**CHAPTER IV**

**THE RESULTS OF THE STUDY**

1. **The Description of Data**

To know how the students’ achievement in writing descriptive by using critical thinking skill, the writer conducted field research.

The research was held in SMKN 1 CINANGKA on June 6th 2017, and it was done at first grade, that is XI OTP 2 as experimental class and XI OTP 1 as control class. Both of the tests, the writer asked students to describe detail and clearly the picture which is given by researcher in pre test and describe their school “SMKN 1 CINANGKA” in post test. After doing the research, the writer got the result that would be described in following table:

Table 1

The score of pre-test and post test in experiment class

|  |  |  |  |
| --- | --- | --- | --- |
| No | Name | Pre test | Post test |
|  | ER | 42 | 83 |
|  | AS | 44 | 62 |
|  | AS | 33 | 71 |
|  | ASS | 22 | 62 |
|  | AZN | 63 | 77 |
|  | DR | 54 | 80 |
|  | ES | 40 | 59 |
|  | FA32 | 34 | 83 |
|  | FR | 48 | 76 |
|  | HB | 26 | 57 |
|  | HMH | 17 | 92 |
|  | KA | 58 | 88 |
|  | KSA | 64 | 89 |
|  | MIMB | 85 | 96 |
|  | NM | 35 | 80 |
|  | NU | 31 | 46 |
|  | QA | 42 | 85 |
|  | RR | 21 | 64 |
|  | RI | 46 | 57 |
|  | RSA | 48 | 82 |
|  | SRN | 33 | 80 |
|  | TH | 38 | 64 |
|  | VEW | 53 | 81 |
|  | YL | 45 | 73 |
|  | YR | 55 | 48 |
|  | ZV | 75 | 76 |
|  | MAM | 67 | 63 |
|  | MA | 28 | 93 |
|  | MF | 33 | 50 |
|  | DB | 33 | 47 |
|  | $$\sum\_{}^{}$$ | 1313 | 2164 |
|  | X | 43.8 | 72.1 |

The table above shows the student’s descriptive writing ability at the 1st grade of SMKN 1 CIANGKA in experiment class (XI OTP 2) before treatment is less. It can be known from the result of pre-test, the highest score is 85 the lowers score is 17, the score draws that highest score of students’ writing ability is good and the lowers score is bed and the result of post-test after treatment show that students’ score, the highest score is 96 and the lowest score is 46. There is the improvement on the criteria of students’ score that the highest score is very good and the lower score is enough.

To find the mean score, the writer follows the formula:

M1 = $\frac{\sum\_{}^{}X\_{2}}{N\_{2}}$

 = $\frac{2164}{30}$

 = 72.1

M2 = $\frac{\sum\_{}^{}X\_{1}}{N\_{1}}$

 = $\frac{1313}{30}$

 = 43.8

Note: M1 = mean

 X1 = Students’ score (post test)

 X2 = Students’ score (pre test)

 N = Member of student.

Based on the calculation on the table 1 of pre test and post test assessment at experimental class, it shows that the cumulative value of assessment result before developing critical thinking skill is 1313. The average of the pre test is 43.8. Meanwhile, the cumulative of assessment result after developing critical thinking skill is 2164. The average of the post test is 72.1.

Determine mean by formula:

M = M1 – M2

 = 72.1 – 43.8

 = 28.3

Note: M = Mean

 M1 = mean of post test

 M2 = mean of pre test

From the calculation of determine mean above, we have know that the average score of pre test and post test ( at exp) increase in amount of 28.3

Table 2

The Score of Pre test and Post – Test in control class

|  |  |  |  |
| --- | --- | --- | --- |
| No | Name | Pre test | Post test |
|  | AF | 42 | 49 |
|  | AH | 35 | 38 |
|  | AK | 41 | 53 |
|  | BS | 10 | 48 |
|  | EH | 13 | 61 |
|  | FTA | 29 | 40 |
|  | HN | 43 | 53 |
|  | HA | 35 | 40 |
|  | KN | 31 | 40 |
|  | II | 36 | 42 |
|  | KY | 41 | 61 |
|  | LT | 47 | 64 |
|  | LF | 14 | 40 |
|  | MT | 16 | 38 |
|  | MA | 29 | 51 |
|  | MA | 15 | 31 |
|  | MHA | 18 | 42 |
|  | NM | 39 | 35 |
|  | NS | 47 | 73 |
|  | RG | 52 | 37 |
|  | SI | 34 | 44 |
|  | TA | 26 | 65 |
|  | TM | 26 | 69 |
|  | TP | 10 | 49 |
|  | UR | 50 | 30 |
|  | WPH | 60 | 51 |
|  | YS | 32 | 42 |
|  | ZU | 16 | 44 |
|  | CK | 32 | 45 |
|  | ARR | 35 | 36 |
|  | $$\sum\_{}^{}$$ | 954 | 1411 |
|  | X | 31.8 | 47 |

The table above shows the student’s descriptive writing ability at the 1st grade of SMK N 1 Cinangka control class (XI OTP 1) before treatment is less. It can be known from the result of pre-test the highest score is 60, the lowers score is 10. Based on the score can be known that highest score of students’ writing ability is enough and the lowers score is bed and the result of post-test after treatment show that students’ score the highest score is 73 and the lowest score is 30. There is not the good improvement on the criteria of students’ score in control class that the highest score is good and the lower score is still bed.

To find the mean score, the writer follows the formula:

M1 = $\frac{\sum\_{}^{}X\_{2}}{N\_{2}}$

 = $\frac{1411}{30}$

 = 47

M2 = $\frac{\sum\_{}^{}X\_{1}}{N\_{1}}$

 = $\frac{954}{30}$

 = 31.8

Based on the calculation on the table 2 of pre test and post test assessment at comparison class, it shows that the cumulative value of pre test is 954. The average of the pre test is 31.8. Meanwhile, the cumulative value of post test is 1411. The average of the post test result is 47

Determine mean by formula:

M = M1 – M2

 = 47 – 31.8

 = 15.2

Note : M = Mean

 M1 = mean of post test

 M2 = mean of pre test

From the calculation of determine mean above, we have know that the average score of pre test and post test ( at control class) increase in amount of 15.2

Graphic. 1

The Test of Pre-Test In Controlled And Experiment Class

Graphic. 2

The Test of Post Test In Controlled And Experiment Class

Based on the graphic above show the evidence of students’ score before and after giving test without treatment. There are increase score for students’ controlled class which showed by frequency score that student who got score less than 50 point from 27 students become 20 students. And for students’ experiment class which showed by frequency that the student who got less than 50 point from 21 students become 3 student. From those evidence are concluded that the developing critical thinking skill through integrative teaching of descriptive writing on experimental class is better than controlled class that only usual teaching as Three Phase Technique (PPP).

Table 3

Analysis of Pre-Test in Experiment Class

Subject: English Mean score: 43.8

Teacher: RIAN FEBRIANDI

Respondent: 30

|  |  |  |
| --- | --- | --- |
| No | Name | Descriptive writing |
| Score  | Content  | Organization | Vocabulary | Grammar | Mechanics |
|  | ER | 42 | 10 | 8 | 8 | 8 | 8 |
|  | AS | 44 | 9 | 10 | 11 | 7 | 7 |
|  | AS | 33 | 7 | 9 | 6 | 6 | 5 |
|  | ASS | 22 | 6 | 6 | 3 | 3 | 4 |
|  | AZN | 63 | 14 | 13 | 14 | 12 | 10 |
|  | DR | 54 | 12 | 13 | 11 | 10 | 8 |
|  | ES | 40 | 9 | 10 | 8 | 7 | 6 |
|  | FA | 34 | 7 | 7 | 8 | 6 | 6 |
|  | FR | 48 | 11 | 10 | 12 | 9 | 6 |
|  | HB | 26 | 7 | 5 | 6 | 5 | 3 |
|  | HMH | 17 | 5 | 2 | 4 | 3 | 3 |
|  | KA | 58 | 16 | 14 | 11 | 9 | 8 |
|  | KSA | 64 | 15 | 13 | 14 | 12 | 10 |
|  | MIMB | 85 | 18 | 17 | 18 | 17 | 15 |
|  | NM | 35 | 9 | 8 | 7 | 6 | 5 |
|  | NU | 31 | 8 | 6 | 6 | 6 | 5 |
|  | QA | 42 | 8 | 10 | 9 | 8 | 7 |
|  | RR | 21 | 6 | 5 | 4 | 3 | 3 |
|  | RI | 46 | 11 | 10 | 11 | 8 | 6 |
|  | RSA | 48 | 12 | 11 | 10 | 8 | 7 |
|  | SRN | 33 | 8 | 7 | 6 | 6 | 6 |
|  | TH | 38 | 9 | 8 | 10 | 6 | 5 |
|  | VEW | 53 | 13 | 14 | 10 | 10 | 6 |
|  | YL | 45 | 11 | 12 | 8 | 7 | 7 |
|  | YR | 55 | 15 | 14 | 15 | 13 | 8 |
|  | ZV | 75 | 18 | 16 | 16 | 15 | 10 |
|  | MAM | 67 | 16 | 14 | 13 | 14 | 10  |
|  | MA | 28 | 9 | 6 | 5 | 4 | 4 |
|  | MF | 33 | 7 | 6 | 8 | 7 | 5 |
|  | DB | 33 | 5 | 6 | 9 | 8 | 5 |
|  | TOTAL = |  | 311 | 348 | 281 | 276 | 198 |

Table 4

Analysis of Post-Test in Experiment class

Subject: English

Mean Score: 72.1

Teacher: RIAN FEBRIANDI

Respondent: 30

|  |  |  |
| --- | --- | --- |
| No | Name | Descriptive writing |
| Score  | Content  | Organization | Vocabulary | Grammar | Mechanics |
|  | ER | 83 | 18 | 17 | 16 | 17 | 15 |
|  | AS | 62 | 16 | 13 | 10 | 10 | 13 |
|  | AS | 71 | 15 | 14 | 15 | 13 | 14 |
|  | ASS | 62 | 16 | 14 | 11 | 11 | 10 |
|  | AZN | 77 | 15 | 16 | 16 | 15 | 15 |
|  | DR | 80 | 17 | 18 | 17 | 14 | 14 |
|  | ES | 59 | 11 | 13 | 13 | 12 | 10 |
|  | FA | 83 | 19 | 17 | 14 | 17 | 16 |
|  | FR | 76 | 17 | 15 | 14 | 15 | 15 |
|  | HB | 57 | 14 | 10 | 11 | 10 | 12 |
|  | HMH | 92 | 20 | 18 | 19 | 18 | 17 |
|  | KA | 88 | 18 | 18 | 19 | 17 | 16 |
|  | KSA | 89 | 19 | 19 | 17 | 18 | 16 |
|  | MIMB | 96 | 20 | 19 | 20 | 19 | 18 |
|  | NM | 80 | 17 | 16 | 17 | 15 | 15 |
|  | NU | 46 | 11 | 10 | 8 | 8 | 9 |
|  | QA | 85 | 19 | 18 | 16 | 17 | 15 |
|  | RR | 64 | 14 | 15 | 13 | 12 | 10 |
|  | RI | 57 | 12 | 10 | 13 | 12 | 10 |
|  | RSA | 82 | 18 | 16 | 17 | 15 | 16 |
|  | SRN | 80 | 17 | 16 | 18 | 14 | 15 |
|  | TH | 64 | 11 | 14 | 17 | 12 | 10 |
|  | VEW | 81 | 16 | 18 | 16 | 17 | 14 |
|  | YL | 73 | 16 | 17 | 16 | 13 | 11 |
|  | YR | 48 | 10 | 12 | 10 | 8 | 8 |
|  | ZV | 76 | 16 | 16 | 17 | 14 | 13 |
|  | MAM | 63 | 15 | 10 | 16 | 11 | 11 |
|  | MA | 93 | 20 | 19 | 19 | 17 | 18 |
|  | MF | 50 | 12 | 10 | 11 | 9 | 8 |
|  | DB | 47 | 10 | 11 | 8 | 9 | 9 |
|  | TOTAL = |  | 469 | 465 | 444 | 409 | 393 |

After writing the comparison between the score of pre-test and the post-test, the writer calculates deviation and squared deviation and the result of the calculation by using the formula-test can be seen at the analysis of the data as follow:

1. **Analysis of the Data**

After getting the data, the writer analyzed it by using statistic calculation of the determine data. The result of the determine can be seen as follow:

Table 5

The Score of Distribution Frequency

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No | x1 | x2 | X1 | X2 | X12 | X12 |
|  | 83 | 49 | 10.9 | 2 | 118.81 | 4 |
|  | 62 | 38 | -10.1 | -9 | 102.01 | 81 |
|  | 71 | 53 | -11 | 6 | 121 | 36 |
|  | 62 | 48 | -10.1 | 1 | 102.01 | 1 |
|  | 77 | 61 | 4.9 | 14 | 24.01 | 196 |
|  | 80 | 40 | 7.9 | -7 | 62.41 | 49 |
|  | 59 | 53 | -13.1 | 6 | 171.61 | 36 |
|  | 83 | 40 | 10.9 | -7 | 118.81 | 49 |
|  | 76 | 40 | 3.9 | -7 | 15.21 | 49 |
|  | 57 | 42 | -15.1 | -5 | 228.01 | 25 |
|  | 92 | 61 | 19.9 | 14 | 396.01 | 196 |
|  | 88 | 64 | 15.9 | 17 | 251.81 | 289 |
|  | 89 | 40 | 16.9 | -7 | 285.61 | 49 |
|  | 96 | 38 | 23.9 | -9 | 571.21 | 81 |
|  | 80 | 51 | 7.9 | 4 | 62.41 | 16 |
|  | 46 | 31 | -26.1 | -16 | 681.21 | 256 |
|  | 85 | 42 | 12.9 | -5 | 166.41 | 25 |
|  | 64 | 35 | -8.1 | -12 | 65.61 | 144 |
|  | 57 | 73 | -15.1 | 26 | 228.01 | 676 |
|  | 82 | 37 | 9.9 | -10 | 98.01 | 100 |
|  | 80 | 44 | 7.9 | -3 | 62.41 | 9 |
|  | 64 | 65 | -8.1 | 18 | 65.61 | 324 |
|  | 81 | 69 | 8.9 | 22 | 79.21 | 484 |
|  | 73 | 49 | 0.9 | 2 | 0.81 | 4 |
|  | 48 | 30 | -24.1 | -17 | 580.81 | 289 |
|  | 76 | 51 | 3.9 | 4 | 15.21 | 16 |
|  | 63 | 42 | -9.1 | -5 | 82.81 | 25 |
|  | 93 | 44 | 20.9 | -3 | 436.81 | 9 |
|  | 50 | 45 | -22.1 | -2 | 488.41 | 4 |
|  | 47 | 36 | -25.1 | -11 | 630.01 | 121 |
| $$\sum\_{}^{}$$ | 2164 | 1411 | -8.9 | 1 | 6313.29 | 3643 |

Note :

x1 = Score Post-Test (Experiment Class) X1= x1-M1

x2 = Score Post-Test (Control Class) X2= x2-M2

X11=the Squared value of X1 X22= the squared value of X2

df = N1+N2-2

 = 30+30-2

 = 58

 = 2.00

$t=\frac{M1-M2}{\sqrt{\frac{\left(\sum\_{}^{}X\_{1}^{2 + }X\_{2}^{2}\right) (N1+ N\_{2)}}{\left(N1+ N2-2\right) N\_{1} . N\_{2}}}} $

 = $ \frac{71.1-43.8}{\sqrt{\frac{\left(6313.29 +3646 \right) \left(30+30\right)}{\left(30+30-2\right) N1 .N2}}} $

 = $\frac{28.3}{\sqrt{\left\{\frac{9959.29}{58}\right\}\left\{\frac{60}{900}\right\}}}$

 = $\frac{28.3}{\sqrt{\left\{171.7\right\}\left\{0.06\right\}}}$

 = $\frac{28.3}{\sqrt{10.302}}$

 = $\frac{28.3}{3.21}$

 = 8.82

In general, score of post test in experiment class was better than post test in control class. It can be seen from the total amount of the score of post test in experiment class was 2164 And pre test was 1313, and average of post test was 72.1 And pre test was 43.8, while, the total amount of the score post test in control class was 1411 And pre test was 954, and average of post test was 47And pre test was 31.8.

Based on the result statistic calculation, it is obtained that the score of to is = 8.82 degree of freedom is (5) %. The value of 58 is mentioned in the table about 2.00 (as degree of significant).

To prove the hypothesis, the data obtained from the experimental class is calculated by using t-test formula with assumption as follow:

If tobservation > ttable the alternative hypothesis is accepted. It means there is significant different between learning using critical thinking skill and students’ descriptive writing ability.

If tobservation < ttable the alternative hypothesis is rejected. It means there is no significant different between learning using critical thinking skill and students’ descriptive writing ability.

1. **Interpretation of the Data**

The analysis is aimed to know is the effectiveness of developing critical thinking skill on students’ descriptive writing ability. we have already known that the mean score of experiment class is 43. 8 in pre test and 72.1In post test. But the mean score of control class is 31.8 in pre test and 47 in post test. Seeing calculation above, the experiment class get increase on 28.3 points. It is better than the control class get increase on 15.2 points.

Before deciding the result of hypothesis, the writer proposes interpretation towards to with procedure as follow:

1. Ha = tobservation > ttable . It means there is significant effectiveness between students’ descriptive writing and developing critical thinking skill
2. Ho = tobservation < ttable . It means there is no significant effectiveness between students’ descriptive writing and developing critical thinking skill

According to the data, the value of tobservation is bigger than ttable. tobservation = 8.82 > ttable = 2.00 (5%) or tobservation = 8.82 > ttable  = 2, 65 (1%), so Ho is rejected and Ha is accepted.

From the result above, the writer give conclusion that there is the effectiveness of developing critical thinking skill on students’ descriptive writing ability. it can be seen that the student get good or better score by developing critical thinking skill.