CHAPTER III

RESEARCH METHODOLOGY

In this chapter, the researcher discusses some important ideas in conducting study are research design, population and sample, research variable, research instrument, validity and reliability testing, data collecting method, and data analysis.

A. Research Design

In this study, the researcher uses quantitative approach with pre-experimental design. The experimental research is a research aims to test the hypothesis concerning the casual relationship. According to Ary (2002: 302) the experimental research design is classified into pre-experimental design, true-experimental design, and quasi-experimental design. Pre-experimental design does not have random assignment of subject to group or other strategies to control extraneous variables. True-experimental design use randomization and provide maximum control of extraneous variables. Whether quasi-experimental design lack randomization but employ other strategies to provide some control over extraneous variables.

Pre-experimental design involved one group which is pre-tested, exposed to treatment, and post-test. The reason why the researcher uses pre-experimental design is because practical. By using pre-experimental design, the researcher only uses one group or class so, the researcher easier to

conduct the study and compare the result before and after being taught by using animation film as the medium in writing narrative text for the eighth grade students of MTs Aswaja Tunggangri Tulungagung. The design of the one group pretest-posttest design typically represented in table 3.1 bellow:

Table 3.1. The Procedure of the One Group Pretest-Posttest Design

Pre-test	**Treatment**	**Post-test**
Y1	X	Y2

X : animation film treatment

Y1 : students' achievement on writing narrative text before taught by using animation film

Y2 : students' achievement on writing narrative text after taught by using animation film

B. Population and Sample

1. Population

According to Arikunto (2010: 173), the population is all members of the research subject. The researcher takes population in the second grade students of MTs Aswaja Tunggangri Tulungagung in the academic year of 2016/2017. The population of the students in the second grade of MTs Aswaja Tunggangri Tulungagung are 72 students, which is consist of three classes as follows:

Table 3.2 The population of the students in the second grade of MTs Aswaja Tunggangri

No	Class	Male	Female	Total
1	VIII-A	12	13	25
2	VIII-B	17	9	26
3	VIII-C	14	7	21
Total		43	29	72

2. Sample

Sample is a part of population representative which is researched Arikunto (2010: 174). In this study, the researcher takes one of six classes of second grade of MTs Aswaja Tunggangri as the sample. The class is B class consist of 26 students.

3. Sampling

Sampling is the way to select or choose a sample. Gay (1992: 123) stated sampling is the process of selecting a number of individuals for a study in such a way that the individuals represent the large group from which they were selected. In this study, the researcher uses purposive sampling technique. According to Cohen et al., (2007: 34) in purposive sampling technique, sample is satisfactory to specific needs. As its name suggests, the sample has been chosen for a specific purpose. The researcher took VIII B as the sample of the study because this class was low in writing. More clearly, in VIII B, there were 26 students consisting

of 17 males and 9 females as the samples of the study. Those 26 students were given a pretest, treatment, and posttest during the research.

C. Research Variable

A variable is defined as anything that has quantity or quality that varies. Santrock (2004: 47) explained that a variable is the characteristic or attribute of individual, group, or educational system that researcher is interested in. There are two types of variable are independent and dependent variable. Where, dependent variable is a variable that researcher is interested in to change or to be affected. While independent variable, is a factor that affects a dependent variable. In this study, the independent variable is an animated film.

D. Research Instrument

In this study, the instrument which is used by the researcher to collect the data is tests. Ary (2002: 210) stated test is a set off stimuli presented to individual in order to elicit responses on the basis of which a numerical score can be assigned.

There were two kinds of tests in this study, those were pre-test and post-test. Pre-test was intended to measure students' writing achievement in narrative text before the treatment given. While, post-test was to measure students' writing achievement in narrative text after the treatment given. The tests were in the form of subjective test writing narrative text to measure students' writing achievement in narrative text.

Furthermore, the writer gave score to the students' writing by using scoring guide of writing according to Jacob et al (1981) in the following formula below:

Table 3.3. Scoring Guide of Writing

Aspects	Score	Criteria
Content	30-27	*Excellent*: knowledgeable, substantive, through development of topic sentence, relevant to assigned topic.
	26-22	*Good*: some knowledge of subject, adequate range, limited development of thesis, mostly relevant to topic but lacks detail.
	21-17	*Fair*: limited knowledge of subject, little substance, inadequate development of topic.
	16-13	*Very poor*: doesn't show knowledge of subject, non-substantive, non pertinent, or not enough to evaluate.
Organization	20-18	*Excellent*: fluent expression, ideas clearly stated/supported, succinct, well-organized, logical sequencing, cohesive.
	17-14	*Good*: somewhat choppy, loosely organized but main ideas stand out, limited support, logical but in complete sequencing.
	13-10	*Fair*: non-fluent, ideas confused or disconnected, lacks logical sequencing and development.
	9-7	*Very poor*: doesn't communicate, no organization, or not enough to evaluate.
Language Use	25-22	*Excellent*: effective complex constructions, few errors of agreement, tense, number, word order/fuction, articles, pronouns, prepositions.
	21-18	*Good*: effective but simple constructions, minor problems in complex constructions, several errors of agreement, tense, number, word order/fuction, articles, pronouns, prepositions but meaning seldom obscured.
	17-11	*Fair*: major problems in simple/complex constructions, frequent errors of negation, agreement, tense, number, word order/fuction, articles, pronouns, prepositions and/or fragments, run-ons, deletions, meaning confused or obscured.
	10-5	*Very poor*: virtually no mastery or sentence construction rules, dominated by errors, doesn't communicate, or not enough to evaluate.
Mechanics	5	*Excellent*: demonstrates mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing.

	4	*Good*: occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured.
	3	*Fair*: frequent errors of spelling, punctuation, capitalization, paragraphing, poor hardwriting, meaning confused or obscured
	2	*Very poor*: no mastery of conventions, dominated by errors of spelling, punctuation, capitalization, paragraphing, hardwriting, illegible, or not enough to evaluate.
Total	80	

$$= \frac{+ \quad + \quad + \quad h}{8} \times 10$$

To know the students' achievement good or not, the researcher gave criteria as suggested by the English teacher of MTs Aswaja Tunggangri. This is as follows:

Table 3.4 The Criteria Score

No	Class of Score	Grade	Criteria
1	90-100	A	Excellent
2	80-89	B	Good
3	70-79	C	Enough/Fair
4	46-69	D	Less
5	0-45	E	Bad/Low

E. Validity and Reliability Testing

Instrument is important in research. The researcher needs consideration in developing instrument. The development of good instrument required considerable time, effort, and skill. In this study, the researcher should make a mastery, not other skill or component. There are two important characteristic to measure instrument, the instrument should get validity and reliability.

1. Validity

Test validity presupposes that the writer can be explicit about what is to be tested and takes steps to ensure that the test reflects realistic use of particular ability to be measured (Weir, 1993: 19). These are four types of validity; a) Content validity, b) Criterion related validity, c). Construct validity, d). Face validity. In this research, to measure whether the test has a good validity, the researcher analyzed the test from content validity and construct validity.

Content validity is correspondence between curriculum objectives and objectives being assessed. The instrument in this research achieved content validity since the test was designed based on main competence and basic competence in curriculum since the school implements the curriculum in the time the researcher conducted this research.

A test is said to have construct validity if it can be demonstrated that is measures just the ability which is supposed to measure (Isnawati, 2012:29). It is the process of determining the extent to which test performance can be interpreted in terms of one or more constructs. In this study, the writer administered a writing test and the technique of scoring the students' writing is based on the five aspects of writing, they are content, organization, vocabulary, grammar and mechanic.

2. Reliability

Reliability is expressed numerically, usually as a coefficient, a high coefficient indicates high reliable. If a test is perfectly reliable, the reflects

her or his true status with respect to the variable being measured. However, no test is perfectly reliable (Allison, 1999: 85). In this study, the researcher conducted test as try out before conducting pre-test and post-test to the students. Try out was administered to know whether the test reliable or not. To get reliability coefficient the researcher used SPSS program. Then the result of computing can be seen below:

Table 3.5 Reliability Statistic

Cronbach's Alpha	N of Items
.899	26

From the table above the reseacher found that the Cronbach's Alpha on standardized item is 0.899. According to Triton in Sujianto (2009:97) the value of cronbach's alpha can be interpreted as follow:

Table 3.6 Cronbach's Alpha Interpretation

Cronbach's Alpha	Interpretation
0.00 – 0.20	Less Reliable
0.21 – 0.40	Rather Reliable
0.41 – 0.60	Quite Reliable
0.61 – 0.80	Reliable
0.81 – 1.00	Very Reliable

Based on the table above, it can be concluded that the instrument of this research was in the category very reliable because 0,81 < 0.899 > 1,00.

F. Data Collecting Method

Data collecting method is the technique to collect the data is needed by the researcher. In this study, the technique that is used by the researcher is administering test. The tests are pre-test and post-test where the kind of the test are written test. The first meeting is administering pre-test continued by giving treatment, the second meeting up to fourth meeting is administering treatment and the last meeting for administering post-test. Pre-test was done on Tuesday, April 11th 2017 and post-test was done on Thursday, April 13th 2017. The researcher conducted this study in three meeting. After administering pre-test and post-test, the result of both tests will be compared to know is there significant score before and after being taught using animated film for the second grade students of MTs Aswaja Tunggangri.

G. Data Analysis

In this study, the researcher used T-test technique of data analysis. T-test is used to test the hypothesis that whether there is or no any significant before and after being taught using animated film as a media. To know the result, the researcher used Paired Sample T-Test that was calculated by SPSS 16.0 version.