**CHAPTER IV**

**DATA ANALYSIS AND DISCUSSION**

**4.1 Data Analysis**

The data of this research were the result of students’ speaking ability after taught using audio-visual method. The data were divided into two groups, namely experimental group and control group. This research was conducted in six meetings for each group either control or experimental group; four meetings by online class and two meetings by direct lecture. Both of groups were given the same essay on tests form in speaking by using audio-visual method in pre-test and post-test. Hence, the researcher got the score of students’ speaking as the data and it can be seen in Appendix.

The data were collected by giving the test as mentioned on the instrument of collecting data. The data of this research were obtained from the result of the pre-test and post-test were from experimental and control group. The analysis was intended to earn the significance difference between experimental group which taught by using audio-visual method on the students’ speaking ability. The data of pre-test and post–test from two groups were calculated by using statistical formula. Some of students’ score as representation in experimental group and control group were analyzed take from the highest and the lowest score.

* + 1. **Calculating the Data Using Formula**

After the researcher assessed students’ scores, then they were calculated into formulas to find out Standard Deviation and t-test to know the differences between the students’ score in the experimental group and control group, it could be seen in the tables below:

**Table 4.1**

**Students’ Achievement in Experimental Group**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Students’ Initiatial** | **Students’ Total Score** | | **D**  **(Y2-Y1)** | **D2** |
| **Pre-test** | **Post-test** |
| 1. | ARH | 44 | 84 | 40 | 1600 |
| 2. | A | 40 | 80 | 40 | 1600 |
| 3. | AU | 48 | 84 | 36 | 1296 |
| 4. | AR | 32 | 64 | 32 | 1024 |
| 5. | DK | 40 | 80 | 40 | 1600 |
| 6. | DA | 44 | 88 | 44 | 1936 |
| 7. | ESH | 48 | 88 | 40 | 1600 |
| 8. | IDM | 52 | 84 | 32 | 1024 |
| 9. | JAP | 40 | 88 | 48 | 2304 |
| 10. | LR | 44 | 84 | 40 | 1600 |
| 11. | MS | 40 | 80 | 40 | 1600 |
| 12. | MA | 48 | 76 | 28 | 784 |
| 13. | MR | 40 | 80 | 40 | 1600 |
| 14. | MJS | 52 | 72 | 20 | 400 |
| 15. | NJ | 48 | 88 | 40 | 1600 |
| 16. | NA | 48 | 84 | 36 | 1296 |
| 17. | RN | 44 | 88 | 44 | 1936 |
| 18. | RNP | 48 | 84 | 36 | 1296 |
| 19. | RNR | 60 | 92 | 32 | 1024 |
| 20. | R | 40 | 80 | 40 | 1600 |
| 21. | RS | 44 | 76 | 32 | 1024 |
| 22. | RA | 44 | 72 | 28 | 784 |
| 23. | SM | 44 | 72 | 28 | 784 |
| 24. | SNA | 48 | 80 | 32 | 1024 |
| 25. | SM | 44 | 84 | 40 | 1600 |
| 26. | TH | 40 | 76 | 36 | 1296 |
| 27. | TN | 44 | 84 | 40 | 1600 |
| 28. | WP | 52 | 80 | 28 | 784 |
| 29. | MIS | 44 | 72 | 28 | 784 |
| 30 | PA | 48 | 88 | 40 | 1600 |
|  | **Total** | **1352** | **2432** | **1080** | **40000** |
| **Mean** | **45,07** | **81,07** | **36** | **1333,33** |

From the table above, it can be concluded that the total score of pre-test in the Experimental group was 1352 and the mean in the pre-test was 45,07. Meanwhile, in post-test, the total score was 2432 and the mean of the score was 81,07. So, it can be concluded that the total and the mean score in post-test of experimental group was higher than the total and the mean in pre-test of control group. In order to know the score and the mean of experimental group can be seen of diagram below:

**Chart 1**

**The result of Students’ score in Experimental Group**

Then the researcher analyzed Standard Deviation (SD) to know the difference between pre-test and post test. The result of Standard Deviation (SD) in experimental group was 6,21.

Thus, to find out the significant improvement in the result of pre-test and post-test in experimental group, the researcher used t-test formula. The result of t-test was 31,86.

The result of t-calculation showed that t-test is 31,86 and t-table is 2,00. The t-test is higher than t-table (31,86 > 2,00). It means that using audio-visual method signifficantly affects on students’ speaking ability. After knowing the students’ score in experimental group, then the researcher calculated in Standard Deviation and t-test to know the students’ score in control group. It could be seen in the table below:

**Table 4.2**

**Students’ Achievement in Control Group**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Students’ Initial** | **Students’ Total Score** | | **D**  **(Y2-Y1)** | **D2** |
| **Pre-test** | **Post-test** |
| 1. | A | 40 | 64 | 24 | 576 |
| 2. | AFA | 44 | 64 | 20 | 400 |
| 3. | AB | 48 | 68 | 20 | 400 |
| 4. | ARA | 40 | 56 | 16 | 256 |
| 5. | DD | 48 | 68 | 20 | 400 |
| 6. | DA | 52 | 60 | 8 | 64 |
| 7. | DK | 36 | 60 | 24 | 576 |
| 8. | DPS | 48 | 64 | 16 | 256 |
| 9. | DAS | 48 | 68 | 20 | 400 |
| 10. | E | 44 | 60 | 16 | 256 |
| 11. | IHL | 48 | 60 | 12 | 144 |
| 12. | JA | 40 | 64 | 24 | 576 |
| 13. | J | 44 | 64 | 20 | 400 |
| 14. | MND | 48 | 60 | 12 | 144 |
| 15. | MRF | 48 | 68 | 20 | 400 |
| 16. | MS | 48 | 60 | 12 | 144 |
| 17. | MV | 44 | 68 | 24 | 576 |
| 18. | MFN | 48 | 60 | 12 | 144 |
| 19. | NE | 48 | 76 | 28 | 784 |
| 20. | PW | 56 | 64 | 8 | 64 |
| 21. | RS | 44 | 64 | 20 | 400 |
| 22. | RD | 48 | 60 | 12 | 144 |
| 23. | RP | 44 | 60 | 16 | 256 |
| 24. | RA | 52 | 64 | 12 | 144 |
| 25. | S | 44 | 56 | 12 | 144 |
| 26. | SU | 44 | 60 | 16 | 256 |
| 27. | SFL | 44 | 64 | 16 | 256 |
| 28. | TGS | 48 | 64 | 12 | 144 |
| 29. | UA | 52 | 64 | 12 | 144 |
| 30 | WW | 44 | 68 | 20 | 400 |
|  | **Total** | **1384** | **1900** | **516** | **9680** |
| **Mean** | **46,13** | **63,33** | **17,2** | **322,67** |

From the table above, it can be concluded that the total score of pre-test was 1384 and the mean was 46,13. In post-test, the total score was 1900 and the mean of the score was 63,33. So, it can be concluded that the total score and mean score in post-test of experimental group was higher than the total score and mean score in pre-test of control group. To know the core and mean of control group can be seen in the diagram below:

**Chart 2**

**The Result of Students’ Score in Control Group**

To measure the difference between pre-test and post-test in ontrol group, the researcher used Standard Deviation (SD) formula. The result of Standard Deviation in control group was 5,27.

Thus, to find out the significant improvement in the result of pre-test and post-test in experimental group, the researcher used t-test formula. The result of t-test in control group was 17,91. It means that the result of Experimental Group was higher than the result of t-test in control group, namely 31,86 > 17,91.

* 1. **Testing Hypothesis**

In analyzing the hypothesis, it referred to the t-table at the level significant of 0,05 (5%). The testing criterion used for hypothesis result is; if t-test > t-table, it means that the alternative hypothesis (Ha) is accepted and null hypothesis (Ho) is rejected. Furthermore, the t-table with the level significance of 0,05 with the degree of freedom (df) → n-1=60-1 =59 is 2,00. This means that Ha is this research is accepted since the t-test in the Experimental group is 31,86 and the t-table is 2.00. Because the t-test value is higher than the t-table (31,86 > 2.00). Therefore, it can be concluded that audio-visual method can improve students’ speaking ability.

* 1. **Discussion**

Based on the result above, the researcher found that the students speaking ability was lack. The researcher realized that the students need an appropriate way to solve this problem. The researcher wants to help the students in term of improving students’ speaking ability. The students need an interesting and attractive method to motivate them in learning speaking. The process of learning has a big effect for the students' achievement. During the treatment through this method, the students feel enjoy, they became active and get more confidence. They give full attention to the material. This result was in line with Richard & renandya (2013) which stated that providing the students with audio-visual stimuli and with opportunities to use the language is a possible way to stimulating students to speak.

From the findings, the description of the mean score of the students’ pre-test and post-test of experimental group showed improvement. The mean score of pre-test and post-testof experimental group were45,07 and 81,07 which showed improvement. The data showed that the use of audio-visual method on students’ speaking ability is effective, by using video as the medio in audio-visual method can make students feel enjoy and fun in learning speaking. As Cakir (2014:3) affirms that audio-visual helps the teacher to make the classroom to be more interesting and enjoyable that can motivate the students pay more attention in the class.