

## CHAPTER IV

### FINDINGS AND DISCUSSION

In this chapter contains the finding and discussion of the research. Researcher presents the description of data, normality testing, homogeneity testing and discussion of the research.

#### **A. Research Findings**

The research findings in this research aims to show experimental data processed in this research. The subject of research in this study is the third-grade students of SMP Negeri 1 Srengat which students of 16 IX-H. In the data description shown pre-test and post-test values in this research. The study was conducted five times. In the first meeting, researchers gave a pre-test as an assessment of students' ability to understand the text before treatment was given. At the second, third, and fourth meeting, researchers provided a visual imagery strategy to improve reading comprehension ability in report text. At the fifth meeting, researchers gave a post-test question to see the effectiveness of visual imagery toward the student's reading comprehension in report text of the third-grade students at SMP Negeri 1 Srengat. Final results in pre-test and post-test assessments analyzed using reading comprehension rubric score. Pre-test and post-test analysis as follows:

##### **a. The statistical pre-test and post-test score**

**Table 4.1 Students score of pre-test and post-test**

No.	Code	Pre-test Score	Post-test Score
1	H1	34	67
2	H2	56	45
3	H3	23	67
4	H4	12	78
5	H5	23	12
6	H6	56	89
7	H7	23	78
8	H8	56	89
9	H9	23	89

10	H10	45	89
11	H11	78	100
12	H12	56	78
13	H13	67	89
14	H14	89	100
15	H15	0	89
16	H16	34	67

### b. Descriptive statistic of pre-test

Pre-test results were taken from test scores on 16 students of IX-H before being given treatment. Students are given 9 multiple-choice pre-test questions that concentrate on using report text. Then, researchers collected scores using IDM SPSS 25 for windows to find descriptive statistics of pre-test.

From the pre-test score table in this research, descriptive statistics are as follows:

**Table 4.2 Descriptive statistic of pre-test**

Descriptive Statistics									
	N	Range	Minimum	Maximum	Sum	Mean	Std.	Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Pre-test	16	89	0	89	675	42.19	6.177	24.710	610.563
Valid N (listwise)	16								

The descriptive statistic table above shows that the mean score shows the score is 42.19. That means that the average of 16 students is 42 with the lowest score of 0 and the highest score of 89. This shows that the student' reading comprehension ability in report text need enhancement.

**Table 4.3 The frequency distribution of pre-test**

		Pre-test			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	0	1	6.3	6.3	6.3
	12	1	6.3	6.3	12.5
	23	4	25.0	25.0	37.5
	34	2	12.5	12.5	50.0
	45	1	6.3	6.3	56.3
	56	4	25.0	25.0	81.3
	67	1	6.3	6.3	87.5
	78	1	6.3	6.3	93.8
	89	1	6.3	6.3	100.0
	Total	16	100.0	100.0	

The frequency table above shows that the distribution of scores shows the median is 39.5, where 8 students get a score lower than 39.5 and 8 students get a score higher than 39.5. By scoring rubric qualification, the median result can be concluded as follows:

- a. There is 8 students' get a score lower than 39.5 (0-34) it means that the reading comprehension achievement in report text was fair. The student' needed enhancement
- b. There is 7 students' get a score higher than 39.5 (45-78) it means that reading comprehension achievement was good enough, but needed the enhancement.
- c. There is 1 student's get a score higher than 39.5 (89) it means that the student' achievement was excellent.

### c. Descriptive statistic of post-test

Post-test scores are obtained by giving 9 multiple-choice questions that are equivalent to questions given during the pre-test. The class used is also the same as the post-test because it uses one sample group. However, in answering the post-test, students have received treatment using visual imagery strategies to understand the text and answer the questions given.

After getting the score, the researcher uses IDM SPSS 25 for windows to calculate the result. Thus, the descriptive statistics of post-test are obtained as follows:

**Table 4.4 Descriptive statistic of post-test**

<b>Descriptive Statistics</b>									
	N	Range	Minimum	Maximum	Sum	Mean	Std. Error	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Post-test	16	88	12	100	1226	76.63	5.580	22.319	498.117
Valid N (listwise)	16								

The table above shows that the post-test score has a mean of 76.63 which means 16 students have a grade point average of 77. When compared to the pre-test score, the post-test score increased significantly with a score of 42.19 to 76.63. This shows that there is an increase in students' abilities after getting treatment using visual imagery strategy.

**Table 4.5 The frequency distribution of post-test**

<b>Post-test</b>					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	12	1	6.3	6.3	6.3
	45	1	6.3	6.3	12.5
	67	3	18.8	18.8	31.3
	78	3	18.8	18.8	50.0
	89	6	37.5	37.5	87.5
	100	2	12.5	12.5	100.0
Total	16	100.0	100.0		

From the table above shows that in addition to an increase in the mean score, there is also an increase in the median score. The median score on the pre-test was

39.5 while the median score on the post test was 83.5 with 8 students getting a score below 83.5 and 8 students getting a score above 83.5.

#### d. Descriptive group statistic of pre-test and post-test

The descriptive statistics of pre-test and post-test shows that there is a significant increase between pre-test and post-test. These results can be summed up as follows:

**Table 4.6 Descriptive group statistic of pre-test and post-test**

<b>Descriptive Statistics</b>									
	N	Range	Minimum	Maximum	Sum	Mean	Std. Error	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Pre-test	16	89	0	89	675	42.19	6.177	24.710	610.563
Post-test	16	88	12	100	1226	76.63	5.580	22.319	498.117
Valid N (listwise)	16								

## B. Normality Testing

Normality testing is done to assess the distribution of data obtained distributed normally or not. In this study normality testing was conducted with the aim of ensuring that the data obtained was distributed normally. The normality test in this study was conducted using the Kolmogorov-Smirnov test in IBM SPSS Statistic 25 for windows with a significant level of 5% (0.05) using the following formula:

- a.  $H_0$ : Significance value  $> 0.05$ : Normal distributed data.
- b.  $H_a$ : Significance value  $< 0.05$ : Data is not normally distributed.

From the research conducted obtained data with normality as follows:

**Table 4.7 Normality testing**

		Pre-test	Post-test
N		16	16
Normal Parameters	Mean	42.19	76.63
	Std. Deviation	24.710	22.319
Most Extreme Differences	Absolute	.156	.212
	Positive	.156	.165
	Negative	-.149	-.212
Test Statistic		.156	.212
Asymp. Sig. (2-tailed)		.200	.053

From the normality test data obtained from the SPSS output above shows that the p-value of pre-test and post-test is bigger than the significant level of 5% (0.05). The p-value of the pre-test indicates 0.200 which means bigger than the significant level of 5% (0.05) or inferred ( $0.200 > 0.05$ ). It means  $H_0$  is accepted. This indicates that the pre-test is normally distributed. Then the results of the post-test showed that the p-value of 0.053 and this is bigger than the significant level of 5% (0.05) or inferred ( $0.053 > 0.05$ ). With the results mentioned above,  $H_0$  is accepted. This indicates that post-tests are normally distributed. Thus, it can be concluded that both of pre-test and post-test data are normal distributed.

### **C. Hypothesis Testing**

After the normality test is done and the results show the data obtained are normally distributed, then the next step is the hypothesis test. The hypothesis testing is conducted to find out if there is a significant difference between students who do not get treatment and students who get treatment. In this study, to test the hypothesis, researcher used a Paired sample t-test in IBM SPSS Statistic 25 for windows. By comparing pre-test and post-test values, significant values obtained that determine whether  $H_0$  is accepted or rejected.

The hypotheses in this research as follows:

- a. Null Hypothesis (H<sub>0</sub>): there is no significant different score between students who are taught by using visual imagery strategy and those who are not taught visual imagery strategy to their reading comprehension.
- b. Alternative Hypothesis (H<sub>a</sub>): there is significant different score between students who are taught by using visual imagery strategy and those who are not taught visual imagery strategy to their reading comprehension.

The formula used is as follows:

- a. If  $p\text{-value} < \alpha$ , Null Hypothesis (H<sub>0</sub>) is rejected and Alternative Hypothesis (H<sub>a</sub>) is accepted. That means there is significant score between students who are taught by using visual imagery strategy and those who are not taught visual imagery strategy to their reading comprehension.
- b. If  $p\text{-value} > \alpha$ , H<sub>0</sub> is not rejected. Its means there is no significant different score between students who are taught by using visual imagery strategy and those who are not taught visual imagery strategy to their reading comprehension.

The result of hypothesis testing can be seen in the following table:

**Table 4.8 Paired sample test**

<b>Paired Samples Statistics</b>					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-test	42.19	16	24.710	6.177
	Post-test	76.63	16	22.319	5.580

<b>Paired Samples Correlations</b>				
		N	Correlation	Sig.
Pair 1	Student's score & Student's score	16	.357	.175

**Paired Samples Test**

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest – Posttest	-34.438	26.741	6.685	-48.687	-20.188	-5.151	15	.000

From the SPSS output above shows that the mean of pre-test and post-test values have increased. Pre-test score 42.19 and Post-test score 76.63. While the results of the t-test showed that the t value is -5.151, with df 15. In this test conducted with a Two-tailed test with a value of 0.000, while in this study using one-tailed test, then p-value divided in two ( $0.000/2$ ) get a result of 0.000 and it is smaller than  $\alpha$  ( $p\text{-value} < \alpha$ ). In consequence, the null hypothesis is rejected. It can be concluded that, there is significant score between students who are taught by using visual imagery strategy and those who are not taught visual imagery strategy to their reading comprehension ability in report text.

## **D. Discussion**

The use of visual imagery strategy is very helpful for students in reading comprehension in report text. By implementing this strategy, students combine their perception and memory to form an understanding of the text. In the process of reading, visual imagery has a desirable role in improving reading comprehension. This opinion is explained by Supporting this explanation, Reinold and Miller (2003) mention that verbal and visual can improve memory work. Verbal comes from spoken words while visuals come from sensory memory. Thus, students' understanding increase if they can combine verbal and visual information with the background of knowledge possessed. Furthermore, the information stored in the reader's long-term memory, not only able to interpret, students can understand the text comprehensively. In answering pre-test questions students have difficulty in reading comprehension so that the number of correct questions is less than the number of correct questions related to the report text presented. After getting the visual imagery strategy treatment, students showed an increase in reading comprehension skills shown in the post-test results.

By applying a visual imagery strategy, understanding the text presented will be easier. Students can describe what they read and pour in their memory, so that the understanding of the text will be deeper. Arch and Simpson (1990) said that visual imagery strategy is a generic method that can be applied to any word-type student are taught. The student is directed to imagine the words and develop their memory to remember the word by visual imagery strategy. The steps show that the implementation of visual imagery can activate visual imagery for students. With results like this, the goal of reading comprehension will be achieved. That is, adding information and knowledge.

Based on the results of the post-test, students are able to understand the text more easily, this can be seen from the results of the post-test that shows improvement. Students are able to answer questions presented easily. With these results can indicate that the message conveyed in the text has been understood by the student, so that students get new information and knowledge. While in the pre-test results, students look difficult in understanding the text presented. This can be

seen through pre-test results that show that there are answers to questions that do not match the text. Conversely, when doing visual imagery strategy treatment, students are able to understand the text comprehensively by creating a mental image that facilitate the understanding of their text. The results of this study show that the above results are in accordance with the basic concept of visual imagery strategy. Woolly (2011: 81) explain that visual imagery is a powerful tool to improve the reader's understanding of the text. Supporting this explanation, Reinold and Miller (2003) mention that verbal and visual can improve memory work. Verbal comes from spoken words while visuals come from sensory memory. Thus, students' understanding increase if they can combine verbal and visual information with the background of knowledge possessed. Furthermore, the information stored in the reader's long-term memory.

Based on visual imagery strategy, visual imagery strategy help students in reading comprehension by combining their perception and memory. This is in accordance with the visual imagery strategy function that makes it easier for students to understand the written text presented. In addition, in the application of visual imagery strategy has many advantages as explained by McDonald (2001) who states that activate imagery can increase reading comprehension ability. The types of imagery can stimulus human sense of modalities. It can be responsive by stimulus. In the reading process, imagery can activate reader's sensory and emotion to convey the meaning.

Based on researchers, visual imagery strategy was also successfully implemented by Azkalia (2018) with the title "The Effectiveness of Visual Imagery Strategy in Teaching Reading Narrative Texts". Second by Sari and Laksita (2016) with the title "The effectiveness of visual imagery strategy for teaching reading comprehension of descriptive texts" and the third by Walanda, and Caroline (2016) with the title "Comparative study between think aloud and visual imagery in enhancing students reading comprehension." From these three studies showed that visual imagery strategy is very useful to improve reading comprehension in learning process activities. Not only useful for students, but also very helpful to teachers in the learning process, so that students' abilities improve in reading comprehension.

Based on the explanation above it can be said that the application of visual imagery strategy is effective for the student's reading comprehension ability in report text. This can be seen from the description of the findings in this study that support the results of previous research that visual imagery strategy can improve students' reading comprehension skills. Not only that, this study also proves that the application of visual imagery strategy helps students understand in reading the text presented. But in its application, visual imagery has the disadvantage of the need to practice periodically so that students can get used to combining their perception and memory. In addition to the findings above, teachers can apply visual imagery strategy to increase reading comprehension ability by considering its weaknesses.