## CHAPTER IV

## RESEARCH FINDINGS AND DISCUSSION

This chapter covers research findings and discussion that include the description of data, hypothesis testing, and discussion.

## A. The Description of Data

In this chapter, the data on the students in experimental class (XI MIA 1) and the students in control class (XI IIS 1) are presented. The research purpose was to know the effectiveness of Modified Asian Parliamentary Debate on students' critical thinking and speaking ability of eleventh graders at MAN 3 Blitar. The data were obtained from students' score in pre-test and post-test of both classes.

Each ability has its own criteria to be scored. For speaking ability, there are inadequate, fair, good, very good, and excellent. The students will be classified into inadequate if they get 1-5 score, fair for 6-10 score, good for 11-15 score, very good for 16-20 score, and excellent for 21-25 score. While for critical thinking, there are not proficient, proficient enough, proficient, and very proficient. First, the students will be classified into not proficient if they get 1-7 score. Second, the students will be classified into proficient enough if they get 8-14 score. Third, the students will be classified into proficient if they get 15-21 score. Fourth, the students will be classified into very proficient if they get 22-28 score.

Table 4.1: The Speaking Score's Criteria

| No. | Interval Class | Criteria |
| :---: | :--- | :--- |
| 1. | $1-5$ | Inadequate |
| 2. | $6-10$ | Fair |
| 3. | $11-15$ | Good |
| 4. | $16-20$ | Excellent |
| 5. | $21-25$ |  |

Table 4.2: The Critical Thinking Score's

| No. | Interval Class | Criteria |
| :---: | :--- | :--- |
| 1. | $1-7$ | Not proficient |
| 2. | $8-14$ | Proficient enough |
| 3. | $15-21$ | Proficient |
| 4. | $22-28$ |  |

## 1. Normality and Homogeneity Testing

Before analyzing the significant difference on students' critical thinking and speaking ability which were taught by using Modified Asian Parliamentary Debate and those which were taught by using conventional method, the distribution of data should be
normal and homogeneous. To measure the requirement of data distribution, the researcher conducted normality testing and homogeneity testing and resulted as follows.

## a. Normality Testing

Normality tests are used to determine whether or not a resultant mean of data is representative value of the whole data by the mean which then is used to compare between/among the groups to calculate the significance level ( P value). To know the normality, the researcher used SPSS 16.0 One-Sample Kolmogorov-Smirnov Test by the value of significance $(\mathrm{a})=0.05$. The normality result is displayed in the table 4.3.

Table 4.3: Normality Testing of Speaking
One-Sample Kolmogorov-Smirnov Test

|  |  | XI MIA 1 | XI IIS 1 |
| :--- | :--- | :--- | :--- |
| N |  | 30 | 30 |
| Normal Parameters $^{\mathrm{a}}$ |  | 15.10 | 13.97 |


|  | Std. | 1.936 | 3.034 |
| :---: | :---: | :---: | :---: |
| Most Extreme <br> Differences | Deviation <br> Absolute | . 287 | . 158 |
|  |  | . 287 | . 158 |
|  | Positive | -. 152 | -. 108 |
| Kolmogorov-Smirnov Z | Negative | 1.573 | . 867 |
| Asymp. Sig. (2-tailed) |  | . 014 | . 440 |
| a. Test distribution is | rmal. |  |  |

a) $\mathrm{H}_{0}$ : Data set is normally distributed
b) $\mathrm{H}_{1}$ : Data set is not normally distributed

The education standard significance is $0.05(\mathrm{a}=5 \%)$. Both value from experimental and control class were higher than 0.005 which were in detail XI MIA 1 as experimental class got 1.573 and XI IIS 1 as control class got 0.867 . The sig/p value on experimental class is 1.573 and it is bigger than 0.05 (1.573>0.05). It means that $H_{0}$ is accepted and $H_{1}$ is rejected. So, the data set is normally distributed.

The value of $\operatorname{sig} / \mathrm{p}$ of control class is 0.867 which is higher than 0.05 ( $0.867>0.05$ ). It also means that $\mathrm{H}_{0}$ is accepted and $\mathrm{H}_{1}$ is rejected and the data set is normally distributed. Thus, it can be concluded that the score of both classes (experimental and control class) are normally distributed.

Table 4.4: Normality Testing of Critical Thinking One-Sample Kolmogorov-Smirnov Test

|  | POSTTESTC | $\begin{gathered} \text { POSTTESTC } \\ \text { TMIA } \end{gathered}$ |
| :---: | :---: | :---: |
| N |  |  |
| Normal Parameters ${ }^{\text {a }}$ Mean | 17.53 | 16.33 |
| Std. Deviation | 2.968 | 2.510 |
| Most Extreme Absolute | . 236 | . 190 |
| Differences Positive | 136 | . 190 |
| Negative | - 236 | -. 110 |
| Kolmogorov-Smirnov Z | 1.293 | 1.043 |
| Asymp. Sig. (2-tailed) | . 071 | . 227 |
| a. Test distribution is Normal. |  |  |

a) $\mathrm{H}_{0}$ : Data set is normally distributed
b) $\mathrm{H}_{1}$ : Data set is not normally distributed

The education standard significance is $0.05(\mathrm{a}=5 \%)$. Both value from experimental and control class were higher than 0.005 which were in detail XI MIA 1 as experimental class got 1.293 and XI IIS 1 as control class got 1.043. The sig/p value on experimental class is 1.293 and it is bigger than 0.05 (1.573>0.05). It means that $\mathrm{H}_{0}$ is accepted and $\mathrm{H}_{1}$ is rejected. So, the data set is in normal distribution.

For control class score, value of $\operatorname{sig} / \mathrm{p}$ is 1.043 and it is bigger than $0.05(1.043>0.05)$. It also means that $\mathrm{H}_{0}$ is accepted and $\mathrm{H}_{1}$ is rejected and the data set is normally distributed. Thus, it can be interpreted that the score of both classes (experimental and control class) are normally distributed.

## b. Homogeneity Testing

The term homogeneity of variance, which is also often referred to as homoskedasticity, is defined as the assumption that the gained data have a homogeneous variance (Mike, 2017). To know the homogeneity, the researcher used Levene Statistic Test with SPSS 16.0 by the value of significance $(a)=0.05$ which is seen in table 4.5 .

Table 4.5: Homogeneity Testing of Speaking

| Test of Homogeneity of Variances |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| POSTTEST <br> Statistic | df1 | df2 | Sig. |
| 2.116 | 8 | 20 | .083 |

The education standard significance is $0.05(a=5 \%)$. Based on the output from SPSS above is known that the test called homogeneous if the significant score is more than 0.05 . According to the table above, the test is
homogeneous because $0.083>0.05$ and it means that $\mathrm{H}_{0}$ is accepted and $\mathrm{H}_{1}$ is rejected. Thus, it can be concluded that students' speaking ability of experimental and control class have homogeneity of variances.

Table 4.6: Homogeneity Testing of Critical Thinking

| Test of Homogeneity of Variances |  |  |  |
| :--- | :--- | :--- | :--- |
| POSTTEST |  |  |  |
| Levene | df1 | df2 | Sig. |
| Statistic |  |  |  |
| 1.514 | 6 | 23 | .218 |

The standard significant of education is $0.05(\mathrm{a}=5 \%)$. Based on the output from SPSS above is known that the test called homogeneous if the significant score is more than 0.05 . According to the table above, the test is homogeneous because $0.218>0.05$ and it means that $H_{0}$ is accepted and $H_{1}$ is rejected. Thus, it can be concluded that students' critical thinking of experimental and control class have homogeneity of variances.

Beside homogeneity, the data were also normal based on the previous explanation. Homogeneity and normality were fundamental in this research since the aim of homogeneity and normality testing were used to decide whether the formula for hypothesis testing belong to parametric or nonparametric one. Then after doing calculation of normality and homogeneity
testing by using SPSS 16.0 version, the research could determine that the formula for hypotheses testing in this research belong to Parametric test since it fulfills the requirement of parametric test which were data normally distributed and belonged to interval scale or ratio, therefore T-test was used.

## 2. The Students' Speaking Score in Experimental Class

a. Pre-test of Experimental Class

The pre-test of speaking was conducted on January $21^{\text {st }}$, 2020. Experimental class is a class which got treatment by using Modified Asian Parliamentary Debate. The subject of this study consisted of 30 students at XI Science 1 class. According to the result of pre-test in table 4.7, it showed that the sum of data was 281 . The lowest score was 6 , the highest score was 21 , the mean of students' score in pre-test was 9.37 , the mode was 7 , and the median was 8 .

Table 4.7: Descriptive Statistic Speaking Pre-Test of

## Experimental Class

| Statistics |  |  |
| :--- | :--- | :--- |
| PRETESTSAMIA |  |  |
| N | Valid | 30 |
|  | Missi | 0 |
|  | Mean |  | 9.37 |


| Median | 8.00 |
| :--- | :--- |
| Mode | 7 |
| Std. Deviation | 3.449 |
| Variance | 11.895 |
| Range | 15 |
| Minimum | 6 |
| Maximum | 21 |
| Sum | 281 |

Table 4.8: The Frequency of Students' Speaking Ability before being taught by using Modified Asian Parliamentary Debate

| PRETESTSAMIA |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| Valid | 6 | 3 | 10.0 | 10.0 | 10.0 |
|  | 7 | 7 | 23.3 | 23.3 | 33.3 |
|  | 8 | 6 | 20.0 | 20.0 | 53.3 |
|  | 9 | 3 | 10.0 | 10.0 | 63.3 |


| 10 | 6 | 20.0 | 20.0 | 83.3 |
| :--- | :--- | :--- | :--- | :--- |
| 12 | 1 | 3.3 | 3.3 | 86.7 |
| 13 | 1 | 3.3 | 3.3 | 90.0 |
| 16 | 1 | 3.3 | 3.3 | 93.3 |
| 17 | 1 | 3.3 | 3.3 | 96.7 |
| 21 | 1 | 3.3 | 3.3 | 100.0 |
| Total | 30 | 100.0 | 100.0 |  |

From the table 4.8, the frequency of pre-test after being distributed, there were no students who got failed score. The achieved score of 25 students were from 6 to 10 which means that the their speaking ability is fair, the achieved score of 2 students were from 11 to 15 which means that the their speaking ability is good, the achieved score of 2 students were from 16 to 20 which means that their speaking ability is very good, and the achieved score of 1 student were from 21 to 25 which means that her/his speaking ability is excellent.
b. Post-test of Experimental Class

The post-test of speaking was conducted on March $3^{\text {rd }}$, 2020. The subject of post-test consisted of 30 students at XI MIA 1 class. In table 4.9, the data sum was 453 , the lowest score of post-test was 12 , the highest score was 20 , the average was 15.10 , the mode was 15 , and the median was 15 .

Table 4.9: Descriptive Statistic of Speaking Post-Test of Experimental Class

| POSTTEST SA MIA <br> Statistics |  |  |
| :---: | :---: | :---: |
|  |  |  |
| POSTTESTSAMIA |  |  |
| N | Valid | 30 |
|  | Missi <br> ng | 0 |
| Mean |  | 15.10 |
| Median |  | 15.00 |
| Mode |  | 15 |
| Std. Deviation |  | 1.936 |
| Variance |  | 3.748 |
| Range |  | 8 |
| Minimum |  | 12 |
| Maximum |  | 20 |
| Sum |  | 453 |

Table 4.10: The Frequency of Students' Speaking Ability after being taught by using Modified Asian Parliamentary Debate

| POSTTESTSAMIA |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequen Су | Perce <br> nt | Valid <br> Percent | Cumulative <br> Percent |
| Valid | 12 | 2 | 6.7 | 6.7 | 6.7 |
|  | 13 | 2 | 6.7 | 6.7 | 13.3 |
|  | 14 | 9 | 30.0 | 30.0 | 43.3 |
|  | 15 | 10 | 33.3 | 33.3 | 76.7 |
|  | 17 | 1 | 3.3 | 3.3 | 80.0 |
|  | 18 | 5 | 16.7 | 16.7 | 96.7 |
|  | 20 | 1 | 3.3 | 3.3 | 100.0 |
|  | Tot <br> al | 30 | 100.0 | 100.0 |  |

From the table 4.10, the frequency of post-test after being distributed, there was no student who got inadequate score. It means that they can implement well the strategy which was previously taught in Modified Asian Parliamentary Debate on the treatment for their speaking. The achieved score of 23 students were from 11 to 15 which means that
their speaking ability was good. The achieved score of 7 students were from 16 to 20 which means that their speaking ability was very good.

## 3. The Students' Critical Thinking Score in Experimental Class

a. Pre-test of experimental class

The pre-test of critical thinking was conducted on January $22^{\text {nd }}$, 2020. The subject of this study consisted of 30 students at XI MIA 1 Class. In table 4.11, the data sum was 410 , the lowest score was 8 , the highest score was 25 , the average was 13.67 , the mode was 10 , and the median was 13 .

Table 4.11: Descriptive Statistics of Critical Thinking Pre-Test of Experimental Class

| Statistics |  |
| :--- | :--- |
| PRETESTCTMIA |  |
| Valid | 30 |
| Missi <br> ng | 0 |
| Mean | 13.67 |
| Median | 13.00 |
| Mode | 10 |


| Std. Deviation | 4.020 |
| :--- | :--- |
| Minimum | 8 |
| Maximum | 25 |
| Sum | 410 |

Table 4.12: The Frequency of Students' Critical Thinking before being taught by using Modified Asian Parliamentary Debate

## PRETESTCTMIA

|  | Frequency | Perc <br> ent | Valid Percent | Cumulative <br> Percent |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Valid | 8 | 1 | 3.3 | 3.3 | 3.3 |
|  | 9 | 2 | 6.7 | 6.7 | 10.0 |
|  | 10 | 5 | 16.7 | 16.7 | 26.7 |
| 11 | 3 | 10.0 | 10.0 | 36.7 |  |
| 12 | 2 | 6.7 | 6.7 | 43.3 |  |
| 13 | 4 | 13.3 | 13.3 | 56.7 |  |
| 14 | 1 | 3.3 | 3.3 | 60.0 |  |
|  |  |  |  |  |  |


| 16 | 2 | 6.7 | 6.7 | 80.0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 17 | 2 | 6.7 | 6.7 | 86.7 |
| 18 | 1 | 3.3 | 3.3 | 90.0 |
| 20 | 1 | 3.3 | 3.3 | 93.3 |
| 22 | 1 | 3.3 | 3.3 | 96.7 |
| 25 | 1 | 3.3 | 3.3 | 100.0 |
| Tot | 30 | 100. | 100.0 |  |
| al |  | 0 |  |  |

From the table 4.12, the frequency of critical thinking pre-test after being distributed, there was no student who got not proficient score. There were 18 students who got score from 8 to 14 which means that their critical thinking was proficient enough. There were 10 students who got score from 15 to 20 which means that their critical thinking was proficient. There were 2 students who got score from 22 to 28 which means that their critical thinking was very proficient.

## b. Post-test of experimental class

The post-test was done on March $4^{\text {th }}, 2020$. Experimental class is class which got treatment by using Modified Asian Parliamentary Debate. The subject of this study consisted of 30 students at XI MIA 1 class. According to the result of post-test in table 4.13, it showed that
the sum of data was 526 . The lowest score was 8 , the highest score was 21 , the mean was 17.53 , the mode was 17 , and the median was 18 .

Table 4.13: Descriptive Statistic Post-Test of Experimental
Class

| Statistics |  |
| :--- | :--- | :--- |
| POSTTESTCTMIA |  |
|  |  |

a. Multiple modes exist. The smallest value is shown

Table 4.14: The Frequency of Students' Critical Thinking after being taught by using Modified Asian Parliamentary Debate

| POSTTESTCTMIA |  |  |  |  |  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Valid | 8 | 2 | 6.7 | 6.7 | 6.7 |  |  |  |  |  |
|  | 16 | 4 | 13.3 | 13.3 | 20.0 |  |  |  |  |  |
|  | 17 | 6 | 20.0 | 20.0 | 40.0 |  |  |  |  |  |
| 18 | 6 | 20.0 | 20.0 | 60.0 |  |  |  |  |  |  |
| 19 | 6 | 20.0 | 20.0 | 80.0 |  |  |  |  |  |  |
|  | 20 | 4 | 13.3 | 13.3 | 93.3 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

From the table 4.14, the frequency of post-test after being distributed, there was no student who got not proficient score. It means that
they can implement well the strategy which was previously taught in Modified Asian Parliamentary Debate on the treatment for their critical thinking. There was 1 student who got score from 8 to 14 which means that student's critical thinking was proficient enough. The achieved score of 29 students were from 16 to 21 which means that their critical thinking was proficient.

## 4. The Students' Speaking Score in Control Class

a. Pre-test of Control Class

The pre-test of speaking in control class was conducted on January $23^{\text {rd }}, 2020$. The subject was XI IIS 1 which consisted of 30 students. In table 4.15 , the data sum was 281 , the lowest score was 6 , the highest score was 19 , the average was 9.37 , the median was 9 , and the mode was 8 .

Table 4.15: Descriptive Statistic of Pre-Test of Control Class

| Statistics |  |
| :--- | :--- |
| PRETESTSAIIS |  |
| N | Valid |
|  | Missing |
| Mean | 30 |
| Median | 0 |
| Mode | 9.37 |


| Std. Deviation | 2.760 |
| :--- | ---: |
| Minimum | 6 |
| Maximum | 19 |
| Sum | 281 |

Table 4.16: The Frequency of Students' Pre-Test in Control Class

| PRETESTSAIIS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 6 | 3 | 10.0 | 10.0 | 10.0 |
|  | 7 | 2 | 6.7 | 6.7 | 16.7 |
|  | 8 | 8 | 26.7 | 26.7 | 43.3 |
|  | 9 | 6 | 20.0 | 20.0 | 63.3 |
|  | 10 | 6 | 20.0 | 20.0 | 83.3 |
|  | 12 | 3 | 10.0 | 10.0 | 93.3 |
|  | 16 | 1 | 3.3 | 3.3 | 96.7 |
|  | 19 | 1 | 3.3 | 3.3 | 100.0 |
|  | Tot <br> al | 30 | 100.0 | 100.0 |  |

From the table 4.16, the frequency of pre-test after being distributed, there were 25 students who got 6-10 score which means that their speaking ability was fair. There were 3 students who got $11-15$ score
which means that their speaking ability was good. The achieved score of 2 students were $16-20$ which means that their speaking ability was very good.

## b. Post-test of Control Class

Post-test of speaking in control class was done on March $2^{\text {nd }}, 2020$. The subject was XI IIS 1 class which consisted of 30 students. According to the result of post-test in table 4.17, it showed that the sum of data was 419 . The lowest score was 10 , the highest score was 20 , the mean was 13.97 , the median was 13 , and the mode was 12.

Table 4.17: Descriptive Statistic of Post-Test of Control Class

| Statistics |  |  |
| :--- | :--- | :--- |
| POSTTESTSAIIS |  |  |
|  | N | Valid |
|  | Missi <br> ng | 0 |
| Mean | 13.97 |  |
| Median | 13.00 |  |


| Mode | 12 |
| :--- | :--- |
| Std. Deviation | 3.034 |
| Variance | 9.206 |
| Range | 10 |
| Minimum | 10 |
| Maximum | 20 |
| Sum | 419 |

Table 4.18: The Frequency of Students' Post-Test in Control Class

| POSTTESTSAIIS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| Valid | 10 | 3 | 10.0 | 10.0 | 10.0 |
|  | 11 | 4 | 13.3 | 13.3 | 23.3 |
|  | 12 | 5 | 16.7 | 16.7 | 40.0 |
|  | 13 | 4 | 13.3 | 13.3 | 53.3 |
|  | 14 | 3 | 10.0 | 10.0 | 63.3 |


| 15 | 3 | 10.0 | 10.0 | 73.3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 17 | 3 | 10.0 | 10.0 | 83.3 |
| 18 | 2 | 6.7 | 6.7 | 90.0 |
| 19 | 1 | 3.3 | 3.3 | 93.3 |
| 20 2 6.7 6.7 <br> To 30 100.0 100.0 <br> tal    |  |  |  |  |

From the table 4.18, the frequency of post-test after being distributed, there was no student who got inadequate score. The achieved scores of 3 students were from 6 to 10 which means that their speaking ability was fair. The achieved scores of 19 students were from 11 to 15 , means that their speaking ability was good. The achieved scores of 8 students who got score from 16 to 20 which means that their speaking ability was very good.

## 5. The Students' Critical Thinking Score in Control Class

a. Pre-test of Control Class

Pre-test was conducted on January $25^{\text {th }}, 2020$. The subject was XI IIS 1 class which consisted of 30 students. In table 4.19, the data sum was 354 , the lowest score was 8 , the highest score was 25 , the average was 11.80 , the median was 11 , and the mode was 11 .

Table 4.19: Descriptive Statistic of Pre-Test of Control Class

| Statistics |  |  |
| :---: | :---: | :---: |
| PRETESTCTIIS |  |  |
| N | Valid | 30 |
|  | Missi <br> ng | 0 |
| Mean |  | 11.80 |
| Median |  | 11.00 |
| Std. Deviation |  | 3.488 |
| Minimum |  | 8 |
| Maximum |  | 25 |
| Sum |  | 354 |
| Mode |  | 11 |

Table 4.20: The Frequency of Students' Pre-Test in Control Class

| PRETESTCTIIS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| Valid | 8 | 1 | 3.3 | 3.3 | 3.3 |
|  | 9 | 5 | 16.7 | 16.7 | 20.0 |
|  | 10 | 5 | 16.7 | 16.7 | 36.7 |
|  | 11 | 8 | 26.7 | 26.7 | 63.3 |
|  | 12 | 2 | 6.7 | 6.7 | 70.0 |
|  | 13 | 6 | 20.0 | 20.0 | 90.0 |
|  | 15 | 1 | 3.3 | 3.3 | 93.3 |
|  | 21 | 1 | 3.3 | 3.3 | 96.7 |
|  | 25 | 1 | 3.3 | 3.3 | 100.0 |
|  | $\begin{aligned} & \mathrm{T} \\ & \text { ot al } \end{aligned}$ | 30 | 100.0 | 100.0 |  |

From the table 4.20, the frequency of pre-test after being distributed, there was no student who got not proficient score. The achieved score of 27 students were 8 to 14 score which means that their
critical thinking was proficient enough. The achieved scores of 2 students who got 15 to 21 score which means that their critical thinking was proficient. The achieved score of 1 students was 25 score which means that student's critical thinking was very proficient.
b. Post-test of Control Class

Post-test was conducted on March $5^{\text {th }}, 2020$. The subject was XI IIS 1 class which consisted of 30 students. In table 4.21, the data sum was 490 , the highest score was 22 , the lowest score was 13 , the average was 16.33 , the median was 16.50 , and the mode was 14 .

Table 4.21: Descriptive Statistic Post-Test of Control Class

| Statistics |  |  |
| :---: | :---: | :---: |
| POSTTESTCTIIS |  |  |
| N | Valid | 30 |
|  | Missi <br> ng | 0 |
| Mean |  | 16.33 |
| Median |  | 16.50 |
| Mode |  | 14 |
| Std. Deviation |  | 2.510 |
| Minimum |  | 13 |


| Maximum | 22 |
| :--- | ---: |
| Sum | 490 |

Table 4.22: The Frequency of Students' Post-Test of Control Class

| POSTTESTCTIIS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| Valid | 13 | 2 | 6.7 | 6.7 | 6.7 |
|  | 14 | 9 | 30.0 | 30.0 | 36.7 |
|  | 15 | 3 | 10.0 | 10.0 | 46.7 |
|  | 16 | 1 | 3.3 | 3.3 | 50.0 |
|  | 17 | 6 | 20.0 | 20.0 | 70.0 |
|  | 18 | 3 | 10.0 | 10.0 | 80.0 |
|  | 19 | 2 | 6.7 | 6.7 | 86.7 |
|  | 20 | 2 | 6.7 | 6.7 | 93.3 |
|  | 21 | 1 | 3.3 | 3.3 | 96.7 |
|  | 22 | 1 | 3.3 | 3.3 | 100.0 |


| T | 30 | 100.0 | 100.0 |
| :---: | :---: | :---: | :---: |
| ot |  |  |  |
| al |  |  |  |

From the table 4.22 , the frequency of post-test after being distributed, there was no student who got not proficient score. The achieved scores of 11 students were from 8 to 14 which means that their critical thinking was proficient enough. The achieved scores of 18 students were from 15 to 21 which means that their critical thinking was proficient. The achieved score of 1 student were from 22 to 28 which means that their critical thinking was very proficient.
6. The difference of statistical data in post-test of experimental and control class

Here, the researcher compared the students' score of post-test both speaking score and critical thinking score which resulted as follows.
a. Speaking

Table 4.23: Descriptive Statistic of Experimental and Control Class

| Statistics |  |  |  |
| :--- | :--- | ---: | ---: |
|  |  |  |  |
|  |  | Experimen <br> tal | Control |
| N | Valid | 30 | 30 |


| Missi <br> ng | 0 | 0 |
| :---: | :---: | :---: |
| Mean | 15.10 | 13.97 |
| Median | 15.00 | 13.00 |
| Mode | 15 | 12 |
| Minimum | 12 | 10 |
| Maximum | 20 | 20 |

Based on the table above, the differences of students' score of experimental class and control class can be seen. In control class, the mean score was 13.97 , the median was 13 , the mode was 12 , the lowest score was 10 , and the highest score was 20 . While in experimental class, the mean score was 15.10 , the median was 15 , the mode was 15 , the lowest score was 12 , and the highest score was 20 .

The result showed that the experimental class or the class who got treatment by using Modified Asian Parliamentary Debate was higher than the class without treatment or control class. Thus, there was significant difference of the students' score in the test between group who got treatment and another one without treatment. In other word, the use of Modified Asian Parliamentary Debate is effective on students' speaking ability at eleventh graders of MAN 3 Blitar.

In this research, the researcher used SPSS 24.0 to know the effectiveness of Modified Asian Parliamentary Debate on students' speaking ability at eleventh graders of MAN 3 Blitar. The result would be shown as follows:

Table 4.24: Descriptive Statistic of Post-Test (Experimental Class and Control Class)

| Statistics |  |  |  |
| :--- | ---: | ---: | ---: |
|  | POSTSAMIA | POSTSAI <br> IS |  |
|  | Valid | 30 | 30 |
|  |  |  |  |
|  | Missing | 15.10 | 13.97 |
| Mean | .353 | .554 |  |
| Std. Error of Mean |  | 0 |  |
| Std. Deviation | 1.936 | 3.034 |  |

Based on the table above, it showed that there were two classes, experimental and control class. Experimental class showed that there were 30 students, mean score of experimental was 15.10, and Standard Deviation for experimental class was 1.936 . Meanwhile, in control class showed that there were 30 students, mean score of control class was 13.97, and Standard Deviation for control class was 3.034.
b. Critical Thinking

Table 4.25: Descriptive Statistic of Experimental and Control Class

| Statistics |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \hline \text { POSTCT } \\ \text { MIA } \end{gathered}$ | POSTCT <br> IIS |
| N | Valid | 30 | 30 |
|  | Missi ng | 0 | 0 |
| Mean |  | 17.30 | 16.33 |
| Median |  | 18.00 | 16.50 |
| Mode |  | 17 | 14 |
| Minimum |  | 8 | 13 |
| Maximum |  | 21 | 22 |
| a. Multiple modes exist. The smallest value is shown |  |  |  |

Based on the table above, it can be seen the differences of students' score of experimental. The result showed that the score of experimental class or the class who got treatment by using Modified Asian Parliamentary Debate was higher than the class without treatment. Thus,
there were significant difference of the students' score in the test between group who got treatment and the other one without treatment. In other words, the use of Modified Asian Parliamentary Debate is effective on students' critical thinking at eleventh graders students of MAN 3 Blitar.

In this research, the researcher used SPSS 24.0 to know the effectiveness of Modified Asian Parliamentary Debate on students' critical thinking at eleventh graders of MAN 3 Blitar. The result would be shown as follows:

Table 4.26: Descriptive Statistic of Post-Test (Experimental Class and Control Class)

| Statistics |  |  |  |
| :--- | ---: | ---: | ---: |
|  |  |  | POSTCTMIA |

Based on the table above, it showed that there were two classes, experimental and control class. Experimental class showed that there were 30 students, mean score of experimental was 17.30, and Standard Deviation of experimental class was 3.456 . Meanwhile, in control class showed that there were 30 students, mean score of control class was 16.33, and Standard Deviation for control class was 2.510.

## B. Hypothesis Testing

Before mentioning the hypothesis testing, here are the research hypotheses:

1. Alternative Hypothesis (Ha)

There is significant difference of using Modified Asian Parliamentary Debate strategy towards students' critical thinking and speaking ability.
2. Null Hypothesis $\left(\mathrm{H}_{0}\right)$

There is no significant difference of using Modified Asian Parliamentary Debate strategy towards students' critical thinking and speaking ability.

The hypothesis testing of this study is as follows:

1. If P -value $\leq \mathrm{H}_{0}$ is rejected

It means that there is significant different score between experimental class and control class or Modified Asian Parliamentary Debate is effective on students' speaking ability and critical thinking.
2. If $P$-value $\geq a, H_{0}$ is not rejected

It means that there is no significant different score between experimental class and control class or Modified Asian Parliamentary Debate is not effective on students' speaking ability and critical thinking.

To know whether the P -value is bigger or smaller than a (0.05), the researcher analyzed the data by using SPSS 24.0.

Table 4.27: The Result of Analyzing Independent Sample T-test of Speaking



Based on the table above, the result of t-test can be concluded that significant value (sig-2 tailed) of each ability was $0.090: 2=0.045$, and it was smaller than $0.05(0.045<0.05)$. It means that null hypothesis $\left(\mathrm{H}_{0}\right)$ was rejected. Thus, it can be interpreted that there was significant difference on students' score between students who were taught by using Modified Asian Parliamentary Debate and conventional method. It means that Modified Asian Parliamentary Debate is effective on students' speaking ability.

Table 4.28: The Result of Analyzing Independent Sample T-test of Critical Thinking

| Independent Samples Test |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Levene's <br> Test for <br> Equality <br> of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
|  |  |  |  |  |  | $\begin{aligned} & \text { Sig. } \\ & (2- \end{aligned}$ | Mean | Std. <br> Error | 95\% <br> Confidence <br> Interval of <br> the <br> Difference |  |
|  |  | F | Sig. | t | Df | tailed | Differen ce | Differen ce | Lowe <br> r | $\begin{gathered} \text { Uppe } \\ \text { r } \end{gathered}$ |
| $\begin{aligned} & \text { STUDEN } \\ & \text { TSSCOR } \\ & \text { E } \end{aligned}$ | Equal <br> variances <br> assumed | . 258 | . 613 | $\begin{array}{r} - \\ 1.691 \end{array}$ | 58 | . 096 | -1.200 | . 710 | $2.621$ | . 221 |
|  | Equal <br> variances not <br> assumed |  |  | 1.691 | $\begin{array}{\|r\|} \hline 56.44 \\ 2 \end{array}$ | . 096 | -1.200 | . 710 | $2.621$ | . 221 |

Based on the table above, the result of $t$-test can be concluded that significant value (sig-2 tailed) of each ability was $0.096: 2=0.048$, and it was smaller than $0.05(0.048<0.05)$. It means that null hypothesis $\left(\mathrm{H}_{0}\right)$ was rejected. Thus, it can be interpreted that there was significant difference on students' score between students who were taught by using Modified Asian Parliamentary Debate and conventional method. It means that Modified Asian Parliamentary Debate is effective on students' critical thinking.

## C. Discussion

Based on the data analysis on the previous subchapter, the speaking post-test mean of control group was 13.97 , while the post-test mean of experimental group was 15.10 . For critical thinking, the post-test mean of control group was 16.33 , while the post-test mean of experimental group was 17.53. The result also showed that $P$ value or sig was smaller than a (0.05) which indicated that the effect of treatment given to the experimental group was the increasing score. In other words, teaching speaking and critical thinking by using Modified Asian Parliamentary Debate was better than without using Modified Asian Parliamentary Debate. Thus, it can be concluded that Modified Asian Parliamentary Debate was effective on students' speaking ability and critical thinking.

The researcher applied quasi experimental with two groups pretestposttest design. Pre-test was firstly delivered to both control group and experimental group. The speaking test was speaking activity by certain topic
which has to be delivered directly to the researcher to find out the students' prior knowledge. While the test for critical thinking is a writing test in which the students have to write their opinion for a certain topic given by the researcher. Secondly, giving Modified Asian Parliamentary Debate treatment to the students in experimental class. Nevertheless in control class, the researcher taught by conventional way such as in speaking. Although some students felt a little bit difficult in applying this strategy, but it was totally clear that the experimental students were enjoying and experiencing more enthusiastic in the class. While the students in control class didn't look that enthusiastic when the researcher taught them by using conventional way. For experimental class, the researcher did some steps on the treatment. First, the teacher gave students the explanation about Modified Asian Parliamentary Debate including the explanation about debate system, the kinds of motion, rule of each speakers in government and opposition team, and the scoring rubric as well as its aspects which are manner, matter, method. After the students understand about Modified Asian Parliamentary Debate, the researcher guided students to debate with motions given before. Then the researcher gave feedback towards their debate activities. After the students got treatment, the researcher gave them post-test. For speaking, the test is direct speaking activity which was done by each student containing their argument towards certain topic given by the researcher. While for critical thinking, the test is in the form of writing argumentative essay for certain topic also. The aim of post-test was to find out students' score after treatment.

Sanjaya, Nurweni, and Hasan (2014) conducted a study and found that the indicator of the students' improvement in speaking could be achieved by Asian Parliamentary Debate Implementation. Susaniyah (2015) also found some advantages of debate such as increasing students' motivation, improving students' critical thinking, and developing students' communication skill due to active debate technique. Jaya (2017) in his study found that there was high contribution of the debate instruction toward the critical thinking whole aspect.

Modified Asian Parliamentary Debate is not only a good strategy to improve students' speaking ability, but also enhance their critical thinking when they analyze certain topics or motions. Furthermore, Modified Asian Parliamentary Debate is easily implemented in the classroom since the teacher can divide students into several groups or teams to apply this strategy. In addition, this strategy can be implemented to promote students' interaction and discussion.

Based on the result, it can be concluded that using Modified Asian Parliamentary Debate is effective on students' speaking ability and critical thinking at Senior High School, especially at eleventh graders students of MAN 3 Blitar. This activity also increased the students' motivation and created a fun atmosphere to discuss and convey arguments, so they did not get bored. Therefore, Modified Asian Parliamentary Debate is a very useful strategy that can be used in teaching and learning process on students' speaking and critical thinking.

