# CHAPTER IV

# DISCUSSION

## A. Data Description

After administering the treatments to the participants, the researcher obtained post-test data from 40 students of Grade XI at Modern Islamic Boarding School Nurul Hakim. Class XI-A was taught using the Proprioceptive Method, while Class XI-B received instruction through the Mimicry Memorization Method. The collected data from both groups were then compared to determine whether there was a statistically significant difference in students' vocabulary mastery after receiving different instructional methods.

This section presents a detailed description of the data obtained from the post-test results of both groups.

### 1. Post-Test Data

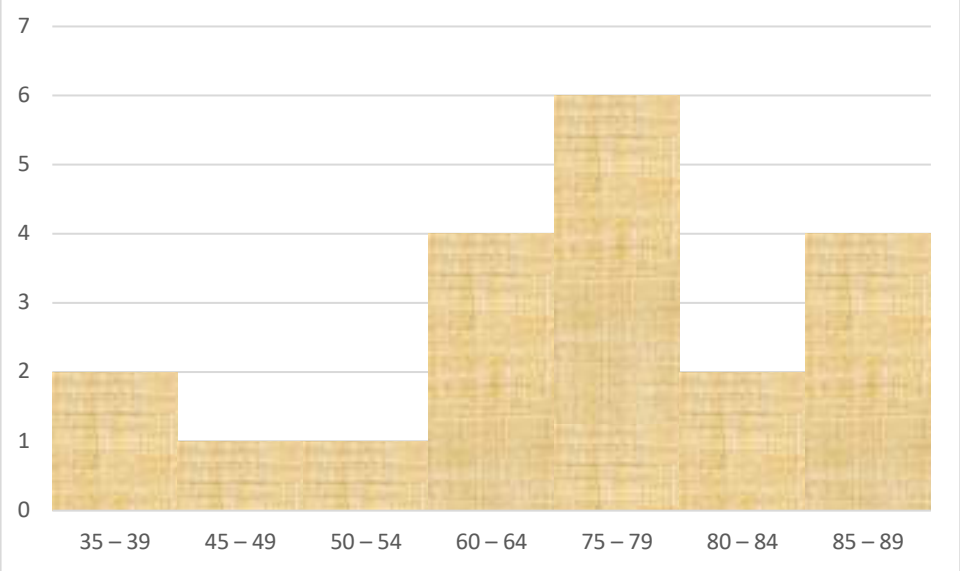
Upon completing the treatment sessions, the researcher administered a post-test to both groups to measure students' vocabulary mastery based on the instructional method applied in each class. The post-test scores served as the primary data for comparing the effectiveness of the Proprioceptive Method and the Mimicry Memorization Method. The results are presented as follows:

#### a. Post-Test Results of Class XI-A (Proprioceptive Method)

Based on the post-test outcomes, Class XI-A—taught using the Proprioceptive Method and consisting of 20 students—achieved a highest score of 85 and a lowest score of 35. The class obtained a mean score of 67.75, with a median of 75, a mode of 75, and a standard deviation of 16.261. These statistical results reflect the distribution of students' vocabulary mastery after being taught with the Proprioceptive Method.

| Number | Interval | F. Absolute | F. Relative |
|---|---|---|---|
| 1 | 35 – 39 | 2 | 10% |
| 2 | 40 – 44 | 0 | 0% |
| 3 | 45 – 49 | 1 | 5% |
| 4 | 50 – 54 | 1 | 5% |
| 5 | 55 – 59 | 0 | 0% |
| 6 | 60 – 64 | 4 | 20% |
| 7 | 65 – 69 | 0 | 0% |
| 8 | 70 – 74 | 0 | 0% |
| 9 | 75 – 79 | 6 | 30% |
| 10 | 80 – 84 | 2 | 10% |
| 11 | 85 – 89 | 4 | 20% |

**Table 4.1 Distribution of Frequency by Applying Proprioceptive Method**




**Picture 4.2. Histogram of Students' Post Test in Class**

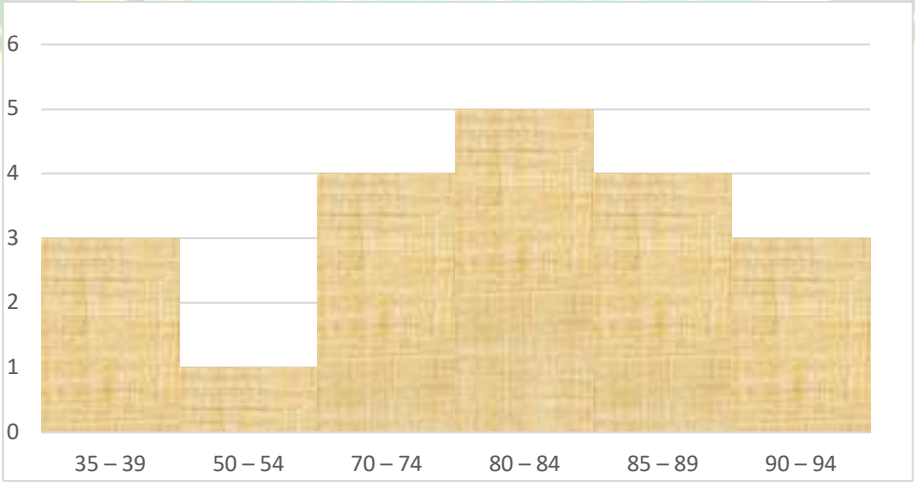
**b. Post-Test Results of Class XI-B (Mimicry Memorization Method)**

For Class XI-B, which consisted of 20 students taught using the Mimicry Memorization Method, the post-test results showed a highest score of **90** and a lowest score of **35**. The class achieved a **mean score of 72.25**, with a **median of 80**, a **mode of 80**, and a **standard deviation of 18.601**. These findings indicate the overall distribution of students' vocabulary mastery after

receiving instruction through the Mimicry Memorization Method and provide a basis for comparing its effectiveness with the Proprioceptive Method.

| Number | Interval | F. Absolute | F. Relative |
|---|---|---|---|
| 1 | 35 – 39 | 3 | 15% |
| 2 | 40 – 44 | 0 | 0% |
| 3 | 45 – 49 | 0 | 0% |
| 4 | 50 – 54 | 1 | 5% |
| 5 | 55 – 59 | 0 | 0% |
| 6 | 60 – 64 | 0 | 0% |
| 7 | 65 – 69 | 0 | 0% |
| 8 | 70 – 74 | 4 | 20% |
| 9 | 75 – 79 | 0 | 0% |
| 10 | 80 – 84 | 5 | 25% |
| 11 | 85 – 89 | 4 | 20% |
| 12 | 90 – 94 | 3 | 15% |

**Tabel 4.3 Distribution of Frequency by Applying Mimicry Memorization Method**




**Picture 4.4 Histogram of Students' Post Test in class B**

**2. Comparison of the Post-Test Results**

Based on the post-test administered to both groups, the comparative statistics—including mean scores, variances, and standard deviations—were obtained to evaluate

students' vocabulary mastery under each treatment. Class XI-A, which was taught using the Proprioceptive Method, achieved a **mean score of 67.75** with a **standard deviation of 16.261**. In contrast, Class XI-B, instructed through the Mimicry Memorization Method, obtained a **higher mean score of 72.25** with a **standard deviation of 18.601**. These differences provide an initial indication that the Mimicry Memorization Method may have produced slightly better vocabulary outcomes. A detailed comparison is presented in the table below.

| No | Statistic | Eksperiment A | Eksperiment B |
|---|---|---|---|
| 1 | N | 20 | 20 |
| 2 | Total score | 1.355,000 | 1.445,000 |
| 3 | Mean | 67,750 | 72,250 |
| 4 | Standard Deviation | 16,261 | 18,601 |
| 5 | Varian | 264,408 | 345,987 |
| 6 | Maks. Score | 85 | 90 |
| 7 | Min.score | 35 | 35 |

**Table 4.5 The Post Test Result of Both Classes**

| Data Description | Class XI A | Class XI B |
|---|---|---|
| | ***Post test*** | ***Post test*** |
| Mean | 67,75 | 72,25 |
| The Different Score between the Class | 4,50 | |
| Maks. Score | 85 | 90 |
| Min. score | 35 | 35 |

**Table 4.6. The Data Result at Eleventh Grade in Modern Islamic Boarding School of Nurul Hakim**

After post test from experiment A and experiment B was conducted, so that it concludes that there is a significant difference happened to both classes.

## B. Analysis Test

Before testing the hypothesis, the researcher conducted prerequisite analyses consisting of the **normality test** and the **homogeneity test**. These tests were used to ensure that the data met the assumptions required for parametric statistical analysis.

### 1. Normality Test

The normality test was conducted to determine whether the distribution of students' post-test scores in both Class XI-A and Class XI-B followed a normal distribution. The Liliefors test was applied to both sets of data, using a significance level of $\alpha = 0.05$. The data were considered normally distributed if the value of **Lcount < Ltable**. The detailed calculation and results of the Liliefors test are provided in the appendix.

### 2. Homogeneity Test

The homogeneity test was carried out to examine whether the variances of the two groups were equal. This test was conducted using the post-test scores of both classes, with a significance level of $\alpha = 0.10$. The data were categorized as homogeneous if **Fcount < Ftable**. Complete calculations for the homogeneity test are also presented in the appendix.

## C. Findings

This study aimed to determine whether the use of instructional methods in English language learning significantly influenced students' vocabulary mastery. Two methods—the Proprioceptive Method and the Mimicry Memorization Method—were implemented and compared to evaluate their effectiveness.

Both groups showed improvement after the treatment. Students in Class XI-A, who were taught through the Proprioceptive Method, achieved a lowest score of 35, a highest score of 85, and an average score of 67.75 on the post-test. Meanwhile, students in Class XI-B, who received instruction through the Mimicry Memorization Method, obtained a lowest score of 35, a highest score of 90, and a mean score of 72.25.

These results indicate that students taught through the Mimicry Memorization Method performed slightly better than those taught through the Proprioceptive Method. Thus, the findings support the conclusion that there is a meaningful difference between the two strategies in enhancing students' vocabulary mastery.

## D. Discussion

This research involved two variables: the dependent variable, which was students' vocabulary mastery, and the independent variables, which were the Proprioceptive Method and the Mimicry Memorization Method. The treatments for both groups were designed with equal difficulty levels and were evaluated using the same post-test to ensure fairness and validity.

The results of the study show a significant difference between the two methods in supporting vocabulary acquisition. This difference was reflected in the post-test scores, where the Mimicry Memorization Method yielded higher average performance. One plausible explanation is that both methods were relatively new to the students, which increased their engagement and motivation during the learning process.

Furthermore, the findings suggest that the typical classroom practice—where students are required to memorize vocabulary but are not consistently assessed or reinforced in subsequent meetings—may contribute to the decline in retention. In contrast, both experimental methods in this study required active involvement, repetition, and consistent recall, which supported better vocabulary retention.