## CHAPTER IV

## RESULT OF THE STUDY AND DISCUSSION

This chapter discussed the data which had been collected from the research in the field of study. this case consisted of Description of the Data of the effect of think aloud strategy toward students' reading skill.

## A. Description of The Data

This section discussed the obtained data of the student's reading score using think aloud strategy toward students' reading skill. The presented data consisted of pre-test and post-test score. The function of the table is to compare the result of the students' pre test and post test scores.

Thecomparison pre test and post test scores were presented in the following table:

Table 4.1 Result of Pre-test and Post Test Score

| EXPERIMENTAL CLASS |  |  |  |  | CONTROL CLASS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NO | CODE | SCORE |  |  | NO | CODE | SCORE |  |  |
|  |  | $\begin{aligned} & \hline \text { PRE- } \\ & \text { TEST } \end{aligned}$ | $\begin{aligned} & \hline \text { POST- } \\ & \text { TEST } \end{aligned}$ | DIFFERENCE |  |  | $\begin{aligned} & \hline \text { PRE- } \\ & \text { TEST } \end{aligned}$ | $\begin{gathered} \hline \text { POST- } \\ \text { TEST } \end{gathered}$ | DIFFERENCE |
| 1 | E-01 | 40.0 | 71.4 | 31.4 | 1 | C-01 | 51.4 | 51.4 | 0 |
| 2 | E-02 | 40.0 | 71.4 | 31.4 | 2 | C-02 | 60 | 60 | 0 |
| 3 | E-03 | 57.1 | 71.4 | 14.3 | 3 | C-03 | 48.6 | 57.1 | 8.5 |
| 4 | E-04 | 71.4 | 74.3 | 2.9 | 4 | C-04 | 48.6 | 71.4 | 22.8 |
| 5 | E-05 | 68.6 | 74.3 | 5.7 | 5 | C-05 | 68.6 | 65.7 | -2.9 |
| 6 | E-06 | 57.1 | 74.3 | 17.2 | 6 | C-06 | 68.6 | 80 | 11.4 |
| 7 | E-07 | 60.0 | 80 | 20.0 | 7 | C-07 | 74.3 | 62.9 | -11.4 |
| 8 | E-08 | 42.9 | 77.1 | 34.2 | 8 | C-08 | 51.4 | 62.9 | 11.5 |
| 9 | E-09 | 57.1 | 77.1 | 20.0 | 9 | C-09 | 54.3 | 68.6 | 14.3 |
| 10 | E-10 | 54.3 | 65.7 | 11.4 | 10 | C-10 | 62.9 | 68.6 | 5.7 |
| 11 | E-11 | 54.3 | 71.4 | 17.1 | 11 | C-11 | 71.4 | 62.9 | -8.5 |



From the table above the mean score of pre test and post test of the experimental class were 59.6 and 73.63. Meanwhile, the highest score pre test and post test of the experimental class were 74.3 and 85.7 , the lowest scores pre test and post test of the experimentalclass were 40 and 60 . In addition, the mean score pre test and post test of the control class was 60 and 64.9 , meanwhile, the highest score pre test and post test of the control class was 74.3 and 80.0. The lowest scores pre test and post test of the control class were 40 and 48.6 . Based on the data above, the difference of mean score between experimental and control group score was 258.

## B. Test of Statistical Analysis

## 1. The Result of Pre-Test Score

The students' pre test score are distributed in the following table in order toanalyze the students' knowledge before conducting the treatment.

The distribution of students' pretest score can also be seen in the following table :

Table 4.2 Pre test score of experimental and control class

| Experimental Class |  |  |  | Control Class |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Score | CORRECT <br> ANSWER | PREDICATE | CODE | SCORE | CORRECT <br> ANSWER | PREDICA <br> TE |
| E-01 | 40.0 | 14 | FAIL | C-01 | 51.4 | 18 | LESS |
| E-02 | 40.0 | 14 | FAIL | C-02 | 60.0 | 21 | ENOUGH |
| E-03 | 57.1 | 20 | LESS | C-03 | 48.6 | 17 | FAIL |
| E-04 | 71.4 | 25 | GOOD | C-04 | 48.6 | 17 | FAIL |
| E-05 | 68.6 | 24 | ENOUGH | C-05 | 68.6 | 24 | ENOUGH |
| E-06 | 57.1 | 20 | LESS | C-06 | 68.6 | 24 | ENOUGH |
| E-07 | 60.0 | 21 | ENOUGH | C-07 | 74.3 | 26 | GOOD |
| E-08 | 42.9 | 15 | FAIL | C-08 | 51.4 | 18 | LESS |
| E-09 | 57.1 | 20 | LESS | C-09 | 54.3 | 19 | LESS |
| E-10 | 54.3 | 19 | LESS | C-10 | 62.9 | 22 | ENOUGH |
| E-11 | 54.3 | 19 | LESS | C-11 | 71.4 | 25 | GOOD |
| E-12 | 68.6 | 24 | ENOUGH | C-12 | 54.3 | 19 | LESS |
| E-13 | 68.6 | 24 | ENOUGH | C-13 | 68.6 | 24 | ENOUGH |
| E-14 | 48.6 | 17 | FAIL | C-14 | 65.7 | 23 | ENOUGH |
| E-15 | 74.3 | 26 | GOOD | C-15 | 62.9 | 22 | ENOUGH |
| E-16 | 74.3 | 26 | GOOD | C-16 | 71.4 | 25 | GOOD |
| E-17 | 45.7 | 16 | FAIL | C-17 | 60.0 | 21 | ENOUGH |
| E-18 | 60.0 | 21 | ENOUGH | C-18 | 65.7 | 23 | ENOUGH |
| E-19 | 68.6 | 24 | ENOUGH | C19 | 40.0 | 14 | FAIL |
| E-20 | 65.7 | 23 | ENOUGH | C-20 | 57.1 | 20 | LESS |
| E-21 | 71.4 | 25 | GOOD | C-21 | 48.6 | 17 | FAIL |
| E-22 | 65.7 | 23 | ENOUGH | C-22 | 74.3 | 26 | GOOD |
| E-23 | 71.4 | 25 | GOOD | C-23 | 71.4 | 25 | GOOD |
| E-24 | 62.9 | 22 | ENOUGH | C-24 | 60.0 | 21 | ENOUGH |
| E-25 | 51.4 | 18 | LESS | C-25 | 74.3 | 26 | GOOD |


| E-26 | 62.9 | 22 | ENOUGH | C-26 | 57.1 | 20 | LESS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E-27 | 65.7 | 23 | ENOUGH | C-27 | 45.7 | 16 | FAIL |
| E-28 | 71.4 | 25 | GOOD | C-28 | 42.9 | 15 | FAIL |
| E-29 | 51.4 | 18 | LESS | TOTAL |  | 1680.1 |  |
| E-30 | 45.7 | 16 | FAIL | Average |  | 60.0 |  |
| E-31 | 51.4 | 18 | LESS | lowest score |  | 40.0 |  |
|  |  | 1848.6 |  | Highest score |  | 74.3 |  |
| AVERAGE |  | 59.6 |  |  |  |  |  |
| lowest score |  | 40 |  |  |  |  |  |
| Highest score |  | 74.3 |  |  |  |  |  |

The table above showedus the comparison of pre-test score achieved by experimental and control class students, both class' achievement are at the same level. It can be seen that from the students' score. The highest score 74.3 and the lowest score 40.0, both experimental and control class. It meant that the experimental and control class have the same level in reading comprehension before getting the treatment.

## a. The Result of Pretest Score of Experiment Class (VIII-D)

Based on the data above, it was known the highest score was 74.3 and the lowest score was 40.0 . To determine the range of score, the class interval, and interval of temporary, the writer calculated using formula as follows:

The Highest Score $(\mathrm{H})=74.3$
The Lowest Score $(\mathrm{L})=40.0$
The Range of Score $(\mathrm{R})=\mathrm{H}-\mathrm{L}+1$

$$
\begin{aligned}
& =74.3-40.0+1 \\
& =35.3
\end{aligned}
$$

The Class Interval $(\mathrm{K})=1+(3.3) \times \log n$

$$
\begin{aligned}
& =1+(3.3) \times \log 31 \\
& =1+4.92149359 \\
& =5.92149359 \\
& =6
\end{aligned}
$$

Interval of Temporary $(\mathrm{I})=\frac{R}{K}=\frac{35.3}{6}=5.96=5$ or 6
So, the range of score was 35.3 , the class interval was 6 , and interval of temporary was 5 or 6 . Then, it was presented using frequency distribution in the following table:

Table 4.3 Frequency Distribution of the Pretest Score

| Class <br> (K) | Interval (I) | Frequency <br> (F) | Mid <br> Point <br> (x) | The <br> Limitation <br> of each <br> group | Frequency <br> Relative <br> $(\%)$ | Frequency <br> Cumulative <br> $(\%)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $40.0-45.0$ | 3 | 45.5 | $35.5-45.5$ | 9.677 | 100 |
| 2 | $45.1-50.1$ | 3 | 47.6 | $44.6-50.6$ | 9.677 | 90.323 |
| 3 | $50.2-55.2$ | 5 | 52.7 | $49.7-55.7$ | 16.129 | 80.646 |
| 4 | $55.3-60.3$ | 5 | 57.8 | $54.8-60.8$ | 16.129 | 64.517 |
| 5 | $60.4-65.4$ | 2 | 62.9 | $59.9-65.9$ | 6.452 | 48.388 |
| 6 | $65.5-70.5$ | 7 | 68 | $65.0-71.0$ | 22.581 | 41.936 |
| 7 | $70.6-75.6$ | 6 | 73.1 | $70.1-76.1$ | 19.355 | 19.355 |
|  |  | $\sum \mathrm{~F}=31$ |  |  |  |  |

The distribution of students' pretest score can also be seen in the following figure.


Figure 4.1
The Frequency Distribution of Experimental Pre-test Score
It can be seen from the figure above about the students' pretest score. There were three studentswho got score among 40.0-45.0.There were three students who got score between 45.1-50.1. There were five students who got scoreamong 50.2-55.2. There were five students who got score among 55.3-60.3. There were two students who got score between 60.4-65.4. There were sevenstudents who got score among 65.570.5. There were sixstudents who got score among 65.5-70.5.

Based on the pre-test score of experiment group,there were six students who got score between $40.0-48.6$, so the students' ability was fail. There were eight students who got score among 51.4-57.1, so the students' ability was less. There were eleven students who got score
among $60.0-68.6$, so the students' ability was enough. There were six students who got score among 71.4-74.3, so the students' ability was good.

The next step, the researcher tabulated the scores into the table for the calculation of mean, standard deviation, and standard error as follows:

Table 4.4 the Table for Calculating mean. Standard deviation. and standard error of Pretest Score.

| Class <br> (K) | Interval (I) | Frequency <br> (F) | Mid <br> Point <br> $(\mathrm{x})$ | F.X | $\mathbf{X}^{\mathbf{2}}$ | F.X $^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $40.0-45.0$ | 3 | 42.5 | 127.5 | 1806.25 | 5418.75 |
| 2 | $45.1-50.1$ | 3 | 47.6 | 142.8 | 2265.76 | 6797.28 |
| 3 | $50.2-55.2$ | 5 | 52.7 | 263.5 | 2777.29 | 13886.45 |
| 4 | $55.3-60.3$ | 5 | 57.8 | 289 | 3340.84 | 16704.2 |
| 5 | $60.4-65.4$ | 2 | 62.9 | 125.8 | 3956.41 | 7912.82 |
| 6 | $65.5-70.5$ | 7 | 68 | 476 | 4624 | 32368 |
| 7 | $70.6-75.6$ | 6 | 73.1 | 438.6 | 5434.61 | 32607.66 |
| $\Sigma$ Total |  |  |  |  |  |  |

## 1) Calculating Mean

$$
\mathrm{Mx}=\frac{\sum F X_{i}}{n}=\frac{1863.2}{31}=60.10
$$

2) Standard Deviation

$$
\begin{aligned}
& S=\sqrt{\frac{n \cdot \sum F X_{i}{ }^{2}-\left(\sum^{\left.F F X_{i}\right)^{2}}\right.}{n(n-1)}} \\
& S=\sqrt{\frac{31.115695 .16-(1863.2)^{2}}{31(31-1)}} \\
& S=\sqrt{\frac{3586549.96-3471514.24}{31(30)}} \\
& S=\sqrt{\frac{115035.72}{930}}=\sqrt{123.6943226}=11.12
\end{aligned}
$$

## 3) Standard Error

$$
\mathrm{SE}_{\mathrm{md}}=\frac{s}{\sqrt{N-1}}=\frac{11.12}{\sqrt{31-1}}=\frac{11.12}{\sqrt{30}}=\frac{11.12}{5.48}=2.03
$$

After calculating, it was found that the standard deviation and the standard error of pretest score were 11.12 and 2.03.

## 4) Normality Test

Itwasusedtoknowthenormalityofthedatathatwasgoingtobe analyzed whether both groups have normal distribution or not. The steps of normality test were:
I. Decided the limitation of upper group. from the class interval with 39.5; 45.5; 50.6; 55.7; 60.8; 65.9; 71.0; 76.1
II. Find the Z-score for the limitation of interval class by using the formula:

$$
\begin{aligned}
& \mathrm{Z}=\frac{\text { thelimitationofupper group }-M_{x}}{s} \\
& \mathrm{Z}_{1}=\frac{39.5-60.10}{11.12}=-1.85 \\
& \mathrm{Z}_{2}=\frac{45.5-60.10}{11.12}=-1.31 \\
& \mathrm{Z}_{3}=\frac{50.6-60.10}{11.12}=-0.85 \\
& \mathrm{Z}_{4}=\frac{55.7-60.10}{11.12}=-0.39 \\
& \mathrm{Z}_{5}=\frac{60.8-60.10}{11.12}=0.06 \\
& \mathrm{Z}_{6}=\frac{65.9-60.10}{11.12}=0.52 \\
& \mathrm{Z}_{7}=\frac{71.0-60.10}{11.12}=0.98 \\
& \mathrm{Z}_{8}=\frac{76.1-60.10}{11.12}=1.44
\end{aligned}
$$

III. Find the score of o-Z normal curve table by using the score of the limitation of upper group until it was gotten the scores: $0.4678 ; 0.4049 ; 0.3023 ; 0.1517 ; 0.0239 ; 0.1985 ; 0.3365$; 0.4251
IV. Find the score of each class interval by decrease the score of oZ which first class minus the second class, the second class minus the third class. Etc, except the score of o-Z is in the middle. it should be increased with the next score:
$0.4678-0.4049=0.0629$
$0.4049-0.3023=0.1026$
$0.3023-0.1517=0.1515$
$0.1517+0.0239=0.1756$
$0.0239-0.1985=-0.1746$
$0.1985-0.3365=-0.138$
$0.3365-0.4251=-0.0886$
V. Find the expected frequency (fe) by crossing the score of every interval with the total of the students ( $\mathrm{n}=31$ )
$0.0629 \times 31=1.9499$
$0.1026 \times 31=3.1806$
$0.1515 \times 31=4.6965$
$0.1756 \times 31=5.4436$
$-0.1746 \times 31=-5.4126$
$-0.138 \times 31=-4.278$

$$
-0.0886 \times 31=-7466
$$

Table 4.5
The Expected Frequency (Fe) From Observation Frequency (Fo) For The Experimental Class

| No | The limitation <br> of each group | Z | score <br> $\mathrm{o}-\mathrm{Z}$ | score of <br> every class interval | Fe | Fo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 39.5 | -1.85 | 0.4678 | 0.0629 | 1.9499 | 3 |
| 2 | 45.5 | -1.31 | 0.4049 | 0.1026 | 3.1806 | 3 |
| 3 | 50.6 | -0.85 | 0.3023 | 0.1515 | 4.6965 | 5 |
| 4 | 55.7 | -0.39 | 0.1517 | 0.1756 | 5.4436 | 5 |
| 5 | 60.8 | 0.06 | 0.0239 | -0.1746 | -5.4126 | 2 |
| 6 | 65.9 | 0.52 | 0.1985 | -0.138 | -4.278 | 7 |
| 7 | 71.0 | 0.98 | 0.3365 | -0.0886 | -2.7466 | 6 |
|  | 76.1 | 1.44 |  |  |  | $\sum=31$ |

I. Chi-quadrat test $\left(\mathrm{X}^{2}\right.$ observed $)$

$$
\begin{aligned}
& \mathrm{X}_{\text {observed }}^{2}= \sum_{i=1}^{k} \frac{(f o-f e)^{2}}{f e} \\
&=\frac{(3-1.9499)^{2}}{1.9499}+\frac{(3-3.1806)^{2}}{3.1806}+\frac{(5-4.6965)^{2}}{4.6965}+ \\
& \frac{(5-5.4436)^{2}}{5.4436}+\frac{\left(2-(-5.4126)^{2}\right.}{-5.4126}+\frac{\left(7-(-4.278)^{2}\right.}{-4.278}+\frac{\left(6-(-2.7466)^{2}\right.}{-2.7466} \\
&=0.56+0.01+0.02+0.04-10.1-29.7-27.8 \\
&=-66.97
\end{aligned}
$$

$$
\alpha=0.05
$$

$$
(\mathrm{dk})=\mathrm{k}-1
$$

$$
\begin{aligned}
& =7-1 \\
& =6
\end{aligned}
$$

$$
\begin{aligned}
& \mathrm{X}_{\text {table }}^{2}=12.592 \\
& \mathrm{X}_{\text {observed }}^{2} \leq \mathrm{X}_{\text {table }}^{2}=\text { Normal }
\end{aligned}
$$

$$
-66.97 \leq 12.592=\text { Normal }
$$

By the calculation above, the writer compare $\mathrm{X}^{2}$ odserved and $\mathrm{X}_{\text {table }}^{2}$ for $\alpha=0.05$ and $(\mathrm{dk})=\mathrm{k}-1=7-1=6$, and got the score $\mathrm{X}_{\text {table }}^{2}=12.592$ and $X^{2}{ }_{\text {observed }}$ smaller than $X_{\text {table }}^{2}(-66.97 \leq 12.592)$. The result of pretest of experiment class was normal.

## b. The Result of Pretest Score of Control Group (VIII-C)

Based on the data above, it was known the highest score was 74.3 and the lowest score was 40.0 , to determine the range of score, the class interval, and interval of temporary, the writer calculated using formula as follows:

The Highest Score $(\mathrm{H})=74.3$
The Lowest Score (L) $=40.0$
The Range of Score $(\mathrm{R})=\mathrm{H}-\mathrm{L}+$

$$
\begin{aligned}
& =74.3-40.0+1 \\
& =35.3
\end{aligned}
$$

The Class Interval $(\mathrm{K})=1+(3.3) \times \log \mathrm{n}$

$$
\begin{aligned}
& =1+(3.3) \times \log 28 \\
& =1+4.775621503 \\
& =5.775621503 \\
& =6
\end{aligned}
$$

Interval of Temporary $(\mathrm{I})=\frac{R}{K}=\frac{35.3}{6}=5.96=5$ or 6
So, the range of score was 35.3 , the class interval was 6 , and interval of temporary was 5 or 6 . Then, it was presented using frequency distribution in the following table:

Table 4.6Frequency Distribution of the Pre-test Score

| Class <br> (K) | Interval (I) | Frequency <br> (F) | Mid <br> Point <br> $(\mathbf{x})$ | The <br> Limitation each <br> group | Frequency <br> Relative <br> $(\%)$ | Frequency <br> Cumulativ <br> e(\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $40.0-45.0$ | 2 | 42.5 | $39.5-45.5$ | 7.143 | 100 |
| 2 | $45.1-50.1$ | 4 | 47.6 | $44.6-50.6$ | 14.286 | 92.858 |
| 3 | $50.2-55.2$ | 3 | 52.7 | $49.7-55.7$ | 10.714 | 78.572 |
| 4 | $55.3-60.3$ | 6 | 57.8 | $54.8-60.8$ | 21.429 | 67.858 |
| 5 | $60.4-65.4$ | 2 | 62.9 | $59.9-65.9$ | 7.143 | 46.439 |
| 6 | $65.5-70.5$ | 5 | 68 | $65.0-71.0$ | 17.857 | 39.286 |
| 7 | $70.6-75.6$ | 6 | 73.1 | $70.1-76.1$ | 21.429 | 21.429 |
|  |  | $\sum \mathrm{~F}=28$ |  |  |  |  |

The distribution of students' pretest score can also be seen in the followingfigure.

Figure 4.2 the Frequency Distribution of Control Pre-test Score


It can be seen from the figure above about the students' pretest score. There were two students who got score among 40.0-45.0. There were fourstudentswho got score among 45.1-50.1. There were three students who got scoreamong 50.2-55.2. There were six students who got score among 55.3-60.3.There were two student who got score between 60.4-65.4. There were fivestudents who got score among 65.5-70.5. There were sixstudents who got score among 70.6-75.6.

Based on the pre-test score of control group,there were six students who got score among 40.0-48.6, so the students' ability was fail. There were six students who got score among 51.4-57.1, so the students' ability was less. There were ten students who got score between 60.0-68.6. so the students' ability was enough. There were six students who got score among 71.4-74.3, so the students' ability was good.

The next step, the researcher tabulated the scores into the table for the calculation of mean, standard deviation, and standard error as follows:

Table 4.7 the Table for Calculating mean. Standard deviation, and standard error of Pretest Score

| Class <br> (K) | Interval (I) | Frequency <br> (F) | Mid <br> Point <br> $(\mathrm{x})$ | F.X | $\mathbf{X}^{\mathbf{2}}$ | $\mathbf{F . X}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $40.0-45.0$ | 2 | 42.5 | 85 | 1806.25 | 3612.5 |
| 2 | $45.1-50.1$ | 4 | 47.6 | 190.4 | 2265.76 | 9063.04 |
| 3 | $50.2-55.2$ | 3 | 52.7 | 158.1 | 2777.29 | 8331.87 |
| 4 | $55.3-60.3$ | 6 | 57.8 | 346.8 | 3340.84 | 20045.04 |
| 5 | $60.4-65.4$ | 2 | 62.9 | 125.8 | 3956.41 | 791282 |
| 6 | $65.5-70.5$ | 5 | 68.0 | 340 | 4624 | 23120 |


| 7 | $70.6-75.6$ | 6 | 73.1 | 438.6 | 5343.61 | 32061.66 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\Sigma$ Total | 28 |  |  | $\Sigma=1684.7$ | $\Sigma=104146.93$ |  |

## 1) Calculating Mean

$$
\mathrm{Mx}=\frac{\sum F X_{i}}{n}=\frac{1684.7}{28}=60.16
$$

2) Standard Deviation

$$
\begin{aligned}
& S=\sqrt{\frac{n \cdot \sum F X_{i}^{2}-\left(\sum F X_{i}\right)^{2}}{n(n-1)}} \\
& S=\sqrt{\frac{28.104146 .93-(1684.7)^{2}}{28(28-1)}} \\
& S=\sqrt{\frac{2916114.04-2838214.09}{28(27)}} \\
& S=\sqrt{\frac{77899.95}{756}}=\sqrt{103.042}=10.15
\end{aligned}
$$

## 3) Standard Error

$\mathrm{SE}_{\mathrm{md}}=\frac{S}{\sqrt{N-1}}=\frac{10.15}{\sqrt{28-1}}=\frac{10.15}{\sqrt{28}}=\frac{10.15}{5.2}=1.95$
After Calculating, it was found that the standard deviation and the standard error of pretest score were 10.15 and 1.95 .

## 4) Normality Test

Itisusedtoknowthenormalityofthedatathatisgoingtobe
analyzed
whether both groups have normal distribution or not. The steps of normality test are:
I. Decide the limitation of upper group. from the class interval with 39.5; 45.5; 50.6; 55.7; 60.8; 65.9; 71.0; 76.1
II. Find the Z-score for the limitation of interval class by using the formula:

$$
\begin{aligned}
& \mathrm{Z}=\frac{\text { thelimitationofuppergroup }-M_{x}}{s} \\
& \mathrm{Z}_{1}=\frac{39.5-60.16}{10.15}=-2.03 \\
& \mathrm{Z}_{2}=\frac{45.5-60.16}{10.15}=-1.44 \\
& \mathrm{Z}_{3}=\frac{50.6-60.16}{10.15}=-0.94 \\
& \mathrm{Z}_{4}=\frac{55.7-60.16}{10.15}=-0.43 \\
& \mathrm{Z}_{5}=\frac{60.8-60.16}{10.15}=0.05 \\
& \mathrm{Z}_{6}=\frac{65.9-60.16}{10.15}=0.56 \\
& \mathrm{Z}_{7}=\frac{71.0-60.16}{10.15}=1.06 \\
& \mathrm{Z}_{8}=\frac{76.1-60.16}{10.15}=1.57
\end{aligned}
$$

III. Find the score of o-Z normal curve table by using the score of the limitation of upper group until it was gotten the scores: $0.4788 ; 0.4251 ; 0.3264 ; 0.1664 ; 0.0199 ; 0.2123$; $0.3554 ; 0.4419$.
IV. Find the score of each class interval by decrease the score of oZ which first class minus the second class, the second class minus the third class, etc. except the score of o-Z is in the middle, it should be increased with the next score.
$0.4788-0.4251=0.0537$
$0.4251-0.3264=0.0987$
$0.3264-0.1664=0.16$
$0.1664+0.0199=0.1863$
$0.0199-0.2123=-0.1924$
$0.2123-0.3554=-0.1431$
$0.3554-0.4419=-0.0856$
V. Find the expected frequency (fe) by crossing the score of every interval with the total of the students $(\mathrm{n}=28)$
$0.0537 \mathrm{x} 28=1.5036$
$0.0987 \times 28=2.7636$
$0.16 \times 28=4.48$
$0.1863 \times 28=5.2164$
$-0.1924 \times 28=-5.3872$
$-0.1431 \times 28=-4.0068$
$-0.0856 \times 28=-2.422$
Table 4.8
The Expected Frequency (Fe) From Observation Frequency (Fo) For The Control Class

| No | The limitation <br> of each group | Z | score <br> o-Z | score of <br> every class <br> interval | Fe | Fo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 39.5 | -2.03 | 0.4788 | 0.0537 | 1.5036 | 2 |
| 2 | 45.5 | -1.44 | 0.4251 | 0.0987 | 2.7636 | 4 |
| 3 | 50.6 | -0.94 | 0.3264 | 0.16 | 4.48 | 3 |
| 4 | 55.7 | -0.43 | 0.1664 | 0.1863 | 5.2164 | 6 |
| 5 | 60.8 | 0.05 | 0.0199 | -0.1924 | -5.3872 | 2 |
| 6 | 65.9 | 0.56 | 0.2123 | -0.1431 | -4.0068 | 5 |
| 7 | 71.0 | 1.06 | 0.3554 | -0.0865 | -2.422 | 6 |
|  | 76.1 | 1.57 | 0.4419 |  |  | $\sum=28$ |

1. Chi-quadrat test $\left(\mathrm{X}^{2}{ }_{\text {observed }}\right)$

$$
\begin{aligned}
& X^{2}{ }_{\text {observed }}=\sum_{i=1}^{k} \frac{(f o-f e)^{2}}{f e} \\
& =\frac{(2-1.5036)^{2}}{1.5036}+\frac{(4-2.7636)^{2}}{2.7636}+\frac{(3-4.484)^{2}}{4.48}+ \\
& \frac{\left(6-(5.2164)^{2}\right.}{5.2164}+\frac{\left(2-(-5.3872)^{2}\right.}{-5.3872}+\frac{\left(5-(-4.0068)^{2}\right.}{-4.0068}+\frac{\left(6-(-2.422)^{2}\right.}{-2.422} \\
& =0.16+0.553+0.489+0.118-10.13-20.25-29.3 \\
& =-58.36 \\
& \alpha=0.05 \\
& \text { (dk) } \quad=\mathrm{k}-1 \\
& =7-1 \\
& =6 \\
& \mathrm{X}_{\text {table }}^{2}=12.592 \\
& \mathrm{X}^{2}{ }_{\text {observed }} \leq \mathrm{X}_{\text {table }}^{2}=\text { Normal } \\
& -58.36 \leq 12.592=\text { Normal }
\end{aligned}
$$

By the calculation above, the writer compare $\mathrm{X}^{2}$ observed and $\mathrm{X}_{\text {table }}^{2}$ for $\alpha=0.05$ and $(\mathrm{dk})=\mathrm{k}-1=7-1=6$, and got the score $\mathrm{X}_{\text {table }}^{2}=12.592$ and $\mathrm{X}_{\text {observed }}^{2}$ smaller than $\mathrm{X}_{\text {table }}^{2}(-58.36 \leq 12.592)$. The result of pretest of control class was normal.

## c. Homogeneity Test

| Sample | $\mathrm{dk}=\mathrm{n}-1$ | $\mathrm{~S}_{\mathrm{i}}{ }^{2}$ | $\operatorname{Log~S}_{\mathrm{i}}{ }^{2}$ | $(\mathrm{dk}) \times \log \mathrm{S}_{\mathrm{i}}{ }^{2}$ |
| ---: | :--- | :---: | :---: | :---: | :---: |
| X 1 | 30 | 123.6544 | 2.09 | 62.7 |
| X 2 | 27 | 103.0225 | 2.01 | 54.27 |
| Total $=2$ | 57 |  |  | $\sum=116.97$ |
| S | $=\frac{\left(n_{1} \times . \mathrm{S}_{1}{ }^{2}\right)+\left(n_{2} \times S_{2}{ }^{2}\right)}{n_{1}+n_{2}}$ |  |  |  |
|  | $=\frac{(30 \times 123.6544)+(27 \times 103.0225)}{30+27}$ |  |  |  |

$$
=\frac{3709.632+2781.6075}{57}=\frac{573.42}{57}=113.88
$$

$\log S=\log 113.88=2.06$
B $\quad=(\log \mathrm{S}) \times \sum(\mathrm{n}-1)$
$=2.06 \mathrm{x} 57$
$=117.42$
$\mathrm{X}^{2}{ }_{\text {observed }}=(\log 10) \mathrm{x}\left(\mathrm{B}-\sum(\mathrm{dk}) \log \mathrm{S}\right)$

$$
=(2.3) \times(117.42-116.97)
$$

$$
=1.035
$$

$(\mathrm{dk})=2-1=1$
$\mathrm{X}_{\text {table }}^{2}=3.841$
$\mathrm{X}^{2}{ }_{\text {observed }} \leq \mathrm{X}_{\text {table }}^{2}=$ Homogen
$1.035 \leq 3.841=$ Homogen
By the calculation above, the writer compare $\mathrm{X}^{2}{ }_{\text {observed }}$ and $\mathrm{X}_{\text {table }}^{2}$ for $\alpha=0.05$ and ( dk ) $=\mathrm{k}-1=2-1=1$, and got the score $\mathrm{X}_{\text {table }}^{2}=3.841$ and $\mathrm{X}_{\text {test }}^{2}$ smaller than $\mathrm{X}_{\text {table }}^{2}(1.035 \leq 3.841)$. The result of pretest was homogen.

## 2. The Result of Post-Test Score

The students' score are distributed in the following table in order toanalyze the students' knowledge after conducting the treatment.

Table 4.9 Post test score of experimental and control class

| EXPERIMENTAL CLASS |  |  |  | CONTROL CLASS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Score | CORRECT <br> ANSWER | PREDICATE | CODE | SCORE | CORECT <br> ANSWER | CATEGORY |
| E-01 | 71.4 | 25 | GOOD | C-01 | 51.4 | 18 | LESS |
| E-02 | 71.4 | 25 | GOOD | C-02 | 60.0 | 21 | ENOUGH |



The table above showedus the comparison of pre-test score achieved by experimental and control class students. Both class' achievement have different score. It can be seen from the highest score 85.7 and 80.0 and the lowest score 60.0 and 48.6. It meant that the experimental and control class have the different level in reading comprehension after getting the treatment.
a. The Result of Post-test Score of Experiment Group (VIII-D)

Based on the data above, it was known the highest score was 85.7 and the lowest score was 60.0. To determine the range of score, the class interval, and interval of temporary, the writer calculated using formula as follows:

The Highest Score $(H)=85.7$
The Lowest Score (L) $=60.0$
The Range of Score $(\mathrm{R})=85.7-60.0+1$

$$
=26.7
$$

The Class Interval $(\mathrm{K})=1+(3.3) \times \log n$

$$
\begin{aligned}
& =1+(3.3) \times \log 31 \\
& =1+4.92149359 \\
& =5.92149359 \\
& =6
\end{aligned}
$$

Interval of Temporary $(\mathrm{I})=\frac{R}{K}=\frac{26.7}{6}=4.45=4$ or 5
So, the range of score was 26.7 , the class interval was 6 , and interval of temporary was 4 or 5 . Then, it was presented using frequency distribution in the following table:

Table 4.10 Frequency Distribution of the Post-test Score

| Class <br> (K) | Interval (I) | Frequency <br> (F) | Mid <br> Point <br> (x) | The <br> Limitation <br> of each <br> group | Frequency <br> Relative <br> $(\%)$ | Frequency <br> Cumulative <br> $(\%)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $60.0-64.0$ | 4 | 62.0 | $59.5-64.5$ | 12.903 | 100 |
| 2 | $64.1-68.1$ | 2 | 66.1 | $63.6-68.6$ | 6.452 | 87.097 |
| 3 | $68.2-72.2$ | 8 | 70.2 | $67.7-72.7$ | 25.806 | 80.645 |
| 4 | $72.3-76.3$ | 6 | 74.3 | $71.8-76.8$ | 19.355 | 54.830 |
| 5 | $76.4-80.4$ | 6 | 78.4 | $75.9-80.9$ | 19.355 | 35.484 |


| 6 | $80.5-84.5$ | 2 | 82.5 | $80.0-85.0$ | 6.452 | 16.129 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | $84.6-88.6$ | 3 | 86.6 | $84.1-89.1$ | 9.677 | 9.677 |
|  |  | $\sum \mathrm{~F}=31$ |  |  |  |  |

Table 4.11 Content Specification of Items Research Instruments

| Skill to measure | Level of comprehension | Percentage (\%) | Number of Test Item |
| :---: | :---: | :---: | :---: |
| Reading Comprehension | Literal | 60\% | Pre-Test(2, 3, 5, 6, 7, 8, $9,14,16,17,19,20$, <br> 21, 26, 28, 29, 30, 31, <br> 33, 34, 35, 36, 38, 40, <br> $41,42,43,48,49,50$. <br> Post-test(3, 4, 7, 8, 9, <br> $11,12,15,16,17,18$, <br> 22, 23, 26, 27, 28, 29, <br> $30,33,34,35,36,37$, <br> $39,40,41,42,43,45$, <br> $48,49,50$ ) |
|  | Inferential | 40\% | Pre-test $(1,4,10,11$, $12,13,15,18,24,25$, $27,32,37,39,44,45$, $46,47)$ Post-test $1,2,5,6,10$, $13,14,19,20,21,22$, $23,24,25,31,32,38$, $44,46,47$, |

The next step, the researcher tabulated the scores into the table for the calculation of mean,Standard deviation, and standard error as follows:

Table 4.12 The Table for Calculating Mean, Standard Deviation, and
Standard Error of Post-test Score.

| Class <br> $(\mathrm{K})$ | Interval (I) | Frequency <br> (F) | Mid <br> Point <br> $(\mathrm{x})$ | F.X | $\mathbf{X}^{\mathbf{2}}$ | $\mathbf{F . X}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: |
| 1 | $60.0-64.0$ | 4 | 62.0 | 248 | 3844 | 15376 |
| 2 | $64.1-68.1$ | 2 | 66.1 | 132.2 | 4369.21 | 8738.42 |
| 3 | $68.2-72.2$ | 8 | 70.2 | 561.6 | 4928.04 | 39424.32 |
| 4 | $72.3-76.3$ | 6 | 74.3 | 445.8 | 5520.49 | 33122.94 |
| 5 | $76.4-80.4$ | 6 | 78.4 | 470.4 | 6146.56 | 36879.36 |
| 6 | $80.5-84.5$ | 2 | 82.5 | 165 | 6806.25 | 13612.5 |
| 7 | $84.6-88.6$ | 3 | 86.6 | 259.8 | 7499.56 | 22498.68 |
|  |  | $\sum \mathrm{~F}=31$ |  |  | $\sum=2282.8$ | $\sum=169652.22$ |

## 1) Calculating Mean

$$
\mathrm{Mx}=\frac{\sum F X_{i}}{n}=\frac{2237.8}{31}=72.2
$$

2) Standard Deviation
$\mathrm{S}=\sqrt{\frac{n \cdot \sum F X_{i}{ }^{2}-\left(\sum F X_{i}\right)^{2}}{n(n-1)}}$
$\mathrm{S}=\sqrt{\frac{31.169652 .22-(2282.8)^{2}}{31(31-1)}}$
$\mathrm{S}=\sqrt{\frac{5259218.82-5211175.84}{31(30)}}$
$S=\sqrt{\frac{48042.98}{930}}=\sqrt{51.65911828}=7.19$
3) Standard Error
$\mathrm{SE}_{\mathrm{md}}=\frac{S}{\sqrt{N-1}}=\frac{7.19}{\sqrt{31-1}}=\frac{7.19}{\sqrt{30}}=\frac{7.19}{5.48}=1.31$
After Calculating, it was found that the standard deviation and the standard error of pretest score were 7.19 and 1.31.

Table 4.13
The Expected Frequency (Fe) From Observation Frequency (Fo) For The Experiment Class

| No | The <br> limitation <br> of each <br> group | Z | score <br> o-Z | score of <br> every class <br> interval | Fe | Fo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 59.5 | -1.77 | 0.4616 | 0.1035 | 3.2205 | 4 |
| 2 | 64.5 | -1.07 | 0.3577 | 0.1662 | 5.1522 | 2 |
| 3 | 68.6 | -0.50 | 0.1915 | 0.1636 | 5.0716 | 8 |
| 4 | 72.7 | 0.07 | 0.0279 | 0.2668 | 8.2706 | 6 |
| 5 | 76.8 | 0.64 | 0.2389 | -0.148 | -4.586 | 6 |
| 6 | 80.9 | 1.21 | 0.3869 | -0.0756 | -2.3436 | 2 |
| 7 | 85.0 | 1.78 | 0.4625 | -0.0281 | -0.8711 | 3 |
|  | 89.1 | 2.35 | 0.4906 |  |  | $\sum \mathrm{Fo}=31$ |

I. Chi-quadrat test $\left(\mathrm{X}^{2}\right.$ observed $)$

$$
\mathrm{X}_{\text {observed }}^{2}=\sum_{i=1}^{k} \frac{(f o-f e)^{2}}{f e}
$$

$$
=\frac{(4-3.2205)^{2}}{3.2205}+\frac{(2-5.1522)^{2}}{5.1522}+\frac{(8-5.0716)^{2}}{5.0716}+
$$

$$
\frac{(6-8.2706)^{2}}{8.2706}+\frac{(6-(-4.586))^{2}}{-4.586}+\frac{(2-(-2.3436))^{2}}{-2.3436}+\frac{(3-(-0.8711))^{2}}{-0.8711}
$$

$$
=0.19+1.93+1.69+0.62-24 \cdot 44-8 \cdot 05-1720
$$

$$
=-45.26
$$

$$
\alpha=0.05
$$

(dk) $=k-1$
$=7-1$
$=6$
$\mathrm{X}_{\text {table }}^{2}=12.592$
$\mathrm{X}_{\text {observed }}^{2} \leq \mathrm{X}_{\text {table }}^{2}=$ Normal
$-45.26 \leq 12.592=$ Normal

By the calculation above, the writer compare $\mathrm{X}^{2}$ observed and $\mathrm{X}^{2}$ table for $\alpha=0.05$ and $(\mathrm{dk})=\mathrm{k}-1=7-1=5$, and got the score $X^{2}{ }_{\text {table }}=12.592$ and $X^{2}{ }_{\text {observed }}$ smaller than $X_{\text {table }}^{2}(-45.26 \leq 12.592)$. The result of post test of experiment class was normal.

## b. The Result of Post-test Score of Control Group (VIII-C)

Based on the data above, it was known the highest score was 80.0 and the lowest score was 48.6 , to determine the range of score, the class interval, and interval of temporary, the writer calculated using formula as follows:

The Highest Score $(H)=80.0$
The Lowest Score (L) $=48.6$
The Range of Score $(\mathrm{R})=80.0-48.6+1$

$$
=32.4
$$

The Class Interval (K) $=1+(3.3) \times \log n$

$$
\begin{aligned}
& =1+(3.3) \times \log 28 \\
& =1+4.775621503 \\
& =5.775621503 \\
& =6
\end{aligned}
$$

Interval of Temporary (I) $=\frac{R}{K}=\frac{32.4}{6}=5.4=5$ or 6
So, the range of score was 32.4. the class interval was 6 , and interval of temporary was 5 or 6 . Then, it was presented using frequency distribution in the following table:

Table 4.13 the frequency distribution of Post-test control class

| Class <br> $(\mathrm{K})$ | Interval <br> (I) | Frequency <br> $(\mathrm{F})$ | Mid <br> Point <br> $(\mathrm{x})$ | The <br> Limitation <br> of each <br> group | Frequency <br> Relative <br> $(\%)$ | Frequency <br> Cumulative <br> $(\%)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $48.6-53.6$ | 3 | 51.1 | $48.1-54.1$ | 10.714 | 100 |
| 2 | $53.7-58.7$ | 3 | 56.2 | $54.2-59.2$ | 10.714 | 89.286 |
| 3 | $58.8-63.8$ | 6 | 61.3 | $58.3-64.3$ | 21.429 | 78.572 |
| 4 | $63.9-68.9$ | 10 | 66.4 | $63.4-69.4$ | 35.714 | 57.143 |
| 5 | $69.0-74.0$ | 2 | 71.5 | $68.5-74.5$ | 7.143 | 21.429 |
| 6 | $74.1-79.1$ | 2 | 76.6 | $73.6-79.6$ | 7.143 | 14.286 |
| 7 | $79.2-84.2$ | 2 | 81.7 | $78.7-84.7$ | 7.143 | 7.143 |
| $\sum$ |  |  |  |  |  |  |

The next step, the researcher tabulated the scores into the table for the calculation of mean, Standard deviation, and standard error as follows:

Table 4.14 the table for calculating mean, standard deviation, and standard error of post-test score.

| Class <br> $(\mathrm{K})$ | Interval <br> $(\mathrm{I})$ | Frequency | Mid <br> Point <br> $(\mathrm{x})$ | F.X | $\mathbf{X}^{\mathbf{2}}$ | $\mathbf{F . X}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $48.6-53.6$ | 3 | 51.1 | 153.3 | 2652.25 | 7956.75 |
| 2 | $53.7-58.7$ | 3 | 56.2 | 168.6 | 3158.44 | 9475.32 |
| 3 | $58.8-63.8$ | 6 | 61.3 | 367.8 | 3757.69 | 22546.14 |
| 4 | $63.9-68.9$ | 10 | 66.4 | 664 | 4408.96 | 44089.6 |
| 5 | $69.0-74.0$ | 2 | 71.5 | 143 | 5112.25 | 10224.5 |
| 6 | $74.1-79.2$ | 2 | 76.6 | 153.2 | 5867.56 | 11735.12 |
| 7 | $79.2-84.2$ | 2 | 81.7 | 163.4 | 6674.89 | 13349.78 |
| $\sum$ |  |  |  |  |  |  |
| $\sum$ | $\sum \mathrm{~F}=28$ |  | $\sum=1813.3$ |  | $\sum=119377.21$ |  |

## 1) Calculating Mean

$$
\mathrm{Mx}=\frac{\sum F X_{i}}{n}=\frac{1813.3}{28}=64.8
$$

2) Standard Deviation

$$
\mathrm{S}=\sqrt{\frac{n \cdot \Sigma F X_{i}^{2}-\left(\sum F X_{i}\right)^{2}}{n(n-1)}}
$$

$$
\begin{aligned}
& S=\sqrt{\frac{28.119377 .21-(1813.3)^{2}}{28(28-1)}} \\
& S=\sqrt{\frac{3342561.88-3288056.89}{756}} \\
& S=\sqrt{\frac{54504.99}{756}}=\sqrt{72.09654762}=8.5
\end{aligned}
$$

## 3) Standard Error

$$
\mathrm{SE}_{\mathrm{md}}=\frac{s}{\sqrt{N-1}}=\frac{8.5}{\sqrt{28-1}}=\frac{8.5}{\sqrt{28}}=\frac{8.5}{5.2}=1.6
$$

After Calculating, it was found that the standard deviation and the standard error of pretest score were 8.5 and 1.6.

## 4) Normality test

Itisusedtoknowthenormalityofthedatathatisgoingtobe analyzed whether both groups have normal distribution or not. The steps of normality test are:
II. Decide the limitation of upper group. from the class interval with 59.5; 64.5; 68.6; 72.7; 76.8; 80.9; 85.0; 89.1.
III. Find the Z-score for the limitation of interval class by using the formula:

$$
\begin{array}{ll}
\mathrm{Z} & =\frac{\text { thelimitationofuppergroup }-M_{x}}{s} \\
\mathrm{Z}_{1} & =\frac{59.5-72.2}{7.19}=-1.77 \\
\mathrm{Z}_{2} & =\frac{64.5-72.2}{7.19}=-1.07 \\
\mathrm{Z}_{3} & =\frac{68.6-72.2}{7.19}=-0.50 \\
\mathrm{Z}_{4} & =\frac{72.7-72.2}{7.19}=0.07
\end{array}
$$

$Z_{5} \quad=\frac{76.8-72.2}{7.19}=0.64$
$\mathrm{Z}_{6} \quad=\frac{80.9-72.2}{7.19}=1.21$
$\mathrm{Z}_{7} \quad=\frac{85-72.2}{7.19}=1.78$
$\mathrm{Z}_{8} \quad=\frac{89.1-72.2}{7.19}=2.35$
IV. Find the score of o-Z normal curve table by using the score of the limitation of upper group until it was gotten the scores: $0.4616 ; 0.3577 ; 0.1915 ; 0.0279 ; 0.2389$; 0.3869; 0.4625; 0.4906 .
V. Find the score of each class interval by decrease the score of o-Z which first class minus the second class. the second class minus the third class, etc. except the score of o-Z is in the middle, it should be increased with the next score.
$0.4616-0.3577=0.1035$
$0.3577-0.1915=0.1662$
$0.1915-0.0279=0.1636$
$0.0279+0.2389=0.2668$
$0.2389-0.3869=-0.148$
$0.3869-0.4625=-0.0756$
$0.4625-0.4906=-0.0281$
VI. Find the expected frequency (fe) by crossing the score of every interval with the total of the students $(\mathrm{n}=31)$
$0.1035 \times 31=3.2205$

$$
\begin{aligned}
& 0.1662 \times 31=5.1522 \\
& 0.1636 \times 31=5.0716 \\
& 0.2668 \times 31=8.2706 \\
& -0.148 \times 31=-4.586 \\
& -0.0756 \times 31=-2.3436 \\
& -0.0281 \times 31=-0.8711
\end{aligned}
$$

## c. Homogeneity Test

| Sample | $\mathrm{dk}=\mathrm{n}-1$ |
| ---: | :--- |
| $\mathrm{~S}_{\mathrm{i}}{ }^{2}$ | $\operatorname{Log~S}_{\mathrm{i}}{ }^{2}$ |
| X 1 | 30 |
| 51.6961 | 1.71 |
| X 2 | 27 |
| $\mathrm{dk}) \times \log \mathrm{S}_{\mathrm{i}}{ }^{2}$ |  |
| Total=2 | 57 |
| $\mathrm{~S}^{2}$ | $=\frac{\left(n_{1} \cdot S_{1}\right)+\left(n_{2} . S_{2}\right)}{n_{1}+n_{2}}$ |
|  | $=\frac{(30.51 .6961)+(27.72 .25)}{31+28}$ |
|  | $=\frac{1550.883+1950.75}{57}=\frac{3501.633}{57}=61.43$ |

$\log S^{2}=\log 61.43=1.79$
B $\quad=\left(\log S^{2}\right) \times \sum(n-1)$
$=01.79 \times 57$
$=102.03$
$X^{2}{ }_{\text {observed }}=(\log 10) \times\left(B-\sum(d k) \log S\right)$
$=(2.3) \times(102.03-101.6)$
$=0.989$
$(\mathrm{dk})=2-1=1$
$\mathrm{X}_{\text {table }}^{2}=3.841$
$\mathrm{X}^{2}{ }_{\text {observed }} \leq \mathrm{X}_{\text {table }}^{2}=$ Homogen

## $0.989 \leq 3.841=$ Homogen

By the calculation above, the writer compare $\mathrm{X}_{\text {observed }}^{2}$ and $\mathrm{X}_{\text {table }}^{2}$ for $\alpha=0.05$ and $(\mathrm{dk})=\mathrm{k}-1=2-1=1$, and got the score $\mathrm{X}_{\text {table }}^{2}=3.841$ and $\mathrm{X}^{2}{ }_{\text {observed }}$ smaller than $\mathrm{X}_{\text {table }}^{2}(0.989 \leq 3.841)$. The result of post test was homogeny.

## C. Result of the Data Analyses

To examine the hypothesis, the writer used the formula as follow:

$$
\begin{aligned}
& \mathrm{t}_{\text {observed }}=\frac{M n_{1}-M n_{2}}{\sqrt{\frac{\left(n_{1}-n_{2}\right)\left(s_{1}{ }^{2}\right)+\left(n_{2}-1\right) S_{2}{ }^{2}}{n_{1}+n_{2}-2}\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}} \\
& \quad=\frac{60.10-72.2}{\sqrt{\frac{(31-31)(11.1)^{2}+(31-1)(7.19)^{2}}{31+31-2}\left(\frac{1}{31}+\frac{1}{31}\right)}} \\
& \quad=\frac{-12.1}{\sqrt{\frac{0+1550.883}{60}(0.0323+0.0323)}} \\
& \quad=\frac{-12.1}{\sqrt{25.84805(0.06)}} \\
& \quad=\frac{-12.1}{\sqrt{1.550883}}=\frac{-12.1}{1.245}=-9.71 \\
& \text { df }=n-1 \\
& \quad=31-1 \\
& \quad=30 \\
& \mathrm{t}_{\text {table }} 5 \%=2.04 \\
& \mathrm{t}_{\text {table }} 1 \%=2.75 \\
& \mathbf{t}_{\text {table }} \leq \mathrm{t}_{\text {observed }}=\mathbf{H a} \text { accepted. } \mathbf{H}_{\mathbf{0}} \text { rejected }
\end{aligned}
$$

## $2.04 \leq-9.71=$ Ha accepted. $\mathrm{H}_{0}$ rejected

## $2.75 \leq-9.71=$ Ha accepted. $\mathrm{H}_{0}$ rejected

Since the calculated value of $\mathrm{t}_{\text {observed }}(-9.71)$ was higher than $\mathrm{t}_{\text {table }}$ at degree of freedom of $5 \%$ (2.04) and degree of freedom of $1 \%$ (2.75). It
could be interpreted that Ha stating thethink aloud strategy is effective for teaching reading comprehension of the eight grade students of MTsN- 2 Palangka Raya was accepted and $\mathrm{H}_{0}$ stating that the think aloud strategy is not effective for teaching reading comprehension of the eight grade students of MTsN-2 was rejected. It meant that there was any significant effect of using think aloud strategy toward the students' reading comprehension skill ability of the eight grade students at MTsN-2 Palangka Raya.

## D. DISCUSSION

The result of analysis showed that there was significant effect of using think aloud strategy toward the students' reading comprehension ability of the eighth grade students at MTsN-2 Palangka Raya. The students who were taught used think aloud reached higher score than those who were taught withoutusing think aloud strategy.

Meanwhile, after the data was calculated using $\mathrm{t}_{\text {test }}$, it was found that the value of $t_{\text {test }}$ was higher than $t_{\text {table }}$ at $5 \%$ level of significance $t_{\text {test }}=$ $9.71>\mathrm{t}_{\text {table }}=2.04$ and $1 \%$ level of significance $\mathrm{t}_{\text {test }}=9.71>\mathrm{t}_{\text {table }}=2.75$. This finding indicated that the alternative hypothesis stating that there was any significant effect of think aloud strategy for teaching reading comprehension skill of the eighth grade students of MTsN-2 Palangka Raya was accepted. On the contrary, the null hypothesis stating that there was no any significant effect of using think aloud strategy for teaching
reading comprehension skill of the eighth grade students of MTsN-2 Palangka Raya.

Based on the result the data analysis showed that using think aloud strategy gave significance effect for the students' reading comprehension skill scores at MTsN-2 Palangka Raya. After the students have been taught by think aloud, the reading score were higher than before implementing think aloud as an strategy for teaching . It can be seen in the comparison of pre test and post test score of experimental class and control class. This finding indicated that think aloud is effective and supports the previous research done by Shahrokh Jahandar,Morteza Khodabandehlou, Gohar Seyedi, Reza Mousavi Dolat Abadi that also stated teaching reading by using think aloud is effective.

Think aloud is effective in terms of improving the students' English reading achievement. It can be seen from the improvement of the students' average in the post test. From the mean score of control and experiment were 73.6 and 64.9. It indicated the difference ofthe students' achivement aftere getting treatment. In line that using think aloud as an strategy is effective in enhance their reding motivation and encourage them to from a habit of regular reading. Based on Newell and Simon,who used think aloud protocols in combination with computer models of problem solving processes to build very detailed models. Using this methodology Newell and Simon were able to explain protocol data from a theory of human memory and assumptions about the knowledge that
subjects could bring to bear on a task. This work had a major influence, because it showed that very detailed explanations of verbal data can be obtained. To study problem solving strategies. "One way for teachers to know what reading strategies students are using and help them use effective strategies in their reading is to engage them in think-aloud protocols. With think-aloud protocols, students verbalize, in an interview context, how they are processing the text they are reading". Therefore modeling strategic behaviors for struggling readers by thinking aloud for them while they read (and hence, allowing students to think aloud), is the first step in raising their awareness of what it means to be a strategic reader. It was showed based on the benefit of this use strategy it can increase the students' comprehension in reading as a reader. In classroom, the teacher can use this the think aloud to assess the students' comprehension in teaching reading.

