**CHAPTER IV**

**RESULT AND DISCUSSION**

1. **Description of Data**

In this chapter the writer would like to present the description of data obtained. As the writer explained in the previous chapter that the population in this research were 66 students of second grade in SMA AL-HUSEN and the sample were 33 students of XI A as experimental class and 33 students of XI B as control class.

In this research, the writer did an analyze of quantitative data. The data is obtained by giving test to the experimental class and control class. The test divided two types are pre-test and post-test. The research also gives pre-test before teaching in the class. The research also gives post-test in the experiment class after teaching by using PQRST Technique and gives post-test in control class after teaching without PQRST Technique

1. . **Experimental Class**

The researcher describes the result of pre-test in experiment class by the table as follow:

***Table 4.1***

***The Students Score of Pre-test at the Experimental Class***

|  |  |  |
| --- | --- | --- |
| **No** | **Name** | **Score** |
| 1 | AA | 45 |
| 2 | AR | 40 |
| 3 | AF | 50 |
| 4 | IF | 55 |
| 5 | IF | 55 |
| 6 | I | 35 |
| 7 | I | 35 |
| 8 | J | 40 |
| 9 | JS | 40 |
| 10 | J | 60 |
| 11 | K | 45 |
| 12 | RS | 40 |
| 13 | R | 45 |
| 14 | R | 30 |
| 15 | SM | 50 |
| 16 | WS | 50 |
| 17 | IF | 25 |
| 18 | AP | 50 |
| 19 | MSA | 35 |
| 20 | M | 70 |
| 21 | M | 45 |
| 22 | MFI | 50 |
| 23 | MU | 60 |
| 24 | MA | 50 |
| 25 | MA | 30 |
| 26 | MM | 65 |
| 27 | MO | 30 |
| 28 | ER | 35 |
| 29 | SRB | 50 |
| 30 | S | 40 |
| 31 | SJ | 65 |
| 32 | S | 70 |
| 33 | YS | 35 |
| **N=33** | **TOTAL** | **∑X =** **1470** |
| **AVERAGE** | **M=45** |

Mean of Pre-test:

M = (the mean of pre-test experimental class is 45)

While the result of post-test in experimental class got better score. The result of post-test in experimental class described by table below:

***Table 4.2***

***The Students Score of Post-test at the Experimental Class***

|  |  |  |
| --- | --- | --- |
| **No** | **Name** | **Score** |
| 1 | AA | 75 |
| 2 | AR | 65 |
| 3 | AF | 80 |
| 4 | IF | 85 |
| 5 | IF | 80 |
| 6 | I | 65 |
| 7 | I | 65 |
| 8 | J | 80 |
| 9 | J | 85 |
| 10 | J | 95 |
| 11 | K | 80 |
| 12 | RS | 80 |
| 13 | R | 65 |
| 14 | R | 70 |
| 15 | SM | 85 |
| 16 | WS | 95 |
| 17 | IF | 85 |
| 18 | AP | 90 |
| 19 | MSA | 70 |
| 20 | M | 75 |
| 21 | M | 85 |
| 22 | MFI | 85 |
| 23 | MU | 65 |
| 24 | MA | 75 |
| 25 | MA | 80 |
| 26 | MM | 70 |
| 27 | MO | 75 |
| 28 | ER | 80 |
| 29 | SRB | 70 |
| 30 | S | 70 |
| 31 | SJ | 80 |
| 32 | S | 75 |
| 33 | YS | 65 |
| **N=33** | **TOTAL** | **∑X =** **2545** |
| **AVERAGE** | **M=77** |

Mean of Post-test:

M = (the mean of post-test experimental class is 77)

***Table 4.3***

***The Difference Score between Pre-test and Post-test at the Experimental Class***

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Name** | **Pre-test** | **Post-test** |
| 1 | AA | 45 | 75 |
| 2 | AR | 40 | 65 |
| 3 | AF | 50 | 80 |
| 4 | IF | 55 | 85 |
| 5 | IF | 55 | 80 |
| 6 | I | 35 | 65 |
| 7 | I | 35 | 65 |
| 8 | J | 40 | 80 |
| 9 | J | 40 | 85 |
| 10 | J | 60 | 95 |
| 11 | K | 45 | 80 |
| 12 | RS | 40 | 80 |
| 13 | R | 45 | 65 |
| 14 | R | 30 | 70 |
| 15 | SM | 50 | 85 |
| 16 | WS | 50 | 95 |
| 17 | IF | 25 | 85 |
| 18 | AP | 50 | 90 |
| 19 | MSA | 35 | 70 |
| 20 | M | 70 | 75 |
| 21 | M | 45 | 85 |
| 22 | MFI | 50 | 85 |
| 23 | MU | 60 | 65 |
| 24 | MA | 50 | 75 |
| 25 | MA | 30 | 80 |
| 26 | MM | 65 | 70 |
| 27 | MO | 30 | 75 |
| 28 | ER | 35 | 80 |
| 29 | SRB | 50 | 70 |
| 30 | S | 40 | 70 |
| 31 | SJ | 65 | 80 |
| 32 | S | 70 | 75 |
| 33 | YS | 35 | 65 |
| **N=33** | **TOTAL** | **∑X =** **1470** | **∑X =** **2545** |
| **AVERAGE** | **M = 45** | **M= 77** |

From the table 4.1 above showed that the result of student’s pre-test score at the experimental class. The data showed the maximum score was 70 and the minimum score was 25. There was one student who got maximum score and there was one student who got minimum score. The average score of pre-test in experimental class was 45.

From the table 4.2 above showed that the result of students’ post-test score at the experimental class. The data showed the maximum score was 95 and the minimum score was 65. There were two students who got maximum score and six students who got minimum score. The average score of post-test in experimental class was 77.

From the table 4.3 showed the difference result of pre-test and post-test at the experimental class. It got the significant improvement after giving treatment using PQRST Technique, it was seen from the average of the post-test better than pre-test 44< 77.

1. **Control Class**

The writer describes the result of pre-test in the control class by the table as follow:

***Table 4.4***

***The Students Score of Pre-test at the Control Class***

|  |  |  |
| --- | --- | --- |
| **No** | **Name** | **Score** |
| 1 | AS | 50 |
| 2 | AS | 45 |
| 3 | AS | 35 |
| 4 | A | 30 |
| 5 | AP | 35 |
| 6 | AN | 35 |
| 7 | A | 40 |
| 8 | DHU | 45 |
| 9 | D | 35 |
| 10 | DA | 45 |
| 11 | EA | 30 |
| 12 | FF | 40 |
| 13 | FN | 45 |
| 14 | FN | 50 |
| 15 | H | 45 |
| 16 | HY | 30 |
| 17 | H | 40 |
| 18 | IIH | 30 |
| 19 | K | 40 |
| 20 | KF | 50 |
| 21 | MLH | 30 |
| 22 | MR | 55 |
| 23 | NR | 30 |
| 24 | N | 20 |
| 25 | R | 60 |
| 26 | RB | 60 |
| 27 | RH | 20 |
| 28 | S | 35 |
| 29 | T | 30 |
| 30 | T | 25 |
| 31 | KU | 40 |
| 32 | AU | 35 |
| 33 | MI | 50 |
| **N=33** | **TOTAL** | **∑X =** **1285** |
| **AVERAGE** | **M=39** |

Mean of Pre-test:

M = (the mean of pre-test control class is 39)

While the result of post-test in control class got better score. The result of post-test in control class described by table below:

***Table 4.5***

***The students' score of post-test in the control class***

|  |  |  |
| --- | --- | --- |
| **No** | **Name** | **Score** |
| 1 | AS | 70 |
| 2 | AS | 65 |
| 3 | AS | 65 |
| 4 | A | 65 |
| 5 | AP | 75 |
| 6 | AN | 70 |
| 7 | A | 50 |
| 8 | DHU | 55 |
| 9 | D | 75 |
| 10 | DA | 65 |
| 11 | EA | 70 |
| 12 | FF | 75 |
| 13 | FN | 60 |
| 14 | FN | 65 |
| 15 | H | 65 |
| 16 | HY | 75 |
| 17 | H | 80 |
| 18 | IIH | 75 |
| 19 | K | 65 |
| 20 | KF | 70 |
| 21 | MLH | 60 |
| 22 | MR | 70 |
| 23 | NR | 65 |
| 24 | N | 70 |
| 25 | R | 65 |
| 26 | RB | 65 |
| 27 | RH | 65 |
| 28 | S | 60 |
| 29 | T | 65 |
| 30 | T | 65 |
| 31 | K | 70 |
| 32 | AU | 70 |
| 33 | MI | 60 |
| **N=33** | **TOTAL** | **∑X =** **2205** |
| **AVERAGE** | **M=67** |

Mean of Post-test:

M = (the mean of post-test control class is 67)

***Table 4.6***

***The difference score between pre-test and post-test at the control class***

|  |  |  |  |
| --- | --- | --- | --- |
| **NO** | **Respondent** | **Pre-test** | **Post-test** |
|
| 1 | AS | 50 | 70 |
| 2 | AS | 45 | 65 |
| 3 | AS | 35 | 65 |
| 4 | A | 30 | 65 |
| 5 | AP | 35 | 75 |
| 6 | AN | 35 | 70 |
| 7 | A | 40 | 50 |
| 8 | DH | 45 | 55 |
| 9 | D | 35 | 75 |
| 10 | DA | 45 | 65 |
| 11 | EA | 30 | 70 |
| 12 | FF | 40 | 75 |
| 13 | FN | 45 | 60 |
| 14 | FN | 50 | 65 |
| 15 | H | 45 | 65 |
| 16 | HY | 30 | 75 |
| 17 | H | 40 | 80 |
| 18 | IIH | 30 | 75 |
| 19 | K | 40 | 65 |
| 20 | KF | 50 | 70 |
| 21 | MLH | 30 | 60 |
| 22 | MR | 55 | 70 |
| 23 | NR | 30 | 65 |
| 24 | N | 20 | 70 |
| 25 | R | 60 | 65 |
| 26 | RB | 60 | 65 |
| 27 | RH | 20 | 65 |
| 28 | S | 35 | 60 |
| 29 | T | 30 | 65 |
| 30 | T | 25 | 65 |
| 31 | KU | 40 | 70 |
| 32 | AU | 35 | 70 |
| 33 | MI | 50 | 60 |
| **N = 33** | **TOTAL** | **∑X = 1285** | **∑X = 2205** |
| **AVERAGE** | **M = 39** | **M = 67** |

From the table 4.4 above showed that the result of students’ pre-test score at the control class. The data showed the maximum score was 60 and the minimum score was 20. There were two students who got maximum score and there were two students who got minimum score. The average score of pre-test in control class was 39.

From the table 4.5 above showed that the result of students’ post-test score at the control class. The data showed the maximum score was 80 and the minimum score was 50. There was one student who got maximum score and there was one student who got minimum score. The average score of pos-test in control class was 67.

From the table 4.6 above showed the difference result of pre-test and post-test at the control class got the significant improvement after giving treatment without using PQRST technique, it was seen from the average of the post-test better than pre-test 39 < 67.

1. **Data Analysis**
2. **Experimental Class**

The writer analysis the data by comparing students’ score in pre-test and post-test in the experimental class. The students’ improvement score caused the writer used PQRST Technique on students’ reading comprehension. If seen from the students’ improvement score, it means that used PQRST Technique was success in improving students’ reading comprehension especially in explanation text. The writer describes the students’ improvement score of pre-test and post-test at the experimental class by the table below:

|  |
| --- |
| ***Table 4.7***  ***The difference score between pre-test and post-test result of experimental class*** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Respondent** | **Pre-test (X1)** | **Post-test (X2)** | **Difference (X2-X1)** |
| 1 | AA | 45 | 75 | 30 |
| 2 | AR | 40 | 65 | 25 |
| 3 | AF | 50 | 80 | 30 |
| 4 | IF | 55 | 85 | 30 |
| 5 | IF | 55 | 80 | 25 |
| 6 | I | 35 | 65 | 30 |
| 7 | I | 35 | 65 | 30 |
| 8 | J | 40 | 80 | 40 |
| 9 | J | 40 | 85 | 45 |
| 10 | J | 60 | 95 | 35 |
| 11 | K | 45 | 80 | 35 |
| 12 | RS | 40 | 80 | 40 |
| 13 | R | 45 | 65 | 20 |
| 14 | R | 30 | 70 | 40 |
| 15 | SM | 50 | 85 | 35 |
| 16 | WS | 50 | 95 | 45 |
| 17 | IF | 25 | 85 | 60 |
| 18 | AP | 50 | 90 | 40 |
| 19 | MSA | 35 | 70 | 35 |
| 20 | M | 70 | 75 | 5 |
| 21 | M | 45 | 85 | 40 |
| 22 | MFI | 50 | 85 | 35 |
| 23 | MU | 60 | 65 | 5 |
| 24 | MA | 50 | 75 | 25 |
| 25 | MA | 30 | 80 | 50 |
| 26 | MM | 65 | 70 | 5 |
| 27 | MO | 30 | 75 | 45 |
| 28 | ER | 35 | 80 | 45 |
| 29 | SRB | 50 | 70 | 20 |
| 30 | S | 40 | 70 | 30 |
| 31 | SJ | 65 | 80 | 15 |
| 32 | S | 70 | 75 | 5 |
| 33 | YS | 35 | 65 | 30 |
| **N=33** | **TOTAL** | **∑X =1420** | **∑X =** **2545** | **∑= 1025** |
| **AVERAGE** | **M = 45** | **M= 77** |

Table 4.7 above showed that the difference score between pre-test and post-test at the experimental class. The difference score was the result from the post-test scores reduced pre-test score. There was significant difference score between pre-test and post-test at the experimental class by the highest score was 60 and the lowest was 5.

1. **Control Class**

The writer analysis the data by comparing students’ score in pre-test and post-test at the control class. This result describes by the table below:

***Table 4.8***

***The difference score between Pre-test and Post-test result of control class***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Respondent** | **Pre-test (X1)** | **Post-test (X2)** | **Difference (X2-X1)** |
| 1 | AS | 50 | 70 | 20 |
| 2 | AS | 45 | 65 | 20 |
| 3 | AS | 35 | 65 | 30 |
| 4 | A | 30 | 65 | 35 |
| 5 | AP | 35 | 75 | 40 |
| 6 | AN | 35 | 70 | 35 |
| 7 | A | 40 | 50 | 10 |
| 8 | DHU | 45 | 55 | 10 |
| 9 | D | 35 | 75 | 40 |
| 10 | DA | 45 | 65 | 20 |
| 11 | EA | 30 | 70 | 40 |
| 12 | FF | 40 | 75 | 35 |
| 13 | FN | 45 | 60 | 15 |
| 14 | FN | 50 | 65 | 15 |
| 15 | H | 45 | 65 | 20 |
| 16 | HY | 30 | 75 | 45 |
| 17 | H | 40 | 80 | 40 |
| 18 | IIH | 30 | 75 | 45 |
| 19 | K | 40 | 65 | 25 |
| 20 | KF | 50 | 70 | 20 |
| 21 | MLH | 30 | 60 | 30 |
| 22 | MR | 55 | 70 | 15 |
| 23 | NR | 30 | 65 | 35 |
| 24 | N | 20 | 70 | 50 |
| 25 | R | 60 | 65 | 5 |
| 26 | RB | 60 | 65 | 5 |
| 27 | RH | 20 | 65 | 45 |
| 28 | S | 35 | 60 | 25 |
| 29 | T | 30 | 65 | 35 |
| 30 | T | 25 | 65 | 40 |
| 31 | KU | 40 | 70 | 30 |
| 32 | AU | 35 | 70 | 35 |
| 33 | MI | 50 | 60 | 10 |
| **N=33** | **TOTAL** | **∑X =1285** | **∑X =** **2205** | **∑= 894** |
| **AVERAGE** | **M = 39** | **M= 67** |

Table 4.8 above showed that the difference score between pre-test and post-test at the control class. The difference score was the result from the post-test scores reduced pre-test score. There was significant difference score between pre-test and post-test at the control class by the highest score was 50 and the lowest was 5.

After getting the data from score of two classes, then the writer analyzed it by using t-test. The formula as follow:

Notes:

= t observation

= Mean score of the experiment class

= Mean score of the control class

= Sum of square deviation score in experiment class

= Sum of square deviation score in control class

= Number of students of experiment class

= Number of students of control class

= Constant number

df = Degree of Freedom (df = )

***Table 4.9***

***The result calculation of post-test at the experimental class () and the control class ()***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** |  |  |  |  |  |  |
| 1 | 75 | 70 | -2 | 3 | 4 | 9 |
| 2 | 65 | 65 | -12 | -2 | 144 | 4 |
| 3 | 80 | 65 | 3 | -2 | 9 | 4 |
| 4 | 85 | 65 | 8 | -2 | 64 | 4 |
| 5 | 80 | 75 | 3 | 8 | 9 | 64 |
| 6 | 65 | 70 | -5 | 3 | 25 | 9 |
| 7 | 65 | 50 | -12 | -17 | 144 | 289 |
| 8 | 80 | 55 | 3 | -12 | 9 | 144 |
| 9 | 85 | 75 | 8 | 8 | 64 | 64 |
| 10 | 95 | 65 | 18 | -2 | 324 | 4 |
| 11 | 80 | 70 | 3 | 3 | 9 | 9 |
| 12 | 80 | 75 | 3 | 8 | 9 | 64 |
| 13 | 65 | 60 | -12 | -7 | 144 | 49 |
| 14 | 70 | 65 | -7 | -2 | 49 | 4 |
| 15 | 85 | 65 | 8 | -2 | 64 | 4 |
| 16 | 95 | 75 | 18 | 8 | 324 | 64 |
| 17 | 85 | 80 | 8 | 13 | 64 | 169 |
| 18 | 90 | 75 | 13 | 8 | 169 | 64 |
| 19 | 70 | 65 | -7 | -2 | 49 | 4 |
| 20 | 75 | 70 | -2 | 3 | 4 | 9 |
| 21 | 85 | 60 | 8 | -7 | 64 | 49 |
| 22 | 85 | 70 | 8 | 3 | 64 | 9 |
| 23 | 65 | 65 | -12 | -2 | 144 | 4 |
| 24 | 75 | 70 | -12 | 3 | 144 | 9 |
| 25 | 80 | 65 | 3 | -2 | 9 | 4 |
| 26 | 70 | 65 | -7 | -2 | 49 | 4 |
| 27 | 75 | 65 | -2 | -2 | 4 | 4 |
| 28 | 80 | 60 | 3 | -7 | 9 | 49 |
| 29 | 70 | 65 | -7 | -2 | 49 | 4 |
| 30 | 70 | 65 | -7 | -2 | 49 | 4 |
| 31 | 80 | 70 | 3 | 3 | 9 | 9 |
| 32 | 75 | 70 | -2 | 3 | 4 | 9 |
| 33 | 65 | 60 | -12 | -7 | 144 | 49 |
| **∑** | **2545** | **2205** | **1** | **-15** | **2423** | **1242** |

Note :

  = Score Post-test (Experimental Class)

  = Score Post-test (Control Class)

  =  - (Mean )

  =  - (Mean )

  = The Squared Value of

  = The Squared Value of

From the table above, the researcher got the data = 2545, = 2205, = 2423 = 1242 where as = 33 and = 33. After that the writer calculated them based on the t-test formula, the steps as follow:

1. Determine mean of variable  and

Variable   = = = 77

Variable = = = 67

1. Determine t-test

= 2423

= 1242

df = = 33 + 33 – 2 = 64

=

=

= =

=

= 5.40

So, after the writer calculates this data based on the formula t-test, the obtained or was 5.40.

1. **Hypothesis Testing**

The data obtained from experimental class and control class were calculated with the assumption as follow:

If : the alternative hypothesis was accepted. It means there was significant effect of using PQRST Technique on student’s reading comprehension and without it. If : null hypothesis was rejected. It means there was no significant effect of using PQRST Technique on student’s reading comprehension than without it.

From the result of calculation above, it is obtained that the value of was 5.40, the degree of freedom (df) = 64. In the degree significance 5% = 2.65 in degree of significance 1% = 1.99. After that the writer compared the data with (t table) both in degree significance 5% and 1%. Therefore = 5.40 > 2.65 in degree of significance 5% and = 5.40 > 1.99 in degree significance 1%.

The statistic hypothesis states that if is higher than , it shows that (alternative hypothesis) of the result is accepted and (null hypothesis) is rejected. It means that there was an effect of PQRST Technique on student’s reading comprehension.

1. **Interpretation Data**

From the result of the research that the mean of pre-test score obtained by student’s of SMA AL-HUSEN Tunjung Teja in the class XI A (experimental class) 45 was highest than class XI B (control class) 39. The highest score of pre-test in XI A (experimental class) was 70 and in the class XI B (control class) was 60. The lowest score of pre-test in class XI A (experimental class) was 25 and in the class XI B (control class) was 20. It means that the distribution of score in control class score was smaller than experimental class.

The mean of post-test score in experimental class was 77 was greater than in control class was 67. The highest score in experimental class was 95 and in control class was 80. The lowest score in experimental class was 65 and in control class was 50. It means that the distribution of score post-test in experimental class was greater than class control.

Based on the data obtained from the research of experimental class and control class among average score, t observation and comparison with t table. The writer summarize that the student’s taught by PQRST Technique has significance effect on student’s reading comprehension than the students’s taught without PQRST Technique.