## CHAPTER IV RESEARCH FINDINGS AND ANALYSIS

## A. Description of the Result Research

To find out the effectiveness of English-Arabic combined task to improve English-Arabic learners understands on grammatical patterns of English simple past tense. Especially in MA Matholi'l Huda Bugel Kedung Jepara, the writer did an analysis of quantitative data. The data is obtained by giving test to the experimental class and control class after giving a different learning both classes.

The subjects of this research were divided into three classes. They are experimental class (XF), control class (XB) and try out class (XA). Before items were given to the students, the writer gave tryout test to analyze validity, reliability and difficulty level of each item. The writer prepared 20 items as the instrument of the test. Test was given before and after the students follow the learning process that was provided by the writer.

Before the activities are conducted, the writer determined the materials and lesson plan of learning. Learning in the experiment class used contrastive analysis and English-Arabic combined task, while the control class without used them.

After the data were collected, the writer analyzed it. The first analysis data is from the beginning of control class and experimental class that is taken from the pre test value. It is the normality test and homogeneity test. It is used to know that two groups are normal and have same variant. Another analysis data is from the ending of control class and experimental class. It is used to prove the truth of hypothesis that has been planned.

## B. The Data Analysis and Test of Hypothesis

## 1. The Data Analysis

a. The Data Analysis of Try-out Finding

This discussion covers validity, reliability, and level of difficulty.

1) Validity of Instrument

As mentioned in chapter III, validity refers to the precise measurement of the test. In this study, item validity is used to know the index validity of the test. To know the validity of instrument, the writer used the Pearson product moment formula to analyze each item.

It is obtained that from 20 test items; there are 15 test items which are valid and 5 test items which are invalid. They are on number $2,4,6,9,12$. They are to invalid with the reason the computation result of their $\mathrm{r}_{\text {pbis }}$ value (the correlation of score each item) is lower than their $\mathrm{r}_{\text {wable }}$ value.

The following is the example of item validity computation for item number 1 and for the other items would use the same formula.

$$
\begin{array}{lll}
\mathrm{N} & =32 & \mathrm{~S}_{\mathrm{t}} \\
=3,07 \\
\mathrm{M}_{\mathrm{p}} & =15,41 & \mathrm{p} \\
\mathrm{M}_{\mathrm{t}} & =14,44 & \mathrm{q} \\
r_{p b i s} & =\frac{M p-M t}{S t} \sqrt{\frac{p}{q}} & \\
r_{p b i s} & =\frac{15,41-14,44}{3,07} \sqrt{\frac{0,84}{0,16}} & \\
r_{\text {pbis }}=(0,32)(2,29) & \\
r_{p b i s}=0,733 &
\end{array}
$$

From the computation above, the result of computing validity of the item number 1 is 0,733 . After that, the writer consulted the result to the table of r Product Moment with the number of subject $(\mathrm{N})=32$ and significance level $5 \%$ it is 0,349 . Since the result of the computation is higher than $r$ in table, the index of validity of the item number 1 is considered to be valid. The list of the validity of each item can be seen in appendix 3 .
2) Reliability of Instrument

A good test must be valid and reliable. Besides the index of validity, the writer calculated the reliability of the test using KuderRicharson formula 20(K-R 20).

Before computing the reliability, the writer had to compute Varian ( $\mathrm{S}^{2}$ ) with the formula below:

$$
\begin{aligned}
& \mathrm{N}=32 \quad \sum Y=462 \\
& \sum Y^{2}=6972 \quad \sum p q=3,243 \\
& S^{2}=\frac{\sum y^{2}-\frac{\left(\sum y\right)^{2}}{N}}{N} \\
& S^{2}=\frac{6972-\frac{(462)^{2}}{32}}{32} \\
& S^{2}=\frac{6972-6670,125}{32} \\
& S^{2}=\frac{301,875}{32} \\
& S^{2}=9,433
\end{aligned}
$$

The computation of the Varian $\left(\mathrm{S}^{2}\right)$ is 9,433 . After finding the Varian $\left(\mathrm{S}^{2}\right)$ the writer computed the reliability of the test as follows:

$$
\begin{aligned}
& r_{11}=\left(\frac{n}{n-1}\right)\left(\frac{S^{2}-\sum p q}{S^{2}}\right) \\
& r_{11}=\left(\frac{20}{20-1}\right)\left(\frac{9,433-3,243}{9,433}\right) \\
& r_{11}=1,053\left(\frac{6,19}{9,433}\right) \\
& r_{11}=0,691
\end{aligned}
$$

From the computation above, it is found out that $r_{11}$ (the total of reliability test) is 0,691 .
3) The level of Difficulty

The following is the computation of the level difficulty for item number 1 and for the other items would use the same formula. $\mathrm{B}=27$
$\mathrm{JS}=32$
$P=\frac{B}{J S} \quad P=\frac{27}{32}$
$P=0,84$
It is proper to say that the index difficulty of the item number 1 above can be said as the easy category, because the calculation result of the item number 1 is in the interval $0,70 \leq p \leq 1,00$.

After computing 20 items of the try-out test, there are 15 items are considered to be easy, 5 items are sufficient. The whole computation result of difficulty level can be seen in appendix 3 .

## b. The Data Analysis of Pre-test Value of the Experimental class and the Control Class.

Table 1
The list of Pre-test Value of the Experimental and Control Classes

| N NO | Experimental Class |  |  | Control Class |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $x_{i}$ | $\left(x_{i}-\bar{x}\right)$ | $\left(x_{i}-\bar{x}\right)^{2}$ |  | $x_{i}$ | $\left(x_{i}-\bar{x}\right)$ | $\left(x_{i}-\bar{x}\right)^{2}$ |
|  |  |  |  |  |  |  |  |
| 1 | 73 | 3,66 | 13,39 | 1 | 66 | $-1,88$ | 3,53 |
| 2 | 73 | 3,66 | 13,39 | 2 | 73 | 5,12 | 26,21 |
| 3 | 80 | 10,66 | 113,63 | 3 | 73 | 5,12 | 26,21 |
| 4 | 73 | 3,66 | 13,39 | 4 | 60 | $-7,88$ | 62,09 |
| 5 | 60 | $-9,34$ | 87,23 | 5 | 66 | $-1,88$ | 3,53 |
| 6 | 60 | $-9,34$ | 87,23 | 6 | 86 | 18,12 | 328,33 |
| 7 | 60 | $-9,34$ | 87,23 | 7 | 80 | 12,12 | 146,89 |
| 8 | 73 | 3,66 | 13,39 | 8 | 66 | $-1,88$ | 3,53 |
| 9 | 73 | 3,66 | 13,39 | 9 | 73 | 5,12 | 26,21 |
| 10 | 60 | $-9,34$ | 87,23 | 10 | 60 | $-7,88$ | 62,09 |
| 11 | 66 | $-3,34$ | 11,15 | 11 | 66 | $-1,88$ | 3,53 |
| 12 | 80 | 10,66 | 113,63 | 12 | 60 | $-7,88$ | 62,09 |
| 13 | 73 | 3,66 | 13,39 | 13 | 60 | $-7,88$ | 62,09 |
| 14 | 60 | $-9,34$ | 87,23 | 14 | 60 | $-7,88$ | 62,09 |
| 15 | 60 | $-9,34$ | 87,23 | 15 | 66 | $-1,88$ | 3,53 |
| 16 | 60 | $-9,34$ | 87,23 | 16 | 66 | $-1,88$ | 3,53 |
| 17 | 66 | $-3,34$ | 11,15 | 17 | 66 | $-1,88$ | 3,53 |
| 18 | 80 | 10,66 | 113,63 | 18 | 73 | 5,12 | 26,21 |
| 19 | 73 | 3,66 | 13,39 | 19 | 60 | $-7,88$ | 62,09 |
| 20 | 73 | 3,66 | 13,39 | 20 | 60 | $-7,88$ | 62,09 |
| 21 | 60 | $-9,34$ | 87,23 | 21 | 80 | 12,12 | 146,89 |
| 22 | 73 | 3,66 | 13,39 | 22 | 73 | 5,12 | 26,21 |


| 23 | 60 | $-9,34$ | 87,23 | 23 | 60 | $-7,88$ | 62,09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24 | 80 | 10,66 | 113,63 | 24 | 60 | $-7,88$ | 62,09 |
| 25 | 86 | 16,66 | 277,55 | 25 | 86 | 18,12 | 328,33 |
| 26 | 66 | $-3,34$ | 11,15 | 26 | 66 | $-1,88$ | 3,53 |
| 27 | 60 | $-9,34$ | 87,23 | 27 | 66 | $-1,88$ | 3,53 |
| 28 | 66 | $-3,34$ | 11,15 | 28 | 73 | 5,12 | 26,21 |
| 29 | 80 | 10,66 | 113,63 | 29 | 73 | 5,12 | 26,21 |
| 30 | 66 | $-3,34$ | 11,15 | 30 | 66 | $-1,88$ | 3,53 |
| 31 | 73 | 3,66 | 13,39 | 31 | 66 | $-1,88$ | 3,53 |
| 32 | 73 | 3,66 | 13,39 | 32 | 66 | $-1,88$ | 3,53 |
| $\sum$ | 2219 | 0,12 | 1921,04 | $\sum$ | 2175 | $-0,16$ | 1735,32 |
| $\bar{x}$ | 69,34 |  |  | $\bar{x}$ | 67,97 |  |  |

1) The Normality Pre-test of the Experimental Class

The normality test is used to know whether the data obtained is normally distributed or not. Based on the table above, the normality test:
Hypothesis:
Ha: The distribution list is normal.
Ho: The distribution list is not normal

## Test of hypothesis:

The formula is used:
$\chi^{2}=\sum_{i=1}^{k} \frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}$

The computation of normality test:
$\mathrm{N}=32$
Maximum score $=86$
Length of the class $=4$

$$
\sum x=2219
$$

Minimum score $=60$
$\mathrm{K} /$ Number of class $=6$

$$
=26
$$

Range $\quad=26$

$$
\bar{x}=69,34
$$

Table 2
Normality Pre test of the Experimental Class

| Interval Class | $x_{i}$ | $f_{i}$ | $\left(x_{i}-\bar{x}\right)$ | $\left(x_{i}-\bar{x}\right)^{2}$ | $f_{i}\left(x_{i}-\bar{x}\right)^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $60-63$ | 61,5 | 10 | $-7,84$ | 61,47 | 614,70 |
| $64-67$ | 65,5 | 5 | $-3,84$ | 14,75 | 73,75 |
| $68-71$ | 69,5 | 0 | 0,16 | 0,03 | 0 |
| $72-75$ | 73,5 | 11 | 4,16 | 17,31 | 190,41 |
| $76-79$ | 77,5 | 0 | 8,16 | 66,59 | 0 |
| $80-86$ | 83,5 | 6 | 13,66 | 186,59 | 1119,54 |
|  |  |  |  |  |  |
|  | 32 |  | 1998,4 |  |  |

$$
S=\sqrt{\frac{\sum f_{i}\left(x_{i}-\bar{x}\right)^{2}}{n-1}}=\sqrt{\frac{1998,4}{32-1}}=8,029
$$

## Table 3

Normality Pre test of the Experimental Class

| Class <br> interval | Limit <br> class | Z for the <br> limit <br> class | Opportu- <br> nities Z | Size <br> classe <br> s for <br> Z | Ei | Oi | $\frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $60-63$ | 59,5 | $-11,17$ | 1,11 |  |  |  |  |
| $64-67$ | 63,5 | $-7,17$ | 0,71 | 0,40 | 12,80 | 10 | 0,22 |
| $68-71$ | 67,5 | $-3,17$ | 0,32 | 0,39 | 12,50 | 5 | 0,60 |
| $72-75$ | 71,5 | 0,83 | 0,08 | 0,24 | 7,68 | 0 | 1,00 |
| $76-79$ | 75,5 | 4,83 | 0,48 | 0,40 | 12,80 | 11 | 0,14 |
| $80-86$ | 79,5 | 8,83 | 0,88 | 0,40 | 12,80 | 0 | 1,00 |
| 14,83 |  |  |  |  |  |  | 1,47 |
| 0,55 | 18,88 | 6 | 0,68 |  |  |  |  |
| The result of computation Chi-Square |  |  |  |  |  |  |  |

With $\alpha=5 \%$ and $\mathrm{dk}=6-3=3$, from the chi-square distribution table, obtained $\chi^{2}$ table $=7,82$ Because $\chi^{2}$ count is lower than $\chi^{2}$ table $(2,64<7,82)$. So, the distribution list is normal.
2) The Normality Pre-Test of the Control Class

## Hypothesis:

Ho: The distribution list is normal.
Ha: The distribution list is not normal.

## Test of hypothesis:

The formula is used:

$$
\chi^{2}=\sum_{i=1}^{k} \frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}
$$

The computation of normality test:

| Maximum score | $=86$ | Length of the class | $=4$ |
| :--- | :--- | :--- | :--- |
| Minimum score | $=60$ | $\bar{x}$ | $=67,97$ |
| Range | $=26$ | N | $=32$ |
| K/ Number of class | $=6$ | S | $=7,111$ |
| $\sum x=2175$ |  |  |  |

Table 4
Normality Pre test of the Control Class

| Interval Class | $x_{i}$ | $f_{i}$ | $\left(x_{i}-\bar{x}\right)$ | $\left(x_{i}-\bar{x}\right)^{2}$ | $f_{i}\left(x_{i}-\bar{x}\right)^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $60-63$ | 61,5 | 9 | $-6,47$ | 41,86 | 376,74 |
| $64-67$ | 65,5 | 12 | $-2,47$ | 6,10 | 73,20 |
| $68-71$ | 69,5 | 0 | 1,53 | 2,34 | 0 |
| $72-75$ | 73,5 | 7 | 5,53 | 30,58 | 214,06 |
| $76-79$ | 77,5 | 0 | 9,53 | 90,82 | 0 |
| $80-86$ | 83,5 | 4 | 15,03 | 225,90 | 903,60 |
|  |  |  |  |  |  |

$$
S=\sqrt{\frac{\sum f_{i}\left(x_{i}-\bar{x}\right)^{2}}{n-1}}=\sqrt{\frac{1567,6}{32-1}}=7,111
$$

Table 5
Normality Pre test of the Control Class

| Class <br> interval | Limit <br> class | Z for the <br> limit <br> class | Opportu- <br> nities Z | Size <br> classes <br> for Z | Ei | Oi | $\frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $60-63$ | 59,5 | 0,64 | 0,06 |  |  |  |  |
| $64-67$ | 63,5 | 4,64 | 0,42 | 0,36 | 11,52 | 9 | 0,22 |
| $68-71$ | 67,5 | 8,64 | 0,78 | 0,36 | 11,52 | 12 | 0,40 |
| $72-75$ | 71,5 | 12,64 | 1,14 | 0,36 | 11,52 | 0 | 1,00 |
| $76-79$ | 75,5 | 16,64 | 1,51 | 0,37 | 11,84 | 7 | 0,41 |
| $80-86$ | 79,5 | 20,64 | 1,87 | 0,36 | 11,54 | 0 | 1,00 |
| 26,64 |  |  |  |  |  |  | 2,41 |
| 0,55 | 17,28 | 4 | 0,77 |  |  |  |  |
| The result of computation Chi-Square |  |  |  |  |  |  |  |

With $\alpha=5 \%$ and $\mathrm{dk}=6-3=3$, from the chi-square distribution table, obtained $\chi^{2}$ table $=7,82$ Because $\chi^{2}$ count is lower than $\chi^{2}$ table $(3,44<7,82)$. So, the distribution list is normal.
3) The Homogeneity Pre-Test of the Experimental Class

## Hypothesis :

$$
\begin{aligned}
& H_{o}: \sigma_{1}^{2}=\sigma_{2}^{2} \\
& H_{A}: \sigma_{1}^{2} \neq \sigma_{2}^{2}
\end{aligned}
$$

## Test of hypothesis:

The formula is used:
$F=\frac{\text { Biggest variant }}{\text { smallest var iant }}$

## The Data of the research:

$$
\begin{array}{lll}
\sigma_{1}^{2} & =8,029 & \mathrm{n}_{1}=32 \\
\sigma_{2}^{2} & =7,111 & \mathrm{n}_{2}=32
\end{array}
$$

$\sigma_{2}^{2}=S_{2}^{2}=\frac{\sum(x-\bar{x})^{2}}{n_{2}-1}=\frac{1567,6}{32-1}=7,111$
Biggest variant $(\mathrm{Bv})=8,029$
Smallest variant $(\mathrm{Sv})=7,111$
$n_{1}=32$
$n_{2}=32$

Based on the formula, it is obtained:
$F=\frac{8,029}{7,111}=1,129$

With $\alpha=5 \%$ and $\mathrm{dk}=(32-1=31):(32-1=31)$, obtained $F_{\text {table }}=1,59$. Because $F_{\text {count }}$ is lower than $F_{\text {table }}(1,13<1,59)$. So, Ho is accepted and the two groups have same variant / homogeneous
4) The average similarity Test of Pre-Test of Experimental and Control Classes

Hypothesis:
Ho: $\mu_{1}=\mu_{2}$
На: $\mu_{1} \neq \mu_{2}$

## Test of hypothesis:

Based on the computation of the homogeneity test, the experimental class and control class have same variant. So, the t test formula:

$$
t=\frac{\overline{x_{1}}-\overline{x_{2}}}{S \sqrt{\frac{1}{n_{1}}+\frac{1}{n_{2}}}}
$$

With:

$$
S=\sqrt{\frac{\left(n_{1}-1\right) S_{1}^{2}+\left(n_{2}-1\right) S_{2}^{2}}{n_{1}+n_{2}-2}}
$$

## The data of the research:

$$
\begin{aligned}
& \begin{array}{lll}
x_{1}=69,34 & x_{2} & =67,97 \\
\mathrm{~S}_{1}{ }^{2}=61,97 & \mathrm{~S}_{1}{ }^{2} & =55,98 \\
n_{1}=32 & =32
\end{array} \\
& S=\sqrt{\frac{\left(n_{1}-1\right) S_{1}{ }^{2}+\left(n_{2}-1\right) S_{2}{ }^{2}}{n_{1}+n_{2}-2}} \\
& \mathrm{~S}=\sqrt{\frac{(32-1) 61,97+(32-1) 55,98}{32+32-2}}=7,68
\end{aligned}
$$

So, the computation t-test:

$$
t=\frac{\overline{x_{1}}-\overline{x_{2}}}{S \sqrt{\frac{1}{n_{1}}+\frac{1}{n_{2}}}}=\frac{69,34-67,97}{7 \sqrt{0,0625}}=\frac{1,37}{1,92}=0,714
$$

With $\alpha=5 \%$ and $\mathrm{dk}=32+32-2=62$, obtained $t_{\text {table }}=$ 1,66. Because $t_{\text {count }}$ is lower than $t_{\text {table }}(0,71<1,66)$. So, Ho is accepted and there is no difference of the pre test average value from both groups.

## c. The Data Analysis of Post-test Scores in Experimental Class and Control Class.

Table 6
The Value of the Post Test of the Experimental and Control Classes

| NO | Experimental Class |  | NO | Control Class |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $x_{i}$ | $\left(x_{i}-\bar{x}\right)$ |  |  | $x_{i}$ | $\left(x_{i}-\bar{x}\right)$ | $\left(x_{i}-\bar{x}\right)^{2}$ |
| 1 |  |  |  |  |  |  |  |
| 2 | 80 | $-1,44$ | 2,07 | 1 | 73 | -2.69 | 7,24 |
| 3 | 100 | 18,56 | 344,47 | 3 | 80 | 4,31 | 18,58 |
| 4 | 73 | $-8,44$ | 71,23 | 4 | 73 | $-2,69$ | 7,24 |
| 5 | 73 | $-8,44$ | 71,23 | 5 | 80 | 4,31 | 18,58 |


| 6 | 73 | -8,44 | 71,23 | 6 | 93 | 17,31 | 299,64 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 80 | -1,44 | 2.07 | 7 | 86 | 10,31 | 106,30 |
| 8 | 80 | -1,44 | 2,07 | 8 | 73 | -2,69 | 7,24 |
| 9 | 86 | 4,56 | 20,79 | 9 | 73 | -2,69 | 7,24 |
| 10 | 80 | -1,44 | 2,07 | 10 | 66 | -9,69 | 93.90 |
| 11 | 73 | -8,44 | 71,23 | 11 | 66 | -9,69 | 93,90 |
| 12 | 100 | 18,56 | 344,47 | 12 | 66 | -9,69 | 93,90 |
| 13 | 93 | 11,56 | 133,63 | 13 | 66 | -9,69 | 93,90 |
| 14 | 73 | -8,44 | 71,23 | 14 | 66 | -9,69 | 93,90 |
| 15 | 80 | -1,44 | 2,07 | 15 | 73 | -2,69 | 7,24 |
| 16 | 80 | -1,44 | 2,07 | 16 | 73 | -2,69 | 7,24 |
| 17 | 73 | -8,44 | 71,23 | 17 | 73 | -2,69 | 7,24 |
| 18 | 93 | 11,56 | 133,63 | 18 | 80 | 4,31 | 15,58 |
| 19 | 93 | 11,56 | 133,63 | 19 | 66 | -9,69 | 93,90 |
| 20 | 80 | -1,44 | 2,07 | 20 | 73 | -2,69 | 7,24 |
| 21 | 73 | -8,44 | 71,23 | 21 | 86 | 10,31 | 106,30 |
| 22 | 93 | 11,56 | 133,63 | 22 | 80 | 4,31 | 15,58 |
| 23 | 73 | -8,44 | 71,23 | 23 | 73 | -2,69 | 7,24 |
| 24 | 100 | 18,56 | 344,47 | 24 | 66 | -9,69 | 93,90 |
| 25 | 100 | 18,56 | 344,47 | 25 | 93 | 17,31 | 299.64 |
| 26 | 66 | -15,44 | 238.39 | 26 | 73 | -2,69 | 7,24 |
| 27 | 60 | -21,44 | 459,67 | 27 | 73 | -2,69 | 7,24 |
| 28 | 73 | -8,44 | 71,23 | 28 | 73 | -2,69 | 7,24 |
| 29 | 93 | 11,56 | 133,63 | 29 | 80 | 4,31 | 15,58 |
| 30 | 66 | -15,44 | 238,39 | 30 | 86 | 10,31 | 106,30 |
| 31 | 80 | -1,44 | 2,07 | 31 | 80 | 4,31 | 15,58 |
| 32 | 86 | 4,56 | 20,79 | 32 | 80 | 4,31 | 15,58 |
| $\sum$ | 2606 | 0,08 | 3683,73 | $\sum$ | 2422 | -0,08 | 1826 |
| $x$ | 81,44 |  |  | $x$ | 75,69 |  |  |

1) The Normality Post-Test of the Experimental Class

Based on the table above, the normality test:

## Hypothesis:

Ho : The distribution list is normal.
$\mathrm{Ha} \quad$ : The distribution list is not normal.

## Test of hypothesis:

The formula is used:
$\chi^{2}=\sum_{i=1}^{k} \frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}$
The computation of normality test:

| Maximum score | $=100$ | $\bar{x}$ | $=81,44$ |
| :--- | :--- | :--- | :--- |
| Minimum score | $=60$ | Range | $=40$ |
| Length of the class | $=7$ | N | $=32$ |
| $\mathrm{~K} /$ Number of class | $=6$ |  |  |
| S | $=10,98$ |  |  |

Table 7
Normality Post test of the Experimental Class

| Class Interval | $x_{i}$ | $f_{i}$ | $\left(x_{i}-\bar{x}\right)$ | $\left(x_{i}-\bar{x}\right)^{2}$ | $f_{i}\left(x_{i}-\bar{x}\right)^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $60-66$ | 63 | 3 | $-18,44$ | 340,03 | 1020,09 |
| $67-73$ | 70 | 9 | $-11,44$ | 130,87 | 1177,83 |
| $74-80$ | 77 | 9 | $-4,44$ | 19,71 | 39,96 |
| $81-87$ | 84 | 2 | 2,56 | 6,65 | 13,10 |
| $88-94$ | 91 | 5 | 9,56 | 91,39 | 456,95 |
| $95-100$ | 97,5 | 4 | 16,06 | 257,92 | 1031,68 |
|  | 32 |  |  | 3739,61 |  |

$$
S=\sqrt{\frac{\sum f_{i}\left(x_{i}-\bar{x}\right)^{2}}{n-1}}=\sqrt{\frac{3739,61}{32-1}}=10,98
$$

Table 8
Normality Post test of the Experimental Class

| Class <br> interval | Limit class | $\begin{gathered} \mathrm{Z} \text { for the } \\ \text { limit } \\ \text { class } \end{gathered}$ | Opportu -nities Z | Size classes for Z | Ei | Oi | $\frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 60-66 | 59,5 | -19,08 | 1,58 |  |  |  |  |
| 67-73 | 66,5 | -12,08 | 1,00 | 0,58 | 18,56 | 3 | 0,84 |
| 74-80 | 73,5 | -5,08 | 0,42 | 0,58 | 18,56 | 9 | 0,52 |
| 81-87 | 80,5 | 1,92 | 0,16 | 0,26 | 8,32 | 9 | 0,08 |
| 88-94 | 87,5 | 8,92 | 0,74 | 0,58 | 18,56 | 2 | 0,89 |
| 95-100 | 94,5 | 15,92 | 1,32 | 0,58 | 18,58 | 5 | 0,73 |
|  | 99,5 | 20,92 | 1,62 | 0,30 | 9,60 | 4 | 0,58 |
| The result of computation Chi - Square / $\chi^{2}$ |  |  |  |  |  |  |  |

With $\alpha=5 \%$ and $\mathrm{dk}=6-3=3$, from the chi-square distribution table, obtained $\chi^{2}$ table $=$. Because $\chi^{2}$ count is lower than $\chi_{\text {table }}^{2}(3,64<7,82)$. So, the distribution list is normal.
2) The Normality Post-Test of the Control Class

## Hypothesis: Ho : The distribution list is normal

Ha : The distribution list is not normal

## Test of hypothesis:

The formula is used:

$$
\chi^{2}=\sum_{i=1}^{k} \frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}
$$

The computation of normality test:

| Maximum score | $=93$ |  | Length of the class $=5$ |
| :--- | :--- | :--- | :--- |
| Minimum score | $=66$ | $(\bar{x})$ | $=75,69$ |
| Range | $=27$ | N | $=32$ |
| K/many class interval | $=6$ | S | $=7,03$ |

Table 9
Normality Post test of the Control Class

| Class Interval | $x_{i}$ | $f_{i}$ | $\left(x_{i}-\bar{x}\right)$ | $\left(x_{i}-\bar{x}\right)^{2}$ | $f_{i}\left(x_{i}-\bar{x}\right)^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $66-70$ | 68 | 7 | $-7,69$ | 59,14 | 413,98 |
| $71-75$ | 73 | 12 | $-2,69$ | 7,24 | 86,88 |
| $76-80$ | 78 | 8 | 2,31 | 5,34 | 42,72 |
| $81-85$ | 83 | 0 | 7,31 | 53,44 | 0 |
| $86-90$ | 88 | 3 | 12,31 | 151,54 | 454,62 |
| $91-93$ | 92 | 2 | 16,31 | 266,02 | 532,04 |
|  |  |  |  |  |  |

$$
S=\sqrt{\frac{\sum f_{i}\left(x_{i}-\bar{x}\right)^{2}}{n-1}}=\sqrt{\frac{1530,24}{32-1}}=7,03
$$

Table 10
Normality Post test of the Control Class

| Class <br> interval | Limit class | $\begin{array}{\|c} \hline \mathrm{Z} \text { for the } \\ \text { limit } \\ \text { class } \end{array}$ | Opportu -nities Z | Size classes for Z | Ei | Oi | $\frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 66-70 | 65,5 | -10,70 | 1,29 |  |  |  |  |
| 71-75 | 70,5 | -5,70 | 0,69 | 0,60 | 19,20 | 7 | 0,64 |
| 76-80 | 75,5 | -0,70 | 0,08 | 0,61 | 19,52 | 12 | 0,39 |
| 81-85 | 80,5 | 4,30 | 0,52 | 0,44 | 14,08 | 8 | 0,43 |
| 86-90 | 85,5 | 9,30 | 1,12 | 0,60 | 19,20 | 0 | 1,00 |
| 91-93 | 90,5 | 14,30 | 1,72 | 0,60 | 19,20 | 3 | 0,84 |
|  | 92,5 | 16,30 | 2,97 | 1,25 | 40,00 | 2 | 0,95 |
| The result of computation Chi - Square / $\chi^{2}$ |  |  |  |  |  |  |  |

With $\alpha=5 \%$ and $\mathrm{dk}=6-3=3$, from the chi-square distribution table, obtained $\chi^{2}$ table $=7,82$. Because $\chi^{2}$ count is lower than $\chi^{2}$ table $(4,25<7,82)$. So, the distribution list is normal.
3) The Homogeneity Post-Test of the Experimental Class

## Hypotesis :

$H_{o}: \sigma_{1}^{2}=\sigma_{2}^{2}$
$H_{A}: \sigma_{1}^{2} \neq \sigma_{2}^{2}$

## Test of hypothesis:

The formula is used:

$$
F=\frac{\text { Biggest variant }}{\text { smallest var iant }}
$$

## The data of the research:

$\begin{array}{llll}\sigma_{1}^{2} & =10,98 & \mathrm{n}_{1} & =32 \\ \sigma_{2}^{2} & =7,03 & \mathrm{n}_{2} & =32\end{array}$
$\sigma_{1}^{2}=S_{1}{ }^{2}=\frac{\sum(x-\bar{x})^{2}}{n_{1}-1}=\frac{3739,61}{32-1}=10,98$
$\sigma_{2}^{2}=S_{2}^{2}=\frac{\sum(x-\bar{x})^{2}}{n_{2}-1}=\frac{1530,24}{32-1}=7,03$
Biggest variant $(\mathrm{Bv})=10,98$
Smallest variant $(S v)=7,03$
$\mathrm{n}_{1}=32$
$\mathrm{n}_{2}=32$
Based on the formula, it is obtained:
$F=\frac{10,98}{7,03}=1,56$

With $\alpha=5 \%$ and $\mathrm{dk}=(32-1=31):(32-1=31)$, obtained $F_{\text {table }}=1,59$. Because $F_{\text {count }}$ is lower than $F_{\text {table }}(1,56<1,59)$. So, Ho is accepted and the two groups have same variant/ homogeneous

## 2. The Hypothesis Test

The hypotheses in this research there is a difference in vocabulary achievement score between students taught using short stories and those taught using non-short stories.

In this research, because $\sigma_{1}{ }^{2}=\sigma_{2}{ }^{2}$ (has same variant), the $t$-test formula is as follows:

$$
S^{2}=\frac{\left(n_{1}-1\right) S_{1}^{2}+\left(n_{2}-1\right) S_{2}^{2}}{n_{1}+n_{2}-2}
$$

The data of the research:

$$
\begin{aligned}
& \bar{x}_{1}=81,44 \quad \overline{x_{2}} \quad=75,69 \\
& \mathrm{~S}_{1}{ }^{2}=118,83 \quad \mathrm{~S}_{2}{ }^{2}=58,90 \\
& \mathrm{n}_{1}=32 \quad \mathrm{n}_{2}=32 \\
& S=\sqrt{\frac{\left(n_{1}-1\right) S_{1}^{2}+\left(n_{2}-1\right) S_{2}^{2}}{n_{1}+n_{2}-2}} \\
& S=\sqrt{\frac{(32-1) 118,83+(32-1) 58,90}{32+32-2}}=9,427 \\
& t=\frac{\overline{x_{1}}-\overline{x_{2}}}{S \sqrt{\frac{1}{n_{1}}+\frac{1}{n_{2}}}}=\frac{81,44-75,69}{2,36}=2,44
\end{aligned}
$$

From the computation above, the $t$-table is 1,66 by $5 \%$ alpha level of significance and $\mathrm{dk}=32+32-2=62$. T -value was 2,44 . So, the t -value was higher than the critical value on the table $(2,44>1,66)$.

From the result, it can be concluded that there is a difference in English-Arabic learner's understanding grammatical pattern of English simple past tense between those assigned English-Arabic combined task and those assigned English task only. The hypothesis is accepted.

## C. Discussion of Research Finding

The result of the research shows that the experimental class (the students who are taught using English-Arabic combined task) has the mean value 81.44. Meanwhile, the experiment class (the students who are taught using English only) has the mean value 75.69. It can be said that the achievement score of experiment class is higher than the control class.

On the other hand, based on the consideration that the score most of the students have passed the standard success criteria of English score that is 6.5 for senior high school, it means that using English-Arabic combined task is effective, it is proven with the statistical analysis. The test of hypothesis using t -test formula shows the value of the t -test is higher than the critical value. The value of t -test is 2.44 , while the critical value on $t_{t 0,05}$ is 1.66 . It means that there is a significant there is a difference in English-Arabic learner's understanding grammatical pattern of English simple past tense between those assigned English-Arabic combined task and those assigned English uncombined task.

English-Arabic combined task have some positive influences for teaching grammatical pattern of English simple past tense. There are some reasons why English-Arabic combined task is effective to teach English simple past tense:
a. The students will aware the differences and the similarities of two languages, grammatical structure of each, especially English simple past tense and Arabic fi'il madhi.
b. The students' grammatical mastering, of two languages structure especially English simple past tense and Arabic fi'il madhi, will be improved.
c. English-Arabic combined task helpful the learners to understand the grammatical patterns of English simple past tense.

In this research, the writer used English-Arabic combined task to teach English simple past tense at the ten graders of MA Matholi'ul Huda Bugel Kedung Jepara. So, the research findings are only representative in that school. The writer hopes that more researches will be done by the others to prove this method in improving students' understanding on grammatical pattern of English simple past tense and to find out other methods in learning and teaching English.

## D. Limitation of the Research

This research is focus on the differences grammatical rule and similarities function both of English simple past tense and Arabic fi'il madhi. In differences grammatical rule of English simple past tense and Arabic fi'il madhi will explain about word order of sentence in each language, supletion or word form change based on the grammatical rules of them. Also the combination of two languages in task, by combining the two grammatical patterns which has aim to make students aware the similarities and differences of them, and make the students easier to understanding of English simple past tense.

Hopefully it can be useful for the language teaching. The teacher can design new way of teaching English simple past tense by contrasting with Arabic fi'il madhi. Especially students of ten grader of MA Matholi'ul Huda Bugel Kedung Jepara academic year 2009/2010.

