## CHAPTER IV

## FINDING AND DISCUSSION

## A. Finding

This chapter presents the data that have been collected in the research. The presentation covers primary data about the effectiveness of cooperative learning in improving students' skill in writing recount text at the tenth grade of SMAN 1 Beruntung Baru.
a. The pre-test result about students' mastery in writing recount text for Experiment Class and Control class at SMAN 1 Beruntung Baru

To know the students' skill in writing before the researcher applies her research, the writer gives written test as pre-test for the students' in control class and experiment class in writing recount text.

Based on the result of the pre-test, it can be seen in the following tables:

Table 4.1 The Students' pre-test result of Writing in experiment class for tenth grade of SMAN 1 Beruntung Baru

| Number <br> of <br> students | Assessment Aspects |  |  |  | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Grammar | Vocabulary | Spelling | Punctuation |  |
| 1. | 10 | 10 | 10 | 10 | 40 |
| 2. | 15 | 10 | 10 | 15 | 50 |
| 3. | 15 | 15 | 15 | 10 | 55 |
| 4. | 12 | 15 | 15 | 8 | 50 |
| 5. | 15 | 15 | 10 | 10 | 50 |
| 6. | 10 | 15 | 15 | 10 | 50 |
| 7. | 10 | 15 | 10 | 10 | 45 |
| 8. | 10 | 5 | 5 | 10 | 30 |


| 9. | 15 | 15 | 15 | 10 | 55 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 10. | 15 | 10 | 10 | 15 | 50 |
| 11. | 10 | 10 | 15 | 10 | 45 |
| 12. | 15 | 15 | 15 | 10 | 55 |
| 13. | 10 | 10 | 10 | 10 | 40 |
| 14. | 15 | 10 | 20 | 10 | 55 |
| 15. | 10 | 10 | 20 | 10 | 50 |
| 16. | 10 | 5 | 10 | 15 | 40 |
| 17. | 10 | 10 | 15 | 5 | 40 |
| 18. | 10 | 15 | 10 | 15 | 50 |
| 19. | 20 | 10 | 15 | 10 | 55 |
|  | Total |  |  |  |  |

To know the students' skill of Writing for Experiment Class before the writer apply the research at the tenth grade of SMAN 1 Beruntung Baru, the writer uses the accounting of mean score as follow:

$$
\begin{aligned}
& \mathrm{Mx}_{1}=\frac{\sum x}{N} \\
& \mathrm{Mx}_{1}=\frac{905}{19} \\
& \mathrm{Mx}_{1}=47,63
\end{aligned}
$$

Based on the pre-test result, it can be seen that students' mastery of Writing for Experiment Class at the tenth grade of SMAN 1 Beruntung Baru is low category.

Table 4.2 The Students' pre-test result of Writing in control class for tenth grade at SMAN 1 Beruntung Baru.

| Number <br> of <br> students | Assessment Aspects |  |  |  | Score |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Grammar | Vocabulary | Spelling | Punctuation |  |  |  |  |
| 1. | 15 | 10 | 5 | 10 | 40 |  |  |  |
| 2. | 20 | 10 | 10 | 10 | 50 |  |  |  |
| 3. | 10 | 5 | 15 | 10 | 40 |  |  |  |
| 4. | 20 | 15 | 10 | 10 | 55 |  |  |  |
| 5. | 10 | 15 | 10 | 15 | 50 |  |  |  |
| 6. | 15 | 10 | 15 | 10 | 50 |  |  |  |
| 7. | 10 | 10 | 15 | 10 | 45 |  |  |  |
| 8. | 15 | 15 | 10 | 10 | 50 |  |  |  |
| 9. | 10 | 15 | 15 | 15 | 55 |  |  |  |
| 10. | 20 | 10 | 10 | 10 | 50 |  |  |  |
| 11. | 15 | 10 | 10 | 10 | 45 |  |  |  |
| 12. | 15 | 15 | 10 | 15 | 55 |  |  |  |
| 13. | 10 | 10 | 10 | 10 | 40 |  |  |  |
| 14. | 10 | 15 | 20 | 10 | 55 |  |  |  |
| 15. | 15 | 10 | 15 | 10 | 50 |  |  |  |
| 16. | 10 | 15 | 10 | 10 | 45 |  |  |  |
| 17. | 15 | 10 | 10 | 5 | 40 |  |  |  |
| 18. | 20 | 10 | 10 | 10 | 50 |  |  |  |
| 19. | 15 | 15 | 10 | 10 | 50 |  |  |  |
|  | $\quad$ Total |  |  |  |  |  |  | $\mathbf{9 1 5}$ |

To know the students' skill of Writing for Control Class before the writer apply the research at the tenth grade of SMAN 1 Beruntung Baru, the writer uses the accounting of mean score as follow:

$$
\begin{aligned}
& \mathrm{Mx} 2_{2}=\frac{\sum x}{N} \\
& \mathrm{Mx}_{2}=\frac{915}{19} \\
& \mathrm{Mx}_{2}=48,15
\end{aligned}
$$

Based on the pre-test result, it can be seen that students' mastery of Writing for Control Class at the tenth grade of SMAN 1 Beruntung Baru is low category.
b. The post-test result about students' mastery of writing in Experiment Class by using cooperative learning and control class without cooperative learning at SMAN 1 Beruntung Baru

Before the writer know the students' mastery in writing by using cooperative learning, the writer gives treatment to teach students by using cooperative learning in experiment class and for control class the writer teach them without cooperative learning. For this research the writer need 3 weeks. For the first time is on Monday $11^{\text {th }}$ May 2015 Wednesday $13^{\text {th }}$ May 2015 and Friday $15^{\text {th }}$ May 2015 - Monday $18^{\text {th }}$ May 2015. For the written test as post test was done on Wednesday. $20^{\text {th }}$ May 2015. The test was done for 60 minutes between two classes.

Table 4.3 The Students' Post-Test Result of Writing for Experiment class at the tenth grade of SMAN 1 Beruntung Baru Academic Year 2014/2015

| Number <br> of <br> students | Assessment Aspects |  |  |  | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Grammar | Vocabulary | Spelling | Punctuation |  |
| 1. | 20 | 25 | 20 | 25 | 90 |
| 2. | 20 | 20 | 25 | 20 | 85 |
| 3. | 20 | 20 | 25 | 20 | 85 |
| 4. | 15 | 20 | 25 | 20 | 80 |


| 5. | 20 | 25 | 20 | 25 | 85 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| 6. | 20 | 25 | 20 | 20 | 85 |
| 7. | 25 | 20 | 20 | 20 | 85 |
| 8. | 15 | 20 | 25 | 25 | 85 |
| 9. | 25 | 20 | 25 | 20 | 90 |
| 10. | 25 | 20 | 20 | 20 | 85 |
| 11. | 25 | 20 | 20 | 15 | 80 |
| 12. | 20 | 20 | 25 | 20 | 85 |
| 13. | 20 | 20 | 25 | 20 | 85 |
| 14. | 20 | 20 | 20 | 20 | 80 |
| 15. | 15 | 20 | 15 | 20 | 70 |
| 16. | 20 | 25 | 20 | 20 | 85 |
| 17. | 20 | 20 | 20 | 15 | 75 |
| 18. | 20 | 20 | 20 | 20 | 80 |
| 19. | 25 | 25 | 20 | 20 | 90 |
|  | Total |  |  |  |  |

Based on the table above, it shows that the score of experiment class at the tenth grade of SMAN 1 Beruntung Baru. The highest Score is 90 which are divided in grammar is 25 , vocabulary is 20 , spelling is 25 , and punctuation is 20 . There are three students who get high score. While the lowest score is 70 which are divided in grammar is 15 , vocabulary is 20 , spelling is 15 , and punctuation 20 . Then the accumulated score is 1.585 .

Table 4.4 The Frequency Distribution of the Students' Post- Test Result in experiment class at the tenth grade of SMAN 1 Beruntung Baru Academic Year 2014/2015

| No. | Score | Frequency | Percentage <br> $(\%)$ | Category |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | $95-100$ | 0 | 0 | Excellent |  |  |  |  |
| 2. | $80-95$ | 17 | 89,47 | Very good |  |  |  |  |
| 3. | $65-80$ | 2 | 10,52 | Good |  |  |  |  |
| 4. | $55-65$ | 0 | 0 | Enough |  |  |  |  |
| 5. | $40-55$ | 0 | 0 | Low |  |  |  |  |
| 6. | $0-40$ | 0 | 0 | Very low |  |  |  |  |
| Total |  |  |  |  |  | 19 | 100 |  |

From the table above, it can be seen that there is no student (0\%) whose score are around $0-40$ that classified in very low category. There is no student ( $0 \%$ ) whose score are around 40-55 that classified in low category. There is no student whose score are around 55-65 that classified in enough category. There are 3 students ( $10,52 \%$ ) whose score are around 65-80 that classified in good category. There are 17 ( $89,47 \%$ ) students whose score are around $80-95$ that classified in very good category. Meanwhile, there is no student whose score are around 95-100 that classified in excellent category.


To know the students' mastery in writing recount text of experiment class at the tenth grade of SMAN 1 Beruntung Baru, the writer uses the accounting of mean score as follows:

$$
\begin{aligned}
& \mathrm{M} \mathrm{x}_{1}=\frac{\sum x}{N} \\
& \mathrm{M} \mathrm{x}_{1}=\frac{1585}{19} \\
& \mathrm{M} \mathrm{x}_{1}=83,42
\end{aligned}
$$

From the data above, the students' mastery of writing recount text for experiment class at the tenth grade of SMAN 1 Beruntung Baru can be concluded in very good category.

Table 4.5 The Students' Post-Test Result of Writing for Control class at the tenth grade of SMAN 1 Beruntung Baru Academic Year 2014/2015

| Number of students | Assessment Aspects |  |  |  | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Grammar | Vocabulary | Spelling | Punctuation |  |
| 1. | 20 | 15 | 20 | 20 | 75 |
| 2. | 10 | 10 | 20 | 20 | 60 |
| 3. | 15 | 20 | 15 | 20 | 70 |
| 4. | 25 | 20 | 25 | 20 | 90 |
| 5. | 23 | 20 | 15 | 20 | 78 |
| 6. | 20 | 20 | 25 | 20 | 85 |
| 7. | 15 | 10 | 20 | 20 | 65 |
| 8. | 20 | 20 | 25 | 20 | 85 |
| 9. | 10 | 10 | 20 | 20 | 60 |
| 10. | 15 | 15 | 20 | 20 | 70 |
| 11. | 20 | 20 | 20 | 20 | 80 |
| 12. | 20 | 20 | 25 | 20 | 85 |
| 13. | 20 | 20 | 25 | 20 | 85 |
| 14. | 20 | 20 | 15 | 20 | 75 |
| 15. | 20 | 15 | 25 | 20 | 80 |
| 16. | 20 | 20 | 15 | 20 | 75 |
| 17. | 10 | 20 | 10 | 15 | 55 |
| 18. | 20 | 20 | 20 | 20 | 80 |
| 19. | 20 | 20 | 20 | 15 | 75 |
|  | Total |  |  |  | 1428 |

Based on the table above, it shows that the score of control class at the tenth grade of SMAN 1 Beruntung Baru. The highest score is 90 which are divided in grammar score is 25 , vocabulary is 20 , spelling is 25 , and punctuation is 20 . While the lowest score is 55 which are
divided in grammar score is 10 , vocabulary is 20 , spelling is 10 , and punctuation is 15 . Then, the accumulated score is 1.428 .

Table 4.6 The Frequency Distribution of the Students' Post- Test Result in control class at the tenth grade of SMAN 1 Beruntung Baru Academic Year 2014/2015

| No. | Score | Frequency | Percentage <br> $(\%)$ | Category |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | $95-100$ | 0 | 0 | Excellent |  |  |  |  |
| 2. | $80-95$ | 8 | 42,10 | Very good |  |  |  |  |
| 3. | $65-80$ | 10 | 52,63 | Good |  |  |  |  |
| 4. | $55-65$ | 1 | 5,26 | Enough |  |  |  |  |
| 5. | $40-55$ | 0 | 0 | Low |  |  |  |  |
| 6. | $0-40$ | 0 | 0 | Very low |  |  |  |  |
| Total |  |  |  |  |  | 19 | 100 |  |

From the table above, it can be seen that there is no student ( $0 \%$ ) whose score are around $0-40$ that classified in very low category. There is no student $(0 \%)$ whose score are around $40-55$ that classified in low category. There is 1 student $(5,26 \%)$ whose score are around 55-65 that classified in enough category. There are 10 students (52,63\%) whose score are around $65-80$ that classified in good category. There are $8(42,10 \%)$ students whose score are around 80-95
that classified in very good category. Meanwhile, there is no student whose score are around 95-100 that classified in excellent category.


To know the students' mastery in writing recount text of control class at the tenth grade of SMAN 1 Beruntung Baru, the writer uses the accounting of mean score as follows:

$$
\begin{aligned}
& \mathrm{M} \mathrm{x}_{2}=\frac{\sum x}{N} \\
& \mathrm{M} \mathrm{x}_{2}=\frac{1428}{19} \\
& \mathrm{M} \mathrm{x}_{2}=75,15
\end{aligned}
$$

From the data above, the students' mastery of writing recount text for control class at the tenth grade of SMAN 1 Beruntung Baru can be concluded in good category.

## B. Discussion

To know the effectiveness of cooperative learning in teaching writing recount text and without cooperative learning the writer use comparative study between the experiment class by using cooperative learning and the control class without cooperative learning, the writer uses "t-test". After all the collected data have been processed, the writer analyzes them and makes the conclusion by using the "t-test" formula.

Table 4.7 Work Table of Mean and Standard Deviation

| No | Score |  | x | y |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | X | Y | $(\mathrm{X}-\mathrm{Mx})$ | $(\mathrm{Y}-\mathrm{My})$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ |
| 1. | 90 | 75 | 6.57 | -0.15 | 43.28255 | 0.024931 |
| 2. | 85 | 60 | 1.57 | -15.15 | 2.493075 | 229.7618 |
| 3. | 85 | 70 | 1.57 | -5.15 | 2.493075 | 26.60388 |
| 4. | 80 | 90 | -3.42 | 14.84 | 11.7036 | 220.2881 |
| 5. | 85 | 78 | 1.57 | 2.842 | 2.493075 | 8.077562 |
| 6. | 85 | 85 | 1.57 | 9.842 | 2.493075 | 96.86704 |
| 7. | 85 | 65 | 1.57 | -10.15 | 2.493075 | 103.1828 |
| 8. | 85 | 85 | 1.57 | 9.842 | 2.493075 | 96.86704 |
| 9. | 90 | 60 | 6.57 | -15.15 | 43.28255 | 229.7618 |
| 10. | 85 | 70 | 1.57 | -5.15 | 2.493075 | 26.60388 |
| 11. | 80 | 80 | -3.42 | 4.842 | 11.7036 | 23.44598 |
| 12. | 85 | 85 | 1.57 | 9.842 | 2.493075 | 96.86704 |
| 13. | 85 | 85 | 1.57 | 9.842 | 2.493075 | 96.86704 |


| 14. | 80 | 75 | -3.42 | -0.15 | 11.7036 | 0.024931 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15. | 70 | 80 | -13.42 | 4.842 | 180.1247 | 23.44598 |
| 16. | 85 | 75 | 1.57 | -0.15 | 2.493075 | 0.024931 |
| 17. | 75 | 55 | -8.42 | -20.15 | 70.91413 | 406.3407 |
| 18. | 80 | 80 | -3.42 | 4.842 | 11.7036 | 23.44598 |
| 19. | 90 | 75 | 6.57 | -0.15 | 43.28255 | 0.024931 |
|  | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ | $\sum \mathrm{x}=0$ | $\sum \mathrm{y}=0$ | $\sum \mathrm{x}^{2}=$ <br> 452.6316 <br> 1585 | $\sum \mathrm{y}^{2}=$ <br> 1428 |

Notes:
$\sum \mathrm{X}$ : Accumulative score of experiment class at the tenth grade of SMAN 1 Beruntugn Baru
$\sum \mathrm{Y}$ : Accumulative score of control class at the tenth grade of SMAN 1 Beruntung Baru
$\sum \mathrm{x}$ : Standard deviation of experiment class at the tenth grade of SMAN 1 Beruntung Baru
$\sum \mathrm{y}:$ Standard deviation of control class at the tenth grade of SMAN 1 Beruntung Baru
$\sum \mathrm{x}^{2}$ : Accumulative of the quadrant of deviation of experiment class at the tenth grade of SMAN 1 Beruntung Baru
$\sum \mathrm{y}^{2}$ : Accumulative of the quadrant of deviation of control class at the tenth grade of SMAN 1 Beruntung Baru

Based on the table, it shows that accumulative score of the test result of the Experiment class is 1585 , its accumulative of the quadrant of deviation is 0 and its accumulative of quadrant of deviation is 452,6316 . While the Control class got accumulative score of test result is 1428 , its deviation is 0 and accumulative of quadrant of deviation is 1708,526.

1) Based on the result of the test, the writer calculates the mean formula of each major student. To keep the subject identity, the writer just uses number for identifying the subject.

$$
\begin{array}{ll}
\mathrm{M}_{1}=\frac{\sum x}{N} & \mathrm{M}_{2}=\frac{\sum y}{N} \\
\mathrm{M}_{1}=\frac{1585}{19} & \mathrm{M}_{2}=\frac{1428}{19} \\
\mathrm{M}_{1}=83,42 & \mathrm{M}_{2}=75,15
\end{array}
$$

$\mathrm{M}_{1}=$ Calculating mean of experiment class
$\mathrm{M}_{2}=$ Calculating mean of control class
2) The writer counts standard deviation of each major by using formula:

Standard Deviation for Variable I

$$
\begin{aligned}
\mathrm{SD}_{1} & =\sqrt{\frac{\sum x^{2}}{N-1}} \\
& =\sqrt{\frac{1708,526}{19-1}}
\end{aligned}
$$

$$
=\sqrt{\frac{1708,526}{18}}=\sqrt{94,91}=9,74
$$

## Standard Variation for Variable II

$$
\begin{aligned}
S D_{2} & =\sqrt{\frac{\sum x^{2}}{N-1}} \\
& =\sqrt{\frac{452,6316}{19-1}} \\
& =\sqrt{\frac{452,6316}{19-1}}=\sqrt{25,14}=5,01
\end{aligned}
$$

3) The writer counts standard error of mean of each major by using formula:

Standard Error for Variable I

$$
\begin{aligned}
\text { SE M1 } & =\frac{S D_{1}}{\sqrt{N_{1}^{-1}}} \\
& =\frac{9,74}{\sqrt{19-1}} \\
& =\frac{9,74}{\sqrt{18}} \\
& =\frac{9,74}{4,24}=2,29
\end{aligned}
$$

Standard Error for Variable II

$$
\begin{aligned}
\text { SE M2 } & =\frac{S D_{2}}{\sqrt{N_{2}^{-}-1}} \\
& =\frac{5,01}{\sqrt{19-1}} \\
& =\frac{5,01}{\sqrt{18}} \\
& =\frac{5,01}{4,24}=1,18
\end{aligned}
$$

4) The writer counts Standard Error for Comparative Mean Variable I and Variable II as follows the formula:

$$
\begin{aligned}
\mathrm{SE} \mathrm{M1-M2} & =\sqrt{S E M 1^{2}}+S E M 2^{2} \\
& =\sqrt{2,29^{2}+1,18^{2}} \\
& =\sqrt{5,24+1,39} \\
& =\sqrt{6,63} \\
& =2,57
\end{aligned}
$$

5) The writer counts $t_{\text {test }}$ by using formula:

$$
\begin{aligned}
t_{\text {test }} & =\frac{M 1-M 2}{S E M 1-M 2} \\
& =\frac{83,42-75,15}{2,57} \\
& =\frac{8,27}{2,57}=3,21
\end{aligned}
$$

6) After having the t -test score, the writer look at the " t " table by counting the degree of freedom.

$$
\begin{aligned}
t_{\text {table }} & =\left(\mathrm{N}_{1}+\mathrm{N}_{2}\right)-2 \\
& =(19-19)-2 \\
& =36
\end{aligned}
$$

df: degree of freedom to know every position.
After the writer finds the df degrees of freedom), which is 36 , the writer uses the nearest df in table, that is df at 40 . The table is put in appendix.
7) The writer makes a conclusion

Thus, $t_{\text {table }}(5 \%=2,02)<t_{\text {test }}(3,21)>t_{\text {table }}(1 \%=2,71)$. $t_{\text {test }}$ is higher than $t_{\text {table }} . H_{a}$ (Alternative Hypothesis) is accepted and $H_{o}$ (Zero Hypothesis) is rejected. By this result, the writer concludes that $H_{a}$ is accepted. This result shows that Cooperative Learning is effectives in improving students' skill in writing recount text, because there is significant different in writing recount text between experiment class and control class students at the tenth grade of SMAN 1 Beruntung Baru academic year 2014/2015.

