | 3 | 3 | 2 | 2 | 2 | 12 | 60 |
| 4 | E.M | 3 | 2 | 2 | 2 | 1 | 10 | 50 |
| 5 | F.W | 4 | 3 | 3 | 2 | 1 | 13 | 65 |
| 6 | H.I | 3 | 3 | 2 | 2 | 1 | 11 | 55 |
| 7 | H.M.D | 3 | 3 | 2 | 2 | 2 | 12 | 60 |
| 8 | H.S | 4 | 3 | 2 | 2 | 2 | 13 | 65 |
| 9 | N.A | 3 | 4 | 2 | 2 | 2 | 13 | 65 |
| 10 | N.K | 3 | 4 | 2 | 3 | 2 | 14 | 70 |
| 11 | R | 3 | 2 | 1 | 2 | 1 | 9 | 45 |
| 12 | R.W | 3 | 4 | 2 | 2 | 1 | 12 | 60 |
| 13 | S.A.L | 2 | 2 | 2 | 2 | 2 | 10 | 50 |
| 14 | S.A.N | 4 | 3 | 2 | 2 | 2 | 13 | 65 |
| 15 | S.A.P.S | 2 | 3 | 2 | 2 | 2 | 11 | 55 |
| 16 | S.H | 2 | 3 | 2 | 2 | 1 | 10 | 50 |
| 17 | S.N.M | 2 | 3 | 2 | 2 | 1 | 10 | 50 |
| 18 | S.S.F | 3 | 4 | 2 | 2 | 2 | 13 | 65 |
| 19 | U.W.Y | 3 | 3 | 2 | 2 | 1 | 11 | 55 |

The final score is the result of total score : 20 (maximal score) $\mathbf{x} 100$

The table above shows the detail of post-test score for each descriptive text assessment aspects.

The following is the percentage of the score gained by the students seen from each aspect of descriptive text assessment.

## Table 4.5

The Percentage of Students' Score on Post-test Seen from Each

## Aspect of Descriptive Text Assessment

| Score | Aspects |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{C}$ | $\mathbf{O}$ | $\mathbf{G}$ | $\mathbf{V}$ | $\mathbf{M}$ |
| Score 1 | $0 \%$ | $0 \%$ | $15.8 \%$ | $0 \%$ | $\mathbf{5 2 . 6 3} \%$ |
| Score 2 | $26.31 \%$ | $21.05 \%$ | $\mathbf{7 8 . 9 4} \%$ | $\mathbf{9 4 . 7 4} \%$ | $47.37 \%$ |
| Score 3 | $\mathbf{5 7 . 9} \%$ | $\mathbf{5 7 . 9} \%$ | $5.26 \%$ | $5.26 \%$ | $0 \%$ |
| Score 4 | $15.79 \%$ | $21.05 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |

The table above shows that, for content and organization aspect, the students who got score 3 is the highest and no one got score 1 . For grammar aspect, the highest score is 3 and the students who got score 2 is the highest. For vocabulary aspect, there was no students got score 1 and 4 , and the students who got score 2 is highest. For mechanic aspect, the highest score is 2 and the students who got score 1 is the highest.

The followings are graphics of students score in writing description of person before and after using Biographical Film for each aspect of descriptive text assessment.


Figure 4: Line Chart of Students' Score in Writing Person Description for Content Aspect
The line chart above describes that, for content aspect, the students averagely got score 2 before using Biographical Film and averagely got score 3 after using Biographical Film in writing description of person. It means that after using Biographical Film, students' skill in writing person description for content aspect is developed. The topic is complete and clear but the details are almost relating to the topic.


Figure 5: Line Chart of Students' Score in Writing Person Description for Organization Aspect

The line chart above describes that the students averagely got score 2 before using Biographical Film and averagely got score 3 after using Biographical Film for organization aspect, in writing description of person. It means the use of Biographical Film, one level higher, can help students develop their skill in writing descriptive text (person description) for organization aspect, the identification is almost complete and descriptions are arranged with almost proper connectives.

## Grammar Aspect



Figure 6: Line Chart of Students' Score in Writing Person Description for Grammar Aspect

The line chart above describes that the students, both before using Biographical Film and after using Biographical Film, averagely got score 2 for grammar aspect in writing description of person. There is no significant different between before and after using Biographical Film for grammar aspect, still there are numerous grammatical or agreement inaccuracies.


Figure 7: Line Chart of Students' Score in Writing Person Description for Vocabulary Aspect

Just like the line chart for grammar aspect, the line chart for vocabulary aspect above also describes that the students, both before using Biographical Film and after using Biographical Film, averagely got score 2 in writing description of person. There is no significant different between before and after using Biographical Film for grammar aspect. It shows that the students still have limited range confusing words and word form.


Figure 8: Line Chart of Students' Score in Writing Person Description for Mechanic Aspect

The line chart above show that the students who got score 1 and who got score 2 is stable. In other word, it describe that although stimulated using Biographical Film, the students' still have frequent errors of spelling, punctuation and capitalization in writing descriptive text (person description) skill for mechanic aspect.

The whole line charts above shows that the use of Biographical Film can help students develop their skill in writing descriptive text (person description), only for content and organization aspect. It is not effective to develop students' skill in writing person description for grammar, vocabulary, and mechanic aspect.

The descriptions of data above will be analyzed in analyzing of data below.

## B. Analyzing of Data

## 1. Comparing the Scores of Pre-test and Post-test

After getting the pre-test and the post-test score, the writer analyzed the data by comparing both pre-test score and post-test score.

## $\mathrm{O}_{1} \mathrm{X} \quad \mathrm{O}_{2}$

$\mathrm{O}_{1}=$ Pre-test Score (before experiment)
$\mathrm{O}_{2}=$ Post-test Score (after experiment)

To compare both of tests score, firstly, the writer count the effectivity average before and after using biographical film in writing descriptive text about person as follows:

Ideal score $=4 \times 5 \times 19=380(4=$ the highest score, $5=$ five scoring aspects, $19=$ the number of students). Then, the ideal score for
every aspects is $4 \times 19=76(4=$ the highest score, $19=$ the number of students).

The following table is the calculation of students' score on pretest (before using Biographical Film).

Table 4.6
The Calculation of Students' Score on Pre-test from Each Aspect of
Descriptive Text Assessment

| No | Students | Aspects |  |  |  |  | Total |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{C}$ | $\mathbf{O}$ | $\mathbf{G}$ | $\mathbf{V}$ | $\mathbf{M}$ |  |
| 1 | A | 2 | 1 | 1 | 2 | 1 | 7 |
| 2 | A.P | 2 | 2 | 2 | 2 | 2 | 10 |
| 3 | D.L | 1 | 2 | 2 | 2 | 2 | 9 |
| 4 | E.M | 2 | 2 | 2 | 2 | 1 | 9 |
| 5 | F.W | 2 | 2 | 2 | 2 | 1 | 9 |
| 6 | H.I | 2 | 2 | 2 | 2 | 1 | 9 |
| 7 | H.M.D | 3 | 3 | 1 | 2 | 1 | 10 |
| 8 | H.S | 2 | 3 | 3 | 3 | 2 | 13 |
| 9 | N.A | 2 | 3 | 2 | 3 | 2 | 12 |
| 10 | N.K | 3 | 3 | 1 | 2 | 2 | 11 |
| 11 | R | 3 | 2 | 1 | 2 | 1 | 9 |
| 12 | R.W | 2 | 2 | 2 | 1 | 1 | 8 |
| 13 | S.A.L | 2 | 3 | 2 | 2 | 1 | 10 |
| 14 | S.A.N | 2 | 2 | 2 | 2 | 2 | 10 |
| 15 | S.A.P.S | 2 | 2 | 2 | 2 | 1 | 9 |
| 16 | S.H | 2 | 2 | 1 | 2 | 1 | 8 |
|  |  |  |  |  |  |  |  |


| 17 | S.N.M | 3 | 3 | 2 | 2 | 1 | 11 |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | S.S.F | 2 | 2 | 2 | 3 | 2 | 11 |
| 19 | U.W.Y | 2 | 2 | 2 | 2 | 1 | 9 |
|  | Total | $\mathbf{4 1}$ | $\mathbf{4 3}$ | $\mathbf{3 4}$ | $\mathbf{4 0}$ | $\mathbf{2 6}$ | $\mathbf{1 8 4}$ |

Based on the table above, the whole score gained by all students is 184 . So, the whole effectivity is $184: 380=0.484$ or $48.4 \%$ from criteria counted on. The effectivity based on each aspect is as follows: Content $=41: 76=0.539$ or $53.9 \%$, Organization $=43: 76=0.566$ or $56.6 \%$, Grammar $=34: 76=0.447$ or $44.7 \%$, Vocabulary $=40: 76=$ 0,526 or $52.6 \%$ and Mechanic $=26: 76=0.342$ or $34.2 \%$.

Next is the calculation of students' score on pre-test (before using Biographical Film).

Table 4.7
The Calculation of Students' Score on Post-test from Each Aspect of Descriptive Text Assessment

| No | Students | Aspects |  |  |  |  | Total |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{C}$ | $\mathbf{O}$ | $\mathbf{G}$ | $\mathbf{V}$ | $\mathbf{M}$ |  |
| 1 | A | 2 | 2 | 1 | 2 | 1 | 8 |
| 2 | A.P | 3 | 3 | 1 | 2 | 1 | 10 |
| 3 | D.L | 3 | 3 | 2 | 2 | 2 | 12 |
| 4 | E.M | 3 | 2 | 2 | 2 | 1 | 10 |
| 5 | F.W | 4 | 3 | 3 | 2 | 1 | 13 |
| 6 | H.I | 3 | 3 | 2 | 2 | 1 | 11 |


| 7 | H.M.D | 3 | 3 | 2 | 2 | 2 | 12 |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | H.S | 4 | 3 | 2 | 2 | 2 | 13 |
| 9 | N.A | 3 | 4 | 2 | 2 | 2 | 13 |
| 10 | N.K | 3 | 4 | 2 | 3 | 2 | 14 |
| 11 | R | 3 | 2 | 1 | 2 | 1 | 9 |
| 12 | R.W | 3 | 4 | 2 | 2 | 1 | 12 |
| 13 | S.A.L | 2 | 2 | 2 | 2 | 2 | 10 |
| 14 | S.A.N | 4 | 3 | 2 | 2 | 2 | 13 |
| 15 | S.A.P.S | 2 | 3 | 2 | 2 | 2 | 11 |
| 16 | S.H | 2 | 3 | 2 | 2 | 1 | 10 |
| 17 | S.N.M | 2 | 3 | 2 | 2 | 1 | 10 |
| 18 | S.S.F | 3 | 4 | 2 | 2 | 2 | 13 |
| 19 | U.W.Y | 3 | 3 | 2 | 2 | 1 | 11 |
|  | Total | $\mathbf{5 5}$ | $\mathbf{5 7}$ | $\mathbf{3 6}$ | $\mathbf{3 9}$ | $\mathbf{2 8}$ | $\mathbf{2 1 5}$ |

Based on the table above, the whole score gained by all students is 184 . So, the whole effectivity is $215: 380=0.566$ or $56.6 \%$ from criteria counted on. The effectivity based on each aspect is as follows:

Content $=55: 76=0.724$ or $72.4 \%$, Organization $=57: 76=0.75$ or $75 \%$, Grammar $=36: 76=0.474$ or $47.4 \%$, Vocabulary $=39: 76=$ 0,513 or $51.3 \%$ and Mechanic $=28: 76=0.368$ or $36.8 \%$.

The comparison between students' score on writing descriptive text about person before and after using Biographical Film is shown on the table below.

Table 4.8
The Comparison of Effectivity between Before and After Stimulated by Using Biographical Film

| Descriptive Text Assessment <br> Aspects | Before | After | Range |
| :--- | :---: | :---: | :--- |
| Content | $53.9 \%$ | $\mathbf{7 2 . 4 \%}$ | $18.5 \%$ higher |
| Organization | $\mathbf{5 6 . 6 \%}$ | $75 \%$ | $18.4 \%$ higher |
| Grammar | $44.7 \%$ | $47.4 \%$ | $2.7 \%$ higher |
| Vocabulary | $52.6 \%$ | $51.3 \%$ | $1.3 \%$ lower |
| Mechanic | $34.2 \%$ | $36.8 \%$ | $2.6 \%$ higher |
| Average | $\mathbf{4 8 . 4 \%}$ | $\mathbf{5 6 . 6 \%}$ | $\mathbf{8 . 2 \%}$ higher |

Table 4.8 shows that the effectivity of using Biographical Film in developing students' skill on writing descriptive text about person is $8.2 \%$ higher than before using. The effectivity average before using Biographical Film is $48.4 \%$ and the effectivity average after using Biographical Film is $56.6 \%$. The effectivity on content aspect is $18.5 \%$ higher than before, $72.4 \%$ after and $53.9 \%$ before. The effectivity on organization aspect is $18.4 \%$ higher than before, $\mathbf{7 5 \%}$ after and $56.6 \%$ before. The effectivity on grammar aspect is $2.7 \%$ higher than before, $44.7 \%$ after and $47.4 \%$ before. But, the effectivity on vocabulary aspect is $1.3 \%$ lower than before, $51.3 \%$ after and $52.6 \%$ before. Then, the effectivity on Mechanic aspect is $2.6 \%$ higher than before, $56.6 \%$ after
and $48.4 \%$ before. The conclusion is using Biographical Film in developing students' skill on writing descriptive text about person is more effective than before using.

After comparing between pre-test and post-test score, the writer tests the difference significance using correlated $t$-test.

## 2. T-test

To prove the significance of the difference between the result of pre-test and post-test, the writer tested it statistically using correlated $t$ test. The score calculated here is the final score of pre-test and posttest. The formula is:

$$
t=\frac{\bar{X}_{1}-\bar{X}_{2}}{\sqrt{\frac{S_{1}^{2}}{n}+\frac{S_{2}^{2}}{n}-2 r\left(\frac{s_{1}}{\sqrt{n}}\right)\left(\frac{s_{2}}{\sqrt{n}}\right)}}
$$

$\bar{X}_{1} \quad=$ the average of pre-test score
$\bar{X}_{2} \quad=$ the average of post-test score
$s_{1} \quad=$ standard deviation of pre-test score
$s_{2} \quad=$ standard deviation of post-test score
$S_{1}^{2} \quad=$ variance of pre-test score
$S_{2}^{2} \quad=$ variance of post-test score
$r=$ correlation between pre-test and post-test score

To use the formula, the writer determined the correlation of pretest and post-test score, the average, the standard deviation and the variance as follows:
a. Determining the total score mean (average) of pre-test and post-test

To know the mean of pre-test and post-test, the writer uses this formula:

$$
\bar{X}_{1}=\frac{\sum X}{N} \quad \bar{X}_{2}=\frac{\sum Y}{\mathrm{~N}}
$$

$\bar{X}_{1}=$ Mean of Pre-test
$\bar{X}_{2}=$ Mean of Post-test
$\mathrm{X}=$ Students score of Pre-test
$\mathrm{Y}=$ Students score of Post-test
$\mathrm{N}=$ Number of students

$$
\begin{aligned}
\bar{X}_{1} & =\frac{\sum X}{\mathrm{~N}} & \bar{X}_{2} & =\frac{\sum Y}{N} \\
& =\frac{920}{19} & & =\frac{1,075}{19} \\
\bar{X}_{\mathbf{1}} & =\mathbf{4 8 . 4 2} & \overline{\boldsymbol{X}}_{2} & =\mathbf{5 6 . 5 7}
\end{aligned}
$$

b. Determining the standard deviation of pre-test and post test

To find out the standard deviation, the writer uses the following formula:

$$
\mathbf{S}_{\mathbf{1}}=\sqrt{\frac{(\mathrm{X}-\overline{\mathbf{X}})^{2}}{\mathrm{~N}-1}} \quad \mathbf{S}_{\mathbf{2}}=\sqrt{\frac{(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}-1}}
$$

$\mathrm{S}_{1} \quad=$ the standard deviation of pre-test
$\mathrm{S}_{2} \quad=$ the standard deviation of post-test
$\mathrm{X} \quad=$ the total score of pre-test
Y $\quad=$ the total score of post-test
$\overline{\mathrm{X}} \quad=$ the average (mean) of pre-test score
$\overline{\mathrm{Y}} \quad=$ the average (mean) of post-test score
$\mathrm{N} \quad=$ number of students
Firstly, the writer computes both of pre-test and post-test scores as follows:

Table 4.9
The Calculation of Scores for Standard Deviation

| No | Students | $\mathbf{X}$ | $\mathbf{Y}$ | $(\mathbf{X}$ <br> $-\overline{\mathbf{X}})$ | $(\mathbf{Y}$ <br> $-\overline{\mathbf{Y}})$ | $(\mathbf{X}$ <br> $-\overline{\mathbf{X}})^{2}$ | $(\mathbf{Y}$ <br> $-\overline{\mathbf{Y}})^{2}$ |
| :--- | :--- | :---: | :---: | :--- | :--- | :--- | :--- |
| 1 | A | 35 | 40 | -13.42 | -16.57 | 180.09 | 274.56 |
| 2 | A.P | 50 | 50 | 1.58 | -6.57 | 2.49 | 43.16 |
| 3 | D.L | 45 | 60 | -3.42 | 3.43 | 11.69 | 11.76 |
| 4 | E.M | 45 | 50 | -3.42 | -6.57 | 11.69 | 43.16 |
| 5 | F.W | 45 | 65 | -3.42 | 8.43 | 11.69 | 71.06 |
| 6 | H.I | 45 | 55 | -3.42 | -1.57 | 11.69 | 2.46 |
| 7 | H.M.D | 50 | 60 | 1.58 | 3.43 | 2.49 | 11.76 |
| 8 | H.S | 65 | 65 | 16.58 | 8.43 | 274.89 | 71.06 |
| 9 | N.A | 60 | 65 | 11.58 | 8.43 | 134.09 | 71.06 |
| 10 | N.K | 55 | 70 | 6.58 | 13.43 | 43.29 | 180.36 |
| 11 | R | 45 | 45 | -3.42 | -11.57 | 11.69 | 133.86 |
| 12 | R.W | 40 | 60 | -8.42 | 3.43 | 70.89 | 11.76 |


| 13 | S.A.L | 50 | 50 | 1.58 | -6.57 | 2.49 | 43.16 |
| :--- | :--- | :---: | :---: | :--- | :--- | :--- | :--- |
| 14 | S.A.N | 50 | 65 | 1.58 | 8.43 | 2.49 | 71.06 |
| 15 | S.A.P.S | 45 | 55 | -3.42 | -1.57 | 11.69 | 2.46 |
| 16 | S.H | 40 | 50 | -8.42 | -6.57 | 70.89 | 43.16 |
| 17 | S.N.M | 55 | 50 | 6.58 | -6.57 | 43.29 | 43.16 |
| 18 | S.S.F | 55 | 65 | 6.58 | 8.43 | 43.29 | 71.06 |
| 19 | U.W.Y | 45 | 55 | -3.42 | -1.57 | 11.69 | 2.46 |
| Total | $\mathbf{9 2 0}$ | $\mathbf{1 , 0 7 5}$ |  |  | $\mathbf{9 5 2 . 5 1}$ | $\mathbf{1 , 2 0 2 . 5 4}$ |  |
| Mean | $\mathbf{4 8 . 4 2}$ | $\mathbf{5 6 . 5 7}$ |  |  |  |  |  |

From the calculation on the table above, it can be determined:
$S_{1}=\sqrt{\frac{(\mathrm{X}-\overline{\mathrm{X}})^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{952.51}{19-1}}=\sqrt{\frac{952.51}{18}}=\sqrt{52.917}=7.27$
$\mathbf{S}_{2}=\sqrt{\frac{(\mathrm{Y}-\overline{\mathrm{Y}})^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{1,202.54}{19-1}}=\sqrt{\frac{1,202.54}{18}}=\sqrt{66.807}=\mathbf{8 . 1 7}$
c. Determining the variance of pre-test and post-test

To determine the variance of pre-test and post-test, the writer squares the score of the standard deviation above as follows:
$\boldsymbol{S}_{\mathbf{1}}^{\mathbf{2}}($ Variance of pre-test $)=7.27^{2}=\mathbf{5 2 . 8 5}$
$\boldsymbol{S}_{2}^{\mathbf{2}}($ Variance of post-test $)=8.17^{2}=\mathbf{6 6 . 7 5}$
d. Determining the correlation between pre-test and post-test

To know the correlation between pre-test and post-test score, the writer uses the raw score formula for Pearson correlation coefficient. The formula is:

$$
r=\frac{N(\Sigma X Y)-(\Sigma X)(\Sigma Y)}{\sqrt{\left[N \Sigma X^{2}-(\Sigma X)^{2}\right]\left[N \Sigma Y^{2}-(\Sigma Y)^{2}\right]}}
$$

$N=$ number of students
$X=$ pre-test score
$Y=$ post-test score
To find out the correlation, the writer calculates both of pre-test and post-test score as follows:

Table 4.10
The Calculation of Scores for Pearson Correlation Coefficient

| No | Students | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{X}^{\mathbf{2}}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y}$ |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| 1 | A | 35 | 40 | 1,225 | 1,600 | 1,400 |
| 2 | A.P | 50 | 50 | 2,500 | 2,500 | 2,500 |
| 3 | D.L | 45 | 60 | 2,025 | 3,600 | 2,700 |
| 4 | E.M | 45 | 50 | 2,025 | 2,500 | 2,250 |
| 5 | F.W | 45 | 65 | 2,025 | 4,225 | 2,925 |
| 6 | H.I | 45 | 55 | 2,025 | 3,025 | 2,475 |
| 7 | H.M.D | 50 | 60 | 2,500 | 3,600 | 3,000 |
| 8 | H.S | 65 | 65 | 4,225 | 4,225 | 4,225 |
| 9 | N.A | 60 | 65 | 3,600 | 4,225 | 3,900 |
| 10 | N.K | 55 | 70 | 3,025 | 4,900 | 3,850 |
| 11 | R | 45 | 45 | 2,025 | 2,025 | 2,025 |
| 12 | R.W | 40 | 60 | 1,600 | 3,600 | 2,400 |
| 13 | S.A.L | 50 | 50 | 2,500 | 2,500 | 2,500 |
| 14 | S.A.N | 50 | 65 | 2,500 | 4,225 | 3,250 |
| 15 | S.A.P.S | 45 | 55 | 2,025 | 3,025 | 2,475 |


| 16 | S.H | 40 | 50 | 1,600 | 2,500 | 2,000 |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| 17 | S.N.M | 55 | 50 | 3,025 | 2,500 | 2,750 |
| 18 | S.S.F | 55 | 65 | 3,025 | 4,225 | 3,575 |
| 19 | U.W.Y | 45 | 55 | 2,025 | 3,025 | 2,475 |
|  | Total | $\mathbf{9 2 0}$ | $\mathbf{1 , 0 7 5}$ | $\mathbf{4 5 , 5 0 0}$ | $\mathbf{6 2 , 0 2 5}$ | $\mathbf{5 2 , 6 7 5}$ |

Then, the writer inserts the total score above into the raw score formula as follows:

$$
\begin{aligned}
r & =\frac{N(\Sigma X Y)-(\Sigma X)(\Sigma Y)}{\sqrt{\left[N \Sigma X^{2}-(\Sigma X)^{2}\right]\left[N \Sigma Y^{2}-(\Sigma Y)^{2}\right]}} \\
& =\frac{19(52,675)-(920)(1,075)}{\sqrt{\left[19(45,500)-(920)^{2}\right]\left[19(62,025)-(1,075)^{2}\right]}} \\
& =\frac{1,000,825-989,000}{\sqrt{[864,500-846,400][1,178,475-1,155,625]}} \\
& =\frac{11,825}{\sqrt{[18,100][22,850]}} \\
& =\frac{11,825}{\sqrt{413,585,000}} \\
& =\frac{11,825}{20,336.789} \\
\boldsymbol{r} & =\mathbf{0 . 5 8}
\end{aligned}
$$

e. Testing the difference significance using correlated t -test

After the mean, the standard deviation, the variance, and the correlation between pre-test and post-test are determined, the writer insert them into correlated $t$-test formula as follows:

$$
\begin{aligned}
& t=\frac{\bar{X}_{1}-\bar{X}_{2}}{\sqrt{\frac{S_{1}^{2}}{n}+\frac{S_{2}^{2}}{n}-2 r\left(\frac{s_{1}}{\sqrt{n}}\right)\left(\frac{s_{2}}{\sqrt{n}}\right)}} \\
& 48.42-56.57 \\
& =\frac{\sqrt{\frac{52.85}{19}+\frac{66.75}{19}-2 \times 0.58\left(\frac{7.27}{\sqrt{19}}\right)\left(\frac{8.17}{\sqrt{19}}\right)}}{} \\
& -8.15 \\
& =\frac{}{\sqrt{2.78+3.51-2 \times 0.58\left(\frac{7.27}{4.358}\right)\left(\frac{8.17}{4.358}\right)}} \\
& =\frac{-8.15}{\sqrt{2.78+3.51-2 \times 0.58(1.668)(1.874)}} \\
& =\frac{-8.15}{\sqrt{2.78+3.51-2 \times 0.58(3.125)}} \\
& =\frac{-8.15}{\sqrt{2.78+3.51-(2 \times 1.81)}} \\
& =\frac{-8.15}{\sqrt{2.78+3.51-3.62}} \\
& =\frac{-8.15}{\sqrt{2.67}}=\frac{-8.15}{1.634} \\
& t=\frac{-8.15}{1.634}=-4.987
\end{aligned}
$$

From the calculation above, known that the $\mathrm{t}_{o}($ t observation $)$ is 4.987. The significance of the difference is checked by comparing the $\mathrm{t}_{\text {observation }}$ and the $\mathrm{t}_{\text {table }}$. Here is known that $\mathrm{dk}=\mathrm{N}-2=19-2=17$. Based on the values of distribution table enclosed in appendix, with a (alpha) 0.05 or $5 \%$ for one tail test, the $\mathrm{t}_{\text {table }}$ for dk 17 is $\mathbf{1 , 7 4}$. When $\mathrm{t}_{\text {obsrvation }}$ or observed value $<\mathrm{t}_{\text {table }}$ or critical value, it can be said that there is significant difference. Here, the statistical significance shows that observed value (-4.987)< critical value (1.74). It can be concluded that the difference is significantly higher.

## C. Hypothesis Testing

As the hypothesis of this research:
$H_{0}: \mu_{1} \geq \mu_{2}$
The effectivity before using Biographical Film is greater than, or same with, after using Biographical Film. It means "there is no significant difference between students' scores in writing descriptive text before and after being taught by using biographical film".
$H_{a}: \mu_{1}<\mu_{2}$
The effectivity before using Biographical Film is lower than after using Biographical Film. It means "there is significant difference between
students' scores in writing descriptive text before and after being taught by using biographical film".
$\mu 1$ : Students' score on writing descriptive text skill before using Biographical Film (pre-test).
$\mu 2$ : Students' score on writing descriptive text skill after using Biographical Film (post-test).

The calculation both of the pre-test score and post-test score shows that the average of post-test score (56.6) is higher than the average of pre-test score (48.4) or pre-test score is lower than post-test score $\left(\mu_{1}<\mu_{2}\right)$. So, the Null Hypothesis is rejected and the Alternative Hypothesis is accepted. And the statistical significance shows that $\mathrm{t}_{\text {observation }}(-4.987)<\mathrm{t}_{\text {table }}$ (1.74). It can be said that the difference is significantly higher.

## D. Discussion

Stated previously that if pre-test score is lower than post-test score, the Null Hypothesis rejected and the Alternative Hypothesis is accepted. The result show the average of post-test score (56.6) is higher than the average of pre-test score (48.4). It indicates that Ha is accepted and Ho is rejected. The t-test used to check the difference significance between scores gained by one group also shows that observed value is
lower than critical value or $\mathrm{t}_{\text {observation }}(-4.987)<\mathrm{t}_{\text {table }}$ (1.74). It shows that there is significant different between students' score on descriptive text writing skill before and after being taught using Biographical Film and the difference significantly higher

Based on the hypothesis testing, the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected. Thus, the finding indicated that the use of Biographical Film gives significant effect on the students' descriptive writing skill score. Biographical Film can develop students' skill on writing descriptive text (personal description).

Based on the research method, the study is done by three steps. First step is pre-test where the writer wants to know the students' descriptive writing skill by administering test without any treatment before. The second step is treatment. The treatment here is teaching descriptive text (personal description) using Biographical Film. The students are given material about social function, generic structure, and the language feature of descriptive text, and the steps of describing person. Then the students were asked to watch a biographical film, Steve Jobs film. In the first treatment, the students were asked to write a description about Steve Jobs, and in the second treatment, the
students were asked to write a description about Steve Wozniak. The third step is post-test where the writer wants to know students' score on descriptive writing skill after using biographical film. Post-test was done by asking students to watch 'Ali' film, then, asking the students to write a description about Muhammad Ali, the main figure of the film.

In pre-test process where the students were asked to write a description about Soekarno, the students seemed to have difficulty in getting idea about what to be described and how to describe. As explained that descriptive writing is description about what they see or what they know. The students' difficulty in writing personal description is also caused by limited vocabulary mastery. It is proved by the pretest data set in data analysis. The difficulty also influenced the duration given for writing activity

In post-test process where the students were asked to write a description about Ali based on the film they watched, the students' idea about what to be described were stimulated. They see or they know what to be described. The post test score shows that students' skill on writing descriptive text (personal description) is developed especially in content aspect. It is proved by post-test data set in data analysis.

