**CHAPTER IV**

**RESULT AND DISCUSSION**

1. **Description of Data**

In this chapter, the researcher explains the result of the research. The researcher took 60 students at the First grade of SPM Daar El-Istiqomah Islamic Boarding School. The goal of the research is intended to find out the accurate data in accordance with the research title. So the sample in this study divided into two classes. They are 30 students each. Students VIII B as the control class and 30 students VIII A as the experiment class.

The researcher got two data. The first data is the result of Pre-test and the second one is the result of Post-test from both classes. The result of post-test in experimental class is named variable (x) and the result of post-test in control class is named variable (y).

The students’ reading in Descriptive text has less before using Fix-up strategy. They found the difficulties and did not have many concept or main idea. But after using Fix-up strategy students’ has better achievement. It can be seen from the result of pre- test and post- test.

To know The Use of Fix-up Strategy in Teaching Reading Comprehention, the researcher gave the test to students as the sample both at the experimental class and at the control class. The test that used in this research divided into two types, there are pre- test and post- test. The pre- test was the test that giving treatment and the post- test given after giving treatment.

To know the result of the test, the researcher makes the table of the students’ score for each variable as follow:

**Table 4.1**

**Data from Pre-test and Post-test of experiment class**

**VIII.A**

|  |  |  |
| --- | --- | --- |
| **NO.** | **Students** | **Score** |
| **Pre- test** | **Post- test** |
| 1 | AF | 40 | 65 |
| 2 | AF | 30 | 75 |
| 3 | ARM | 30 | 65 |
| 4 | ASH | 45 | 75 |
| 5 | AI | 50 | 65 |
| 6 | AR | 45 | 80 |
| 7 | AFY | 30 | 85 |
| 8 | AR | 50 | 80 |
| 9 | DS | 30 | 75 |
| 10 | ES | 20 | 75 |
| 11 | FA | 55 | 80 |
| 12 | GFA | 30 | 85 |
| 13 | GM | 30 | 65 |
| 14 | IM | 45 | 80 |
| 15 | IS | 30 | 75 |
| 16 | IR | 30 | 75 |
| 17 | MAS | 40 | 75 |
| 18 | MM | 35 | 75 |
| 19 | MWRR | 40 | 75 |
| 20 | MAN | 40 | 65 |
| 21 | MF | 50 | 65 |
| 22 | MF | 30 | 80 |
| 23 | MI | 55 | 80 |
| 24 | MRA | 45 | 65 |
| 25 | MSA | 35 | 65 |
| 26 | RAG | 50 | 80 |
| 27 | RHA | 50 | 75 |
| 28 | SN | 45 | 65 |
| 29 | TF | 45 | 75 |
| 30 | ZA | 50 | 75 |
|  | Total Score | ∑$x\_{1}$ = 1190 | ∑$x\_{2}$ = 2215 |
|  |  | M = 39.66 | M = 73,83 |

The table 4.1 above showed the result of the student’s pre-test score and post-test score at experimental group. The data showed at pre-test the maximum score is 55 and the minimum score is 20. The student who got the maximum score is one student and the student who got the minimum score is one student.

The data showed at post-test the maximum score is 85 and the minimum score is 65. The student who got the maximum score is four students and the student who got the minimum score is two students.

To find mean score, the researcher follows the formula:

 M1 =$\frac{\sum\_{}^{}X2}{N2}$

=$\frac{2215}{30}$

= 73.83

 M2 =$\frac{\sum\_{}^{}X1}{N1}$

 =$\frac{1190}{30}$

= 39.66

Note: M1 = Mean (Post – test)

 M2 = Mean (Pre – test)

X1 = Students’ score (Pre - test)

X2 = Students’ score (Post - test)

N = Number of students

Based on the calculation on the table 1 of pre- test and post- test assessment at experiment class, it shows that the cumulating value of assessment result before guided writing strategy was 1190 The average of the pre- test was 39.66. Meanwhile, the cumulative of assessment result applied of the post test was 73.83.

Determine mean by formula:

M = M1- M2

 = 73.83 – 39.66

 = 34.17

Note: M = Mean

 M1 = Mean of Post test

 M2 = Mean of Pre- test

From the calculation of determine mean above, as have known that the average score of pre- test and post- test (at experiment class) increase in amount of 34.17

The researcher described the students’ score of pre-test and post-test of experimental class by graphic as follow:

The graphic above showed about the comparison between score of pre-test and post-test at experimental class. Based on the graphic above the score of post-test is better than score of pre-test.

**Table 4.2**

**Data of Pre- test and Post- test from Control Class**

**VIII.B**

|  |  |  |
| --- | --- | --- |
| **NO.** | **Students** | **Score** |
| **Pre- test** | **Post- test** |
| 1 | AN | 50 | 30 |
| 2 | AFW | 45 | 45 |
| 3 | AA | 35 | 40 |
| 4 | DM | 45 | 50 |
| 5 | DS | 40 | 40 |
| 6 | EA | 30 | 45 |
| 7 | FQA | 65 | 40 |
| 8 | H | 30 | 40 |
| 9 | HU | 50 | 30 |
| 10 | IS | 45 | 60 |
| 11 | IK | 45 | 40 |
| 12 | MMR | 50 | 50 |
| 13 | NKH | 30 | 50 |
| 14 | NV | 60 | 50 |
| 15 | N | 65 | 60 |
| 16 | RD | 30 | 60 |
| 17 | RA | 40 | 30 |
| 18 | RNA | 60 | 45 |
| 19 | RAW | 40 | 35 |
| 20 | RWAH | 45 | 35 |
| 21 | SAN | 40 | 30 |
| 22 | SB | 40 | 40 |
| 23 | SS | 30 | 45 |
| 24 | TUR | 55 | 45 |
| 25 | TS | 40 | 40 |
| 26 | TV | 50 | 50 |
| 27 | UA | 50 | 60 |
| 28 | UH | 30 | 65 |
| 29 | VA | 50 | 65 |
| 30 | ZW | 45 | 40 |
| Total Score | ∑$x\_{1}$ = 1330 | ∑$x\_{2}$ =1355 |
| M = 44.33 | M = 45.16 |

The table 4.2 above showed the result of the student’s pre-test score and post-test score at control group. The data showed at pre-test the maximum score is 65 and the minimum score is 30. The student who got the maximum score is two students and the student who got the minimum score is two students.

The data showed at post-test the maximum score is 65 and the minimum score is 30. The student who got the maximum score is one student and the student who got the minimum score is one student.

The find the mean score, the researcher follows the formula:

 M1 = $\frac{\sum\_{}^{}X2}{N2}$

= $\frac{1355}{30}$

 = 45.16

 M2 = $\frac{\sum\_{}^{}X1}{N2}$

= $\frac{1330}{30}$

= 44.33

Based on the calculation on the table 2 of pre- test and post- test assessment at control class, it shows that the cumulative value of pre- test is 1330. The average of the pre- test was 44.33. Meanwhile, the cumulative value of post- test was 1355 . The average of the post- test result is 45.16.

Determine mean by formula:

M = M1- M2

 = 45.16 – 44.33

 = 0.83

 Note :

M = Mean

 M1 = Mean of post test

 M2 = Mean of pre test

From the calculation of determine above, we have known that the average score of pre- test and post- test (at control class) increase amount of 0.83.

The researcher described the students’ score of pre-test and post-test of experimental class by graphic as follow:

The graphic above showed about the comparison between score of pre-test and post-test at control class. Based on the graphic above there is no different significant in the score of post-test and pre-test.

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

1. **Data Analysis**

After getting the data from pre-test and post-test the score of two classes. Then the researcher analyzed it by using t-test formula with the degree of significant 5%, the researcher used step as follows:

**Table 4.3**

**The Comparison of Score Each of the Students of the Experimental Class and Control Class**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No. | SCORE | X | Y | $$X^{2}$$ | $$Y^{2}$$ |
| $$x\_{2}$$ | $$y\_{2}$$ | $$(x\_{2}-M)$$ | $$(y\_{2}-M)$$ |
| 1 | 65 | 30 | -8.83 | -15.16 | 78.49 | 229.82 |
| 2 | 75 | 45 | 1.14 | -0.16 | 1.29 | 0.025 |
| 3 | 65 | 40 | -8.83 | -5.16 | 78.49 | 26.62 |
| 4 | 75 | 50 | 1.14 | 4.84 | 1.29 | 23.42 |
| 5 | 65 | 40 | -8.83 | -5.16 | 78.49 | 26.62 |
| 6 | 80 | 45 | 6.14 | -0.16 | 37.69 | 0.025 |
| 7 | 85 | 40 | 11.14 | -5.16 | 124.09 | 26.62 |
| 8 | 80 | 40 | 6.14 | -5.16 | 37.69 | 26.62 |
| 9 | 75 | 30 | 1.14 | -15.16 | 1.29 | 229.82 |
| 10 | 75 | 60 | 1.14 | 14.84 | 1.29 | 220.22 |
| 11 | 80 | 40 | 6.14 | -5.16 | 37.69 | 26.62 |
| 12 | 85 | 50 | 11.14 | 4.84 | 124.09 | 23.42 |
| 13 | 65 | 50 | -8.83 | 4.84 | 78.49 | 23.42 |
| 14 | 80 | 50 | 6.14 | 4.84 | 37.69 | 23.42 |
| 15 | 75 | 60 | 1.14 | 14.84 | 1.29 | 220.22 |
| 16 | 75 | 60 | 1.14 | 14.84 | 1.29 | 220.22 |
| 17 | 75 | 30 | 1.14 | -15.16 | 1.29 | 229.82 |
| 18 | 75 | 45 | 1.14 | -0.16 | 1.29 | 0.025 |
| 19 | 75 | 35 | 1.14 | -10.16 | 1.29 | 103.22 |
| 20 | 65 | 35 | -8.83 | -10.16 | 78.49 | 103.22 |
| 21 | 65 | 30 | -8.83 | -15.16 | 78.49 | 229.82 |
| 22 | 80 | 40 | 6.14 | -5.16 | 37.69 | 26.62 |
| 23 | 80 | 45 | 6.14 | -0.16 | 37.69 | 0.025 |
| 24 | 65 | 45 | -8.83 | -0.16 | 78.49 | 0.025 |
| 25 | 65 | 40 | -8.83 | -5.16 | 78.49 | 26.62 |
| 26 | 80 | 50 | 6.14 | 4.84 | 37.69 | 23.42 |
| 27 | 75 | 60 | 1.14 | 14.84 | 1.29 | 220.22 |
| 28 | 65 | 65 | -8.83 | 19.84 | 78.49 | 393.62 |
| 29 | 75 | 65 | 1.14 | 19.84 | 1.29 | 393.62 |
| 30 | 75 | 40 | 1.14 | -5.16 | 1.29 | 26.62 |
| TotalScore | 2215 | 1355 |  |  | 1.299.21 | 3.124.02 |
| **Average** | **73.83** | **45.16** |  | **43.30** | **104.13** |

**Note:**

$x\_{2}$ = Score Post-Test (Experimental Class)

$y\_{2}$ = Score Post-Test (Control Class)

X = $x\_{2} $- M (Mean x)

Y=$ y\_{2} $- M (Mean y)

$X^{2}$= the squared value of X

$Y^{2}$= the squared value of Y

The data from table above presented into graphic, it has purpose to collect score between experiment and control group.

**Graphic 4.3**

**The Score of Distribution Frequency**

Based on the graphic above, the researcher saw that the comparison between experiment group has ∑$x\_{2}$= 2215 and control group has ∑$y\_{2}$= 1355 had different values. The experiment group is higher than control group. It is caused by the use of different method of experiment and control class as mentioned above that experiment class used fix-up strategy method, and control class used explanatory method. For more detail, the researcher wrote this comparison in statically.

From the table above, the writer got the data ∑
$x\_{2} $= 2215, ∑$y\_{2} $= 1355, ∑X2=1.299.21 and ∑Y2=3.124.02, whereas N1=30 and N2=30.

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

1. Determine mean of variable $x\_{2}$

$M\_{1}$ = $\frac{∑x\_{2}}{N\_{1}}$

 = $\frac{2215}{30}$

 = 73,83

1. Determine mean of variable $y\_{2}$

$M\_{2}$ = $\frac{∑y\_{2}}{N\_{2}}$

= $\frac{1355}{30}$

 = 45.16

1. Determine t-test

$$t= \frac{M\_{1}-M\_{2}}{\sqrt{\left(\frac{\sum\_{}^{}X\_{}^{2}+\sum\_{}^{}Y\_{}^{2}}{N\_{1}+N\_{2}-2}\right)\left(\frac{N\_{1}+N\_{2}}{N\_{1}.N\_{2}}\right)}}$$

$$t= \frac{73.83-45.16}{\sqrt{\left(\frac{1.299,21 + 3.124,02}{30+30-2}\right)\left(\frac{30+30}{30.30}\right)}}$$

$$t= \frac{28.67}{\sqrt{\left(\frac{4423.23}{58}\right)\left(\frac{60}{900}\right)}}$$

$$t= \frac{11.55}{\sqrt{\left(76.26\right)\left(0,06\right)}}$$

$$t= \frac{11.55}{\sqrt{4.5756}}$$

$$t= \frac{11,55}{2.13}$$

$$=5.42$$

 From the result of the calculation above, it is obtained that the valuae of $t\_{o}$ (t observation) is 5.42 , after found the data the reseacher compared it with $t\_{t}$ (t table) both in degree significant 5% and 1%

1. df = $N\_{1}$+ $N\_{2}$ - 2

 = 30 + 30 – 2

 = 60 – 2

 = 58

1. **Hypothesis Testing (t-test)**

Data obtained from both pre-test and post-test are analysed and calculated using t-test formula. the data obtained from the experiment class and the control class are calculated with the assumption as follow:

If $t\_{0 }$<$t\_{t}$ : the alternative hypothesis ($H\_{a})$ is rejected and null hypothesis ($H\_{o}$) is accepted. It means there is no significant effect of using fix-up strategy on students’ reading comprehension.

If $t\_{0 }>t\_{t}$ : the alternative hypothesis ($H\_{a})$ is accepted and null hypothesis ($H\_{o}$) is rejected. It means there is significant effect of using fix-up strategy on students’ reading comprehension.

Based on assumption above, it is obtained that the value of $t\_{0 }$is 5.42 and the degree freedom (df) is 58 in degree of significant 5% from t table is 2,002 in degre of significant 1% from t table is 2,663

After got the data, the reseacher compared it with $t\_{t}$(t table) both in degree significant 5% and 1% by formula:

$t\_{t}$5% <$t\_{0 }>t\_{t}$ 1% = 2,002 <$ 5.42>$ 2,663

$t\_{0 }:t\_{t}$ = $5.42>$ 2,002 in degree of significant 5%

$t\_{0 }:t\_{t}$ = $5.42>2,663 $in degree of significant 1 %

Since $t\_{0 }$ score obtained from the result of calculating, the alternative hypothesis ($H\_{a})$ is accepted and the null ($H\_{o}$) is rejected. It means there is significant effect of fix-up strategy toward students’ reading comprehension.

1. **Data Interpretation**

The objective of the reseach is to find out the effectiveness of using fix-up strategy toward students’ reading comprehension at eighth grade of SPM Dar El-Istiqomah.

After analysing the pre-test and the post-test from two groups, experiment group and control group, the reseacher got the data of pre-test and post-test score. In the experiment class, the highest score of pre-test is 85 and the lowest score is 20. The highest score of post-test is 85 and the lowest score is 65. The mean of pre-test score obtained by students in this class is 39,66 and the mean of post-test is 73,83. The mean of pre-test and post-test score has good enough improvement it seen 73,83 $>$ 39,66. The improvement caused by the experimental class learns reading comprehension by using fix-up strategy that not used yet before.

In the control class, the highest score of pre-test is 65 and the lowest score is 30. The highest score of post-test is 65 and the lowest score is 30. The mean of pre-test score obtained by students in this class is 44.33 and the mean of post-test is 45.16. There is not good improvement of the result in this class, it seen from the mean that is 44.33 and 45.16 which improved 0.83 score. It caused in control class did not learn by using fix-up strategy.

Based on calculation above there was improvement student’s achievement before using fix-up strategy and after using fix-up strategy. The way could be seen after comparing the score pre-test (before using fix-up strategy) and post-test (after using fix-up strategy) in class VIII.A as experiment class and VIII.B as control class. It means that there is significant effective on students reading comprehension by using fix-up strategy.