

CHAPTER III

METHOD OF THE RESEARCH

A. The Design of the Research

The design of this research was a quasi-experimental research. Creswell (2008, p. 295) stated that experiment is testing an idea to determine whether it influences an outcome or dependent variable. This research used a quasi-experimental design because the technique sampling that was used was total sampling not Random Assignment which purposed not disturbing the learning process that was running at school. Thus, this research used experimental and control groups. Therefore, there were two variables of this research namely independent variable or variable X as the use of Animation Film and dependent variable or variable Y as the students' wrtiting ability on narrative text. This is because the experimenter could not artificially create groups for the experiment which consisted of two variables. The first variable was Animation Film as independent variable and the second was students' ability in writing narrative text as dependent variable So, the design of this research can be illustrated as follows:

Based on Cohen et al. (2007, p. 276) the type of this research can be designed as follows:

Table III.1
Quasi-experimental Research

Group	Pre-test	Treatment	Post-test
Experimental	RO ₁	X	O ₂
Control	RO ₃		O ₄

RO₁ = Pre-test to experimental group

RO₃ = Pre-test to control group

X = Receive treatment by using Animation Film

O₂ = Post-test experimental group

O₄ = Post-test to control group

B. The Time and Location of the Research

This research was conducted from February 2017 to March 2017. This research was conducted at Islamic Senior High School Kampar Timur.

C. The Subject and Object of the Research

The subject of this research was the first year or grade one students of Islamic Senior High School Kampar Timur and the object of this research was using Animation Film toward students' narrative text ability.

D. The Population and Sample of the Research

1. The Population

Population is the total number of the research subject. The population of this research was the first year students of Islamic Senior High School Kampar Timur in 2016/2017 academic year. The number of the first year at Islamic Senior High School Kampar Timur was 41 students. They were divided into 2 classes.

Table III.2

Total the Students at the First Year of MA Kampar Timur

No.	Class	Students
1.	X IPA	18
2.	X IPS	23
Total		41

2. The Sample

The population of the students at the first year was less than 100. So the writer decided to take all the students from both of classes as the sample, because the population was not large enough. According to Sugiyono (2015),

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

total sampling is used as a technique to determine the sample if all the population become the sample. In this research, All population at the first year of Islamic Senior High School Kampar Timur had been the sample. So, the writer selected both IPA and IPS classess to be taken as the sample. The writer took the sample by using total sampling. Sugiyono added that total sampling is a technique to determine sample if all numbers of the population being the sample. Total sampling is most useful when the population is not too large. Those were as the sample of the research with number of 41 students.

Table III.3
The Sample of the Research

No.	Group	Classes	Number of Students
1.	Experimental Class	X IPA	18
2.	Control Class	X IPS	23
	Total		41

E. The Technique of Collecting Data

In this research, the writer used a test to measure the students' writing narrative text ability. The writer used pre-test and post-test for collecting data. Pre-test that was used to know students' writing narrative text ability before doing treatment. In pre-test the students wrote a narrative text based on the topic for 45 minutes. After that, the writer began to do the treatment by using Animation Film in teaching writing narrative text and gave an exercise of writing. At the last meeting the writer gave post-test to the students. Post test was used to know the effect of using Animation Film to get the data about students' writing ability.

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

The students' ability in writing narrative text was measured by using writing assessment used by the English teacher in Islamic Senior High School Kampar Timur. The assessment could be described as follows:

Table III.4
Assessment Aspects of Writing Narrative Text

No	Aspect Assessed	Score			
		1	2	3	4
1	Content				
2	Organization a. Orientation b. Complication c. Resolution				
3	Vocabulary				
4	Language features a. Action verb b. Simple past tense				
5	Mechanics (Spelling and Punctuation)				
Total					
Maximum Score		20			

Explanation of Score: 1 = Incompetent

2 = Competent Enough

3 = Competent

4 = Very Competent

$$\text{Final Score} = \frac{\text{Total Score}}{\text{Maximum Score}} \times 80$$

According to Arikunto (2009, p. 245), there were 5 components to categorize students' writing ability. Each components had 20 as the highest score and the

Hak Cipta Dilindungi Undang-Undang

1. Diarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Diarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

total of the components was 100. In this research, the writer took 80 as the highest score. Then, the score was interpreted into following category:

- 80 - 100 = A (Very Good)
- 66 - 79 = B (Good)
- 56 - 65 = C (Enough)
- 40 - 55 = D (Less)
- 30 - 39 = E (Bad)

Table III.5
The criteria of Assessment Aspect of Writing Ability

Aspect	Criteria	Score
Content	Clear and effective	4
	Clear and ineffective	3
	Less clear	2
	Unclear and understandable	1
Organization	The connection between ideas is clear	4
	There is transition between ideas	3
	The connection between ideas is not clear enough	2
	The connection between ideas is unclear	1
Vocabulary	Appropriate and effective	4
	Appropriate, but less effective	3
	Less appropriate and ineffective	2
	Inappropriate and ineffective	1
Grammatical features	Appropriate	4
	Less appropriate but it does not influence the meaning	3
	Less appropriate but influence the meaning	2
	Inappropriate	1
Spelling and Punctuation	Appropriate	4
	Appropriate enough	3
	Less appropriate	2
	Inappropriate	1

F. The Validity, Reliability, Normality and Homogeneity

1. The Validity of the Test

Fraenkel (2006) said that the validity depends on the amount and type of evidence there is support the interpretation writers wish to make concerning data they have been collected. There are three types of validity. They are content validity, criterion-related validity, and construct validity. In order to know the validity of writing ability test, the writer used content validity. Content validity is partly a matter of determining if the content that the instrument contains is an adequate sample of domain of content, it is supposed to represent. Content validity refers to the content and format of the instrument. How appropriate the content or format is. Thus, the writer gave the test based on the material that was studied by the students. The material of the test was taken from the textbook.

2. The Reliability of the Test

According to Airisian (2000, p. 169), reliability is the degree to which a test consistently measures whatever it is measuring. The testing of students' writing ability must have reliability in order to get the same scores obtained when the test done more than once. In reference to Brown (2003, p. 20), a reliable test is consistent and dependable. So, reliability here is used to measure the quality of the test score and consistency of the test.

In this research the writer used the rater agreement type of reliability concerned with inter rater reliability as the scores given by two raters. Then, inter-correlation of the raters was used to find out the reliability of the test. The

Hak Cipta Dilindungi Undang-Undang

1. Diarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Diarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

writer used *Pearson Product Moment* to obtain the correlation between scores from rater 1 and rater 2. As stated by Henning (1987, p.85), to know the level of correlation through *Spearman-Brown Prophecy Formula* is as follows:

$$r_{tt} = \frac{nr_{A,B}}{1+(n-1)r_{A,B}}$$

where:

r_{tt} = inter-rater reliability

n = the number of raters whose combined estimates the final mark for the examinees

r_{AB} = the correlation between raters, or the average correlation among all raters if there are more than two

According to Arikunto (2009, p. 75), the following table is category of reliability test used in determining the level of reliability of the test.

Table III.6
The Level of Reliability

No.	Reliability	Level of Reliability
1.	0.0 – 0.200	Very Low
2.	0.21 – 0.400	Low
3.	0.41 – 0.600	Sufficient
4.	0.61 – 0.80	High
5.	0.81 – 1.00	Very High

The following table described the correlation between scores given by rater 1 and rater 2 by using *Pearson Product Moment* formula through SPSS 17 version.

Tabel III.7
Correlations

		Rater1	Rater2
Rater1	Pearson Correlation	1	.679**
	Sig. (2-tailed)		.002
	N	18	18
Rater2	Pearson Correlation	.679**	1
	Sig. (2-tailed)	.002	
	N	18	18

From the table above, it could be seen that the coefficient of correlation product moment $r_{\text{obtained}} (r_o)$ between scores given by rater 1 and rater 2 was 0.679. Before comparing it to $r_{\text{table}} (r_t)$, the writer obtained the df (degree of freedom).

$$df = N - nr$$

df : degree of freedom

N : number of cases

nr : number of correlated variable

$$df = 18 - 2 = 16$$

After obtaining the degree of freedom (df) = 16, the coefficient product moment r_{obtained} was compared to r_{table} either at level 5% or 1%. At level 5% r_{table} is 0.468; while at level 1% is 0.590. Based on r_{table} , it could be analyzed that (r_o) was higher than (r_t) either at level 5% and 1%. It was clear that $0.468 < 0.679 > 0.590$. So that, the writer concluded that H_o was rejected and H_a was accepted. It means that there was a significant correlation between scores given by rater 1 and rater 2. In other words, the writing test was reliable. Then, r_{obtained} is adjusted by the *Spearman-Brown Prophecy* formula below:

Hak Cipta Dilindungi Undang-Undang

1. Diarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Diarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$r_{tt} = \frac{nr_{A,B}}{1 + (n - 1)r_{A,B}}$$

$$r_{tt} = \frac{(2)(0.679)}{1 + (2 - 1)(0.679)}$$

$$r_{tt} = \frac{1.358}{1 + 0.679}$$

$$= 0.80$$

Based on the calculation above, the writer obtained that inter rater reliability was 0.80. So, it could be concluded that the reliability of writing test included was high level.

3. The Normality of the Data

The technique of collecting data was using test. The data analyzed by using statistical analysis. In analyzing the data, the writer used scores of post-test of experimental and control classes. This score was analyzed statistically. In order to find the answer, the writer analyzed the data by using SPSS 17 as follows"

Table III.8
Tests of Normality

Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Score 1	.107	18	.200*	.955	18	.501
2	.174	23	.070	.923	23	.079

Hypothesis :

Ho (Null Hypothesis): Data is normally Distributed

Ha (Alternative Hypothesis): Data is abnormally Distributed

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Testing criteria :

If probably (sig) > 0.05, H_0 is Accepted

If probably (sig) < 0.05, H_0 is Rejected

According to Priyatno (2012, p. 36), If the "Sig" column of either test is higher than 0.05, the data are normally distributed. From the table III.8 above, the significant value of post-test experimental and control classes were 0.501 and 0.079. Because of $sig > 0.05$ ($0.501 > 0.05$) and ($0.079 > 0.05$), the initial data of experimental and control classes were normally distributed. Therefore, the writer used independent sample T-test.

4. The Homogeneity of the Data

According to Siregar (2013, p. 167), the purpose of homogeneity test is to know whether the object of the research has the same variance or not. The method used in this test was comparing the biggest variance with the smallest one. In this research, the writer assessed the homogeneity of the data by using SPSS 17 version. The result of the test is as follows:

Table III.9
Test of Homogeneity of Variance

Test of Homogeneity of Variance		Levene Statistic	df1	df2	Sig.
Score	Based on Mean	.000	1	39	.985
	Based on Median	.262	1	39	.611
	Based on Median and with adjusted df	.262	1	32.441	.612
	Based on trimmed mean	.006	1	39	.940

Hak Cipta Dilindungi Undang-Undang

1. Diarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Diarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Based on the table above, the probability (sig) based on trimmed mean was 0.940. It was higher than 0.05 ($0.940 > 0.05$). It can be concluded that the data were homogenous.

G. The Analysis of the Data

In analyzing the data, the writer used students' post test score in experimental and control classes. This score was analyzed statistically. In this research the writer used these formulas:

1. Independent Sample T-test

Pallant (2007, p. 232) suggested that an independent sample t-test is used to compare the mean score, on some continuous variable, for two different groups of subjects.

Hartono (2015, p. 177) mentioned about independent sample t-test also. He said that independent sample t-test is used to find out whether there is or not significant difference between two variables.

In this research, the data were analyzed by using SPSS 17 version. The significant value was employed to see whether there is or not a significant difference among the mean scores both of experimental and control classes.

Statistical hypothesis:

$$H_0 = \text{sig. (2 tailed)} > 0.05 \text{ or } t_0 (t_{\text{obtain}}) < t_{\text{table}}$$

$$H_a = \text{sig. (2 tailed)} < 0.05 \text{ or } t_0 (t_{\text{obtain}}) > t_{\text{table}}$$

2. Effect Size

According to Pallant (2005, pp. 173-175), effect size is the strength of the difference between groups or the influence of independent variable. There are

Hak Cipta Dilindungi Undang-Undang

1. Diarangi mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Diarangi mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

a number of different effect size statistics, the most common of which is eta squared. Eta squared can range from 0 to 1 and represents the proportion of variance in the dependent variable that is explained by the independent (group) variable.

The formula of eta squared is as follows:

$$\eta^2 = \frac{t^2}{t^2 + (N1 + N2 - 2)}$$

Where:

η = eta squared

t^2 = t_o

N = number of students

The guidelines proposed by Cohen (1988, pp. 284-287) quoted in Pallant for interpreting these values are:

.01 = small effect

.06 = moderate effect

.14 = large effect