## CHAPTER IV

## RESEARCH FINDINGS AND ANALYSIS

## A. Description of the Result Research

Findings of this research described that there were different results between the experimental class which was taught English verbs by using animated film and the control class which was taught them without using animated film. The research was conducted in MTs Darul Ulum which is located at Jl. Raya Anyar Gondoriyo Ngaliyan Semarang at the second grade in the academic year 2014/ 2015.

The activity of the research started on $4^{\text {th }}$ August 2014 by choosing the sample used cluster random sampling technique. To get the representative sample, the researcher chose sample by random. From this technique, the researcher got three classes and the researcher chose class VIII C which consisted of 19 students as the try-out class, class VIII A which consisted of 21 students as the experimental class and class VIII B which consisted of 21 students as the control class. The number of students was gained from the documentation of the school by the help of the English teacher.

Before items had been given to the students, the researcher gave tryout test for try-out class on $18^{\text {th }}$ August 2014 to analyze validity, reliability, degree of test difficulty and the discrimination power of each item. The researcher prepared 30 items as the instrument of the test. The test was given to know the validity, reliability, degree of test difficulty, and discriminating power of test items of try-out test in the control class and the experimental class that was provided by the researcher.

In this research finding of try out test, the researcher used productmoment formula to analyze validity. The researcher applied the $K$ - R. 20 formula to analyze reliability of instrument. The degree of the test difficulty used difficulty level formula by considered five levels of difficulty. The last
analysis of try-out test was discriminating power by divided into two groups; lower group and upper group which consist of 11 students in each groups.

The researcher gave pre-test on $21^{\text {th }}$ August 2014 in the control class and the experimental class. The questions consisted of 20 items were stated valid according to try-out analysis. After giving pre-test, the researcher determined the materials and lesson plans of learning activities. Pre-test was conducted to both class to know that two groups were normal and homogenous.

Before know the control class and the experimental class had same variant, the researcher gave treatment and conventional method by preparing lesson plan and material to learning activity. The researcher conducted treatment in control class on $28^{\text {th }}$ and $30^{\text {th }}$ August 2014. The control class was not taught using animated film, but the teacher explained the material using conventional method without giving variation or special treatment in learning process.

The treatment for experimental class conducted on $29^{\text {th }}$ August and $1^{\text {th }}$ September 2014 by using animated film which is appropriate to teach vocabulary focused on English verbs because it is memorable and understandable easily by the students.

After giving treatments in the experimental class and conventional teaching in the control class, the researcher gave post-test which consisted 20 test items which approximately finished on 30 minutes. The researcher gave post test on $5^{\text {th }}$ September 2014 to both experimental class and control class.

From the post-test, it could be known that there was significant difference result between the control class and the experimental class by hypothesis test which showed that the value of $t$-test was higher than $t$-table. It could be seen that the value of $t$-test was 2.637 while the critical value on $t_{s 0,05}$ was 1.68 , so the hypothesis is accepted. It meant that teaching English
verbs using animated film was effective and gave good result in teaching and learning process because the students felt more excited and happy and understood the material easily.

## B. The Data Analysis and Test of Hypothesis

## 1. The Data Analysis

a. The Data Analysis of Try-out Finding

This discussion covered validity, reliability, level of difficulty and discriminating power.

1. Validity of Instrument

As mentioned in chapter III, validity refers to the precise measurement of the test. In this study, item validity was used to know the index validity of the test. To know the validity of the instrument, the researcher used the Pearson product moment formula to analyze each item. It was obtained that from 30 test items; there were 20 test items which were valid and 10 test items which were invalid. They were on number $4,5,7,9,11,12,15,19$, 24 and 28. They were invalid with the reason that the computation result of their $\mathrm{r}_{\mathrm{xy}}$ value (the correlation of score each item) was lower than their $\mathrm{r}_{\text {table }}$ value.

Table 2

Validity of Each Item

| Criteria | $\mathbf{r t a b l e}$ | Number of questions | Total |
| :---: | :---: | :---: | :---: |
| Valid | 0.361 | $\begin{aligned} & 1,2,3,6,8,10,13,14, \\ & 16,17,18,20,21,22, \\ & 23,25,26,27,29,30 \end{aligned}$ | 20 |
| Invalid |  | $\begin{aligned} & 4,5,7,9,11,12,15,19 \\ & 24,28 . \end{aligned}$ | 10 |

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

$$
\begin{aligned}
& \mathrm{N}=19 \quad \sum Y=374 \\
& \sum X Y=348 \quad \sum X^{2}=17 \\
& \sum X=17 \quad \sum Y^{2}=7686 \\
& r_{x y}=\frac{N \sum X Y-\sum(X) \sum(Y)}{\sqrt{\left.\left\{N \sum X^{2}-\left(\sum X\right)^{2}\right\} N \sum Y^{2}-\left(\sum Y\right)^{2}\right\}}} \\
& r_{x y}=\frac{19(348)-17(374)}{\sqrt{\left\{19(17)-(17)^{2}\right)\left\{19(7686)-(374)^{2}\right\}}} \\
& r_{x y}=\frac{6612-6358}{\sqrt{(323-289)(146034-139876)}} \\
& r_{x y}=\frac{254}{\sqrt{34 x 6158}} \\
& r_{x y}=\frac{254}{\sqrt{209372}} \\
& r_{x y}=\frac{254}{457,5718} \\
& r_{x y}=0,555
\end{aligned}
$$

From the computation above, the result of computing validity of the item number 1 was 0.555 . After that, the researcher consulted the result to the table of r Product Moment with the number of subject $(\mathrm{N})=19$ and significance level $5 \%$ was 0.361 .

Since the result of the computation was higher than $r$ in table, the index of validity of the item number 1 was considered to be valid.

## 2. Reliability

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

$$
r_{11}=\left(\frac{n}{n-1}\right)\left(\frac{s-\sum p q}{s^{2}}\right)
$$

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

$$
\mathrm{N}=19 \quad \sum \mathrm{Y}=374
$$

$$
\begin{aligned}
& \sum \mathrm{Y}^{2}=7686 \\
& r_{11}=\left(\frac{n}{n-1}\right)\left(\frac{S^{2}-\sum p q}{S^{2}}\right) \\
& =\left(\frac{30}{30-1}\right)\left(\frac{18,0058-4.9806}{18,0058}\right)
\end{aligned}
$$

$$
\sum \mathrm{pq}=4.9806
$$

$$
=0,7483
$$

From the computation of reliability, it was found out that $\mathrm{r}_{11}$ (total of reliability test) was 0.7483 whereas the number of subject 17 and critical value for $\mathrm{r}_{\text {table }}$ with significance level $5 \%$ was 0.482 . Thus, the value resulted from the computation was higher than its critical value. It can be concluded that the instrument used in this research was reliable.
3. Degree of Index difficulty

The following is the computation of the difficulty level for item number 1 and for the other items would use the same formula.
$B=10+7=17$
$\mathrm{JS}=19$
$P=\frac{B}{J S}$
$P=\frac{17}{19}$
$P=0,89$

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 30 items of the try-out test, there were 20 items were considered easy, 10 items were considered medium, and there were no difficult tests.

## Table 3

Degree of Difficulty of Each Item

| Criteria | Number of questions | Total |
| :--- | :--- | :---: |
| Easy | $1,2,8,9,11,12,13,14,16,17,18,19$, <br> $24,25,26$. | 15 |
| Medium | $3,4,6,7,10,15,20,21,22,23,27,29$, <br> 30. | 13 |
| Difficult | $5,28$. | 2 |

4. The Discriminating Power

The following is the computation of discriminating power of item number 1. To do this analysis, the number of try-out subjects was divided into two groups, namely upper and lower groups.

## Table 4

The Table of Discriminating Power of Item Number 1

| Upper Group |  |  | Lower Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Code | Score | No | Code | Score |
| 1 | T-1 | 1 | 1 | T-11 | 1 |
| 2 | T-2 | 1 | 2 | T-12 | 1 |
| 3 | T-3 | 1 | 3 | T-13 | 0 |
| 4 | T-4 | 1 | 4 | T-14 | 1 |
| 5 | T-5 | 1 | 5 | T-15 | 1 |
| 6 | T-6 | 1 | 6 | T-16 | 1 |
| 7 | T-7 | 1 | 7 | T-17 | 1 |
| 8 | T-8 | 1 | 8 | T-18 | 0 |
| 9 | T-9 | 1 | 9 | T-19 | 1 |
| 10 | T-10 | 1 |  |  |  |
| Sum |  | 10 | Sum | 7 |  |

T : Try Out Student
This was the analysis of discriminating power for item number 1 :
$\mathrm{JA}=10$
$\mathrm{JB}=9$
$B A=10$
$B B=7$
$D=\frac{B_{A}}{J_{A}}-\frac{B_{B}}{J_{B}}$
$D=\frac{10}{10}-\frac{7}{9}=1-0,78$
$D=0,22$
According to the criteria, the item number 1 above was medium category, because the calculation result of the item number 1 was in the interval $0.20 \leq D \leq 0.40$. After computing 30 items of try out test and after being consulted to the discriminating power category, there were 2 items which considered good, 13 items medium (satisfactonary), 1 item excellent and 14 items poor.

## Table 5

Discriminating Power of Each Item

| Criteria | Number of questions | Total |
| :--- | :--- | :--- |
| Poor | $2,3,4,5,7,8,13,16,17,19,20,24,26$, <br> 28. | 14 |
| Satisfied | $1,6,9,10,11,12,14,15,21,22,23,25$, <br> 27. | 13 |
| Good | 18,29 | 2 |
| Excellent | 30 | 1 |

Based on the analysis of validity, reliability, difficulty level, and discriminating power, finally 30 items of test, there were 20 items were accepted to be used in pre-test and post-test. They
were number $1,2,3,6,8,10,13,14,16,17,18,20,21,22,23,25$, 26, 27, 29 and 30.
b. The Data Analysis of Pre-test Score of the Experimental class and the Control Class.

Table 6
The list of the Experimental and the Control

## Class Pre-test score

| SCORE PRE TEST BETWEEN |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EXPERIMENTAL CLASS AND CONTROL |  |  |  |  |  |  |
| CLASS |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| CONTROL |  |  |  | EXPERIMENT |  |  |
| NO | CODE | SCORE | NO | CODE | SCORE |  |
| 1 | C-1 | 60 | 1 | E-1 | 40 |  |
| 2 | C-2 | 65 | 2 | E-2 | 75 |  |
| 3 | C-3 | 55 | 3 | E-3 | 50 |  |
| 4 | C-4 | 50 | 4 | E-4 | 60 |  |
| 5 | C-5 | 60 | 5 | E-5 | 60 |  |
| 6 | C-6 | 65 | 6 | E-6 | 65 |  |
| 7 | C-7 | 60 | 7 | E-7 | 55 |  |
| 8 | C-8 | 60 | 8 | E-8 | 55 |  |
| 9 | C-9 | 55 | 9 | E-9 | 70 |  |
| 10 | C-10 | 55 | 10 | E-10 | 45 |  |
| 11 | C-11 | 70 | 11 | E-11 | 55 |  |
| 12 | C-12 | 40 | 12 | E-12 | 55 |  |


| 13 | C-13 | 50 | 13 | E-13 | 65 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | C-14 | 55 | 14 | E-14 | 55 |
| 15 | C-15 | 50 | 15 | E-15 | 55 |
| 16 | C-16 | 45 | 16 | E-16 | 60 |
| 17 | C-17 | 45 | 17 | E-17 | 65 |
| 18 | C-18 | 70 | 18 | E-18 | 50 |
| 19 | C-19 | 50 | 19 | E-19 | 50 |
| 20 | C-20 | 60 | 20 | E-20 | 55 |
| 21 | C-21 | 65 | 21 | E-21 | 55 |
|  |  | 1185 |  |  | 1195 |
| N |  | 21 |  |  | 21 |
| $\bar{x}$ |  | 56,42857 |  |  | 56,90476 |
| S2 |  | 67,857 |  |  | 66,19048 |
| S |  | 8,237545 |  |  | 8,135753 |

1) The Normality of the Experimental Class Pre-test

The normality test was used to know whether the data obtained was normally distributed or not. Based on the table above, the normality test:

Hypothesis:

Ha: The distribution list was normal.

Ho: The distribution list was not normal

## Test of hypothesis:

The formula was used:

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

The computation of normality test:
Maximum score $=75,00 \quad \mathrm{~N}=21$
Minimum score $\quad=40,00 \quad$ Range $=35,00$
$\mathrm{K} /$ Number of class $=5 \quad$ Length of the class $=7$

$$
\mathrm{S} \quad=8,61 \quad \bar{x} \quad=74,06
$$

Table 7
The Frequency Distribution of the Experimental Class PreTest

| Class | $\mathrm{f}_{\mathrm{i}}$ | $X_{\text {i }}$ | $X_{\mathrm{i}}{ }^{2}$ | $f_{i} \cdot X_{\mathrm{i}}$ | $f_{i} \cdot X_{\mathrm{i}}{ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $40{ }^{47}$ | 2 | 43,5 | 1892,25 | 87 | 3784,5 |
| $48-55$ | 11 | 51,5 | 2652,25 | 566,5 | 29174,75 |
| $56{ }^{63}$ | 3 | 59,5 | 3540,25 | 178,5 | 10620,75 |
| $64{ }^{71}$ | 4 | 67,5 | 4556,25 | 270 | 18225 |
| $72{ }^{79}$ | 1 | 75,5 | 5700,25 | 75,5 | 5700,25 |
| Sum | 21 |  |  | 1177,5 | 67505,25 |

Table 8
The Frequency Distribution of the Experimental Class Pre-Test


$$
\chi_{\text {count }}^{2}=5,71
$$

$$
\text { For } \mathrm{a}=5 \%, \mathrm{dk}=5-3=2, \quad X_{\text {table }}=7,81
$$


5. 71
7. 81

With $\alpha=5 \%$ and $\mathrm{dk}=5-3=2$, from the chi-square distribution table, obtained $X_{\text {table }}=7.81$. Because $\chi^{2}$ count was lower than $X^{2}$ table $(5.71<7.81)$. So, the distribution list was normal.
2) The Normality of the Control Class Pre-test

## Hypothesis :

Ho: The distribution list was normal.

Ha: The distribution list was not normal.

## Test of hypothesis:

The formula was used:

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

The computation of normality test:

| Maximum score | $=70,00$ | $\mathrm{~N}=21$ |
| :--- | :--- | :--- |
| Minimum score | $=40,00$ | Range $=30,00$ |

$$
\mathrm{K} / \text { Number of class }=5 \quad \text { Length of the class }=6
$$

$$
\mathrm{S} \quad=8,07 \quad \bar{x}=65,10
$$

Table 9
The Frequency Distribution of the Control Class Pre-Test

| Class |  | $\mathrm{f}_{\mathrm{i}}$ | $X_{\mathrm{i}}$ | $X_{\mathrm{i}}{ }^{2}$ | $f_{i} \cdot X_{\mathrm{i}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $40-46$ | 3 | 43 | 1849 | 129 | 5547 |
| $47-53$ | 4 | 50 | 2500 | 200 | 10000 |
| $54-60$ | 9 | 57 | 3249 | 513 | 29241 |
| $61-67$ | 3 | 64 | 4096 | 192 | 12288 |
| $68-74$ | 2 | 71 | 5041 | 142 | 10082 |
| Sum | 21 |  |  | 1176 | 67158 |

Table 10
The Frequency Distribution of Control Class Pre-Test


|  | 53,5 | -0,31 | -0,1217 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $54-60$ |  |  |  | $\begin{gathered} 0,333 \\ 1 \end{gathered}$ | 7,0 | 9 | 0,5740 |
|  | 60,5 | 0,56 | 0,2115 |  |  |  |  |
| $61-67$ |  |  |  | $\begin{gathered} 0,211 \\ 5 \end{gathered}$ | 4,4 | 3 | 0,4676 |
|  | 67,5 | 1,43 | 0,4230 |  |  |  |  |
| $68-74$ |  |  |  | $\begin{gathered} 0,423 \\ 0 \end{gathered}$ | 8,9 | 2 | 5,3326 |
|  | 73,5 | 2,17 | 0,4850 |  |  |  |  |
| $\chi^{2}=7,16$ |  |  |  |  |  |  |  |

$\chi^{2}{ }_{\text {count }}=7.16$

For $\mathrm{a}=5 \%, \mathrm{dk}=5-3=2, \quad X_{\text {table }}^{2}=7.815$

7. 16
7. 81

With $\alpha=5 \%$ and $\mathrm{dk}=5-3=2$, from the chi-square distribution table, obtained $X_{\text {table }}=7.81$. Because $\chi^{2}$ count was lower than $X^{2}$ table (7. $16<7.81$ ). So, the distribution list was normal.

## Hypothesis

$$
\begin{aligned}
& H_{0}: \sigma_{1}^{2}=\sigma_{2}{ }^{2} \\
& H_{a}: \sigma_{1}{ }^{2} \neq \sigma_{2}{ }^{2}
\end{aligned}
$$

## The Calculation

Formula:

$$
\mathrm{F}=\frac{\mathrm{Vb}}{\mathrm{VK}}
$$

Ho is accepted if $\mathrm{F} \leq \mathrm{F}_{(1-\mathrm{a})}(\mathrm{nb}-1)$ : $(\mathrm{nk}-1)$


$$
\mathrm{F}_{(1-\mathrm{a})(\mathrm{nb}-1):(\mathrm{nk}-1)}
$$

Table 11
Result of Pre Test

| Source variant | Experiment <br> Class | Control <br> Class |
| :---: | :---: | :---: |
| Total | 1195 | 1185 |
| N | 21 | 21 |
| X | 56,905 | 56,429 |
| $\left(\mathrm{~S}^{2}\right)$ | 66,190 | 67,857 |
| $(\mathrm{~S})$ | 8,136 | 8,238 |

According to the formula above, it is obtained that:

$$
\begin{aligned}
\mathrm{F} & =\frac{\mathrm{Vb}}{\mathrm{VK}} \\
\mathrm{~F} & =\frac{67,8571}{66,1905} \\
& =1,025
\end{aligned}
$$

For $\mathrm{a}=5 \%$ with:

$$
\begin{array}{ll}
\text { df1 } \quad= & \mathrm{n}-1=21-1=20 \\
\text { df2 } & =\mathrm{n}-1=21-1=20 \\
\mathrm{~F}_{(0.05)(20: 20)} & =1,794
\end{array}
$$



Since F count < F table, the experimental and control group have the same variance. With $\alpha=5 \%$ and $\mathrm{dk}=(21-1=20)$ :( $21-$ $1=20$ ), it is obtained that $F_{\text {table }}=1.794$. Because $F_{\text {count }}$ was lower than $F_{\text {table }} \quad(1.025<1.794)$. So, Ho was accepted and the two groups had same variant/ homogeneous.

## The Hypothesis Test

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

$$
\mathrm{t}=\frac{\overline{\mathrm{x}}_{1}-\overline{\mathrm{x}}_{2}}{\mathrm{~s} \sqrt{\frac{1}{\mathrm{n}_{1}}+\frac{1}{\mathrm{n}_{2}}}}
$$

With:

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

Table 12

## Result of Pre test

| Variation <br> Source | Experimental | Control |
| :--- | :---: | :---: |
| Sum | 1195 | 1185 |
| N | 21 | 21 |
| X | 56,905 | 56,429 |
| $\left(\mathrm{~S}^{2}\right)$ | 66,190 | 67,857 |
| $(\mathrm{~S})$ | 8,136 | 8,238 |

According to the formula above, it is obtained that:

$$
\begin{aligned}
& \mathrm{s}=\sqrt{\frac{(21-1) 66,1905+(21-1) 67,8571}{21+21-2}}=8,1868 \\
& t=\frac{56,90-56,43}{\mathbf{8 , 1 8 6 8 \sqrt { \frac { 1 } { 2 1 } } + \frac { \mathbf { 1 } } { 2 \mathbf { 1 } }}}=\mathbf{O}, \mathbf{1 8 8} \text { For } \alpha=5 \% \\
& \quad \text { and } \mathrm{dk}=21+21-2=40, \mathrm{t}_{(0.025)(40)}=\quad 2,02
\end{aligned}
$$



With $\alpha=5 \%$ and $\mathrm{dk}=21+21-2=40$, obtained $t_{\text {table }}=2,02$. Because $t_{\text {count }}$ was lower than $t_{\text {table }}(0,188<2,02)$. So, Ho was accepted and there was no difference of the pre-test average value from both classes.

## c. The Data Analysis of Post-test Score of the Experimental Class and the Control Class.

Table 13
The list of the Experimental and Control Class Post-test score

|  | CONTROL |  | EXPERIMENTAL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NO | CODE | SCORE | N0 | CODE | SCORE |
| 1 | C-1 | 85 | 1 | E-1 | 70 |
| 2 | C-2 | 70 | 2 | E-2 | 85 |
| 3 | C-3 | 75 | 3 | E-3 | 90 |
| 4 | C-4 | 80 | 4 | E-4 | 70 |
| 5 | C-5 | 70 | 5 | E-5 | 85 |
| 6 | C-6 | 80 | 6 | E-6 | 80 |
| 7 | C-7 | 75 | 7 | E-7 | 80 |
| 8 | C-8 | 75 | 8 | E-8 | 65 |
| 9 | C-9 | 80 | 9 | E-9 | 90 |


| 10 | C-10 | 65 | 10 | E-10 | 85 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | C-11 | 65 | 11 | E-11 | 80 |
| 12 | $\mathrm{C}-12$ | 65 | 12 | $\mathrm{E}-12$ | 90 |
| 13 | $\mathrm{C}-13$ | 70 | 13 | $\mathrm{E}-13$ | 80 |
| 14 | $\mathrm{C}-14$ | 85 | 14 | $\mathrm{E}-14$ | 75 |
| 15 | $\mathrm{C}-15$ | 65 | 15 | $\mathrm{E}-15$ | 85 |
| 16 | $\mathrm{C}-16$ | 80 | 16 | $\mathrm{E}-16$ | 80 |
| 17 | $\mathrm{C}-17$ | 85 | 17 | $\mathrm{E}-17$ | 70 |
| 18 | $\mathrm{C}-18$ | 65 | 18 | $\mathrm{E}-18$ | 90 |
| 19 | $\mathrm{C}-19$ | 70 | 19 | $\mathrm{E}-19$ | 80 |
| 20 | $\mathrm{C}-20$ | 75 | 20 | $\mathrm{E}-20$ | 80 |
| 21 | $\mathrm{C}-21$ | 85 | 21 | $\mathrm{E}-21$ | 80 |
| Sum |  | 1565 |  |  | 1690 |
| N |  | 21 |  |  | 21 |
| X |  | 74,52381 |  |  | 80,47619 |
| S2 |  | 54,762 |  |  | 52,2619 |
| S |  | 7,400129 |  |  | 7,22924 |

1) The Normality of the Experimental Class Post-test

Based on the table above, the normality test:

## Hypothesis:

Ho : The distribution list was normal.

Ha : The distribution list was not normal.

## Test of hypothesis:

The formula was used:

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

The computation of normality test:

| Maximum score $=90,00$ | N | $=21$ |
| :--- | :--- | :--- |
| Minimum score $=65,00$ | Range $=25,00$ |  |
| K/ Number of class= | Length | $=5$ |
| S | $=8,11$ | $\bar{x}$ |

Table 14
The Frequency Distribution of the Experimental Class Post-Test

| Class |  | $\mathrm{f}_{\mathrm{i}}$ | $X_{\mathrm{i}}$ | $X_{\mathrm{i}}{ }^{2}$ | $f_{i} \cdot X_{\mathrm{i}}$ | $f_{i} \cdot X_{\mathrm{i}}{ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 65 | - | 70 | 4 | 67,5 | 4556,25 | 270 | 18225 |
| 71 | - | 76 | 1 | 73,5 | 5402,25 | 73,5 | 5402,25 |
| 77 | - | 82 | 8 | 79,5 | 6320,25 | 636 | 50562 |
| 83 | - | 88 | 4 | 85,5 | 7310,25 | 342 | 29241 |
| 89 | - | 94 | 4 | 91,5 | 8372,25 | 366 | 33489 |
|  | Sum |  | 21 |  |  | 1687,5 | 136919,3 |

Table 15
The Frequency Distribution of the Experimental Class Post-Test

$\chi^{2}{ }_{\text {count }}=6,94$

For $\mathrm{a}=5 \%, \mathrm{dk}=5-3=2, \quad X^{2}{ }_{\text {table }}=7,815$

6. 94
7. 81

With $\alpha=5 \%$ and $\mathrm{dk}=5-3=2$, from the chi-square distribution table, obtained $X_{\text {table }}=7.81$. Because $\chi^{2}$ count was lower than $X^{2}$ table $(6.94<7.81)$. So, the distribution list was normal.
2) The Normality of the Control Class Post-test

## Hypothesis:

Ho : The distribution list was normal

Ha : The distribution list was not normal

## Test of hypothesis:

The formula was used:

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

The computation of normality test:
Maximum score $=85,00 \mathrm{~N} \quad=21$

Minimum score $=65,00 \quad$ Range $=20,00$
$\mathrm{K} /$ many class interval $=5 \quad$ Length of the class $=4$
$S=7,40$
$\bar{x} \quad=76,52$

The computation of normality test:
Table 16
The Frequency Distribution of the Control Class Post-test

| Class |  |  | $\mathrm{f}_{\mathrm{i}}$ | $X_{\mathrm{i}}$ | $X_{\mathrm{i}}{ }^{2}$ | $f_{i} \cdot X_{\mathrm{i}}$ | $f_{i} \cdot X_{\mathrm{i}}{ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 65 | - | 69 | 5 | 67 | 4489 | 335 | 22445 |
| 70 | - | 74 | 4 | 72 | 5184 | 288 | 20736 |
|  |  |  |  |  |  |  |  |


| 75 | - | 79 | 4 | 77 | 5929 | 308 | 23716 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 80 | - | 84 | 4 | 82 | 6724 | 328 | 26896 |
| 85 | - | 89 | 4 | 87 | 7569 | 348 | 30276 |
|  | Sum |  | 21 |  |  | 1607 | 124069 |

Table 17
The Frequency Distribution of the Control Class Post-Test

| Class | Bk | $\mathrm{Z}_{\text {i }}$ | $\mathrm{P}\left(\mathrm{Z}_{\mathrm{i}}\right)$ | Wide <br> Range | Ei | Oi | $\frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 64, \\ 5 \end{gathered}$ | -1,62 | -0,4479 |  |  |  |  |
| $\begin{aligned} & 6 \\ & 5 \end{aligned}-\quad 6$ |  |  |  | 0,1192 | 2,5 | 5 | 2,4922 |
|  | $\begin{gathered} 69 \\ 5 \end{gathered}$ | -0,95 | -0,3287 |  |  |  |  |
| $\begin{aligned} & 7 \\ & 0 \end{aligned} \quad-\quad 7$ |  |  |  | 0,2210 | 4,6 | 4 | 0,0884 |
|  | $\begin{gathered} 74, \\ 5 \end{gathered}$ | -0,27 | -0,1078 |  |  |  |  |
| $\begin{aligned} & 7 \\ & \hline 5 \end{aligned}-\quad \begin{aligned} & 7 \\ & \hline \end{aligned}$ |  |  |  | 0,2640 | 5,5 | 4 | 0,4298 |
|  | $\begin{gathered} 79 \\ 5 \end{gathered}$ | 0,40 | 0,1562 |  |  |  |  |
| $\begin{aligned} & \hline 8 \\ & 0 \end{aligned} \text { - } \begin{array}{r} 8 \\ 4 \end{array}$ |  |  |  | 0,2032 | 4,3 | 4 | 0,0168 |
|  | 84 5 | 1,08 | 0,3594 |  |  |  |  |



$$
\chi_{{ }_{\text {count }}=}^{2}, 70
$$

For $\mathrm{a}=5 \%, \mathrm{dk}=5-3=2, \quad X_{\text {table }}^{2}=7,81$


$$
\text { 4. } 70 \quad 7,81
$$

$\alpha=5 \%$ and $\mathrm{dk}=5-3=2$, from the Chi-Square distribution table, obtained $X^{2}$ table $=7.81$. Because $\chi^{2}{ }_{\text {count }}$ was lower than $X^{2}$ table $(4.70<7.81)$. So, the distribution list was normal.

## Hypothesis

$H_{0}: \sigma_{1}{ }^{2}=\sigma_{2}{ }^{2}$
$\mathrm{H}_{\mathrm{a}}: \sigma_{1}{ }^{2} \neq \sigma_{2}{ }^{2}$

## The Calculation

Formula:

$$
\mathrm{F}=\frac{\mathrm{Vb}}{\mathrm{VK}}
$$

Ho is accepted if $\mathrm{F} \leq \mathrm{F}_{1 / 2(\mathrm{nb}-1) \text { :(nk-1) }}$


Table 18
The Result of Post test

| Variation <br> Source | Experimental <br> Class | Control Class |
| :---: | :---: | :---: |
| Sum | 1690 | 1565 |
| N | 21 | 21 |
| X | 80,476 | 74,524 |
| Variants (s ${ }^{2}$ ) | 52,262 | 54,762 |
| Standard <br> deviation (s) | 7,229 | 7,400 |

$$
F=54,7619
$$

$$
52,2619
$$

$$
=\quad 1,048
$$

For $\mathrm{a}=5 \%$ with:

$$
\begin{array}{ll}
\text { df1 } & =\mathrm{n}-1=21-1=20 \\
\text { df2 } & =\mathrm{n}-1=21-1=20 \\
\mathrm{~F}_{(0.05)(20: 20)} & =1,794
\end{array}
$$



Since F count < F table, the experimental class and the control class have the same variance. With $\alpha=5 \%$ and $\mathrm{dk}=(21-$ $1=20):(21-1=20)$, obtained $F_{\text {table }}=1.794$. Because $F_{\text {count }}$ was lower than $F_{\text {table }}$ (1. $\left.048<1.794\right)$. So, Ho was accepted and the two classes have same variant/ homogeneous.

## The Hypothesis Test

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

$$
t=\frac{\bar{X}_{1}-\overline{X_{2}}}{S \sqrt{\frac{1}{n_{1}}+\frac{1}{n_{2}}}} \quad S^{2}=\frac{\left(n_{1}-1\right) S_{1}^{2}+\left(n_{2}-1\right) S_{2}^{2}}{n_{1}+n_{2}-2}
$$

Ho is accepted if $\mathrm{t} \leq \mathrm{t}_{(1-\square)(\mathrm{n} 1+\mathrm{n} 2-2)}$


## Table 19

The Result of Post test

| Variation Source | Experimental <br> Class | Control Class |
| :---: | :---: | :---: |
| Total | 1690 | 1565 |
| N | 21 | 21 |
| X | 80,476 | 74,524 |
| Varians (s ${ }^{2}$ ) | 52,262 | 54,762 |
| Standard Deviation (s) | 7,229 | 7,400 |

According to the formula above, it is obtained that:

$$
\begin{aligned}
& \mathrm{s}=\sqrt{\frac{(21-1) 52,2619+(21-1) 54,7619}{21+21-2}}=7,3152 \\
& t=\frac{80,48-74,52}{7,1755 \sqrt{\frac{1}{21}+\frac{1}{21}}}=2,637
\end{aligned}
$$

For $\mathrm{a}=5 \%$ and $\mathrm{dk}=21+21-2=40, \mathrm{t}_{(0.05)(40)}=1.68$

Since $t_{\text {count }}>t_{\text {table }}$ means that there is a significant difference between experimental and control class on the test the experimental is higher than the control one. From the computation above, by 5\% alpha level of significance and $\mathrm{dk}=21+21-2=40$. It was Obtained $t_{\text {table }}$ was 1.68 while $t_{\text {count }}$ was 2.637 . So, it can be concluded Ho was rejected because $t_{\text {count }}$ was higher than the critical value on the $t_{\text {table }}(2.637>1.68)$.

From the result, the hypotheses in this research can be concluded that there was a significant difference in English verbs learning achievement score between the experimental class which was taught by using animated film and the control class which was taught without using animated film.

## C. Discussion of the Research Findings

Before giving the treatment, the researcher checked the balance of the students' initial ability of both classes. The data used to test the balance was score of pre-test. Analysis of initial data was conducted through normality test that aimed at showing whether the data is normally distributed or not. This can be seen from the normality test with Chi-square, where $X_{\text {count }}^{2}<X_{\text {table }}^{2}, \alpha=$ $5 \%, \mathrm{dk}=2$. On the normality test of pre-test of control class, it can be seen $X_{\text {count }}^{2}$ (7.16) $<X_{\text {table }}^{2}(7.81)$ and the experimental class $X_{\text {count }}^{2}(5.71)<X_{\text {table }}^{2}$ (7.81). Since homogeneity test shows $\mathrm{F}_{\text {count }}(1.025)<\mathrm{F}_{\text {table }}(1.794)$, it can be concluded that the two classes are homogeneous. Based on the analysis of $\mathrm{t}-$ test at the pre-test, it is obtained $\mathrm{t}_{\text {count }}=0,188$ with $\mathrm{t}_{\text {table }}=2,02$ which prove that there is no difference of the mean of pre-test between both classes. The normality test of post test of the experimental class results $X_{\text {count }}^{2}(6.94)<$ $X_{\text {table }}^{2}$ (7.81) and the control class results $X_{\text {count }}^{2}(4.70)<X_{\text {table }}^{2}$ (7.81). The post test demonstrates that the hypotheses of those two classes are normal on the distribution. It is proved with $\mathrm{F}_{\text {count }}(1.048)<\mathrm{F}_{\text {table }}$ (1.794) from the homogeneity test that have the same variant.

From the last phase of the t -test, it is obtained $\mathrm{t}_{\text {count }}=2.637$ with $\mathrm{t}_{\text {table }}=$ 1.68 with standard of significant $5 \%$. Because of $\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }},(2.637>1.68)$ so the hypotheses is accepted. It means that using Finding Nemo Animated Film to teach English verbs is effective.

In fact, there were some factors that influenced the result of study. One of the factors was teaching ways used in teaching learning. If a teacher employed an appropriate method, the students would have enjoyed the lesson. And this research, the researcher use animated film as media to support
teaching learning process in the language classroom. According Herrero the use of films in the language classroom can encourage a creative approach that can have applications across the curriculum. ${ }^{1}$ This is proved that film as good media have been applied by the teachers in Arabic, Urdu, Spanish and Chinese. They use film as media because it can be used to raise awareness of cultural factors (e.g. students can develop an understanding that people exhibit culturally conditioned behaviours and that social variables, such as age, sex, social class and place of residence can influence the ways in which people behave) and The film offers freedom for students to create and invent new dialogue (either written or spoken) ${ }^{2}$.

From this statements, the researcher chose animated film as media in teaching English verbs. Based on the result of the test that had been done, it could explain that using Finding Nemo Animated Film in the process of learning English verbs at VIII A students of MTs Darul Ulum Wates Semarang help students improve their vocabulary especially English verbs. However, this treatment could be successful inasmuch teaching English which mean that film provides not only visual material but also audio material so that achievement of both characters of learning such as auditory and visual can be gained. The teaching learning activity of a lesson can get maximum result if the students enjoy in learning material. From this evident, the researcher can give explanation that learning using Finding Nemo Animated Film also provided new variation of teaching learning activity that can provide both characters of students' learning so that the students could enjoy and get maximum achievement in their learning. In this case, the students could easily memorize new vocabulary especially about English verbs of Finding Nemo Animated Film, communicate it with their friends. It enabled the students to

[^0]master the material related to English verbs easily because they were involved directly.

In the teaching learning process, teacher should be resourceful in determining the classroom setting in order to make students focused on the lesson. Teacher may apply various appropriate techniques like Finding Nemo Animated Film in the learning activities, in order to make the students more focused and the class atmosphere more interesting. By using appropriate teaching ways, students could easily to enrich English verbs delivered by teacher. Teaching English verbs using Finding Nemo Animated Film could stimulate and increase students' interest in learning English verbs.

The result of the research shows that the experimental class (the students who were taught using Finding Nemo Animated Film) has mean 80.47. Meanwhile, the control class has mean score 74.52. It can be said that English verbs score of the experimental class is higher than the same score of the control class. It means that there was a significant difference of score in English verbs achieved by students taught using Finding Nemo Animated Film from those taught without using Finding Nemo Animated Film at the second grade of MTs Darul Ulum Wates Semarang in the academic year of 2014/2015.

However, the result of the research gave information for us that when the teacher could provide audio-visual material such as film and he or she could make the students enjoy and not feel bored with his/her teaching, the students' achievement would increase. The researcher could prove it by this research. By choosing appropriate media, the students will get more achievement. That why, teacher has to choose the material will be given to students carefully and suitable with them. Film which consists of multimedia learning provides audio and visual media is the best way to teach English verbs it fit audio and visual learning.

## D. Limitations of the Research

The researcher realizes that this research had not been done optimally. There were constraints and obstacles faced during the research process. Some limitations of this research were:

1. Relative short time of research made this research unable to be done maximally.
2. The research was limited at MTs Darul Ulum Wates in the academic year of 2014/2015. So, when the same research conducted in other schools, it is still possible that different result will be gained.
3. Relative lack of experience and knowledge of the researcher made implementation process of this research was less smooth and perfect. But the researcher tried as maximal as possible to do this research.

Considering all those limitations, there is a need to do more research about teaching English verbs using the same or different medium. Hoping there will be more optimal result.


[^0]:    ${ }^{1}$ Deborah Chan and Carmen Herrero, Using Film To Teach Languages, (England: Corner House, 2010), p. 6
    ${ }^{2}$ Deborah Chan and Carmen Herrero, Using Film To Teach Languages, (England: Corner House, 2010), p. 22

