## CHAPTER IV <br> RESEARCH RESULTS AND DISCUSSION

This chapter gives an explanation of research results including school description and respondent, analysis data including validity test, reliability test, assumption analysis test, hypotheses test using descriptive statistical analysis of data from pretest and posttest results, statistical inferential analyses, and discussion.

## A. Research Results

## 1. School Description

Islamic Senior High School Jepara was founded in 2003 and was the first Madrasah Aliyah to stand in the village of Blingoh Donorojo, Jepara. Madrasah Aliyah Blingoh stands under the Islamic Senior High School Jepara Foundation. The background to the establishment of this Madrasah was the large number of MTS Islamiyah graduates who did not continue to the next level as well as the desire of the foundation's management to improve the human resources of the Blingoh village community and its surroundings.

The management of the Nahdlatusy Syubban Foundation, which at that time was chaired by K.Abdul Rosyad was initiator of the founding of Madrasah Aliyah Nahdlatusy Syubban Blingoh. MA Nahdlatusy Syubban consists of Natural science \& Social Science classes with a total number of students consisting of 120 , both men and women. The number of educator is 33 people. The school facility where the research was conducted is as follows: ${ }^{1}$

Table 4.1 School Facilities

| No. | School Facilities |  |
| :---: | :--- | :--- |
| 1. | School Name | Islamic Senior High School Jepara |
| 2. | School Status | Private School |
| 3. | Village | Blingoh |
| 4. | District | Donorojo |
| 5. | Country Town | Jepara |
| 6. | Province | Jawa Tengah |
| 7. | School Area | Blingoh Rt. 08/01 Donorojo Jepara |

${ }^{1}$ Choirul Ansori, A Message to The Researcher, 8 Apri,1 2023.

| 8. | Accreditation | B |
| :---: | :---: | :---: |
| 9. | Total Number of Teachers | 29 |
| 10. | Number of Students | 120 |
| 11. | Classroom | 6 |
| 12. | Library | 1 |
| 13. | R. Lab. IPA | 1 |
| 14. | R. Lab. Biology |  |
| 15. | R. Lab. Physics |  |
| 16. | R. Lab. Chemistry | 1 |
| 17. | R. Lab. Computer | 1 |
| 18. | R. Leader | 1 |
| 19. | R. Teacher |  |
| 20. | R. Administration | 1 |
| 21. | R. Counseling | 1 |
| 22. | Place of worship | 1 |
| 23. | R. UKS |  |
| 24. | Toilet | 4 |
| 25. | Warehouse | 1 |
| 26. | R. Circulation | 1 |
| 27. | Sports venues | 2 |
| 28. | R. Student Council | 1 |

R. Others

## 2. Respondent

This research was conducted on Saturday, 1 April to Monday, 1 May 2023 with the subject of descriptive text using snakes and ladders media for class tenth grade students of Islamic Senior High School Jepara. This research was conducted in class tenth of social science which totaled 17 students consisting of 6 men and 11 women. The researcher conducted this research at Islamic Senior High School Jepara for about two weeks. ${ }^{2}$ The students who were used as respondents in this study were as follows:

Table 4.2 Respondent of the Research

| No. | Name | Gender | Respondent |
| :---: | :--- | :---: | :---: |
| 1. | Abida Dauri | F | Respondent 1 |
| 2. | Ah. Zubaidi Nur Abid | M | Respondent 2 |
| 3. | Ahmad Rifai | M | Respondent 3 |
| 4. | Asyifa Jahwarotin <br> Thohiroh | F | Respondent 4 |
| 5. | Cindy Anita Lestari | F | Respondent 5 |
| 6. | Dian Rahayu Setyorini | F | Respondent 6 |
| 7. | Dina Aviana | F | Respondent 7 |
| 8. | Dwi Nanda Aditya | M | Respondent 8 |
| 9. | Fana Nailil Muna | F | Respondent 9 |

[^0]| 10. | Fina Fadhilatul Lailiyah | F | Respondent 10 |
| :---: | :--- | :---: | :---: |
| 11. | Hanan Nauval <br> Ilhamsyah | M | Respondent 11 |
| 12. | Joko Rustiawan | M | Respondent 12 |
| 13. | Khoriana Khoirunnisa | F | Respondent 13 |
| 14. | Nila Muhtarozatul U | F | Respondent 14 |
| 15. | Wava Audy <br> Bakurrohman | M | Respondent 15 |
| 16. | Zahro Naisatun Nisa | F | Respondent 16 |
| 17. | Zaskya Meca Atika <br> Dewi | F | Respondent 17 |

3. Analysis Data

## a. Validity Test

1) Content Validity Content validity or expert validity is the test property which is used to ascertain how far the research instrument measures the level of mastery of certain content in accordance with the research objectives. ${ }^{3}$ In this study content validity was used to ascertain the test questions could be used to measure the level of resilience and students' mastery in speaking. Validation The instrument used in this study used validators from two English lecturers at IAIN Kudus, namely Misbahul Munir, AP.,M.Pd and Anisah Setyaningrum, M.Pd and two English teachers at Islamic Senior High School Jepara.

According to the suggestion from the validator, the instructions for conducting the test need to be added and use proper grammar for the instruction, some

[^1]sentence structures in term instrument should be recheck, especially some dictions and collocations, replace the specific family relationship like mother or father with more common people like idol, artist, actors, make more colorful tiles and add more pictures to create an aesthetic board game. After the test instruments were revised and prepared according to the suggestions of the validator, the test instruments were feasible to be tested on respondents.

The score content-validity coefficient of the experts are calculated by the Aiken formula to make sure that the questions are valid to be tasted. ${ }^{4}$ Data calculation can be seen in the appendix. Content validation by experts and data calculation can be seen in the appendix.
Table 4.3 Calculation Results of Expert Score Using the Aiken V

| No <br> Item | Result Value <br> $(\mathrm{V})$ | Aiken Value <br> $(0,4)$ | Information |
| :---: | :---: | :---: | :---: |
| 1 | 0,87 | 0,4 | Valid |
| 2 | 0,93 | 0,4 | Valid |
| 3 | 0,81 | 0,4 | Valid |
| 4 | 0,93 | 0,4 | Valid |
| 5 | 0,87 | 0,4 | Valid |
| 6 | 0,87 | 0,4 | Valid |
| 7 | 0,81 | 0,4 | Valid |
| 8 | 0,87 | 0,4 | Valid |
| 9 | 0,93 | 0,4 | Valid |

${ }^{4}$ Amrullah Amrullah,lovy Herayati, Tesha Sengupta-Irving, Proceedings of the $3^{\text {rd }}$ annual conference of education and social sciences (ACCESS 2021), (Atlantis Press SARL, 2023), page 135. https://books.google.co.id/books?id=YoekEAAAQBAJ\&pg=PA135\&dq=Ai ken+v+formula\&hl=id\&newbks=1\&newbks_redir=0\&source=gb_mobile_se arch\&sa=X\&ved=2ahUKEwjL6KvUjq7_AhVY1jgGHX7uCQEQ6wF6BAg KEAU\# $\mathrm{v}=$ onepage \&q=Aiken\%20v\%20formula\&f=false

| 10 | 0,93 | 0,4 | Valid |
| :---: | :---: | :---: | :---: |
| 11 | 0,93 | 0,4 | Valid |
| 12 | 0,81 | 0,4 | Valid |
| 13 | 0,87 | 0,4 | Valid |
| 14 | 0,87 | 0,4 | Valid |
| 15 | 0,75 | 0,4 | Valid |
| 16 | 0,87 | 0,4 | Valid |
| 17 | 0,87 | 0,4 | Valid |
| 18 | 0,81 | 0,4 | Valid |
| 19 | 0,93 | 0,4 | Valid |
| 20 | 0,81 | 0,4 | Valid |
| 21 | 0,87 | 0,4 | Valid |
| 22 | 0,93 | 0,4 | Valid |
| 23 | 0,87 | 0,4 | Valid |
| 24 | 0,81 | 0,4 | Valid |
| 25 | 0,93 | 0,4 | Valid |
| 26 | 0,93 | 0,4 | Valid |
| 27 | 0,93 | Valid |  |


| 28 | 0,93 | 0,4 | Valid |
| :---: | :---: | :---: | :--- |
| 29 | 0,87 | 0,4 | Valid |
| 30 | 0,87 | 0,4 | Valid |
| 31 | 0,87 | 0,4 | Valid |
| 32 | 0,87 | 0,4 | Valid |
| 33 | 0,93 | 0,4 | Valid |
| 34 | 0,93 | 0,4 | Valid |
| 35 | 0,81 | 0,4 | Valid |
| 36 | 0,87 |  | Valid |

Based on the results of experts' scores using Aiken V calculations obtained results from 36 question items obtained, all question items were declared valid because $\mathrm{V}>0,4$. So, all questions are used to test students' speaking mastery in trial class.
2) Construct Validity

Validity testing is to measure valid or invalid statements or questions used in study. ${ }^{5}$ The score results of instrument trials were carried out with the number of respondents 15 . The level of significance uses a magnitude of $5 \%$ so that the $\mathrm{r}_{\text {table }}$ is $\mathrm{df}=\mathrm{N}-2$ and $15-2=$ 13. So $r_{\text {tabel }}$ is 0,4409 . If $r_{\text {count }}>r_{\text {table }}$ then the item is
${ }^{5}$ Budi Darma, STATISTIKA PENELITIAN MENGGUNAKAN SPSS (Uji Validitas, Uji Reliabilitas, Regresi Linier Sederhana, Regresi Linier Berganda, Uji t, Uji F, R2) (Guepedia, 2021), hal 7. https://www.google.co.id/books/edition/STATISTIKA_PENELITIAN_MEN GGUNAKAN_SPSS_U/acpLEAAAQBAJ?hl=id\&gbpv=1\&dq=validitas+da n+reliabilitas\&printsec=frontcover.
declared valid. The calculation results obtained are as follows:
Table 4.4 Trial Result of Test Questions of Students' Speaking Mastery

| No <br> Item | Correlation <br> $\left(\mathbf{r}_{\text {hitung }}\right)$ | $\mathbf{r}_{\text {tabel }}$ <br> $\mathbf{n = 1 3}$ <br> $\mathbf{5 \%})$ | Information |
| :---: | :---: | :---: | :---: |
| 1 | 0,698 | 0,440 | Valid |
| 2 | 0,523 | 0,440 | Valid |
| 3 | 0,584 | 0,440 | Valid |
| 4 | 0,599 | 0,440 | Valid |
| 5 | 0,719 | 0,440 | Valid |
| 6 | 0,551 | 0,440 | Valid |
| 7 | 0,611 | 0,440 | Valid |
| 8 | 0,629 | 0,440 | Valid |
| 9 | 0,628 | 0,440 | Valid |
| 10 | 0,666 | 0,440 | Valid |
| 11 | 0,655 | 0,440 | Valid |
| 12 | 0,545 | 0,440 | Valid |
| 13 | 0,593 | 0,440 | Valid |
| 14 | 0,578 | 0,440 | Valid |
| 15 | 0,645 | 0,440 | Valid |
| 16 | 0,792 | 0,440 | Valid |
| 17 | 0,658 | 0,440 | Valid |
| 18 | 0,598 | 0,440 | Valid |
| 19 | 0,610 | 0,440 | Valid |
| 20 | 0,620 | 0,440 | Valid |
| 21 | 0,564 | 0,440 | Valid |


| 22 | 0,793 | 0,440 | Valid |
| :---: | :---: | :---: | :---: |
| 23 | 0,743 | 0,440 | Valid |
| 24 | 0,536 | 0,440 | Valid |
| 25 | 0,613 | 0,440 | Valid |
| 26 | 0,630 | 0,440 | Valid |
| 27 | 0,625 | 0,440 | Valid |
| 28 | 0,632 | 0,440 | Valid |
| 29 | 0,698 | 0,440 | Valid |
| 30 | 0,590 | 0,440 | Valid |
| 31 | 0,622 | 0,440 | Valid |
| 32 | 0,587 | 0,440 | Valid |
| 33 | 0,558 | 0,440 | Valid |
| 34 | 0,587 | 0,440 | Valid |
| 35 | 0,623 | 0,440 | Valid |
| 36 | 0,601 | 0,440 | Valid |

Based on the results of the instrument SPSS calculations obtained results from 36 question items obtained all question items were declared valid because $r_{\text {count }}>r_{\text {table }}$ with a significance level of $5 \%$ and $n=15-$ $2=13$. Then, 36 valid items will be used in research.

## b. Reliability Test

The reliability test was carried out with the aim of knowing whether the instrument is consistent when repeated measurements were made. ${ }^{6}$ The test of reliability results is calculated from the questionnaire validation test. ${ }^{7}$ This study calculated the reliability of the instrument trial using Cronbach's Alpha is greater than 0.60 . The reliability calculation results obtained are as follows:
Table 4.5 Reliability Test Results of Students' Mastery in Speaking

| Reliability Statistics |  |  |
| ---: | ---: | :---: |
| Cronbach's Alpha | N of Items |  |
|  | .954 |  |

The results of the calculation of the reliability test of the speaking mastery test instrument have a value of 0,954 . Based on these calculations, the instruments are reliable because the Cronbach's Alpha results for the instrument are $>0.60$.
c. Assumption Analysis Test

## 1) Normality Test

The normality test is carried out to test the normality of the distribution of one data. ${ }^{8}$ A data is said to be distributed normally if the significance value is $>0,05$. The results of the Shapiro-Wilk normality test is as follows:

Table 4.6 Tests of Normality Result
Tests of Normality

|  | Kolmogorov-Smirnov $^{\text {a }}$ |  |  | Shapiro-Wilk |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Statistic | df | Sig. | Statisti | df | Sig. |
| Pretest Students' <br> Mastery in Speaking | .153 | 17 | $.200^{*}$ | .919 | 17 | .142 |

[^2]| Posttest Students' <br> Mastery in Speaking | .200 | 17 | .068 | .930 | 17 | .214 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

According to the results of calculations using the Shapiro-Wilk test in the table above, it can be concluded that there is significance for the class pretest and posttest. The score of the pretest class is 0.142 and 0.214 is the score of the posttest class, $0.142>0,05$ and $0.214>0,05$. From this result, the researcher can conclude that the data are normally distributed.

## d. Hypotheses Test

1) Descriptive Statistical Analysis

The researcher uses descriptive statistical analysis to explain the result data from pretest and posttest. Here is the description of pretest and posttest result data:
a) Data from Pretest Results

The researcher conducted a pretest on 1 April 2023 at Islamic Senior High School Jepara by means of oral tests which were carried out by each student by throwing several questions based on the theme (descriptive text) to tenth grade students. The score calculation and grades for each student were as follows:
Table 4.7 Pretest Results Data

| No. | Respondent | Gender | Pretest <br> Scores |
| :---: | :--- | :---: | :---: |
| 1. | Respondent 1 | F | 55 |
| 2. | Respondent 2 | M | 60 |
| 3. | Respondent 3 | M | 45 |
| 4. | Respondent 4 | F | 60 |
| 5. | Respondent 5 | F | 50 |


| 6. | Respondent 6 | F | 60 |
| :---: | :--- | :---: | :---: |
| 7. | Respondent 7 | F | 70 |
| 8. | Respondent 8 | M | 60 |
| 9. | Respondent 9 | F | 75 |
| 10. | Respondent 10 | F | 70 |
| 11. | Respondent 11 | M | 75 |
| 12. | Respondent 12 | F | 45 |
| 13. | Respondent 13 | F | 75 |
| 14. | Respondent 14 | M | 60 |
| 15. | Respondent 15 | F | 65 |
| 16. | Respondent 16 | F | 50 |
| 17. | Respondent 17 |  | 7045 |
|  | Tean |  | 61,47 |

Based on the table 4.7 above, it shows that the number of students is 17 students, while the total number of pretest results is 1045 before being given treatment using media images. With an average pretest score of 61, 47 .

The results of the calculation of the descriptive statistical analysis of the pretest and posttest results using the Software Statistical Package for The Social Sciences (SPSS) 25 for Windows. The Pretest is carried out before students are given a different treatment. The results
of the pretest calculations can be seen in the table below:
Table 4.8 Description of Pretest Data

| Value | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :---: | :---: | :---: | :---: | :---: |
| 45 | 2 | 11,8 | 11,8 | 11,8 |
| 50 | 2 | 11,8 | 11,8 | 23,6 |
| 55 | 1 | 5,9 | 5,9 | 29,5 |
| 60 | 5 | 29,4 | 29,4 | 58,9 |
| 65 | 3 | 5,9 | 5,9 | 64,8 |
| 70 | 3 | 17,6 | 17,6 | 82,4 |
| 75 | 17 | 100,0 | 100,0 |  |
| Total | 17,6 | 17,6 | 100,0 |  |

Related to the table 4.8 above, it shows that the frequency of the pretest results, namely There were 2 students with 45 scores, 2 students with 50 scores, 1 student with 55 scores, 5 students with 60 scores, and 1 student with 65 scores, a total of 3 students with 70 scores, and a total of 3 students with 75 scores.
Table 4.9 Frequency Distribution of Pretest Results

| $\mathbf{N}$ | Value |
| :--- | :---: |
| Valid | 17 |
| Missing | 0 |
| Mean | 61,47 |
| Median | 75 |


| Mode | 70 and 75 |
| :--- | :---: |
| Maximum | 75 |
| Minimum | 45 |
| Sum | 1045 |

Related to the table 4.9 above, it shows that pretest results obtained were 16 data with a total 1045 data. The mean pretest score was 61.47 , with a median of 75 and mode scores of 70 and 75 . The pretest score had a minimum score of 45 and a maximum score of 75 .
b) Data from Posttest Results

The researcher conducted a posttest on 9 April 2023 at Islamic Senior High School Jepara by means of oral tests which were carried out by each student by throwing several questions based on the theme (descriptive text) to tenth grade students. The score calculation and grades for each student were as follows:
Table 4.10 Posttest Results Data

| No. | Respondent | Gender | Posttest <br> scores |
| :---: | :--- | :---: | :---: |
| 1. | Respondent 1 | F | 75 |
| 2. | Respondent 2 | M | 80 |
| 3. | Respondent 3 | M | 75 |
| 4. | Respondent 4 | F | 80 |
| 5. | Respondent 5 | F | 80 |
| 6. | Respondent 6 | F | 85 |


| 7. | Respondent 7 |  | F | 90 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8. | Respondent 8 |  | M | 80 |  |
| 9. | Respondent 9 |  | F | 95 |  |
| 10. | Respondent 10 |  | F | 90 |  |
| 11. | Respondent 11 |  | M | 95 |  |
| 12. | Respondent 12 |  | M | 70 |  |
| 13. | Respondent 13 |  | F | 90 |  |
| 14. | Respondent 14 |  | F | 90 |  |
| 15. | Respondent 15 |  | M | 85 |  |
| 16. | Respondent 16 |  | F | 80 |  |
| 17. | Respondent 17 |  | F | 90 |  |
| Total |  |  |  |  | 1430 |
| Mean |  |  |  |  | 84,12 |

Based on the table 4.10 above, it shows that the number of students is 17 students, while the total number of posttest is 1430, after being given treatment using game media. With an average posttest of 84,12 .

The results of the calculation of the descriptive statistical analysis of the pretest and posttest results using the Software Statistical Package for The Social Sciences (SPSS) 25 for Windows. Giving a posttest is done after being given treatment. The posttest calculation results are in the table below:

Table 4. 11 Description of Posttest Data

| Value | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :---: | :---: | :---: | :---: | :---: |
| 70 | 1 | 5,9 | 5,9 | 5,9 |
| 75 | 2 | 11,8 | 11,8 | 11,7 |
| 80 | 5 | 29,4 | 29,4 | 47,1 |
| 85 | 2 | 11,8 | 11,8 | 58,9 |
| 90 | 5 | 29,4 | 29,4 | 88,3 |
| 95 | 2 | 11,8 | 11,8 | 100,0 |
| Total | 17 | 100,0 | 100,0 |  |

Related to the table 4.11 above, it shows that the frequency of the pretest results, namely 1 student with a score of 70,2 students with a score of 75,5 students with a score of 80,2 students with a score of 85,5 students with a score of 90,5 students with a score of 95 There were 2 people in total.
Table 4.12 Frequency Distribution of Posttest Results

| $\mathbf{N}$ | Value |
| :--- | :---: |
| Valid | 17 |
| Missing | 0 |
| Mean | 84,12 |
| Median | 95 |


| Mode | 80 and 90 |
| :--- | :---: |
| Maximum | 95 |
| Minimum | 70 |
| Sum | 1430 |

Related to the table 4.12 above, it shows that pretest results obtained were 16 data with a total 1430 data. The mean pretest score was 84.12 , with a median of 95 and mode scores of 80 and 90 . The pretest score had a minimum score of 70 and a maximum score of 95 .
c) Recapitulation of Pretest and Posttest Data

Based on the pretest and posttest data analyses, it makes a summary which totaled 17 students, the recapitulation data was obtained, namely:
Table 4.13 Recapitulation of Pretest and Posttest
Data

| $\mathbf{N}$ | Pretest | Posttest |
| :--- | :---: | :---: |
| Valid | 17 | 17 |
| Missing | 0 | 0 |
| Mean | 61,47 | 84,12 |
| Median | 75 | 95 |
| Mode | 70 and 75 | 80 and 90 |
| Maximum | 75 | 95 |
| Minimum | 45 | 70 |
| Sum | 1045 | 1430 |

Related to the table 4.13 above, You can check the student's pre-test and post-test results. The pretest data results contain 17 samples with a total data value of 1045 , a mean of 61.47 , a median of 75 , modes of 70 and 75 , and a minimum of 45 . Maximum value is 75 . The corresponding post-test results based on the above data included 17 samples and a total of 1430 data, with a mean of 84.12 , a median of 95 , modes of 80 and 90 , a minimum of 70 and a maximum of 95 . A study using visual media provides data showing that proficiency in mediabased "snakes and ladders" conversations varied among students.

## 2) Statistical Inferential Analysis

Inferential statistical analysis in this section is used to test the hypotheses and to know the effectiveness of using media "snakes and ladders" towards students' mastery in speaking that have been put forward in chapter two, namely in this study the following hypotheses are used, namely:
$\mathrm{H}_{1}$ : There is The Effectiveness of Using Media "Snakes And Ladders" Towards Students' Mastery in Speaking (A Case Study at Islamic Senior High School Jepara in The Academic Year of 2022/2023).
$\mathrm{H}_{0}$ : There isn't The Effectiveness of Using Media "Snakes And Ladders" Towards Students' Mastery in Speaking (A Case Study at Islamic Senior High School Jepara in The Academic Year of 2022/2023).

There are two ways of stating the hypothesis, namely the hypothesis $\left(\mathrm{H}_{0}\right)$ and the alternative hypothesis $\left(\mathrm{H}_{1}\right)$. It is called the null hypothesis because there is no effect, no interaction, no relationship and no difference. Another type of hypothesis is an alternative hypothesis (hypothesis one), this hypothesis is a theorybased expectation.

To examine the effectiveness of using media "snakes and ladders" towards students' mastery in speaking (a case study at islamic senior high school jepara in the academic year of 2022/2023). In terms of the completeness aspect of speaking mastery in
speaking, a t-test is carried out on the data that has been obtained.

Table 4.14 The Analysis Result of Pretest and Posttest Scores

| No. | Pretest | Posttest | $\mathrm{d}=\mathrm{X}_{2}-\mathrm{X}_{1}$ | $\mathrm{d}^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1. | 55 | 75 | 20 | 400 |
| 2. | 60 | 80 | 80 | 6400 |
| 3. | 45 | 75 | 30 | 900 |
| 4. | 60 | 80 | 20 | 400 |
| 5. | 50 | 80 | 30 | 900 |
| 6. | 60 | 85 | 35 | 1225 |
| 7. | 70 | 90 | 20 | 400 |
| 8. | 60 | 80 | 20 | 400 |
| 9. | 75 | 95 | 20 | 400 |
| 10. | 70 | 90 | 20 | 400 |
| 11. | 75 | 95 | 20 | 400 |
| 12. | 45 | 70 | 25 | 625 |
| 13. | 75 | 90 | 15 | 225 |
| 14. | 60 | 90 | 30 | 900 |
| 15. | 65 | 85 | 20 | 400 |


| 16. | 50 | 80 | 30 | 900 |
| :---: | :---: | :---: | :---: | :---: |
| 17. | 70 | 90 | 20 | 400 |
| Tot <br> al | $\mathbf{1 0 4 5}$ | $\mathbf{1 4 3 0}$ | $\mathbf{4 5 0}$ | $\mathbf{1 5 . 6 7 5}$ |

In terms of the completeness aspect of speaking mastery in speaking, a t-test is performed on the obtained data. When judging the results, the difference between the results before and after the test is sought. The researcher first looks for the average of the pre-test and post-test differences, the sum of the squared deviations, find the d.b value, and determine $t_{\text {count }}$ calculate as follows:
a) Examine the result of "Md" using the formula:

$$
M d=\frac{\sum d}{N}
$$

$$
\begin{aligned}
& \mathrm{Md}=\frac{450}{17} \\
& \mathrm{Md}=26,470
\end{aligned}
$$

b) Examine the result of " $\sum \mathrm{X}^{2 d "}$ using the formula:

$$
\begin{aligned}
& \sum X^{2 d}=\sum d-\frac{\left(\sum d\right)^{2}}{N} \\
& \sum \mathrm{X}^{2^{d}}=15.675-\frac{(450)^{2} 17}{17} \\
& \sum \mathrm{X}^{2^{d}}=15.675-\frac{202.500}{17} \\
& \sum \mathrm{X}^{2 d}=15.675-11.911,7647 \\
& \sum \mathrm{X}^{2}{ }^{d}=3.763,2353
\end{aligned}
$$

c) Examine d.b value by using the formula:

$$
\text { D. } \mathrm{b}=\mathrm{N}-2=17-2=15
$$

d) Calculate the result of $\mathrm{t}_{\text {count }}$ using the formula:

$$
\begin{aligned}
& t=\frac{M d}{\sqrt{\frac{\sum x^{2} d}{(N-1)}}} \\
& \mathrm{t}=\frac{26,470}{\sqrt{\frac{3.763,2353}{17(17-1)}}}
\end{aligned}
$$

$$
\begin{aligned}
& \mathrm{t}=\frac{26,470}{\sqrt{\frac{3.763,2353}{17(16)}}} \\
& \mathrm{t}=\frac{26,470}{\sqrt{\frac{3.763,2353}{272}}} \\
& \mathrm{t}=\frac{26,470}{\sqrt{13,8354239}} \\
& \mathrm{t}=\frac{26,470}{3,71959997} \\
& \mathrm{t}=7,11
\end{aligned}
$$

e) Determine significant decision-making rules or criteria. The significant testing rules are as follows: $\mathrm{H}_{0}$ is accepted if $\mathrm{t}_{\text {count }}<\mathrm{t}_{\text {table }}$ $\mathrm{H}_{1}$ is accepted if $\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}$

Determining the price of $\mathrm{t}_{\text {table }}$ looking for $\mathrm{t}_{\text {table }}$ using the $t$ distribution table with a significant level $\alpha=0.05$ and d. $\mathrm{b}=\mathrm{N}-2=17-2=15$. Then it is obtained t $0.05=1,753$
f) Conclusion

After determining the price of $\mathrm{t}_{\text {count }}$ that is 7,11 and $\mathrm{t}_{\text {table }}$ that is $1,753, \mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}=$ $7,11>1,753$, the difference between the results pretest and posttest is significant and it can be concluded that $\mathrm{H}_{0}$ is rejected and $\mathrm{H}_{1}$ is accepted, this means that the hypothesis of the study is accepted, namely that there is a positive effect of using media "snakes and ladders" towards students' mastery in speaking (a case study at islamic senior high school jepara in the academic year of 2022/2023).

## B. Discussion

This study was conducted to determine the effectiveness of using media "Snakes and Ladders" towards students' mastery in speaking (a case study at islamic senior high school jepara in the academic year of 2022/2023). The researcher chose the media "Snakes and Ladders" to make it easier for the teacher to convey learning material and make it easier for the students to speak English and students master in speaking. After doing research using snakes and ladders media, it can be said that one of the advantages of snakes and ladders media is speaking English while playing the game which is easy to do and more fun. So, it
can improve students' readability in learning and students' mastery in speaking.

In this study, the researcher used an experimental reseach, the type used the One Group Pretest-Posttest research design. During the study, the researcher first gave the students an oral test before being given treatment using snakes and ladders media and gave a final test after being given treatment using snakes and ladders media. Based on the results of the study comparing statistical values, it shows that the number of samples is 17 people, the lowest score of the pretest is 45 and the highest score of the pretest is 75 . The lowest score of the posttest is 70 and the highest score of the posttest is 95 . The mean score of the pretest is 61.47 and the mean score of the posttest is 84.12 .

The results can be checked that the comparison of students' mastery in speaking categories showed that the frequency of pretest results, students who got a score of 45 totaled 2 people, students who got a score of 50 totaled 2 people, 1 student with a score of 55,5 students with a score of 60,1 student with a score of 65,3 students with a score of 70 , and 3 students with a score of 75. And for the posttest results, the frequency of the posttest results is: 1 student with a score of 70,2 students with a score of 75,5 students with a score of 80,2 students with a score of 85,5 students with a score of 90 , and 2 students with a score of 95 . So it can be said that after using media "snakes and ladders" there are changes that occur in students mastery in speaking, namely students mastery in speaking have increased more than before the application of media "snakes and ladders".

The results obtained from the t-test obtained the value of $\mathrm{t}_{\text {count }}$, namely 7,11 . With a frequency (d.b) of $17-2=15$, at a significant level of $5 \%, \mathrm{t}_{\text {table }}$ is obtained, namely 1,753 . Then obtained $\mathrm{t}_{\text {coun }}>\mathrm{t}_{\text {table }}$ or $7,11>1,753$ then $\mathrm{H}_{0}$ is rejected and $\mathrm{H}_{1}$ is accepted, which means that the hypothesis in this study is accepted, namely that there is a positive relationship between media "snakes and ladders" and students' mastery in speaking at islamic senior high school jepara in the academic year of 2022/2023.


[^0]:    ${ }^{2}$ Documentation From Class Attendance Book On 1 April 2023.

[^1]:    ${ }^{3}$ Frey, Bruce B.., Salkind, Neil J.. Statistics for People who (think They) Hate Statistics: Using Microsoft Excel. Amerika Serikat: SAGE Publications, Incorporated, (2021).

[^2]:    ${ }^{6}$ Darma.
    7 Amrullah Amrullah,lovy Herayati, Tesha Sengupta-Irving, Proceedings of the $3^{\text {rd }}$ annual conference of education and social sciences (ACCESS 2021), (Atlantis Press SARL, 2023), page 136.

    8 Ofungwu, Joseph. Statistical Applications for Environmental Analysis and Risk Assessment. Jerman: Wiley, (2014).

