

CHAPTER IV

RESEARCH FINDINGS AND ANALYSIS

A. Description of The Result Research

To find out the different between the students who were taught using film as a medium and the students who were not taught using film in English verbs on students' improvement in class VIII E and VIII F of SMP N 18 Semarang, the writer did an analysis of quantitative data. The data was obtained by giving test to the experimental class and control class after giving a different treatment of learning process in both classes.

The implementation of this research was divided into two classes. They were experimental class (VIII E) and control class (VIII F). Before the activities were conducted, the writer determined the materials and lesson plan of learning. Learning in the experimental class was conducted using film as a medium, while the control class using conventional method (without using film as a medium).

Test was given before and after the students followed the learning process given by the writer. The first data analysis is from the beginning of learning process in both control class and experimental class that is taken from the pre test score. It is the normality test and homogeneity test. It is used to know that two groups are normal and have same variant. Another data analysis is from the ending of learning process in both control class and experimental class. It is used to prove the truth of hypothesis that has been formulated. Before the analysis was done, the writer scored the result of the test given to the students. The assignment given to the students was vocabulary a simple English verbs with the help of film is a medium in order to facilitate students' understanding.

B. Hypothetical Test

Hypothetical analysis is intended to process the data collected from pre-test and post-test. The goal of this analysis is to prove the hypothesis whether it is accepted or rejected.

The result of the try-out test was analyzed statistically to know the validity, reliability, degree of test difficult, and degree of question distinction as follows:

1. Validity of Instrument

Validity of test was used to know valid or invalid the items of test question that was invalid will be lasted and not used. Item that valid, it means the items can present the material that is English verb.

To know the validity of instrument, the person product moment correlation formula was used when analyzing each of test items; it was obtained that from 30 test items. There were 30 test items which were valid. The 30 valid test items were used as the instrument for collecting the data. The number of invalid test items was 0.

Based on the result of count validity items of test as follows:

Table 4.1
Validity of Each Item

No	Criterion	Number of question	Total (Σ)	Percentage (%)
1	Valid	1 - 30	30	100%
2	Invalid	0	0	0%

The more calculation can be seen in appendix 8.

2. Reliability of instrument

The result of the reliability 30 test item is 1,164 with $\alpha = 5\%$ n: 35 from the product moment table, because of the r_{11} 1,164 bigger than r_{table} 0,361 ($r_{11} > r_{table}$), so the instrument is reliable.

The more calculation can be seen in appendix 9.

3. Degree of Test Difficult

Degree of test difficult was used to know the difficult items (difficult, medium or easy). Based on the result of count coefficient of index items of test as follows:

Table 4.2
Degree of difficulty of each item

No	Criterion	Number of question	Total (Σ)	Percentage (%)
1	Difficult	0	0	0%
2	Medium	5,7,10,13,17,19,21,24,25,26,27	11	36,7%
3	Easy	1,2,3,4,6,8,9,11,12,14,15,16,18,20,22,23,28,29,30	19	63,3%

The more calculation can be seen in appendix 10.

4. Degree of question distinction

Based on the result of count degree of question distinction items of test as follows:

Table 4.3
Degree of Question Distinction of Each Item

No	Criterion	Number of question	Total (Σ)	Percentage (%)
1	Poor	0	0	0%
2	Satisfactory	1,2,4,6,7,8,9,10,11,12,13,14,	25	83,3%
3	Good	15,16,17,19,20,21,22,24,25, 26,27,28,30 3,5,18,23,29	5	16,7%
4	Excellent	0	0	0%

The more calculation can be seen in appendix 11.

After the research of instrument test that was try-out and analyzed then done hypothesis from the result of learning data. Step adopted in analyzing hypothetical test are:

1. Analysis Phase First

It was done to know the normality and homogeneity of the initial data in the experimental class and control class.

Table 4.4
Score of Pre-Test Experimental Class and Control Class

No	Explanation	Experimental	Control
1.	n	35	35
2.	Average	61,314	64,2
3.	Variance	54,86890756	54,22352941
4.	Standard Deviation	7,407354964	7,363662771
5.	Maximal Score	76	80
6.	Minimal Score	43	46

The more calculation can be seen in appendix 16-19.

a. Normality Test

The normality test is used to know whether the data is normally distributed or not. Test data of this research used the formula of Chi-square.

H_0 : The data of normal distribution.

H_a : The data of un normal distribution.

H_0 accepted is $\chi_{count} < \chi_{table}$ with $\alpha = 5\%$ and $df = K-3$.

Table 4.5

The result of normality pre test of experimental and control class

Class	χ_{count}	χ_{table}	Criteria
Experimental	0,55	7,81	Normal
Control	4,06	7,81	

The more calculation can be seen in appendix 16-17.

Based on analysis above it can be seen that χ_{count} both of class lower than χ_{table} ($\chi_{count} < \chi_{table}$), so H_0 accepted. And the conclusion is the distribution data of experimental and control classes are normal.

b. Homogeneity Test

The homogeneity test is used to know whether the group sample that was taken from population is homogeneous or not.

H_0 : $\sigma_1^2 = \sigma_2^2$ (homogeny variance)

H_a : $\sigma_1^2 \neq \sigma_2^2$ (non homogeny variance)

H_0 is accepted if $F_{count} < F_{table}$

Table 4.6
The result of homogeneity of pre test
of experimental and control class

Class	Variance (S ²)	n	df	F _{count}	F _{table}	Criteria
Experimental	54,869	35	68	1,011	1,47	Homogeny
Control	54,223	35	68			

The more calculation can be seen in appendix 18.

Based on the formula :

$$F_{count} = \frac{\text{max imum variance}}{\text{min imum variance}}$$

$$F_{count} = \frac{54,86890756}{54,22352941} = 1,011902178 = 1,011$$

Based on computation above it is obtained that F_{count} is lower than F_{table} , so H_0 accepted. It can be concluded that data of pre test from experimental and control class have the same variance or homogeneous.

- c. Testing the similarity of average of the initial data between experimental and control classes

To test the difference of average used t-test.

$$H_0: \mu_1 = \mu_2$$

$$H_a: \mu_1 \neq \mu_2$$

Where:

μ_1 : average data of experimental group

μ_2 : average data of control group

Table 4.7
The average similarity test of pre test
of experimental and control classes

Source variance	Experimental	Control	Criteria
Sum	2146	2247	Same
n	35	35	
Average (\bar{X})	61,31	64,2	
Variance (S ²)	54,86890756	54,22352941	
Standard deviation (s)	7,407354964	7,363662771	

The more calculation can be seen in appendix 19.

$$S^2 = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

$$S = 7,385541178$$

$$t = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = -1,633$$

H_0 is accepted if $-t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} < t < t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)}$. Based on the computation above, that by $\alpha = 5\%$ and $df = 35+35-2 = 68$ is obtained $t_{table} = 1,990$ and $t_{count} = -1,633$ H_0 is accepted if $-t_{table} < t_{count} < t_{table}$. So, it can be concluded that there is not significant different of the average pre-test between experimental and control classes, because t-count at the reception area of H_0 .

2. Analysis Phase End

It is done to answer hypothesis of this research. The data used are the result of post tests of both classes. The experiment class taught by using strip stories as teaching media and the control class taught without strip stories.

The final analysis contains of normality test, homogeneity test and the difference average test of post test.

- a. Searching for the data normality of the experimental and control classes.

Table 4.6

**The result of normality test of post test
of experimental and control classes**

Class	χ_{count}	χ_{table}	Criteria
Experimental	0,41	7,81	Normal
Control	4,23	7,81	

The more calculation can be seen in appendix 20-21.

Based on the computation above it is obtained that χ_{count} is lower than χ_{table} by $\alpha = 5\%$ with $df = 6-3 = 3$. So it can be concluded that the distribution data of post test of experimental and control class are normal.

- b. Searching for the homogeneity of the experimental and control classes.

Table 4.6

The result of homogeneity test of post test of experimental and control class

Class	Variance (S ²)	n	df	F_{count}	F_{table}	Criteria
Experimental	59,946	35	68	1,085	1,47	Homogeny
Control	65,070	35	68			

The more calculation can be seen in appendix 22.

Based on the formula:

$$F_{count} = \frac{\text{maximum variance}}{\text{min imum variance}}$$

$$F_{count} = \frac{65,07058824}{59,94621849} = 1,08548278 \sim 1,085$$

Based on computation above it is obtained that F_{count} is lower than F_{table} , so it mean H_0 accepted. It can be concluded that data of post test of experimental and control class have the same variance or homogeneous.

- c. Hypothesis test

Hypothesis test is used to know whether there is a difference on post test of experimental and control classes. The data which is used to test the hypothesis is score post test both of class. To test the difference of average used t-test.

$H_a : \mu_1 = \mu_2$: it mean there is significant difference between the English verbs skill improvement of students who were taught by using cartoon films and who were taught by using conventional learning (without using cartoon films).

$H_0 : \mu_1 \neq \mu_2$: it mean there is no significant difference between the English verbs skill improvement of students who were taught by using cartoon films and who were taught by using conventional learning (without using cartoon films).

H_a is accepted if $t_{count} > t_{(1-\alpha)(n_1+n_2-2)}$

Table 4.7

The Score of Post-Test of Experimental and Control Classes

No	Explanation	Experimental	Control
1.	n	35	35
2.	Average	74,23	70,4
3.	Variance	59,94621849	65,07058824
4.	Standard Deviation	7,742494333	8,066634257
5.	Maximal Score	90	86
6.	Minimal Score	56	53

The more calculation can be seen in appendix 23.

Table 4.8

The result of computation t-test

Class	n	(\bar{X})	(S^2)	(s)	t_{table}	t_{count}	Criteria
Experimental	35	74,23	59,946	7,74	1,990	2,025	H_a accepted
Control	35	70,4	65,071	8,07			

The more calculation can be seen in appendix 23.

Based on the computation above, it is obtained that the average of post test of the experimental class who are taught by using cartoon film is 74,23 and standard deviation (s) is 7,74. While the average of post test of the control class who are taught by using conventional learning is 70,4 and standard deviation (s) is 8,07 , with $df = 35+35-2 = 68$ by $\alpha = 5\%$ and is obtained $t_{table} = 1,990$, from the result of calculation t-test and $t_{count} = 2,025$. If compared between t_{table} and t_{count} , $t_{count} > t_{table}$. It means that H_0 is rejected and H_a is accepted.

Because $t_{count} > t_{table}$, it can be concluded that there is a significant difference between experimental and control classes in post test, the score of the experimental class is higher than the control class.

C. Discussion of The Research Finding

The result of the research shows that the experimental class (the students who are taught using cartoon film as a medium) has the mean mark 74, 23. Meanwhile, the control class (the students who are taught using non cartoon film) has the mean mark 70, 4. It can be said that teaching the use cartoon films to facilities students understanding in English verb is more effective than conventional teaching.

Before giving the treatment, researcher checked the balance of the initial ability of the students of both classes. The data used to test the balance was the 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 $\chi^2_{count} < \chi^2_{table}$, $\alpha = 5\%$ and $df = k - 3 = 3$. On the normality test of pre test of the control class, it can be seen $\chi^2_{count}(4,06) < \chi^2_{table}(7,81)$ and the experimental class $\chi^2_{count}(0,55) < \chi^2_{table}(7,81)$. Since homogeneity test shows $F_{count}(1,011) < F_{table}(1,47)$, it can be concluded that the population is homogeneous. Based on the analysis of t-test at the pre test, it is obtained $t_{count} = -1,633$ with $t_{table} = 1,990$ which proves that there is no difference of the average of pre test between both classes.

The normality test of post test of control class results $\chi^2_{count}(4,23) < \chi^2_{table}(7,81)$ and experimental class results $\chi^2_{count}(0,41) < \chi^2_{table}(7,81)$. The post test demonstrates that the hypothesis of those two classes is normal on the distribution. It is proved with $F_{count}(1,085) < F_{table}(1,47)$ from the homogeneity test that has the same variant. From the last phase of the t-test, it is obtained $t_{count} = 2,025$ with $t_{table} = 1,990$

with the standard of significant 5%. Because of $t_{count} > t_{table}$, so the zero hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted. It means that there are significant differences between the students that had been taught using cartoon film to teach students English verbs and the students who had not given the same treatment. This difference can be said as that the using cartoon film to teach English verb is better.

There were many factors that influenced the result of study. One of the factors was teaching aids or media used in teaching. If a teacher employs an appropriate teaching aids or media that is suitable with the method, the students will enjoy the lesson. Based on the result of tests that had been done, it can be explained that using cartoon film to teach students English verb, in the process of learning English at VIII E and VIII F students of SMP N 18 Semarang could facilitate students' imagination of how to teach students English verb. In addition, learning using cartoon film also provides new variation. So that, students can enrich their vocabulary by imagining the word said by the actors and flow their ideas smoothly by imagination of the plot of cartoon film that help them to remember of English verb.

In the process of learning, teacher should be resourceful in determining the classroom setting in order to make students focus in lesson. For example, by the setting of the class tailored to the learning activities of students of experimental class, the students were more focus and the atmosphere of the class is not too rowdy. By using appropriate teaching aids, students find it easier to facilitate students understanding in English verb by the teacher. A fun learning can stimulate the spirit of the students to be active. Connecting material with the experience or incident that occurred in surrounding environment and utilization of teaching aids such as cartoon film can increase students' understanding. Students can clearly understand the process or steps in teaching English verb. Meanwhile, teaching learning process in control class is implemented through lecturing using text. In this process, the teacher explains the material using text. At the beginning of the process, the students are given a pre-test to know the initial ability of the

students. Then, the students sit and pay attention to the teacher's explanation. However, students feel saturated with the material presented by the teacher because there are no interesting teaching aids or media used.

The ability of the students can be seen from the score of learning. Based on the research that had been done, it proves the average of students' understanding that find learning using cartoon film as a medium higher that is 74,23 compared with the average of the students who did not get learning using cartoon film as a medium that is 70, 4. The use of cartoon film as a medium in teaching English verb has brought students to realize the minimum standard of score. T-test shows that t_{count} has positive score. It means that the average score of students who had been taught using cartoon film as a medium is higher than the score of students who had been taught using conventional learning. Thus, it can be concluded that learning using cartoon film as a medium can improve students' understanding in English verb at class VIII E students of SMP N 18 Semarang.

D. Limitation of The Research

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

1. Relative short time of research makes this research could not be done maximally.
2. The research is limited at SMP N 18 Semarang. So that, when the same research will be gone in other schools, it is still possible to get different result.
3. The implementation of the research process was less perfect; this was more due to lack experience and knowledge of the researcher.

Considering all those limitations, there is a need to do more research about teaching English verb using cartoon film as a medium to teach students English verb. So that, the more optimal result will be gained.