

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter presented of two items, the findings of research and the discussion of the research. In findings item the researcher showed all of the data which were collected during in the research. While in the discussion item, the researcher analyzed all the data in finding item.

4.1 Research Finding

4.1.1 Data Description

The purpose of this research was to find out the effectiveness of Snakes and Ladders Game as a medium of teaching past form of irregular verbs at eighth graders of MTs Negeri 1 Jepara in the academic year of 2018/2019. The researcher collected the data from the students' pre-test and post-test score. The data was described into two points as the data. They were the pre-test score and the post-test score. Both of pre-test and post-test score consisted of 50 items of question in multiple choices. The entire question was about past form of irregular verbs.

4.1.2. The Result of Pre-Test

The researcher conducted pre-test in the first meeting. The pre-test was given to experimental and control group. The purpose of pre-test was to know the students' mastery of past form of irregular verbs before they were given a treatment. After the pre-test, the researcher implemented the treatment for three meetings. In the last meeting, the researcher conducted

post-test in both of group. The following table showed the score of pre-test in the experimental and control group.

Table 4.1

The Pre-Test Scores of Experimental and Control Class

| No | Experimental Class | Control Class |
|----------|--------------------|---------------|
| 1 | 88 | 72 |
| 2 | 88 | 88 |
| 3 | 76 | 92 |
| 4 | 80 | 84 |
| 5 | 84 | 84 |
| 6 | 92 | 76 |
| 7 | 92 | 92 |
| 8 | 76 | 76 |
| 9 | 84 | 92 |
| 10 | 76 | 76 |
| 11 | 80 | 80 |
| 12 | 76 | 80 |
| 13 | 84 | 80 |
| 14 | 76 | 80 |
| 15 | 76 | 76 |
| 16 | 76 | 88 |
| 17 | 76 | 76 |
| 18 | 76 | 76 |
| 19 | 84 | 76 |
| 20 | 80 | 76 |
| 21 | 80 | 80 |
| 22 | 76 | 92 |
| 23 | 76 | 80 |
| 24 | 88 | 76 |
| 25 | 88 | 76 |
| 26 | 76 | 80 |
| 27 | 76 | 80 |
| 28 | 80 | 84 |
| 29 | 76 | 80 |
| 30 | | 90 |
| 31 | | 76 |
| Σ | 2336 | 2514 |
| Mean | 80.55 | 81.09 |

Based on the table above, the mean scores of pre-test in experimental group was 80,55 while the mean scores of pre-test in control group was 81,09. It meant the result have no significant difference. It could be seen from the score comparison of the T-Test's result. The mean score of experimental group was lower than control group.

a. Normality for Pre-Test Score

Table 4.2

The Normality Result of Pretest the Experimental and Control Score

| One-Sample Kolmogorov-Smirnov Test | | |
|---|--------------------------|-------------------------|
| | | Unstandardized Residual |
| N | | 29 |
| Normal Parameters ^{a,b} | Mean | .0000000 |
| | Std. Deviation | 5.82063051 |
| | Most Extreme Differences | |
| | Absolute | .249 |
| | Positive | .249 |
| | Negative | -.152 |
| Test Statistic | | .249 |
| Asymp. Sig. (2-tailed) | | .000 ^c |
| a. Test distribution is Normal. | | |
| b. Calculated from data. | | |
| c. Lilliefors Significance Correction. | | |

Based on the table above of one-sample Kolmogorof-Smirnov test above, it can be seen that the data distribution was abnormal. The probability or significant score was 0,000 lower than 0,05 ($0,000 < 0,05$).

b. Homogeneity for Pre-Test Score

Table 4.3

The Homogeneity Result of Pretest the Experimental and Control
Score

| Test of Homogeneity of Variances | | | | | |
|----------------------------------|---|---------------------|-----|--------|------|
| | | Levene Statistic | df1 | df2 | Sig. |
| Pretest Score | Based on Mean | 2.899 | 1 | 58 | .094 |
| | Based on Median | 2.235 | 1 | 58 | .140 |
| | Based on Median and with adjusted df | 2.235 | 1 | 54.626 | .141 |
| | Based on trimmed mean | 3.189 | 1 | 58 | .079 |

| ANOVA | | | | | |
|-------------------|-------------------|----|-------------|-------|------|
| Pretest Score | | | | | |
| | Sum of Squares | Df | Mean Square | F | Sig. |
| Between Groups | 280.247 | 1 | 280.247 | 6.426 | .014 |
| Within Groups | 2529.353 | 58 | 43.610 | | |
| Total | 2809.600 | 59 | | | |

Based on the table 4.3 test of homogeneity of variance above, it can be seen that the data was inhomogeneity. The significant score was 0,079 higher than 0,05 ($0,079 > 0,05$). Then, based on the table anova above, it can be seen the probability score or significantly was 0,014 lower than 0,05 ($0,014 < 0,05$).

c. T-Test for Pretest Score

Table 4.4

The T-Test Result of Pre-Test Score Both Experimental and Control Class

| Group Statistics | | | | | |
|------------------|---------|----|---------|----------------|-----------------|
| | Group | N | Mean | Std. Deviation | Std. Error Mean |
| Pretest Score | Kelas A | 29 | 80.5517 | 5.42209 | 1.00686 |
| | Kelas B | 31 | 81.0968 | 5.92933 | 1.06494 |

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|---------|
| | | F | Sig. | T | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Pretest Score | Equal variances assumed | .105 | .747 | -.371 | 58 | .712 | -.54505 | 1.47000 | -3.48757 | 2.39747 |
| | Equal variances not assumed | | | -.372 | 57.973 | .711 | -.54505 | 1.46556 | -3.47871 | 2.38861 |

Table above described the t-test analysis of pre-test in experimental and control group. There were two tables, first table was named "Group Statistic" presented the statistical results of pre-test in the experimental and control group. The Group Statistics showed that the average between experimental and control group was different. The mean score of experimental group was 80, 55 and the mean score of control group was 81,09 which meant the mean score of experimental group was lower than control group. It could be concluded that the experimental group needed to be given a treatment that was Snakes and Ladders Game.

In the independent sample test table, it is also described about the t-value of this research. The result of t-value in this research was -0,372. Furthermore, the t-value was compared to know whether through Snakes and Ladders Game for students can improve their mastery of past form of irregular verbs or not. The t-table was taken from the requirement of t-table to analyze the data. The t-table of 0,05 as the significant level was 2,000 with 58 the degree of freedom (df). Then, it could be stated that the t-value (-0,372) of pre-test < t-table (2,000). It could be concluded that there was no significant difference between experimental and control group.

4.1.3. The Result of Post-Test

The post-test was given to experimental and control group after presenting about the material for that day and also after giving treatment that is Snakes and Ladders Game for the experimental group. The following table shows the score of post-test in the experimental and also the control group.

Table 4.5

The Post-Test Scores of Experimental and Control Group

| No | Experimental Class | Control Class |
|----|--------------------|---------------|
| 1 | 100 | 80 |
| 2 | 100 | 92 |
| 3 | 96 | 100 |
| 4 | 92 | 96 |
| 5 | 100 | 96 |
| 6 | 100 | 84 |
| 7 | 100 | 100 |
| 8 | 84 | 88 |
| 9 | 100 | 100 |
| 10 | 88 | 84 |

| | | |
|----------|-------|-------|
| 11 | 100 | 84 |
| 12 | 84 | 84 |
| 13 | 96 | 84 |
| 14 | 88 | 84 |
| 15 | 96 | 84 |
| 16 | 92 | 100 |
| 17 | 88 | 92 |
| 18 | 88 | 88 |
| 19 | 100 | 92 |
| 20 | 100 | 88 |
| 21 | 100 | 88 |
| 22 | 96 | 100 |
| 23 | 100 | 96 |
| 24 | 100 | 80 |
| 25 | 100 | 80 |
| 26 | 84 | 100 |
| 27 | 88 | 88 |
| 28 | 100 | 100 |
| 29 | 96 | 96 |
| 30 | | 100 |
| 31 | | 84 |
| Σ | 2756 | 2812 |
| Mean | 95.03 | 90.70 |

Based on the table above, the mean score of post-test in the experimental group was 95,03, and the mean score of control group was 90,70 in the post-test, the mean score of experimental group was higher than the control group. It proved that there was the effect of Snakes and Ladders Game as a medium of teaching past form of irregular verbs.

a. Normality Post-Test

Table 4.6

The Normality Result of Post-Test the Experimental and Control
Score

| One-Sample Kolmogorov-Smirnov Test | | |
|--|----------------|-------------------------|
| | | Unstandardized Residual |
| N | | 29 |
| Normal Parameters ^{a,b} | Mean | .0000000 |
| | Std. Deviation | 7.10905387 |
| Most Extreme Differences | Absolute | .152 |
| | Positive | .152 |
| | Negative | -.146 |
| Test Statistic | | .152 |
| Asymp. Sig. (2-tailed) | | .087 ^c |
| a. Test distribution is Normal. | | |
| b. Calculated from data. | | |
| c. Lilliefors Significance Correction. | | |

Based on the table 4.6 of one-sample Kolmogorof-Smirnov test above, it can be seen that the data distribution was normal. The probability or significant score was 0,087 higher than 0,05 ($0,087 > 0,05$).

a. Homogeneity for Post test Score

Table 4.7

The Homogeneity Result of Post-Test the Experimental and Control Score

| Test of Homogeneity of Variances | | | | | |
|----------------------------------|--------------------------------------|------------------|-----|--------|------|
| | | Levene Statistic | df1 | df2 | Sig. |
| Posttest Score | Based on Mean | .105 | 1 | 58 | .747 |
| | Based on Median | .002 | 1 | 58 | .968 |
| | Based on Median and with adjusted df | .002 | 1 | 55.745 | .968 |

| | | | | | |
|--|-----------------------|------|---|----|------|
| | Based on trimmed mean | .141 | 1 | 58 | .709 |
|--|-----------------------|------|---|----|------|

| ANOVA | | | | | |
|----------------|----------------|----|-------------|------|------|
| Posttest Score | | | | | |
| | Sum of Squares | Df | Mean Square | F | Sig. |
| Between Groups | 4.451 | 1 | 4.451 | .137 | .712 |
| Within Groups | 1877.882 | 58 | 32.377 | | |
| Total | 1882.333 | 59 | | | |

Based on the table 4.7 test of homogeneity of variance above, it can be seen that the data was homogeny. The significant score was 0,709 higher than 0,05 ($0,709 > 0,05$). Then, based on the table anova above, it can be seen the probability score or significantly was 0,712 bigger than 0,05 ($0,712 > 0,05$).

b. T – test for Post-Test Score

The researcher analyzed the data using t-test Formula in SPSS Statistic. This technique was useful to prove statistically whether there was any significant different between students' mastery past form of irregular verbs in both experimental and control group.

Table 4.8

The T-Test Result of Post-Test Score Both Experimental and Control Group

| Group Statistics | | | | | |
|------------------|---------|----|---------|----------------|-----------------|
| | Group | N | Mean | Std. Deviation | Std. Error Mean |
| Posttest Score | Kelas A | 29 | 95.0345 | 5.91899 | 1.09913 |
| | Kelas B | 31 | 90.7097 | 7.18421 | 1.29032 |

| Independent Samples Test | | | | | | | | | | |
|--------------------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|---------|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | T | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Posttest Score | Equal variances assumed | 2.899 | .094 | 2.535 | 58 | .014 | 4.32481 | 1.70603 | .90982 | 7.73979 |
| | Equal variances not assumed | | | 2.552 | 57.113 | .013 | 4.32481 | 1.69500 | .93078 | 7.71883 |

Table above described the t-test analysis of pre-test in experimental and control group. There were two tables; the first table was named as “Group Statistic” presented the results of pre-test in experimental and also control group. The Group Statistic showed that the average between experimental and control group was almost same, the mean score of experimental group was 95, 03 and the mean score of control group was 90, 70. The mean score of experimental group was higher than the mean score of control group. It could be meant that the treatment (Snakes and Ladders Game) was effective in improving students’ mastery of past form of irregular verbs.

In the independent sample test table also described about the t-value of this research. The result of t-value in this research was 2,552. Furthermore, the t-value was compared to the t-table to know whether through Snake and Ladders Game for the students can improve their mastery of past from of irregular verbs or not. The t-table was taken from the requirement of t-table to analyze the data. The t-table of 0,05 as the

significant level was 2,000 with 58 degree of freedom (df). Then, it could be stated that the t-value (2,552) > t-table (2,000). It could be concluded that Snakes and Ladders Game could improve students' past form of irregular verbs mastery.

4.2. The Hypothesis Testing

This research aimed to answer the problem statement of research, the researcher found out the use of the Effectiveness of Snakes and Ladders Game as a Medium of Teaching Past Form of Irregular Verbs (An Experimental Research at Eighth Graders of MTs Negeri 1 Jepara in the Academic Year of 2018/2019). To prove the hypothesis, the data obtained in the experimental and control group which were calculated by using T-test formula. Based on of the description of the data calculation, it showed that:

- a. The t-value was 2,552
- b. The degree freedom (df) was 58, so the value of t-table was 2,000 in significance level of 0,05.

It showed that the result of pre-test both of experimental and control group with the t-value was (2,552) was higher than t-table (2,000). To conclude, the t-value > t-table which meant H_0 (the null hypothesis) was rejected and H_a (the working hypothesis) was accepted. Moreover, the stating that "Snakes and Ladders Game was effective in improving students' past form of irregular verbs mastery at the eighth graders of MTs Negeri 1 Jepara" was accepted.

4.3. Discussion

The aim of this research was to find out the effectiveness of Snake Ladders Game are able to improve students' past form of irregular mastery of MTs Negeri 1 Jepara.

According to the result of the data analysis, it showed that there was a significant difference between experimental group (students who taught by using Snakes and Ladders Game) and control group (students who did not teach by using Snake and Ladders Game). As the result that was written in the tables about the score of experimental and control group was different. In experimental group, the mean score of pre-test was 80,55 , in the contrast of the mean score of post-test was 95,03. It could be calculated that the score increased 14,48 points.

Meanwhile, the mean score of pre-test in control group was 81, 09 while the mean score of posttest was 90,70. It could be calculated that the score increased 8,74 points. According to the calculation of the mean score in both of experimental and control group, it proved that there was significant effect of Snake and Ladders Game to improve students' past form of irregular mastery.

Table 4.9

The Ratio Score of Experimental Class and Control Class

| TEST | EXPERIMENTAL CLASS | CONTROL CLASS |
|-------------------------|---------------------------|----------------------|
| PRE TEST | 80,55 | 81,09 |
| POST TEST | 95,03 | 90,70 |
| INCREASING POINT | 14,48 point | 8,74 point |

Based on the data analysis of t-test, the result of post-test in experimental group and control group showed that the t-value was 2,552 and the t-table of 0,05 as the significant level was 2,000 with 58 the degree of freedom (df). The result of the t-value and t-table showed that t-value (2,552) > t-table (2,000). Then, the sig (2 tailed) was 0,014 < 0,05 which H_0 (Null hypothesis) was rejected and H_a (Working hypothesis) was accepted. So, it could be concluded that Snakes and Ladders Game was effective in improving students' past form of irregular verbs mastery.

Table 4.10

The Assumption Hypothesis of Experimental Class and Control Class

| TEST | EXPERIMENTAL CLASS | CONTROL CLASS | Ho and Ha |
|-----------|--------------------|----------------|--|
| | t-value | t-table (0,05) | |
| PRE TEST | -0.372 | 2,000 | <i>Ho was accepted Ha was rejected</i> |
| POST TEST | 2,552 | 2,000 | <i>Ho was rejected Ha was accepted</i> |

It was because of in the teaching learning process, students' who taught by using Snakes and Ladders Game could be more active and enjoy the class during in the learning process. They felt happy and full of curiosity to answer the questions. So, they tried to answer the question until the answer was correct. Implementing Snake and Ladders Game provided the

positive effect to the students' past form of irregular verbs mastery. The students were able to understand about the material in easy way, because there were not just learn materials, but they must read it, understand it, and share it to their friends. As the result, the steps in conducting Snakes and Ladders Game facilitated them for doing competition with their friends, and also could facilitate students to know new past form of words to help understanding well about the material.

Teaching past form irregular verb using Snakes and Ladders Game was fun and helpful especially for the eighth graders students of MTs Negeri 1 Jepara. They could play and learn at the same time. The students were highly involved in memorize the past form of irregular verbs and students more concentration in learning process.

The finding of this research is relevant with some previous studies. The findings of this research have enriched the previous ones where Snakes and Ladders have been effective to increase students' mastery of language skills and components. It was supported by the previous research conducted by Meipina (2014), Snakes and Ladders can improve students' vocabulary. Similar research conducted by Albaniyah (2016), Snakes and Ladders Game can develop students' understanding of Direct and Indirect Speech.

Therefore, it can be concluded that Snakes and Ladders Game is interesting and effective technique. The reason is that Snakes and Ladders Game can create a friendly atmosphere between the teacher and the students. It makes the students happy and relaxes in playing game. Besides that, this game

makes the students be brave to correct the mistake and learn from others. The teacher can create and modify the game according to the students' needs in teaching process.

