# CHAPTER IV
# RESULT AND DISCUSSION

## A. Data Description

In this chapter, the researcher explains the result of the research to describe the influence of clustering technique in descriptive writing. The researcher attempts to submit the data as outcomes of research has conducted at SMAN 1 Petir. In this research, the researcher used a pre-test and post-test design. The aim of the test as an instrument used by the researcher is to know the students' descriptive writing ability. This research used the essay test. The researcher gave a pre-test before treatment and post-test after treatment to find whether or not a significant change in teaching descriptive writing using clustering technique. The researcher used experimental research.

The researcher took 72 students as a subject in this research. It is divided into two classes. They were 36 students from class X MIPA 2 as the experimental class and 36 students from class X MIPA 1 as the control class. The researcher got the data used test as an instrument, the first is the result of pre-test and the second is the result of post-test.

The result of pre-test in experiment class is named variable (X1), the result of post-test in experiment class is named variable (X2), the result of pre-test in control class is named variable (Y1) and the result of post-test in control class is named variable (Y2).

The students' writing in the descriptive text has less before using clustering technique. They found the difficulties and did not have any concept or idea to write something on descriptive text. But after using clustering technique, students have a better achievement. It can be seen from the result of pre-test and post-test.

To know the result of the test, the researcher explains the process of experimental score and control score as follow:

1. The Process of Experimental Score

To know the influence of clustering technique on students' writing descriptive text, the researcher gave the test to students. The test uses in this research divided into two types, there are pre-test and post-test. A pre-test was the test given before treatment and post-test given after giving treatment.

The following table is the score of pre-test and post-test which are taken from the experimental class.

**Table 4.1**

**The Result of Experimental Class**

| No | Initial Name | Pre-test | Post-test |
|---|---|---|---|
| 1 | AH | 69 | 84 |
| 2 | AWK | 65 | 77 |
| 3 | Al | 34 | 66 |
| 4 | AF | 48 | 71 |
| 5 | AA | 64 | 85 |
| 6 | DM | 78 | 94 |
| 7 | FGM | 43 | 62 |
| 8 | HH | 69 | 83 |
| 9 | HIS | 61 | 71 |
| 10 | IR | 52 | 70 |
| 11 | La | 38 | 74 |
| 12 | LCW | 45 | 78 |
| 13 | MAS | 38 | 74 |
| 14 | MH | 55 | 81 |
| 15 | MJ | 40 | 75 |
| 16 | Mu | 57 | 75 |
| 17 | NJ | 66 | 78 |
| 18 | Na | 70 | 74 |
| 19 | NKI | 70 | 77 |
| 20 | NRW | 67 | 79 |
| 21 | NM | 61 | 82 |
| 22 | Pa | 36 | 81 |

| | | | |
|---|---|---|---|
| 23 | RA | 48 | 65 |
| 24 | RT | 36 | 63 |
| 25 | Sa | 31 | 83 |
| 26 | SA | 51 | 76 |
| 27 | SH | 73 | 93 |
| 28 | SK | 50 | 81 |
| 29 | SM | 62 | 71 |
| 30 | SN | 55 | 73 |
| 31 | SZF | 69 | 84 |
| 32 | UM | 76 | 90 |
| 33 | WBM | 46 | 71 |
| 34 | WN | 65 | 83 |
| 35 | Yu | 41 | 81 |
| 36 | ZS | 56 | 79 |
| | **Total Score** | 1985 | 2784 |
| | **Average** | 50,1 | 78,5 |

The table above shows the students' pre-test and post-test of the experimental class. The pre-test was given in the first meeting before giving any treatment, and the post-test was given after giving treatment. According to the table of experiment class, it can be seen the lowest score of pre-test is 31 and the highest score is 78. The total score is 1985. The lowest score of post-test is 62 and the highest score is 94. The total score is 2784. The score draws that highest score of students' writing on descriptive text is good and the lowest score is bad. So from the data, there is an increase from pre-test to post-test.

a. The Result of Pre-test of Experimental Class

Based on the table above the researcher arranged the scores from the lowest to the highest.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 31 | 34 | 36 | 36 | 38 | 38 | 40 | 41 | 43 |
| 45 | 46 | 48 | 48 | 50 | 51 | 52 | 55 | 55 |
| 56 | 57 | 61 | 61 | 62 | 64 | 65 | 65 | 66 |
| 67 | 69 | 69 | 69 | 70 | 70 | 73 | 76 | 78 |

1) Finding out range with formula

   R = H — L + 1

   = 78 — 31 + 1

   = 48

2) Looking for the class interval (k), with formula:

   $\frac{R}{i} = \frac{48}{i} =$ it is had better getting result between 10 – 20

   So, it got i = 4 because $\frac{48}{4} = 12$ (between 10 – 20)

   i = 12 (be completed)

3) Making distribution frequency table

**Table 4.2**

**The Distribution Frequency of Pre-test Experimental Class**

| **Interval** | **f** | **X** | ***x'*** | **f*x'*** | **f*x'*²** |
|---|---|---|---|---|---|
| 31 – 34 | 2 | 32,5 | +5 | +10 | 50 |
| 35 – 38 | 4 | 36,5 | +4 | +16 | 64 |
| 39 – 42 | 2 | 40,5 | +3 | +6 | 18 |
| 43 – 46 | 3 | 44,5 | +2 | +6 | 12 |
| 47 – 50 | 3 | 48,5 | +1 | +3 | 3 |
| 51 – 54 | 2 | (52,5) M' | 0 | 0 | 0 |
| 55 – 58 | 4 | 56,5 | -1 | -4 | 4 |
| 59 – 62 | 3 | 60,5 | -2 | -6 | 12 |
| 63 – 66 | 4 | 64,5 | -3 | -12 | 36 |
| 67 – 70 | 6 | 68,5 | -4 | -24 | 96 |
| 71 – 74 | 1 | 72,5 | -5 | -5 | 25 |
| 75 – 78 | 2 | 76,5 | -6 | -12 | 72 |
| | 36 = N | | | $\Sigma fx'^2 = -22$ | $\Sigma fx'^2 = 392$ |

4) Determining Mean of Variable X ($X_1$)

$$Mx_1 = M' + i \frac{(\Sigma fx')}{(N)}$$

$$= 52,5 + 4\ \frac{(-22)}{(36)}$$

$$= 52,5 + (-2,4)$$

$$= 50,1$$

5) Determining Standard Deviation (SD) of Variable X ($X_1$) :

$$SDx_1 = i\sqrt{\frac{\Sigma fx'^2}{N} - \frac{(\Sigma fx')^2}{(N)}}$$

$$= 4\sqrt{\frac{392}{36} - \frac{(-22)^2}{(36)}}$$

$$= 4\sqrt{10,89 - (-0,37)}$$

$$= 4\sqrt{11,26}$$

$$= 4 \text{ x } 3,355$$

$$= 13,42$$

6) Determining Standard Error Mean of Variable X ($X_1$) :

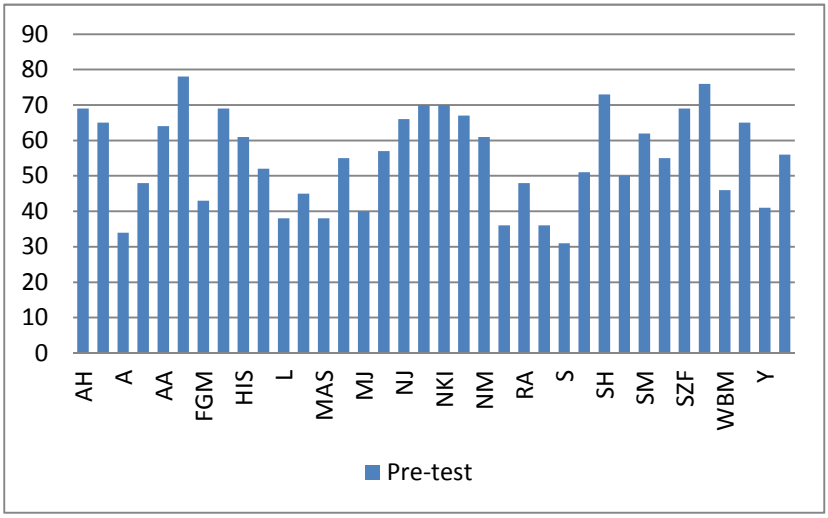
$$SE_{Mx_1} = \frac{SDx_1}{\sqrt{N-1}} = \frac{13,42}{\sqrt{36-1}} = \frac{13,42}{5,9} = 2,274$$

7) Making a Graphic

To facilitate the reader to read the result of the pre-test experimental class, the researcher makes a graphic as follow:

**Graphic 4.1**

**Pre-test in Experimental Class**




b. The Result of Post-Test of Experimental Class

Based on the table above, the researcher arranged the scores from the lowest to the highest scores as follow:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 62 | 63 | 65 | 66 | 70 | 71 | 71 | 71 | 71 |
| 73 | 74 | 74 | 74 | 75 | 75 | 76 | 77 | 77 |
| 78 | 78 | 79 | 79 | 81 | 81 | 81 | 81 | 82 |
| 83 | 83 | 83 | 84 | 84 | 85 | 90 | 93 | 94 |

1) Finding out range with formula

R = H — L + 1

= 94 — 62 + 1

= 33

2) Looking for the class interval (k), with formula:

$\frac{R}{i} = \frac{33}{i} =$ it is had better getting result between 10 – 20

So, it got i = 3 because $\frac{33}{3} = 11$ (between 10 – 20)

i = 11 (be completed)

3) Making distribution frequency table

**Table 4.3**

**The Distribution Frequency of Post-test Experimental Class**

| **Interval** | **F** | **X** | $x'$ | $fx'$ | $fx'^2$ |
|---|---|---|---|---|---|
| 62 – 64 | 2 | 63 | +5 | +10 | 50 |
| 65 – 67 | 2 | 66 | +4 | +8 | 32 |
| 68 – 70 | 1 | 69 | +3 | +3 | 9 |
| 71 – 73 | 5 | 72 | +2 | +10 | 20 |
| 74 – 76 | 6 | 75 | +1 | +6 | 6 |
| 77 – 79 | 6 | 78 (M') | 0 | 0 | 0 |
| 80 – 82 | 5 | 81 | -1 | -5 | 5 |
| 83 – 85 | 6 | 84 | -2 | -12 | 24 |
| 86 – 88 | 0 | 87 | -3 | -0 | 0 |
| 89 – 91 | 1 | 90 | -4 | -4 | 16 |
| 92 – 94 | 2 | 93 | -5 | -10 | 50 |
| | 36 = N | | | $\Sigma fx' = 6$ | $\Sigma fx'^2 = 212$ |

4) Determining Mean of Variable X ($X_2$)

$$Mx_2 = M' + i \frac{(\Sigma fx')}{(N)}$$

$$= 78 + 3 \frac{(6)}{(36)}$$

$$= 78 + 0{,}5$$

$$= 78{,}5$$

5) Determining Standard Deviation (SD) of Variable X ($X_2$) :

$$SDx_2 = i \sqrt{\frac{\Sigma fx'^2}{N} - \frac{(\Sigma fx')^2}{(N)}}$$

$$= 3\sqrt{\frac{212}{36} - \frac{(6)^2}{(36)}}$$

$$= 3\sqrt{5{,}89 - (0{,}027)}$$

$$= 3\sqrt{5{,}86}$$

$$= 3 \text{ x } 2{,}420$$

$$= 7{,}26$$

6) Determining Standard Error Mean of Variable X ($X_2$) :

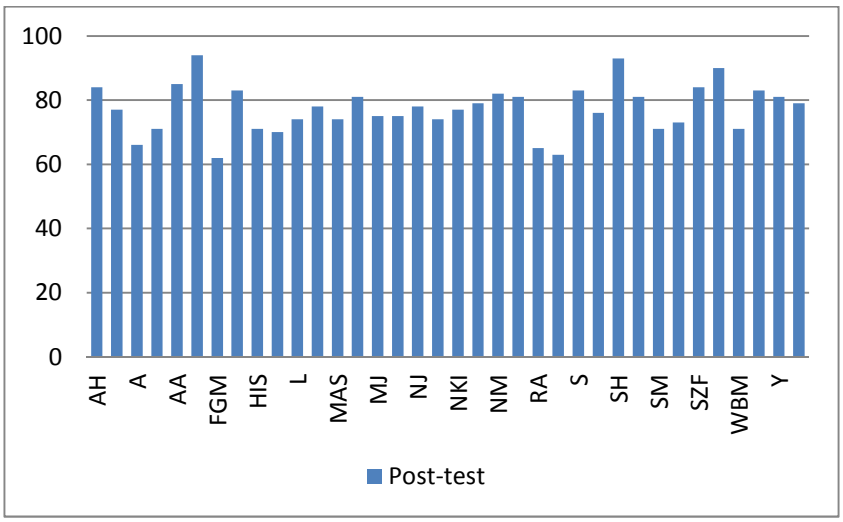
$$SE_{Mx2} = \frac{SDx_2}{\sqrt{N-1}} = \frac{7{,}26}{\sqrt{36-1}} = \frac{7{,}26}{5{,}9} = 1{,}230$$

7) Making a Graphic

To facilitate the reader to read the result of the pre-test experimental class, the researcher makes a graphic as follow:

**Graphic 4.2**

**Post-test in Experimental Class**



2. The Process of Control Class Score

Same with experiment class, in control class the researcher also gave the test to students. There are pre-test and post-test. But the difference with experiment class, control class in treatment not taught clustering technique only taught conventionally.

The following table is the score of pre-test and post-test which are taken from the control class.

**Table 4.4**

**The Result of Control Class**

| No | Initial Name | Pre-test | Post-test |
|---|---|---|---|
| 1 | ADP | 43 | 64 |
| 2 | AM | 40 | 61 |
| 3 | ARF | 45 | 77 |
| 4 | ASA | 66 | 59 |
| 5 | ASH | 63 | 54 |
| 6 | BA | 45 | 71 |
| 7 | DP | 44 | 56 |
| 8 | DY | 42 | 54 |
| 9 | EP | 41 | 37 |
| 10 | FR | 40 | 70 |
| 11 | Fi | 41 | 57 |
| 12 | HS | 44 | 54 |
| 13 | IA | 58 | 37 |
| 14 | ISJ | 69 | 79 |
| 15 | Ka | 46 | 36 |
| 16 | Li | 65 | 62 |
| 17 | MAA | 58 | 60 |
| 18 | MLS | 52 | 66 |
| 19 | NS | 55 | 39 |
| 20 | NDE | 40 | 59 |
| 21 | NO | 55 | 38 |
| 22 | RNS | 45 | 57 |
| 23 | RN | 45 | 65 |
| 24 | RF | 62 | 68 |

| | | | |
|---|---|---|---|
| 25 | REM | 46 | 71 |
| 26 | SN | 36 | 61 |
| 27 | SM | 56 | 62 |
| 28 | SMU | 66 | 77 |
| 29 | SAP | 45 | 80 |
| 30 | SS | 55 | 66 |
| 31 | SSA | 46 | 85 |
| 32 | SY | 42 | 57 |
| 33 | Sy | 65 | 55 |
| 34 | Ta | 60 | 61 |
| 35 | TY | 45 | 63 |
| 36 | WMH | 63 | 62 |
| | **Total Score** | 1826 | 2177 |
| | **Average** | 52,99 | 62,6 |

The table above shows the students' pre-test and post-test of control class was less because in this class not use treatment. It can be seen from the result of pre-test and post-test, the lowest score of pre-test is 36 and the highest score is 69. The total score is 1826. The lowest score of post-test is 35 and the highest score is 83. The total score is 2177.

a. The Result of Pre-test of Control Class

Based on the table above, the researcher arranged the score from the lowest to the highest.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 36 | 40 | 40 | 40 | 41 | 41 | 42 | 42 | 43 |
| 44 | 44 | 45 | 45 | 45 | 45 | 45 | 45 | 46 |
| 46 | 46 | 52 | 55 | 55 | 55 | 56 | 58 | 58 |
| 60 | 62 | 63 | 63 | 65 | 65 | 66 | 66 | 69 |

1) Finding out range with formula

R = H — L + 1

= 69 — 36 + 1

= 34

2) Looking for the class interval (k), with formula:

$\frac{R}{i} = \frac{34}{i} =$ it is had better getting result between 10 – 20

So, it got i = 3 because $\frac{34}{3} = 11{,}3$ (between 10 – 20)

i = 12 (be completed)

3) Making distribution frequency table

**Table 4.5**

**The Distribution Frequency of Pre-test Control Class**

| **Interval** | **f** | **X** | ***x'*** | **f*x'*** | **f*x'*²** |
|---|---|---|---|---|---|
| 36 – 38 | 1 | 37 | +5 | +5 | 25 |
| 39 – 41 | 5 | 40 | +4 | +20 | 80 |
| 42 – 44 | 5 | 43 | +3 | +15 | 45 |
| 45 – 47 | 9 | 46 | +2 | +18 | 36 |
| 48 – 50 | 0 | 49 | +1 | 0 | 0 |
| 51 – 53 | 1 | 52 (M') | 0 | 0 | 0 |
| 54 – 56 | 4 | 55 | -1 | -4 | 4 |
| 57 – 59 | 2 | 58 | -2 | -4 | 8 |
| 60 – 62 | 2 | 61 | -3 | -6 | 18 |
| 63 – 65 | 4 | 64 | -4 | -16 | 64 |
| 66 – 68 | 2 | 67 | -5 | -10 | 50 |
| 69 – 71 | 1 | 70 | -6 | -6 | 36 |
| | 36 = N | | | $\Sigma$ fx' = 12 | $\Sigma$ fx'² = 388 |

4) Determining Mean of Variable Y ($Y_1$)

$My_1 = M' + i \frac{(\Sigma fy')}{(N)}$

$$= 52 + 3\ \frac{(12)}{(36)}$$

$$= 52 + 0{,}99$$

$$= 52{,}99$$

5) Determining Standard Deviation (SD) of Variable Y ($Y_1$):

$$SDy_1 = i\ \sqrt{\frac{\Sigma fy'^2}{N} - \frac{(\Sigma fy')^2}{(N)}}$$

$$= 3\ \sqrt{\frac{388}{36} - \frac{(12)^2}{(36)}}$$

$$= 3\ \sqrt{10{,}77 - 0{,}11}$$

$$= 3\ \sqrt{10{,}66}$$

$$= 3 \text{ x } 3{,}264$$

$$= 9{,}79$$

6) Determining Standard Error Mean of Variable Y ($Y_1$) :

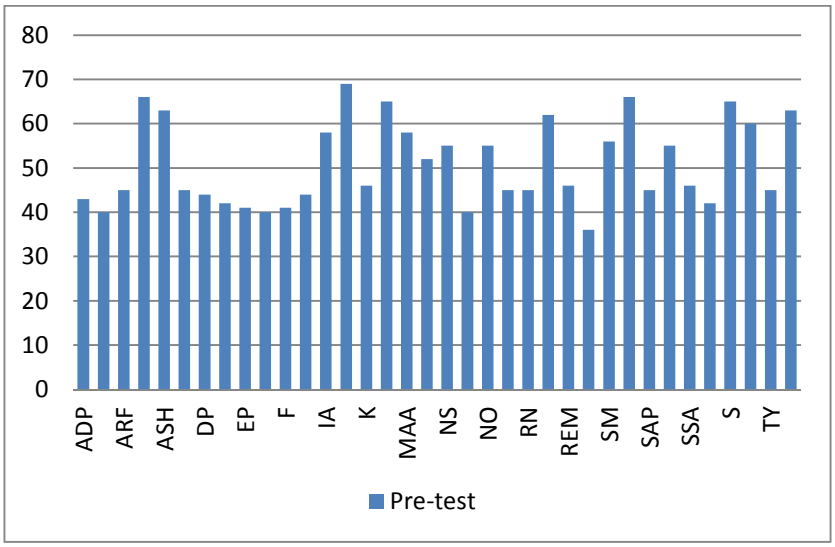
$$SE_{My1} = \frac{SDy_1}{\sqrt{N-1}} = \frac{9{,}79}{\sqrt{36-1}} = \frac{9{,}79}{5{,}9} = 1{,}695$$

7) Making a Graphic

To facilitate the reader to read the result of the pre-test experimental class, the researcher makes a graphic as follow:

**Graphic 4.3**

**Pre-test in Control Class**




b. The Result of Post-test of Control Class

Based on the table above, the researcher will arrange the score from the lowest to the highest.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 36 | 37 | 37 | 38 | 39 | 54 | 54 | 54 | 55 |
| 56 | 57 | 57 | 57 | 59 | 59 | 60 | 61 | 61 |
| 61 | 62 | 62 | 62 | 63 | 64 | 65 | 66 | 66 |
| 68 | 70 | 71 | 71 | 77 | 77 | 79 | 80 | 83 |

1) Finding out range with formula

R = H — L + 1

= 83 — 36 + 1

= 48

2) Looking for the class interval (k), with formula:

$\frac{R}{i} = \frac{48}{i} =$ it is had better getting result between 10 – 20

So, it got i = 4 because $\frac{48}{4} = 12$ (between 10 – 20)

i = 12 (be completed)

3) Making distribution frequency table

**Table 4.6**

**The Distribution Frequency of Post-test Control Class**

| **Interval** | **F** | **X** | ***y'*** | **fy *'*** | **fy*'²*** |
|---|---|---|---|---|---|
| 36 – 39 | 5 | 37,5 | +6 | 30 | 180 |
| 40 – 43 | 0 | 41,5 | +5 | 0 | 0 |
| 44 – 47 | 0 | 45,5 | +4 | 0 | 0 |
| 48 – 51 | 0 | 49,5 | +3 | 0 | 0 |
| 52 – 55 | 4 | 53,5 | +2 | 8 | 16 |
| 56 – 59 | 6 | 57,5 | +1 | 6 | 6 |
| 60 – 63 | 8 | 61,5 (M') | 0 | 0 | 0 |
| 64 – 67 | 4 | 65,5 | -1 | -4 | 4 |
| 68 – 71 | 4 | 69,5 | -2 | -8 | 16 |
| 72 – 75 | 0 | 73,5 | -3 | 0 | 0 |
| 76 – 79 | 3 | 77,5 | -4 | -12 | 48 |
| 80 – 83 | 2 | 81,5 | -5 | -10 | 50 |
| | N = 36 | | | Σfy' = 10 | Σfy' = 320 |

4) Determining Mean of Variable Y ($Y_2$)

$My_2 = M' + i \frac{(\Sigma fy')}{(N)}$

$= 61,5 + 4 \frac{(10)}{(36)}$

$= 61,5 + 1,1$

$= 62,6$

5) Determining Standard Deviation (SD) of Variable Y ($Y_2$):

$$SDy_2 = i\sqrt{\frac{\Sigma fy'^2}{N} - \frac{(\Sigma fy')^2}{(N)}}$$

$$= 4\sqrt{\frac{320}{36} - \frac{(10)^2}{(36)}}$$

$$= 4\sqrt{8{,}8 - 0{,}0729}$$

$$= 4\sqrt{8{,}72}$$

$$= 4 \text{ x } 2{,}95$$

$$= 11{,}8$$

6) Determining Standard Error Mean of Variable Y ($Y_2$):

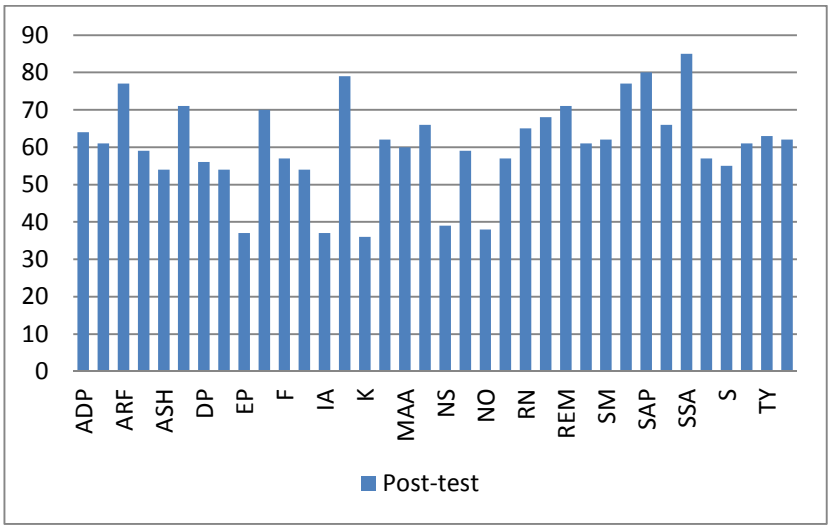
$$SE_{My2} = \frac{SDy_2}{\sqrt{N-1}} = \frac{11{,}8}{\sqrt{36-1}} = \frac{11{,}8}{5{,}9} = 2$$

7) Making a Graphic

To facilitate the reader to read the result of the pre-test experimental class, the researcher makes a graphic as follow:

**Graphic 4.4**

**Post-test in Control Class**




3. The Process of Observation

There are two parts of teaching clustering technique in descriptive writing. Opening the lesson and learning process.

In the introduction of teaching clustering technique in descriptive text is opening the lesson. In the learning process of teaching clustering technique in descriptive writing there are explanation of the material, approachment/learning strategies, usage of learning median and assessment process.

**Table 4.7**

**Opening the Lesson in the Introduction of Teaching Clustering Technique in Descriptive Writing**

| No | Statements | Score and Percent | Interpretation |
|---|---|---|---|
| 1. | Students answer the teacher question | 5<br>100 | High<br>High |
| 2. | Students listen the teacher explanation about standard competence | 3<br>60 | Medium<br>Medium |
| | | 4<br>80 | High<br>Good |

In the point of students answer the teacher question, get the score 5 in the High Category and the percentage 100 in the High Category. In the point of students lesson the teacher explanation about standard competence, get the score 3 in the Medium Category and percentage 60 in the Medium Category.

All of the mean score of opening the lesson in teaching clustering technique in descriptive writing is 4 in the High Category and the percentage 80 in the High Category. In Conclusion learning process in teaching clustering technique in descriptive writing runs well (Good).

**Table 4.8**

**Explanation of the Material in the Learning Process of Teaching Clustering Technique in Descriptive Writing**

| No | Statements | Score and Percent | Interpretation |
|---|---|---|---|
| 1. | Students listen the teacher explanation about the material | 5<br>100 | High<br>High |
| 2. | Students follow the teacher instruction | 5<br>100 | High<br>High |
| 3. | Interaction between students-teacher, students-students, teacher-students, students-learning material | 4<br>80 | High<br>Good |
| | | 4,66<br>93,2 | High<br>High |

In the point of students listen the teacher explanation about the material, get the score 5 in the High Category and the percentage 100 in the High Category. In the point of Students follow the teacher instruction, get the score 5 in the High Category and percentage 100 in the High Category. In the point of interaction between students-teacher, students-students, teacher-students, students-learning material, get the score 4 in the High Category and the percentage 80 in the Good Category.

All of the mean score of explanation of the material in teaching clustering technique in descriptive writing is 4,66 in the High Category and the percentage 93,2 in the High Category. In Conclusion explanation of the material in teaching clustering technique in descriptive writing runs well (High).

**Table 4.9**

**Approachment/Learning Strategies in the Learning Process of Teaching Clustering Technique in Descriptive Writing**

| No | Statements | Score and Percent | Interpretation |
|---|---|---|---|
| 1. | Students write the teacher explanation | 4<br>80 | High<br>High |
| 2. | Students follow the learning process using clustering technique | 5<br>100 | High<br>High |
| | | 4,5<br>90 | High<br>High |

In the point of students write the teacher explanation, get the score 4 in the High Category and the percentage 80 in the High Category. In the point of students follow the learning process using clustering technique, get the score 5 in the High Category and percentage 100 in the High Category.

All of the mean score of opening the lesson in teaching clustering technique in descriptive writing is 4,5 in the High Category and the percentage 90 in the High Category. In Conclusion learning process in teaching clustering technique in descriptive writing runs well (High).

**Table 4.10**

**Usage of Learning Media in the Learning Process of Teaching Clustering Technique in Descriptive Writing**

| No | Statements | Score and Percent | Interpretation |
|---|---|---|---|
| 1. | Interaction between students and learning media | 5<br>100 | High<br>High |
| 2. | Interested with the material use clustering technique | 5<br>100 | High<br>High |
| | | 5<br>100 | High<br>High |

In the point of Interaction between students and learning media, get the score 5 in the High Category and the percentage 100 in the High Category. In the point of Interested with the material use clustering technique, get the score 5 in the High Category and percentage 100 in the High Category.

All of the mean score of opening the lesson in teaching clustering technique in descriptive writing is 5 in the High Category and the percentage 100 in the High Category. In Conclusion learning process in teaching clustering technique in descriptive writing runs well (High).

**Table 4.11**

**Assessment Process in the Learning Process of Teaching Clustering Technique in Descriptive Writing**

| No | Statements | Score and Percent | Interpretation |
|---|---|---|---|
| 1. | Students answer the test and write the descriptive text | 5<br>100 | High<br>High |
| | | 5<br>100 | High<br>High |

In the point of students answer the test and write the descriptive text, get the score 5 in the High Category and the percentage 100 in the High Category.

All of the mean score of opening the lesson in teaching clustering technique in descriptive writing is 5 in the High Category and the percentage 100 in the High Category. In Conclusion learning process in teaching clustering technique in descriptive writing runs well (High).

## B. Data Analysis

After getting the data from pre-test and post-test score of two classes then the writing analyzed it by using t-test formula with the degree of significant 5% and 1%, formula as follow:

$$t_o = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

$M_1$ = the average score of experiment class

$M_2$ = the average score of control class

SE = Standard of error

X = Sum of the squared deviation score of Experiment class

Y = Sum of the squared deviation score of Control class

To find out the comparison score of pre-test of experiment and control class. The score in this test would be describing in table.

**Table 4.12**

**Comparison Score of Pre-test in Experimental and Control Class**

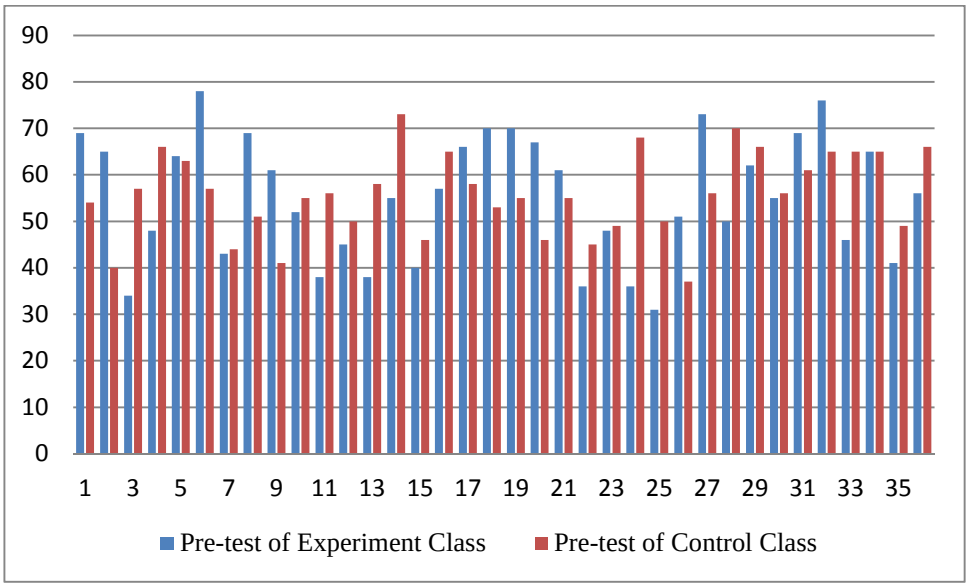
| No | Pre-test of Experimental Class | Pre-test of Control Class |
|---|---|---|
| 1 | 69 | 54 |
| 2 | 65 | 40 |
| 3 | 34 | 57 |
| 4 | 48 | 66 |
| 5 | 64 | 63 |
| 6 | 78 | 57 |
| 7 | 43 | 44 |
| 8 | 69 | 51 |
| 9 | 61 | 41 |
| 10 | 52 | 55 |
| 11 | 38 | 56 |
| 12 | 45 | 50 |
| 13 | 38 | 58 |
| 14 | 55 | 73 |
| 15 | 40 | 46 |
| 16 | 57 | 65 |
| 17 | 66 | 58 |
| 18 | 70 | 53 |
| 19 | 70 | 55 |
| 20 | 67 | 46 |
| 21 | 61 | 55 |
| 22 | 36 | 45 |
| 23 | 48 | 49 |
| 24 | 36 | 68 |
| 25 | 31 | 50 |
| 26 | 51 | 37 |
| 27 | 73 | 56 |
| 28 | 50 | 70 |
| 29 | 62 | 66 |
| 30 | 55 | 56 |
| 31 | 69 | 61 |

| | | |
|---|---|---|
| 32 | 76 | 65 |
| 33 | 46 | 65 |
| 34 | 65 | 65 |
| 35 | 41 | 49 |
| 36 | 56 | 66 |
| | $\Sigma X_1 = 1985$ | $\Sigma Y_1 = 1826$ |

The data from table above presented into graphic. It has purpose to collect score between experiment and control class.

**Graphic 4.5**

**Comparison Pre-test Score of Experimental and Control Class**




Based on the graphic above, the researcher has seen that the comparison between pre-test in experiment class and pre-test in control class. The highest score in experiment class is 78, while the highest score in control class is 69. And the lowest score in experiment class is 31, and in control class is 36. In experiment class $\sum x_1 = 1985$ and control class $\sum y_1 = 1826$ had different values.

To find out the comparison score of post-test of experiment and control class, The score in this test would be describing in table.

**Table 4.13**

**Comparison Score of Post-test in Experimental and Control Class**

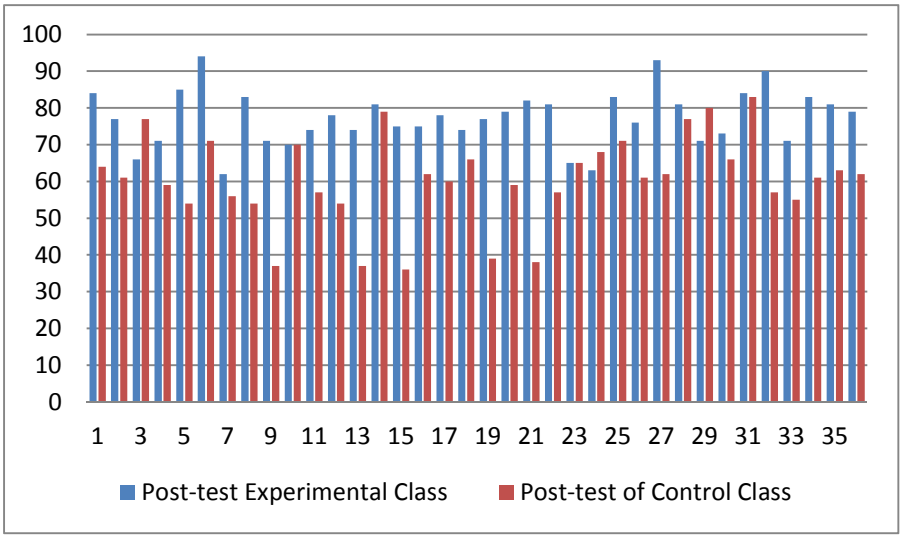
| No | Post-test of Experimental Class | Post-test of Control Class |
|---|---|---|
| 1 | 84 | 64 |
| 2 | 77 | 61 |
| 3 | 66 | 77 |
| 4 | 71 | 59 |
| 5 | 85 | 54 |
| 6 | 94 | 71 |
| 7 | 62 | 56 |
| 8 | 83 | 54 |
| 9 | 71 | 37 |
| 10 | 70 | 70 |
| 11 | 74 | 57 |
| 12 | 78 | 54 |
| 13 | 74 | 37 |
| 14 | 81 | 79 |
| 15 | 75 | 36 |
| 16 | 75 | 62 |
| 17 | 78 | 60 |
| 18 | 74 | 66 |
| 19 | 77 | 39 |
| 20 | 79 | 59 |
| 21 | 82 | 38 |
| 22 | 81 | 57 |
| 23 | 65 | 65 |
| 24 | 63 | 68 |
| 25 | 83 | 71 |
| 26 | 76 | 61 |
| 27 | 93 | 62 |

| | | |
|---|---|---|
| 28 | 81 | 77 |
| 29 | 71 | 80 |
| 30 | 73 | 66 |
| 31 | 84 | 85 |
| 32 | 90 | 57 |
| 33 | 71 | 55 |
| 34 | 83 | 61 |
| 35 | 81 | 63 |
| 36 | 79 | 62 |
| | $\sum x_2 = 2784$ | $\sum y_2 = 2177$ |

The data from table above presented into graphic. It has purpose to collect score between experiment and control class.

**Graphic 4.6**

**Comparison Post-test Score of Experimental and Control Class**




Based on the graphic above, the researcher has seen that the comparison between post-test in experiment class and post-test in control class. The highest score in experiment class is 94, while the highest score in control

class is 83. And the lowest score in experiment class is 62, and in control class is 36. Experiment class $\sum x_2 = 2784$ and control class $\sum y_2 = 2177$ had different values. The experiment class is higher than control class. It is caused by the use of different method of experiment and control class as mentioned above that experiment class used clustering technique and control class used traditional (explanatory) method.

After getting data from pre-test and post-test, the researcher analyzed it by using statistic calculation of t-test formula with the degree of significance 5% and 1% the formula as follow:

1. Determining average from experimental class

$$\begin{aligned} MX &= Mx_2 — Mx_1 \\ &= 78,5 — 50,1 \\ &= 28,4 \end{aligned}$$

2. Determining average from control class

$$\begin{aligned} MY &= My_2 — My_1 \\ &= 62,6 — 52,99 \\ &= 9,61 \end{aligned}$$

3. Determining Standard Error different between Mean of Variable X and Mean of Variable Y :

$$\begin{aligned} SE_{M_x - M_y} &= \sqrt{SE_{Mx}{}^2 + SE_{M_y}{}^2} \\ &= \sqrt{(1,230)^2 + (2)^2} \\ &= \sqrt{1,5129 + 4} \end{aligned}$$

$$= \sqrt{5,5129}$$

$$= 2,35$$

4. Determining $t_o$ (t observation)

$$t_o = \frac{Mx - My}{SE_{Mx - My}}$$

$$= \frac{28,4 - 9,61}{2,35}$$

$$= \frac{18,8}{2,35}$$

$$= 8$$

5. Determining T – table with significance 5% and 1%

   Df = N1 + N2 – 2

   = 36 + 36 – 2

   = 70 (consult to “t” table score)

   Based on “t” table that there is 70. With df as number 70 is got “t” table as follow:

   - At significance level 5 % : $t_t = 1,66$
   - At significance level 1 % : $t_t = 2,38$

6. The researcher compared $t_o$ to $t_t$ that if $t_o > t_t$; $H_a$ is accepted and $H_o$ is rejected if $t_o < t_t$, it means that $H_o$ is accepted and $H_a$ is rejected.

   $t_o$ : $t_t$ : 8 > 1,66 in degree of significance 5%

   $t_o$ : $t_t$ : 8 > 2,38 in degree of significance 1%

**Table 4.14**

**All of the Learning Activity of Teaching Clustering Technique in Descriptive Writing**

| No | Element | Ideal Score | Average of Score Result | Percentage | Categories |
|---|---|---|---|---|---|
| INTRODUCTION | | | | | |
| 1. | Opening The Lesson | 5 | 4 | 80 | Good |
| LEARNING PROCESS | | | | | |
| 1. | Explanation of the Material | 5 | 4,66 | 93,2 | High |
| 2. | Approachment/Learning Strategies | 5 | 4,5 | 90 | High |
| 3. | Usage of Learning Media | 5 | 5 | 100 | High |
| 4. | Assessment Process | 5 | 5 | 100 | High |
| **Mean** | | | 4,63 | 92,6 | High |

In the part of introduction, opening the lesson in teaching clustering technique in descriptive writing showed the Mean Score is 4,63 and the percentage 92,6 in the High Category.

## C. Hypothesis Testing

Based on the result statistic calculation, data obtained from both pre-test and post-test are analyzed and calculated using t-test formula. The data obtained from experiment and control class is calculated with the assumption as follow:

If $t_o \geq t_t$: the alternative hypothesis ($H_a$) is accepted and null hypothesis ($H_0$) is rejected. It means there is influence in students' writing descriptive using clustering technique.

If $t_o \leq t_t$: the alternative hypothesis ($H_a$) is rejected and null hypothesis is accepted. It means there is no influence in students' writing descriptive using clustering technique.

Based on assumption above, it is obtained that the value of $t_o$ is 8 and the degree freedom (df) is 70 in degree of significant 5% from t table is 1,66 while in degree of significant 1% from t table is 2,38. After get the data, the writer compared it with $t_t$ (t table ) both in degree significant 5% and 1% by formula:

$t_t$ 5% < $t_o$ > $t_t$ 1% = 1,66 < 8 > 2,38

$t_o$ : $t_t$ = 8 > 1,66 in degree of significant 5%

$t_o$ : $t_t$ = 8 > 2,38 in degree of significant 1%

since $t_o$ score obtained from the result of calculating, so that the alternative hypothesis ($H_a$) is accepted and the null ($H_0$) is rejected. It means there is significant influence of clustering technique in descriptive writing.

## D. Interpretation Data

After got the data, the researcher compare it with both in degree of significance 5% and 1%; therefore based on "t" table that there is 70 with df as number 70 is got "t" table as follow: At significance level 5% $t_t$ = 1,66 and at significance level 1% = 2,38. The researcher compared $t_o$ to $t_t$ that if $t_o > t_t$ : $H_a$ is accepted and $H_o$ is rejected. If $t_o < t_t$, it means that $H_o$ is accepted and $H_a$ is rejected.

Based on the data, the value of $t_o$ (t observation) is higher than $t_t$ (t table) from significance 5% t observation = 8 t table = 1,66 or t observation 8 > 1,66 and significance 1% t observation 8 t table = 2,38 or t observation 8>2,38, because "$t_o$" that the researcher got from the calculation is higher than t table both at significance level 5% and 1%, so the hypothesis alternative ($H_a$) is accepted and $H_o$ is rejected.

From the interpretation above, the researcher said the use of clustering technique in teaching writing descriptive text could be better and more influence to make easy for students writing descriptive text rather than conventional method or direct instruction. This could be seen after comparing the score of pre-test (before using clustering technique) and post-test (after using clustering technique).

According to the data obtained from experiment and control class between the average scores and t observation, the researcher summarizes that teaching writing using clustering technique has significant influence toward students' descriptive text.

By using clustering technique, students feel more confident to express their ideas. Because when students make descriptive text without

clustering technique, they confused what they have to write. But, when students make descriptive text using clustering technique, they determine the topic and subtopic in the first and not confused again to describe it. Students have had a reference for what they will next write. Therefore, everyone feel enjoy on the subject in the learning process.