**CHAPTER IV
FINDINGS AND DISCUSSION**

In this chapter, there are three sub-sections, namely findings, discussion, and limitations of this study. The first, Findings which discusses the results of research that has been carried out using the calculation of the data normality test and t-test, this normality test aims to determine whether the data used are normally distributed or not, while the t-test aims to determine whether there is a relationship between independent variable to the dependent variable. The dependent variable in this study is the students' vocabulary achievement and the independent variable in this research was the effectiveness of using Instagram. Second, the discussion is a sub-section that discusses the findings and finally, the limitation of this study discusses the shortcomings contained in this study.

* 1. **Findings**

**4.1.1 The Result of Pretest**

The results of the pretest score will be calculated using the calculation of the normality test and the t test. The pretest was conducted before the use of Instagram as a learning media for students.

1. **Score of Pretest**

This pretest score was obtained from the implementation of the pretest that had been carried out in one of the junior high school in Garut and this pretest data was taken before using Instagram as a learning medium, this pretest was carried out to know the students' initial scores regarding vocabulary mastery.

**Table 4.1 Score of Student Pre-test**

|  |  |
| --- | --- |
| Students code | Score of pre-test |
| 1 | 20 |
| 2 | 30 |
| 3 | 40 |
| 4 | 10 |
| 5 | 20 |
| 6 | 50 |
| 7 | 50 |
| 8 | 20 |
| 9 | 60 |
| 10 | 60 |
| 11 | 30 |
| 12 | 70 |
| 13 | 70 |
| 14 | 70 |
| 15 | 10 |
| 16 | 50 |
| 17 | 30 |
| 18 | 50 |
| 19 | 50 |
| 20 | 20 |
| 21 | 70 |
| 22 | 50 |
| 23 | 40 |
| 24 | 70 |
| 25 | 20 |
| 26 | 80 |
| 27 | 20 |
| 28 | 30 |
| 29 | 40 |
| 30 | 30 |

Based on the table above the minimum score of pretest is 10 and the maximum score is 80. There were 2 students who achieved a minimum score of 10, and there was 1 student who achieved a maximum score of 80 during the implementation of this pre-test. The average value in this pretest score is 42.00.

1. **Normality Test Analysis**

This data normality test aims to determine whether the data used in the pretest and posttest are normally distributed or not. Data is declared normally distributed if the significance level is more than 0.005.

**Table 4.2 Normality Test of Pre-Test Result**

**One-Sample Shapiro Wilk Test**

|  |  |
| --- | --- |
| N | 30 |
| Mean | 42 |
| Median | 40 |
| Std. Deviation | 20,410 |
| Minimum | 10 |
| Maximum | 80 |
| Range | 70 |
| **Shapiro-Wilk**Asymp.Sig. (2-tailed**)** | ,057 |

In the table above it is written that N or score of normality is 30, mean of the post-test data is 42. While the median of the pretest data results is 40, and the standard deviation or average standard deviation of this data is 20,410. The minimum in the table above shows the minimum score in the pretest is 10, and the maximum in the table above is the maximum score in the pretest is 80. The range in the table above is the difference between the maximum score minus the minimum score, a range or distance is formed which is 70, last there is Asymp.sig from the results of data processing from Asymp.Sig this is a determination of whether these data are normally distributed or not, because the Asymp.Sig score or the level of significance in the table above is 0,057 in other words greater than 0.005 then the data This pretest was declared normally distributed.

1. **T-test Analysis**

The t-test aims to determine whether there is a relationship between independent variable to the dependent variable. The dependent variable in this study is the students' vocabulary achievement and the independent variable in this research was the effectiveness of using Instagram. The calculation of the t-test in the early research was carried out using SPSS and the data that came out automatically became the final result of this research, therefore the results of the t-test will be presented in the sub-heading of the final calculation.

**4.1.2 The Result of Post-Test**

The results of the pretest score will be calculated using the calculation of the normality test and the t test. The post test was conducted after the use of Instagram as a learning media for students.

1. **Score of Post-Test**

This post-test score was obtained from the post-test implementation that had been carried out in one of the junior high school in Garut district and this post-test data was taken after using Instagram as a learning media, this post-test was carried out to know the final score of students after implementation of treatment.

 **Table 4.3**

**Score of Student Post-test**

|  |  |
| --- | --- |
| Students code | Score of post-test |
| 1 | 40 |
| 2 | 60 |
| 3 | 50 |
| 4 | 30 |
| 5 | 50 |
| 6 | 60 |
| 7 | 60 |
| 8 | 40 |
| 9 | 80 |
| 10 | 80 |
| 11 | 50 |
| 12 | 90 |
| 13 | 80 |
| 14 | 80 |
| 15 | 30 |
| 16 | 80 |
| 17 | 60 |
| 18 | 70 |
| 19 | 70 |
| 20 | 40 |
| 21 | 80 |
| 22 | 80 |
| 23 | 80 |
| 24 | 90 |
| 25 | 40 |
| 26 | 100 |
| 27 | 40 |
| 28 | 50 |
| 29 | 80 |
| 30 | 50 |

Based on the table above the minimum score of pretest is 30 and the maximum score is 100. There were 2 students who achieved a minimum score of 30, and there was 1 student who achieved a maximum score of 100 during the implementation of this pre-test. The average value in this pretest score is 63.00

1. **Normality Test Analysis**

This data normality test aims to determine whether the data used in the pretest and posttest are normally distributed or not. Data is declared normally distributed if the significance level is more than 0.005

**Table 4.4 Normality Test of Post-Test Result**

**One-Sample Shapiro Wilk Test**

|  |  |
| --- | --- |
| N | 30 |
| Mean | 63 |
| Median | 60 |
| Std. Deviation | 19,678 |
| Minimum | 30 |
| Maximum | 100 |
| Range | 70 |
| **Shapiro-Wilk**Asymp.Sig. (2-tailed**)** | ,039 |

In the table above it is written that N or score of normality is 30, mean of the post-test data is 63. While the median of the post-test data results is 60, and the standard deviation or average standard deviation of this data is 19.678. The minimum in the table above shows the minimum score in the pretest is 30, and the maximum in the table above is the maximum score in the pretest is 100. The range in the table above is the difference between the maximum score minus the minimum score, a range or distance is formed. which is 70, last there is Asymp.sig from the results of data processing from Asymp.Sig this is a determination of whether these data are normally distributed or not, because the Asymp.Sig score or the level of significance in the table above is 0.039 in other words greater than 0.005 then the data This post-test was declared normally distributed.

1. **T-test analysis**

The t-test aims to determine whether there is a relationship between independent variable to the dependent variable. The dependent variable in this study is the students' vocabulary achievement and the independent variable in this research was the effectiveness of using Instagram. The calculation of the t-test in the early research was carried out using SPSS and the data that came out automatically became the final result of this research, therefore the results of the t-test will be presented in the sub-heading of the final calculation.

4.1.3 **Pretest and Post-Test (The Effect of Instagram To Vocabulary)**

This sub-chapter presents both the results of the pretest and post-test as well as the results of their calculations.

1. **Graph of Pretest and Post-test Score**

The data below is an illustration of the grafic of pretest and post-test results. The red line is the picture line for the pretest and the blue line is for the post-test. As shown in the picture above, the blue line is above the red line which indicates that the student's post-test score is above the student's pretest score or there is an increase in the student's score from the pretest test

**Figure 4.1 Percentage Score Pretest and Post-test**

1. **Calculation of Mean, Std. Deviation Pretest and Post-Test**

The table above presents the mean, normality, standard deviation, and standard errors of the implementation of the pretest and posttest.

**Table 4.5 Table of presentation of mean and std data. deviation**

|  |
| --- |
| **Paired Samples Statistics** |
|  | Mean | N | Std. Deviation | Std. Error Mean |
|  | PRE\_TEST | 42,00 | 30 | 20,410 | 3,726 |
| POST\_TEST | 63,00 | 30 | 19,678 | 3,593 |

In this study, the mean of the pretest was 42.00 and that of the post-test was 63.00. While the value of N for pretest and posttest is 30. For Std. Deviation from pretest is 20,410 and for posttest 19,678. The standard error score for the pretest was 3.726, and the post-test was 3.593.

1. **Final Calculation**

In this final calculation, data from the calculation results using SPSS are presented, and the data is the final data or the results of this research, the data will be presented in tabular form.

**Table 4.5 Final calculation of pretest and post-test score**

|  |
| --- |
| **Paired Samples Test**PRE\_TEST & POST\_TEST |
| Mean | -21,00 |
| Std. Deviation | 8,030 |
| Lower | -23,998 |
| Upper | -18,002 |
| Sig. (2-tailed) | ,000 |

From the test results above, the lower is negative and the upper is negative or Sig. (2-tailed) = 0.000 < = 0.05 according to the theory which states that if the upper and lower are negative, then Ho is rejected or Ha is accepted (Sundayana 2020). In other words, there is a difference or increase in students' vocabulary skills after using Instagram as a learning medium, which means that Instagram affects students' vocabulary skills.

**4.2 Discussions**

This study shows an increase in student scores that there is an increase in the minimum score at the pretest to 10 and at the post-test to 30, as well as the maximum score at the pretest to 80 and the post-test to 100. All participants' scores increased after they learned English through Instagram, and the results of data analysis using a t-test showed that the mean score was -21.00 with a standard deviation score of 8.030 and lower -23.998 and upper -18.002. The lower and upper scores are both negative or sig. (2-tailed) = 0.000 < = 0.05 This shows that the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted following the theory that has been mentioned by one of the experts. If Ho is rejected and Ha is accepted, it means that Instagram affects students' vocabulary skills.

The result of this research is line with the result of Agustin and Ayu (2021) conducted a study entitled "The impact of using Instagram for increasing vocabulary and listening skill." the result of their research was that Instagram affected the listening skills and vocabulary of English education students. Rosyida and Seftika (2018) also have the same result about their research that have entitled "How is Instagram Implemented in Teaching Speaking?" and the result for their research is Instagram has a beneficial effect on improving students' speaking ability.

 The possible factors that make instagram is affect to vocabulary skill for student in junior high school is instagram make the student interesting to learning vocabulary everywhere. Some of student said that they became more interest when learning vocabulary on social media especially instagram it is supporting to (Media Learning in Digital Era, 2018); educators must be creative and innovative to create learning media.

**4.3 Limitations of this study**

The limitation or weakness in this research lies in the research process the researcher realizes that in a study there must be a lack and a lot of weakness. The first of data collection, the researcher did not use the control class and only made one class as the research subject, so that the researcher could not compare the results of the control class and the experimental class. Secondly, this study did not use qualitative data so that in this study there was no participant interview data that might strengthen the results of this study.