CHAPTER IV

RESEARCH FINDING AND DISCUSION

This chapter discuss about research finding and discussion. Research finding present the data from the instrument of research that is test and documentation. There are some point in this chapter to be explained, that are presentation of data, hypothesis testing, and discussion of finding.

A. Presentation of Data

As stated in the previous chapter, there are two research problems of this study. The problem are whether any differents in vocabulary mastery between the 8th, who study vocabulary using Google Translation and 8th graders who study vocabulary not using Google Translation in SMPN 2 Larangan and to measure the significant different of vocabulary mastery between the 8th graders, who study vocabulary using google translation in SMPN 2 Larangan.

After collecting data the researcher needs the next is presentation of data. The researcher has to present the data knowing the comparison of both variable as include independent and dependent variable after computing all of the data during the researcher process as a form a result. The researcher use the test and documentation as instrument to collecting the data. Data will be described is the data that researcher got during the research process. That is the result of test and documentation data as method to collect data related to variable X (Google translate as media) and variable Y (The 8th graders vocabulary Mastery).

The researcher took sample a the population using two group design (experiment design and control design). So the researcher conducted a t-test on the eight grade students at SMPN 2 Larangan, totaling 59 students consisting of two classes (experiment class and control class). The test given are in the form of pre-test and post-test using instrument of the test.

1. Data Presentation of The Pre Test

In this part, as the researcher stated in the chapter III, the test is uses to measure students vocabulary mastery by google translate application from the score of the test. The form of the test is multiple choice items which consist of 20 question about vocabulary. The researcher give 5 score of correct answer and get 0 score of wrong answer. If the students can answer the questions correctly they get a score of 100. After the students submit the test to the researcher. It was held on 12th October 2021 at 8.00 up to 23th October 2021. The students test score displayed in the table 4 and table 5

Result of Pre-Test Score

| No | The Correspondent of Experiment Class | Score |
|----|--|-------|
| 1 | Adis Sundoro | 25 |
| 2 | Ahmad Mulyadi Rahman | 45 |
| 3 | Alviano Yudis Pratama | 45 |
| 4 | Andini Intan Maulidia | 70 |
| 5 | Ara Aisyatan Nayla | 45 |
| 6 | Bintang Ainul Marduyah | 45 |
| 7 | Bustanul Haykal | 35 |
| 8 | Cantika Dewi Purnamasari | 40 |
| 9 | Dina Ratna Sari | 35 |
| 10 | Fahrur Raihan | 20 |
| 11 | Faijah Fega Agram | 40 |
| 12 | Faizulhaq Rahmani | 55 |
| 13 | Hafiel Pranata Husada | 45 |
| 14 | Imam Fauzi | 35 |
| 15 | Irma Aulia Dwi Hafidatullah | 50 |
| 16 | Jelita Anggun Anggraini | 50 |
| 17 | Kamalia Septi Nur Ramadhani | 35 |
| 18 | Kusharyadi Indra Permana | 55 |
| 19 | Lisa Afkarina | 45 |
| 20 | Maulidina Quddus | 45 |
| 21 | Moh.Ferdiyanto | 35 |
| 22 | Moh.Ardiansyah | 35 |
| 23 | Nabilatus Soleha | 40 |
| 24 | Ragil Firmansyah | 45 |
| 25 | Rizqy Agustini Mayasari | 55 |
| 26 | Syaiful Anam | 45 |

| No | The Correspondent of Experiment Class | Score |
|----|--|-------|
| 27 | | 40 |
| 27 | Syarif Fatahillah | 40 |
| 28 | Zulfan Mutazim Billah | 55 |
| 29 | Zulvy Karnain | 55 |
| | Total of Score | 1265 |

Result of Pre-Test Score

| No | The Correspondent of Control Class | Score |
|----|------------------------------------|-------|
| 1 | Amelia Legina Yuniati P | 55 |
| 2 | Aryana Diva Krisyulianti | 40 |
| 3 | Asriyatun Aliyah | 70 |
| 4 | Atiqoh basriyah | 30 |
| 5 | Atiqoh sa'adatul qorinah | 75 |
| 6 | Azita qorin | 70 |
| 7 | Bayyinatus sa'diyah | 40 |
| 8 | Bintan nawal auliajinan | 65 |
| 9 | Camelatun nisa | 65 |
| 10 | Didin triana novalul qamariyah | 60 |
| 11 | Dwi ghafiroh qotrun nada | 50 |
| 12 | Fajariyah wildana sulfa | 60 |
| 13 | Fery ardiansyah | 65 |
| 14 | Hessyatin alfafa | 60 |
| 15 | Kharidatul khulayda | 40 |
| 16 | Lailatun nadhifah | 50 |

| No | The Correspondent of Control Class | Score |
|----|------------------------------------|-------|
| 17 | Moh. Zayyadi | 45 |
| 18 | Noor jazilatur rohmaniyah | 50 |
| 19 | Normala rezdiawati | 60 |
| 20 | Nufitasari | 40 |
| 21 | Nur khafidatul ainiyah | 75 |
| 22 | Rania anindya abdillah | 40 |
| 23 | Rina maulidia safira | 75 |
| 24 | Siti normawati | 50 |
| 25 | Sitti nurjamiatun nahdhifani | 65 |
| 26 | Susila setiaweni | 45 |
| 27 | Syita nisrani naura | 80 |
| 28 | Ulfatun Nabila | 50 |
| 29 | Vania izzatiz Zahra | 60 |
| 30 | Yeni damayanti | 45 |
| | Total of Score | 1675 |

Based on the table above, it is known that the students are fifty nine. The first column is a number of the students, second column is the name of students and the third column is table of pretest score. It is found the total t-test students vocabulary mastery is 2940 scores without giving the treatment. From the table above, there are many various score. In the questionnaire, the highest score of the item are 80 and the lowest score is 20.

2. Data Presentation of Treatment

In this part, the researcher give the treatment after the pre-test. But, before doing the treatment, the researcher has decided which class will be given treatment after the data collection instruments between the experimental class and the control class. The treatment of experiment class with vocabulary teaching techniques using google translate application and the control class using the usual treatment or without using google translate application.

During the treatment for the experiment class, the researcher asked the students to make some groups, then the researcher give a short text containing the news, then the researcher asked the students to read carefully for 10 minutes. After that, the researcher asked the students to write the unfamiliar words for them. In the treatment, the researcher also explained to students how to use or find the meaning of unfamiliar vocabulary them, and examples of using word and spelling of words by the google translate application. The experiment class used the google translate application when doing the treatment and doing the post-test. The control class, using a manual dictionary. The researcher give treatment in 2 meetings.

3. The Presentation of Post – Test

After the researcher giving treatment using google translate application on two days. The researcher conducted post – test in testing students vocabulary mastery to collect scores after treatment. The post-test scores re presented in the following table 6 and 7 :

Table 6

| No | The Correspondent of Experiment Class | Score |
|----|--|-------|
| 1 | Adis Sundoro | 90 |
| 2 | Ahmad Mulyadi Rahman | 95 |
| 3 | Alviano Yudis Pratama | 95 |
| 4 | Andini Intan Maulidia | 100 |
| 5 | Ara Aisyatan Nayla | 100 |
| 6 | Bintang Ainul Marduyah | 90 |
| 7 | Bustanul Haykal | 100 |
| 8 | Cantika Dewi Purnamasari | 95 |
| 9 | Dina Ratna Sari | 100 |
| 10 | Fahrur Raihan | 90 |
| 11 | Faijah Fega Agram | 100 |
| 12 | Faizulhaq Rahmani | 90 |
| 13 | Hafiel Pranata Husada | 95 |
| 14 | Imam Fauzi | 100 |
| 15 | Irma Aulia Dwi Hafidatullah | 100 |
| 16 | Jelita Anggun Anggraini | 90 |
| 17 | Kamalia Septi Nur Ramadhani | 95 |
| 18 | Kusharyadi Indra Permana | 100 |

Result of Post-Test Score

| No | The Correspondent of Experiment Class | Score |
|----|--|-------|
| 19 | Lisa Afkarina | 95 |
| 20 | Maulidina Quddus | 100 |
| 21 | Moh.Ferdiyanto | 85 |
| 22 | Moh.Ardiansyah | 90 |
| 23 | Nabilatus Soleha | 100 |
| 24 | Ragil Firmansyah | 90 |
| 25 | Rizqy Agustini Mayasari | 90 |
| 26 | Syaiful Anam | 85 |
| 27 | Syarif Fatahillah | 100 |
| 28 | Zulfan Mutazim Billah | 95 |
| 29 | Zulvy Karnain | 90 |
| | Total of Score | 2745 |

Result of Post-Test Score

| No | The Correspondent of Control Class | Score |
|----|------------------------------------|-------|
| 1 | Amelia Legina Yuniati P | 85 |
| 2 | Aryana Diva Krisyulianti | 85 |
| 3 | Asriyatun Aliyah | 80 |
| 4 | Atiqoh basriyah | 75 |
| 5 | Atiqoh sa'adatul qorinah | 85 |
| 6 | Azita qorin | 80 |
| 7 | Bayyinatus sa'diyah | 85 |
| 8 | Bintan nawal auliajinan | 85 |
| 9 | Camelatun nisa | 85 |
| 10 | Didin triana novalul qamariyah | 80 |
| 11 | Dwi ghafiroh qotrun nada | 75 |
| 12 | Fajariyah wildana sulfa | 80 |

| No | The Correspondent of Control Class | Score |
|----|------------------------------------|-------|
| 13 | Fery ardiansyah | 80 |
| 14 | Hessyatin alfafa | 70 |
| 15 | Kharidatul khulayda | 90 |
| 16 | Lailatun nadhifah | 70 |
| 17 | Moh. Zayyadi | 90 |
| 18 | Noor jazilatur rohmaniyah | 75 |
| 19 | Normala rezdiawati | 80 |
| 20 | Nufitasari | 75 |
| 21 | Nur khafidatul ainiyah | 85 |
| 22 | Rania anindya abdillah | 80 |
| 23 | Rina maulidia safira | 80 |
| 24 | Siti normawati | 80 |
| 25 | Sitti nurjamiatun nahdhifani | 90 |
| 26 | Susila setiaweni | 80 |
| 27 | Syita nisrani naura | 80 |
| 28 | Ulfatun Nabila | 70 |
| 29 | Vania izzatiz Zahra | 90 |
| 30 | Yeni damayanti | 85 |
| | Total of Score | 2430 |

Based on the table above, it is known that the students are fifty nine. The first column is a number of the students, second column is the name of students and the third column is table of post-test score. It is found the total t-test students vocabulary mastery is 5175 scores after the researcher giving the treatment. From the table above, there are many various score. In the questionnaire, the highest score of the item are 100 and the lowest score is 70.

4. Data Presentation of Documentation

As the researcher stated in the previous chapter that documentation is collecting data concerning variable from document, book, transcript, magazine and the others. The documentation of this research are as follow:

- a. Students "name list"
 - The eight grade students of VIII B for experiment class consist of 29 students name list of SMPN 2 Larangan.

Table 8

Students Name List

| No | Name of Students |
|----|--------------------------|
| | Experiment Class |
| 1 | Adis Sundoro |
| 2 | Ahmad Mulyadi Rahman |
| 3 | Alviano Yudis Pratama |
| 4 | Andini Intan Maulidia |
| 5 | Ara Aisyatan Nayla |
| 6 | Bintang Ainul Marduyah |
| 7 | Bustanul Haykal |
| 8 | Cantika Dewi Purnamasari |
| 9 | Dina Ratna Sari |
| 10 | Fahrur Raihan |
| 11 | Faijah Fega Agram |
| 12 | Faizulhaq Rahmani |

| No | Name of Students |
|----|-----------------------------|
| | Experiment Class |
| 13 | Hafiel Pranata Husada |
| 14 | Imam Fauzi |
| 15 | Irma Aulia Dwi Hafidatullah |
| 16 | Jelita Anggun Anggraini |
| 17 | Kamalia Septi Nur Ramadhani |
| 18 | Kusharyadi Indra Permana |
| 19 | Lisa Afkarina |
| 20 | Maulidina Quddus |
| 21 | Moh.Ferdiyanto |
| 22 | Moh.Ardiansyah |
| 23 | Nabilatus Soleha |
| 24 | Ragil Firmansyah |
| 25 | Rizqy Agustini Mayasari |
| 26 | Syaiful Anam |
| 27 | Syarif Fatahillah |
| 28 | Zulfan Mutazim Billah |
| 29 | Zulvy Karnain |

 The eight grade students of VIII – E for control class consist of 30 students name list of SMPN 2 Larangan.

Table 9

Students Name List

| No | Name of Students Control Class |
|----|-----------------------------------|
| 1 | Amelia Legina Yuniati P |
| 2 | Aryana Diva Krisyulianti |
| 3 | Asriyatun Aliyah |
| 4 | Atiqoh Basriyah |

| No | Name of Students |
|----|--------------------------------|
| | Control Class |
| 5 | Atiqoh Sa'adatulqorinah |
| 6 | Azita Qorin |
| 7 | Bayyinatus sa'diyah |
| 8 | Bintan Nawal Auliajinan |
| 9 | Camelatun Nisa |
| 10 | Didin Triana Novalul Qamariyah |
| 11 | Dwi Ghafiroh Qotrunnada |
| 12 | Fajariyah Wildana Sulfa |
| 13 | Fery Ardiansyah |
| 14 | Hessyatin Alfafa |
| 15 | Kharidatul Khulayda |
| 16 | Lailatun Nadhifah |
| 17 | Moh. Zayyadi |
| 18 | Noor Jazilaturrohmaniyah |
| 19 | Normala Rezdiawati |
| 20 | Nufitasari |
| 21 | Nur Khafidatul Ainiyah |
| 22 | Rania Anindya Abdillah |
| 23 | Rina Maulidiasafira |
| 24 | Siti Normawati |
| 25 | Sitti Nurjamiatunnahdhifani |
| 26 | Susila Setiaweni |
| 27 | Syita Nisraninaura |
| 28 | Ulfatun Nabila |
| 29 | Vania Izzatiz Zahra |
| 30 | Yeni Damayanti |

- b. Pictures when carrying out the test
 - 1. Experiment Group



2. Control Group



5. Validity of questioner

The validity used to measure how far the instrument especially questioner instrument valid or not . Because the variable on the data that going to research research is about google translate as media and vocabulary mastery. So to know the questioners valid or not the researcher uses construct validity, because focus on test scores as a measure of psychological construct such as intelligence, motivation, anxiety, critical thinking are hypothetical qualities or characteristic that have been constructed to account for observed behavior¹

The researcher will present the coefficient value of correlation "r" product moment, that is:

Table 10

| | The distribution value r _{table} |
|--------------------|---|
| Significance | 5% |
| N | 57 |
| r _{table} | 0,256 |

Table of coefficient value of correlation "r" product moment²

To test validity of questioner. The researcher uses SPSS 25 that is :

¹ Donald Ary et al., *Introduction to Research in Education*, 8th ed (Belmont, CA: Wadsworth, 2010), 225.

² Tim Penyusun Bidang Kajian dan Inovasi Administrasi Negara, *Processing Data Penelitian Menggunakan SPSS*, 56, accessed form "Modul-SPSS.pdf" <u>http://aceh.lan.go.id</u> on the 28th October 2021, at 17.30 pm.

Calculation of The Pre-Test Score³

Correlations

| | | | | | | orrelation | | | | | | | | | | | | | | | | |
|--------------|--------------------------|------------|------------|-------------|------------|------------|---------------------|--------------------|--------------------|------------|------------|------------|--------------------|--------------------|------------|-------|------------|------------|-------|------------|------------|------------|
| | 0 | x1 | x2 | x3 | x4 | x5 | x6 | x7 | x8 | x9 | x10 | x11 | x12 | x13 | x14 | x15 | x16 | x17 | x18 | x19 | x20 | skorstotal |
| d | Pearson Correlation | 1 | 046 | .105 | -,196 | -,016 | .051 | .193 | .275 | .265 | -,058 | -,119 | .242 | 1,000 | -,118 | .022 | -,121 | ,147 | .196 | -,121 | .070 | .507 |
| | Sig. (2-tailed) | 59 | ,7 30 | ,4 30 59 | .137 59 | ,904 | ./04 | ,143 | .035 | .043 | .004 | .370 59 | .064 | .000 | .371 59 | .867 | .303 | .268 59 | .13/ | .303 | .600 | .000 |
| x2 | Pearson Correlation | -,046 | 1 | 079 | .158 | ,153 | .007 | -,015 | .099 | ,169 | -,053 | ,106 | .015 | -,046 | -,149 | .267 | -,190 | -,297 | -,158 | .015 | .070 | ,195 |
| | Sig (2-tailed) | ,730 | | .550 | .233 | .246 | .958 | .910 | .456 | .201 | .689 | .424 | .910 | ,730 | .258 | .041 | ,150 | ,023 | .233 | .910 | .597 | ,139 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x3 | Pearson Correlation | ,105 | 079 | 1 | .015 | -,152 | ,173 | .091 | -,167 | .219 | -,132 | ,131 | .118 | ,105 | -,069 | .037 | -,160 | -,064 | 088 | 091 | -,018 | .184 |
| | Sig. (2-tailed) | ,430 | ,550 | | .911 | ,250 | ,191 | ,494 | ,207 | ,095 | ,320 | ,325 | .374 | ,430 | .604 | ,783 | ,225 | ,632 | ,506 | ,494 | .893 | ,163 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x4 | Pearson Correlation | -,196 | ,158 | .015 | 1 | -,008 | .061 | ,131 | ,209 | -,086 | -,141 | .086 | ,155 | -,196 | -,132 | .083 | .084 | -,107 | -,244 | -,131 | -,038 | ,133 |
| | Sig. (2-tailed) | ,137 59 | .233 | .911 59 | 59 | .953 59 | .647 59 | .322 | ,113 59 | ,519 59 | .288 | .519 59 | .240 | ,137 59 | .319 | .533 | .528 | .420 | .063 | .322 | .775 | ,315 59 |
| x5 | Pearson Correlation | -,016 | ,153 | -,152 | 008 | 1 | .056 | ,136 | 024 | 005 | 046 | .005 | .158 | 016 | 001 | .018 | -,136 | 040 | .163 | .158 | 028 | .249 |
| Ĩ | Sig (2-tailed) | .904 | .246 | .250 | .953 | | .672 | .304 | .856 | .970 | .732 | .970 | .231 | .904 | .992 | .895 | .304 | .764 | .216 | .231 | .835 | .057 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x6 | Pearson Correlation | .051 | .007 | ,173 | .061 | .056 | 1 | .223 | .001 | ,130 | ,114 | ,144 | .186 | .051 | .103 | .024 | -,223 | .013 | ,155 | -,018 | 107 | .404 |
| | Sig. (2-tailed) | ,704 | ,958 | ,191 | .647 | .672 | | .090 | ,993 | ,326 | .388 | .276 | .159 | .704 | .438 | .855 | .090 | .924 | .242 | .890 | .418 | .002 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x7 | Pearson Correlation | ,193 | -,015 | .091 | ,131 | ,136 | ,223 | 1 | .262 | ,220 | -,164 | .053 | .967 | ,193 | -,118 | ,118 | .085 | -,084 | -,131 | -,051 | ,255 | ,638 |
| | Sig. (2-tailed) | ,143 | ,910 | ,494 | .322 | ,304 | ,090 | | .045 | .094 | ,213 | ,689 | .000 | ,143 | ,374 | .375 | .522 | .527 | .322 | .704 | .052 | ,000 |
| x8 | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | .475 |
| x8 | Pearson Correlation | ,275 | ,099 | -,167 | ,209 | -,024 | ,001 | ,262 | 1 | -,029 | -,033 | ,377 | ,290 | ,275 | -,096 | .276 | ,014 | -,027 | -,136 | -,124 | .082 | |
| | Sig. (2-tailed) N | .035 | .456 59 | .207 | ,113 59 | .856 | .993 | .045 | 59 | .825 | .804 | .003 | .026 | .035 | ,470 59 | .034 | .916 59 | .840 | .305 | ,349 59 | .539 | .000 |
| x9 | Pearson Correlation | .265 | ,169 | ,219 | 086 | -,005 | ,130 | ,220 | 029 | 1 | -,303 | .031 | .258 | .265 | -,201 | -,130 | -,015 | -,045 | .230 | 083 | 001 | .356 |
| - | Sig (2-tailed) | .043 | .201 | .095 | .519 | .970 | .326 | .094 | .825 | | .020 | .813 | .048 | .043 | ,128 | .326 | .910 | .734 | .080 | .530 | .993 | .006 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x10 | Pearson Correlation | -,058 | -,053 | -,132 | -,141 | -,046 | ,114 | -,164 | -,033 | -,303 | 1 | -,053 | -,190 | -,058 | -,132 | .028 | -,119 | .281 | 084 | ,164 | .007 | .004 |
| | Sig. (2-tailed) | .664 | .689 | .320 | .288 | .732 | .388 | .213 | .804 | .020 | | .689 | .150 | .664 | .320 | .835 | .370 | .031 | .529 | .213 | .956 | .977 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x11 | Pearson Correlation | -,119 | ,106 | ,131 | ,086 | ,005 | ,144 | .053 | .377 | ,031 | -,053 | 1 | .015 | -,119 | 079 | ,130 | ,083 | -,092 | -,230 | -,053 | .001 | .274 |
| | Sig (2-tailed) | ,370 | ,424 | ,325 | ,519 | .970 | .276 | .689 | ,003 | .813 | .689 | | .910 | .370 | .550 | ,326 | ,530 | ,490 | .080 | .689 | .993 | .036 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x12 | Pearson Correlation | ,242 | ,015 | ,118 | ,155 | ,158 | ,186 | .967 | ,290 | .258 | -,190 | .015 | 1 | ,242 | -,091 | ,155 | .051 | -,052 | -,084 | -,085 | .226 | .677 |
| | Sig. (2-tailed) | .064 | .910 | .374 | .240 | .231 | .159 | .000 | .026 | .048 | ,150 59 | .910 59 | 59 | .064 | ,494 | .242 | .704 | .697 | .528 | .522 | .086 | .000 |
| x13 | Pearson Correlation | 1,000 | 046 | ,105 | -,196 | -,016 | .051 | .193 | .275 | .265 | -,058 | -,119 | .242 | 59 1 | -,118 | .022 | -,121 | ,147 | .196 | -,121 | .070 | .507 |
| | Sig (2-tailed) | .000 | ,730 | .430 | ,137 | .904 | .704 | ,143 | .035 | .043 | .664 | .370 | .064 | | .371 | .867 | .363 | .268 | .137 | .363 | .600 | .000 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x14 | Pearson Correlation | -,118 | -,149 | -,069 | -,132 | 001 | ,103 | -,118 | -,096 | -,201 | -,132 | -,079 | 091 | -,118 | 1 | -,173 | 021 | ,006 | ,132 | ,118 | -,159 | 056 |
| | Sig (2-tailed) | ,371 | ,258 | .604 | ,319 | ,992 | ,438 | ,374 | ,470 | ,128 | ,320 | ,550 | .494 | ,371 | | ,191 | .873 | ,965 | .319 | ,374 | ,230 | .672 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x15 | Pearson Correlation | .022 | .267 | .037 | .083 | .018 | .024 | ,118 | .276 | -,130 | .028 | ,130 | ,155 | .022 | -,173 | 1 | 050 | -,081 | -,155 | .018 | .039 | .315 |
| | Sig. (2-tailed) | .867 | ,041 | .783 | ,533 | ,895 | ,855 | .375 | .034 | .326 | .835 | ,326 | .242 | .867 | ,191 | | .709 | ,543 | .242 | .890 | .772 | .015 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x16 | Pearson Correlation | -,121 | -,190 | -,160 | .084 | -,136 | -,223 | .085 | .014 | -,015 | -,119 | .083 | .051 | -,121 | 021 | -,050 | 1 | .288 | -,227 | .051 | 049 | .052 |
| | Sig. (2-tailed) N | .363 59 | .150 | .225 | .528 | .304 | .090 | .522 | .916 59 | .910 | .370 | .530 | .704 | .363 59 | .873 | .709 | 59 | .027 | .084 | .704 | .713 | .696 59 |
| x17 | Pearson Correlation | ,147 | -,297 | 064 | -,107 | 040 | .013 | 084 | 027 | 045 | .281 | 092 | 052 | ,147 | .006 | 081 | .288 | 1 | .035 | -,323 | -,421 | .051 |
| | Sig (2-tailed) | .268 | ,023 | .632 | .420 | ,764 | .924 | .527 | .840 | ,734 | .031 | .490 | .697 | .268 | .965 | .543 | .027 | | .791 | .012 | .001 | .699 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x18 | Pearson Correlation | ,196 | -,158 | 088 | -,244 | ,163 | .155 | -,131 | -,136 | .230 | 084 | -,230 | 084 | ,196 | ,132 | -,155 | -,227 | .035 | 1 | .059 | -,324 | .046 |
| | Sig (2-tailed) | ,137 | ,233 | ,506 | .063 | ,216 | ,242 | .322 | ,305 | .080 | .529 | .080 | .528 | ,137 | ,319 | .242 | .084 | ,791 | | .655 | .012 | ,731 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x19 | Pearson Correlation | -,121 | .015 | -,091 | -,131 | ,158 | -,018 | -,051 | -,124 | -,083 | ,164 | -,053 | -,085 | -,121 | ,118 | .018 | .051 | -,323 | .059 | 1 | .294 | ,130 |
| | Sig (2-tailed) | ,363 | ,910 | .494 | .322 | ,231 | .890 | .704 | ,349 | .530 | ,213 | .689 | .522 | ,363 | .374 | .890 | ,704 | .012 | .655 | | .024 | .326 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x20 | Pearson Correlation | .070 | .070 | -,018 | -,038 | -,028 | -,107 | .255 | ,082 | -,001 | .007 | .001 | .226 | .070 | -,159 | ,039 | -,049 | -,421 | -,324 | ,294 | 1 | |
| | Sig (2-tailed) | .600 | .597 | .893 | .775 | .835 | ,418 | .052 | ,539 | .993 | .956 | .993 | .086 | .600 | ,230 | .772 | ,713 | .001 | .012 | .024 | | .157 |
| skorstotal | N Pearson Correlation | 59 .507 | 59 .195 | 59 | .133 | 59 | .404 ^{***} | .638 ^{°°} | .475 ^{°°} | .356 | .004 | .274° | .677 ^{°°} | .507 ^{°°} | -,056 | .315° | .052 | .051 | .046 | .130 | 59 .186 | 59 |
| envi stotali | Sig (2-tailed) | ,000 | ,195 | .184 | .133 | .057 | .002 | .000 | .000 | 006. | .977 | .036 | .000 | ,007 | -,050 | .015 | .696 | ,051 | .046 | .326 | .180 | |
| | ory (2-railed) | ,000 | ,139 | ,103 | ,313 | ,007 | .002 | ,000 | .000 | ,000 | .011 | .030 | .000 | .000 | .0/2 | .015 | 080 | 680. | ,7 31 | .320 | ,15/ | |

Correlation is significant at the 0.05 level (2-tailed).
Correlation is significant at the 0.01 level (2-tailed).

³ See on appendix

Calculation of The Post-Test Score⁴

Correlations

| | | | | | | Correla | | | | | | | | | | | | | | | | |
|-------|--------------------------|------------|------------|-------------|------------|------------|-------------|------------|------------|------------|-------------|--------------------|-------------|-------------|------------|------------|------------|------------|------------|-------------|-------|------------|
| x1 | | x1 | x2 | x3 | x4 | x5 | x6 | x7 | x8 | x9 | x10 | x11 | x12 | x13 | x14 | x15 | x16 | x17 | x18 | x19 | x20 | skors |
| 1 | Pearson Correlation | 1 | .207 | 057 | -,040 | -,170 | 093 | -,137 | -,102 | .040 | ,126 | .057 | -,102 | ,279 | -,102 | ,323 | -,015 | ,167 | ,235 | .040 | -,146 | ,236 |
| | Sig (2-tailed) | | ,116 | .668 | ,764 | ,199 59 | ,485 | ,299 | ,440 | ,763 | ,342 | .667 | ,440 | ,032 | ,440 | ,013 | ,911 | ,207 | .073 | ,763 | ,271 | .072 59 |
| x2 | N Pearson Correlation | .207 | 59 1 | 59 -,043 | -,030 | .052 | 59 -,070 | .101 | 59 078 | .116 | 59 -,070 | .134 | 59 -,078 | -,043 | 59 ,177 | -,111 | -,123 | .087 | .134 | 59 -,098 | -,111 | ,162 |
| ~ | Sig (2-tailed) | ,116 | | .744 | .819 | .694 | .596 | .446 | .558 | ,380 | .596 | ,313 | .558 | .744 | ,179 | ,403 | ,353 | .511 | ,313 | .459 | .403 | ,102 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x3 | Pearson Correlation | -,057 | -,043 | 1 | -,025 | -,104 | -,057 | ,165 | ,247 | -,079 | -,057 | .473 | -,063 | -,035 | -,063 | ,151 | -,100 | -,090 | ,199 | 079 | ,151 | ,221 |
| | Sig (2-tailed) | .668 | ,744 | | ,853 | ,431 | ,668 | .212 | .059 | .550 | ,668 | .000 | ,635 | ,792 | ,635 | .254 | ,453 | ,499 | ,130 | .550 | .254 | ,092 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x4 | Pearson Correlation | -,040 | -,030 | -,025 | 1 | -,073 | -,040 | -,059 | -,044 | -,056 | .432 | -,052 | -,044 | -,025 | -,044 | -,063 | -,070 | -,063 | 052 | -,056 | -,063 | -,035 |
| | Sig (2-tailed) | ,764 | ,819 | .853 | | ,581 | ,764 | .655 | ,740 | .675 | ,001 | ,696 | ,740 | ,853 | ,740 | ,636 | ,599 | ,636 | ,696 | .675 | ,636 | ,794 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x5 | Pearson Correlation | -,170 | ,052 | -,104 | -,073 | 1 | -,170 | -,040 | .076 | -,126 | -,170 | -,105 | -,188 | -,104 | -,188 | -,165 | ,184 | .040 | .012 | ,096 | .244 | ,129 |
| | Sig (2-tailed) | ,199 | .694 | ,431 | ,581 | | ,199 | .766 | .567 | .342 | ,199 | ,431 | ,155 | ,431 | ,155 | ,213 | ,163 | ,764 | .929 | ,471 | .062 | ,331 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| хб | Pearson Correlation | -,093 | -,070 | 057 | -,040 | -,170 | 1 | -,137 | ,099 | .040 | -,093 | ,057 | -,102 | -,057 | .099 | .167 | -,162 | -,146 | .057 | -,129 | ,167 | ,060 |
| | Sig. (2-tailed) | .485 59 | .596 | .668 59 | ,764 59 | ,199 59 | 59 | .299 | .456 59 | .763 59 | ,485 59 | .667 59 | .440 59 | .668 59 | .456 59 | .207 59 | ,221 59 | ,271 59 | .667 | ,330 59 | .207 | .651 59 |
| x7 | Pearson Correlation | -,137 | .101 | .165 | -,059 | 040 | -,137 | | -,152 | .185 | .349 | ,217 | .296 | -,085 | .446 | -,100 | -,022 | -,100 | -,179 | .060 | -,100 | .324 |
| Ĩ | Sig (2-tailed) | ,299 | .446 | .212 | .655 | .766 | .299 | | .250 | ,160 | .007 | .099 | .023 | .524 | .000 | 450 | 868 | .450 | .175 | .654 | .450 | .012 |
| | N | 59 | 59 | 59 | .055 | .700 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | .000 | 59 | .000 | 59 | 59 | 59 | 59 | 59 |
| x8 | Pearson Correlation | -,102 | 078 | .247 | 044 | .076 | .099 | 152 | 1 | 143 | -,102 | .031 | -,113 | 063 | .072 | ,127 | -,179 | -,161 | .031 | .013 | 017 | .073 |
| | Sig (2-tailed) | ,440 | .558 | .059 | ,740 | .567 | ,456 | .250 | | .281 | ,440 | ,818 | ,393 | ,635 | .586 | .338 | ,175 | .223 | .818 | .921 | .898 | .582 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x9 | Pearson Correlation | ,040 | ,116 | -,079 | -,056 | -,126 | ,040 | ,185 | -,143 | 1 | ,040 | ,520 ^{°°} | ,169 | ,181 | ,325 | ,160 | -,112 | ,160 | -,030 | -,180 | ,160 | ,460 |
| | Sig. (2-tailed) | ,763 | ,380 | ,550 | .675 | ,342 | ,763 | ,160 | ,281 | | ,763 | ,000 | ,200 | ,170 | .012 | ,226 | ,399 | ,226 | .820 | ,173 | ,226 | ,000 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x10 | Pearson Correlation | ,126 | 070 | 057 | .432 | -,170 | -,093 | ,349 | -,102 | .040 | 1 | -,121 | ,300 | 057 | ,300 | .011 | -,015 | ,167 | .057 | .379 | -,146 | ,377 |
| | Sig (2-tailed) | ,342 | ,596 | .668 | .001 | ,199 | .485 | .007 | .440 | ,763 | | ,363 | .021 | ,668 | .021 | .937 | ,911 | ,207 | .667 | ,003 | ,271 | ,003 |
| _ | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x11 | Pearson Correlation | .057 | ,134 | ,473 | -,052 | -,105 | ,057 | ,217 | ,031 | ,520 | -,121 | 1 | -,133 | -,074 | ,194 | ,192 | -,091 | -,062 | -,012 | -,168 | -,062 | ,353 |
| | Sig (2-tailed) | .667 | ,313 59 | ,000 | ,696 59 | ,431 59 | ,667 59 | ,099 59 | ,818 59 | ,000 | ,363 | | ,314 | .577 | ,140 59 | ,146 59 | ,493 59 | ,638 59 | .927 | ,203 59 | ,638 | ,006 |
| x12 | N Pearson Correlation | -,102 | -,078 | 59 -,063 | 044 | -,188 | -,102 | .296 | -,113 | 59 ,169 | .300° | -,133 | 59 1 | 59 -,063 | .443 | .127 | -,179 | .127 | -,133 | .013 | -,017 | .235 |
| 112 | Sig (2-tailed) | -,102 | .558 | .635 | .740 | -,100 | -,102 | .023 | .393 | ,109 | ,021 | -,133 | - ' | .635 | .000 | ,127 | .175 | ,127 | .314 | .921 | .898 | .073 |
| | Sig (2-tailed) | ,440 59 | ,558 | .035 | ,740 | ,155 | .440 | ,023 59 | .393 | ,200 | ,021 59 | ,314 | 59 | .035 | .000 | ,330 | ,175 | .330 | .314 | .921 | ,090 | .073 |
| x13 | Pearson Correlation | .279 | 043 | -,035 | -,025 | -,104 | 057 | -,085 | 063 | ,181 | -,057 | 074 | 063 | 1 | 063 | ,151 | -,100 | 090 | ,199 | -,079 | ,151 | ,113 |
| | Sig (2-tailed) | ,032 | ,744 | .792 | .853 | .431 | .668 | ,524 | .635 | ,170 | .668 | .577 | .635 | | .635 | .254 | .453 | .499 | ,130 | ,550 | ,254 | ,395 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x14 | Pearson Correlation | -,102 | ,177 | -,063 | -,044 | -,188 | ,099 | ,446 | .072 | ,325 | ,300 | ,194 | ,443 | -,063 | 1 | -,017 | -,179 | -,017 | -,133 | .013 | -,161 | ,365 |
| | Sig (2-tailed) | ,440 | ,179 | ,635 | ,740 | ,155 | ,456 | .000 | ,586 | .012 | ,021 | ,140 | ,000 | ,635 | | .898 | ,175 | ,898 | ,314 | .921 | ,223 | ,005 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x15 | Pearson Correlation | ,323 | -,111 | ,151 | -,063 | -,165 | ,167 | -,100 | ,127 | ,160 | .011 | ,192 | ,127 | ,151 | -,017 | 1 | -,254 | -,006 | ,319 | -,082 | -,006 | ,351 |
| | Sig (2-tailed) | .013 | .403 | ,254 | ,636 | ,213 | ,207 | .450 | ,338 | ,226 | .937 | ,146 | ,338 | ,254 | .898 | | .052 | ,966 | .014 | .537 | .966 | .006 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x16 | Pearson Correlation | -,015 | -,123 | -,100 | -,070 | ,184 | -,162 | 022 | -,179 | -,112 | -,015 | -,091 | -,179 | -,100 | -,179 | -,254 | 1 | ,376 | 091 | ,457 | ,166 | ,214 |
| | Sig (2-tailed) | ,911 | ,353 | .453 | ,599 | ,163 | ,221 | .868 | ,175 | ,399 | .911 | ,493 | ,175 | ,453 | ,175 | .052 | | ,003 | .493 | ,000 | ,210 | ,104 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 .376 | 59 | 59 | 59 | 59 | 59 |
| x17 | Pearson Correlation | .167 | .087 | -,090 | -,063 | ,040 | -,146 | -,100 | -,161 | ,160 | ,167 | -,062 | ,127 | -,090 | -,017 | -,006 | | 1 | .192 | ,160 | ,106 | .427** |
| | Sig. (2-tailed) | .207 59 | .511 59 | .499 59 | .636 59 | ,764 59 | ,271 59 | .450 59 | ,223 59 | ,226 59 | .207 59 | ,638 59 | ,338 59 | .499 59 | .898 59 | .966 59 | ,003 59 | 59 | ,146 59 | .226 | .424 | .001 |
| x18 | Pearson Correlation | 235 | ,134 | -199 | - 052 | .012 | .057 | -,179 | .031 | - 030 | .057 | 012 | -133 | .199 | -,133 | 319 | - 091 | .192 | | .107 | .192 | .382 |
| | Sig (2-tailed) | .073 | ,313 | ,130 | .696 | .929 | .667 | ,175 | ,818 | .820 | .667 | .927 | ,314 | ,130 | ,314 | .014 | ,493 | ,146 | | ,418 | ,146 | .003 |
| | N | 59 | 59 | .150 | .050 | .010 | 59 | 59 | 59 | .010 | .007 | 59 | 59 | 59 | 59 | .014 | 59 | 59 | 59 | 59 | 59 | .003 |
| x19 | Pearson Correlation | .040 | 098 | -,079 | -,056 | .096 | -,129 | .060 | ,013 | -,180 | ,379 | -,168 | ,013 | 079 | .013 | 082 | .457 | ,160 | .107 | 1 | .039 | ,351 |
| | Sig (2-tailed) | .763 | ,459 | ,550 | .675 | .471 | ,330 | .654 | .921 | ,173 | ,003 | ,203 | ,921 | ,550 | .921 | .537 | ,000 | .226 | ,418 | | ,769 | ,006 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| x20 | Pearson Correlation | -,146 | -,111 | ,151 | -,063 | ,244 | ,167 | -,100 | -,017 | ,160 | -,146 | -,062 | -,017 | ,151 | -,161 | -,006 | ,166 | ,106 | ,192 | .039 | 1 | ,351 |
| | Sig (2-tailed) | .271 | .403 | ,254 | ,636 | .062 | ,207 | .450 | ,898 | .226 | ,271 | ,638 | ,898 | ,254 | .223 | .966 | ,210 | .424 | ,146 | ,769 | | ,006 |
| | N | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| skors | Pearson Correlation | ,236 | ,162 | ,221 | -,035 | ,129 | ,060 | ,324 | .073 | .460 | .377 | ,353 | ,235 | ,113 | .365 | ,351 | ,214 | .427 | ,382 | .351 | ,351 | 1 |
| | Sig (2-tailed) | .072 | ,221 | .092 | .794 | .331 | .651 | .012 | .582 | .000 | .003 | .006 | .073 | .395 | .005 | .006 | .104 | .001 | .003 | .006 | .006 | |
| | 0.9 (2.10.00) | | , | | | ,001 | ,001 | | ,302 | ,000 | .003 | ,000 | .073 | .393 | ,005 | ,000 | ,104 | ,001 | .003 | ,000 | ,000 | |

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

⁴ See on appendix

Based on the table 11 and 12, in order to consult to t-value on the level of significance 5%. Obviously in df-57, t-value that can be obtained in t-table in the level significance 5% is 0,256. If t-value is lower than t-table, the question is not valid. But, if t-value is higher than t-table the question is valid. Therefore, there are nine question is valid because t-value is higher than t-table. In post-test there are ten question is valid because t-value is value is higher than t-table.

6. Reliability of questioner

To know the reliability of the questioner, the researcher used the alpha cronbach formula to measure whether the questioner was reliable or not. we must know the level of significance and r_{table} that is :

Table 13

Table of coefficient value of correlation "r" product moment⁵

| | The distribution value r _{table} |
|--------------------|---|
| Significance | 5% |
| N | 57 |
| r _{table} | 0,256 |

To measure the reliability of the questioner, the researcher used SPSS 25 to make the researcher easier and decimate misinterpretation, are as follows:

⁵ Tim Penyusun Bidang Kajian dan Inovasi Administrasi Negara, *Processing Data Penelitian Menggunakan SPSS*, 56, accessed form "Modul-SPSS.pdf" <u>http://aceh.lan.go.id</u> on the 28th October 2021, at 17.30 pm.

Reliability of Pre-Test

Case Processing Summary

| | | Ν | % |
|-------|-----------------------|----|-------|
| | Valid | 59 | 100,0 |
| Cases | Excluded ^a | 0 | ,0 |
| | Total | 59 | 100,0 |

a. Listwise deletion based on all variables in the procedure.

Table 15

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| ,312 | 20 |

Table 16

| | Item-Total Statistics | | | | | | | | | | |
|----|-----------------------|--------------|-------------|---------------|--|--|--|--|--|--|--|
| | Scale Mean if | Scale | Corrected | Cronbach's | | | | | | | |
| | Item Deleted | Variance if | Item-Total | Alpha if Item | | | | | | | |
| | | Item Deleted | Correlation | Deleted | | | | | | | |
| x1 | 46,44 | 146,596 | ,355 | ,222 | | | | | | | |
| x2 | 47,63 | 165,824 | ,005 | ,323 | | | | | | | |
| x3 | 47,88 | 166,555 | -,003 | ,325 | | | | | | | |
| x4 | 48,14 | 169,740 | -,049 | ,336 | | | | | | | |
| x5 | 48,31 | 162,595 | ,074 | ,303 | | | | | | | |
| x6 | 47,54 | 152,046 | ,226 | ,257 | | | | | | | |
| x7 | 47,29 | 136,485 | ,502 | ,166 | | | | | | | |

| x8 | 47,80 | 147,648 | ,309 | ,232 |
|------|-------|---------|-------|------|
| x9 | 47,03 | 155,275 | ,174 | ,273 |
| x10 | 46,61 | 177,966 | -,177 | ,370 |
| x11 | 47,63 | 160,652 | ,086 | ,299 |
| Fx12 | 47,37 | 133,928 | ,550 | ,149 |
| x13 | 46,44 | 146,596 | ,355 | ,222 |
| x14 | 47,88 | 182,072 | -,237 | ,387 |
| x15 | 47,12 | 157,934 | ,129 | ,287 |
| x16 | 47,37 | 175,307 | -,139 | ,363 |
| x17 | 47,46 | 175,321 | -,139 | ,363 |
| x18 | 46,53 | 175,219 | -,135 | ,359 |
| x19 | 47,37 | 170,134 | -,062 | ,342 |
| x20 | 46,95 | 166,394 | -,003 | ,325 |
| r | | | | |

Based on the output, the researcher get the reability of pre-test score = 0,312. To know the reability of the test, it is reliable or not, the researcher compare the value of r_o and r_{table} . According to level significance 5%, the critical value in r_{table} is 0,256, because coefficient Alpha that 0,312 are significantly higher than r_{table} (0,312 < 0,256). So the researcher states the data in pre-test are reliable.

Table 17

Reliability of Post-Test

| Case Processing Summary | | | | | | | | |
|-------------------------|-----------------------|----|-------|--|--|--|--|--|
| | | Ν | % | | | | | |
| Cases | Valid | 59 | 100,0 | | | | | |
| | Excluded ^a | 0 | ,0 | | | | | |
| | Total | 59 | 100,0 | | | | | |

a. Listwise deletion based on all variables in the procedure.

| Reliability Statistics | | | | | | | | | |
|------------------------|------------|--|--|--|--|--|--|--|--|
| Cronbach's Alpha | N of Items | | | | | | | | |
| ,322 | 20 | | | | | | | | |

Table 19

| | Item-Total Statistics | | | | | | | | | |
|-----|-----------------------|-----------------|-------------|---------------|--|--|--|--|--|--|
| | Scale Mean | Scale Variance | Corrected | Cronbach's | | | | | | |
| | if Item | if Item Deleted | Item-Total | Alpha if Item | | | | | | |
| | Deleted | | Correlation | Deleted | | | | | | |
| x1 | 83,14 | 72,326 | ,077 | ,313 | | | | | | |
| x2 | 82,97 | 74,240 | ,035 | ,321 | | | | | | |
| x3 | 82,88 | 73,451 | ,119 | ,308 | | | | | | |
| x4 | 82,80 | 76,958 | -,109 | ,336 | | | | | | |
| x5 | 83,90 | 75,921 | -,117 | ,385 | | | | | | |
| x6 | 83,14 | 76,636 | -,100 | ,355 | | | | | | |
| х7 | 83,56 | 69,009 | ,113 | ,302 | | | | | | |
| x8 | 83,22 | 76,520 | -,101 | ,358 | | | | | | |
| x9 | 83,47 | 64,874 | ,273 | ,249 | | | | | | |
| x10 | 83,14 | 68,878 | ,227 | ,276 | | | | | | |
| x11 | 83,39 | 68,483 | ,164 | ,287 | | | | | | |
| x12 | 83,22 | 72,209 | ,062 | ,317 | | | | | | |
| x13 | 82,88 | 75,175 | ,008 | ,325 | | | | | | |
| x14 | 83,22 | 68,761 | ,200 | ,280 | | | | | | |
| x15 | 83,64 | 67,957 | ,134 | ,294 | | | | | | |
| x16 | 83,81 | 72,706 | -,026 | ,351 | | | | | | |
| x17 | 83,64 | 65,371 | ,218 | ,264 | | | | | | |
| x18 | 83,39 | 67,621 | ,195 | ,277 | | | | | | |
| x19 | 83,47 | 68,323 | ,151 | ,290 | | | | | | |
| x20 | 83,64 | 67,957 | ,134 | ,294 | | | | | | |

From the output, the researcher get the reability of post-test score = 0,322. To know the reability of the test, it is reliable or not, the researcher compare the value of r_o and r_{table} . According to level

significance 5%, the critical value in r_{table} is 0,256, because coefficient Alpha that 0,322 are significantly higher than r_{table} (0,322 < 0,256). So the researcher states the data in pre-test are reliable.

7. Data Analysis

After measuring the validity and reliability of the instrument, the researcher need to analyze the score to statistical form. To analyze the data, researcher used independent t-test to analyze post-test score. Before it, the researcher testing the hypothesis.

a. Hypothesis Testing

Hypothesis are statement in quantitative research in which the investigator makes a prediction about the outcome of relationship among attributes or characteristic.⁶ It present as a researchers expectation about the variables within the question. There are two type of hypothesis: Null hypothesis (H_o) and Alternative hypothesis (H_a). Hypothesis testing can be tested by using independent sample t-test. Independent t-test is design to determine whether there is a significant difference in vocabulary mastery between students using application using google translate and students not using google translate. The statistical hypothesis as follow:

 H_a : There is no any difference in vocabulary mastery between the 8^{th} graders, who study vocabulary using google translate and 8^{th} graders who study not using google translate in SMPN 2 Larangan

⁶ John W Creswell, Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, 111

 $H_{\rm O}$: There is any significant different in vocabulary mastery between the 8^{th} graders, who study vocabulary using google translate and not using google translate in SMPN 2 Larangan.

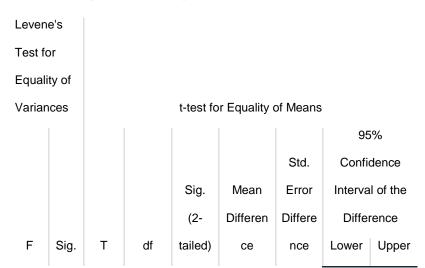
The research hypothesis will be tasted with the following criteria:

- 1. if $t_0 > t_t = H_0$ is rejected
- $2. \quad \text{if } t_0 < t_t = H_0 \text{ is accepted.} \\$
- b. Result of Independent t-test

| Group Statistics | | | | | | | | | | | |
|------------------|------------|----|-------|-----------|------------|--|--|--|--|--|--|
| | Kelompok | Ν | Mean | Std. | Std. Error | | | | | | |
| | | | | Deviation | Mean | | | | | | |
| Hasil | Experiment | 29 | 94,66 | 4,988 | ,926 | | | | | | |
| Belajar | Control | 30 | 81,00 | 5,783 | 1,056 | | | | | | |

Table 20

Table 21



Independent Samples Test

| Hasil | Equal | ,154 | ,697 | 9,697 | 57 | ,000 | 13,655 | 1,408 | 10,835 | 16,475 |
|---------|-----------|------|------|-------|--------|------|--------|-------|--------|--------|
| Belajar | variances | | | | | | | | | |
| | assumed | | | | | | | | | |
| | Equal | | | 9,722 | 56,284 | ,000 | 13,655 | 1,405 | 10,842 | 16,469 |
| | variances | | | | | | | | | |
| | not | | | | | | | | | |
| | assumed | | | | | | | | | |

based on the table 21 result of independent sample t-test on levene's test for equality of variances the sig values is 0,697 > 0,05 and t_0 is 9,722, df (degree of freedom) is 57, and sig (2-tailed) is 0,000.

After t₀ is 9,722 then compere with t-value in the t-table 0,256, the researched stated that null hypothesis (Ho) is rejected and alternative hypothesis (Ha) is accepted because $t_0 > t_t$ (9,722 > 0,256)

Finally the researcher concluded that alternative hypothesis is accepted. So, this research conclude that there is significant the effect google translate application on the 8th graders vocabulary mastery in SMPN 2 Larangan.

B. Discussion of Finding

In this research, there are two research problem that the researcher wants to research, as follows:

 Is there any different in vocabulary mastery between the 8th graders, who study vocabulary using Google Translate Application and not using it.

Based on the data above, the results of this research that analyzing by using statistical analysis showed that there is Effect Google Translate Application on the 8th graders Vocabulary Mastery in SMPN 2 Larangan. It is proved by comparing the result of t_0 with t_t . The result of $t_0 = 9,722$ and then compare with $t_t = 0,256$. The researcher state the that null hypothesis (Ho) is rejected and alternative hypothesis (Ha) is accepted because $t_0 > t_t$ (9,722 > 0,256)

The answer of this research problem is that there is different of google translate application on the 8th graders vocabulary mastery in SMPN 2 Larangan.

2. The significant different in vocabulary mastery between the 8th graders, who study vocabulary using google translate application. In this research, there is effect google translate application on vocabulary mastery for the 8th graders students of SMPN 2 Larangan. It is proved by the result of $t_0 = 9,722$ and the value in $t_{table} = 0,256$. The result analyzing the data presents that t_0 is higher than t_{table} .

To know how the significances of effect google translate application on the vocabulary mastery, the researcher determine df (degree of freedom) by formula df= N-nr as the discussed above the number of participants (N=59). So , the degree of freedom is calculated 59-2= 57 . in order to consult t-value on the level significance 5%. Obviously, in df =57 , t-value that can be obtained in t-table is 0,256. After t_0 = 9,722, then compare with t-value in t-table is 0,256. The researcher stated that there is strong significance different of the vocabulary mastery.