

CHAPTER III

RESEARCH METHOD

In this chapter the researcher describes the research method. It consists of research design, population and sample, research variable, research instrument, validity and reliability testing, normality and homogeneity testing, data collection method, data analysis and hypothesis testing.

A. Research Design

Quantitative research uses objective measurement and statistical analysis of numeric data to understand and explain phenomena. In quantitative research there are experimental and non-experimental. According to Borg 1989:639 experimental research is a powerful research method to establish cause-and-effect relationship. The cause variable is a condition or event that exists or occurs prior to the effect. The effect variable is a condition or event subsequent to the casual condition. The course variable is produce a change in the effect variable (Charles, C.M 1995:247).

There are a lot of research design on quantitative research, such as correlation, survey, ex post facto, experiment, an at all. According to Charles, (1995:247) this study is conducted in quasi experiment design using sample and assignment of the samples into experimental and control groups to ensure the equivalence of groups and to control for many interfering variables that might otherwise contaminate the result of investigation. The procedure of quasi-experimental design will be explained follows.

First, the researcher selected two samples that at least appear to be similar, didn't choose remedial class and advanced class. Second, decide into two group, first to treatment group and second to control group. Third, gave pretest in every group, both treatment and control group to know the ability each subject on occasion of dependent variable. Forth, gave a treatment in treatment group by using field trip in teaching writing of descriptive text. In this case, the teacher gave explanation in outside (canteen, park, field, etc), after that, the student must observe about thing around them and they must describe the thing that they observed. While for control class, the learning activity in writing descriptive was done inside, students no visiting other place in the school such as park, library, canteen, etc. The last procedure, both of groups, treatment class and control class were given a post test to compare the result.

Table 3.1. Nonrandomized control group, pretest-posttest design.

Group	pretest	Independent variable	Post test
T	Y1	X	Y2
C	Y1	-	Y2

Where:

T: The treatment group

C: The control group

X: The independent variable, which is manipulated by experimenter. It will also refer to ask the experimental variable or treatment (method “ field trip”)

Y: the measure of the dependent variable. Y1 represent the dependent variable before the manipulation of the independent variable X. Y2 represent the dependent variable after the manipulation of the independent variable X.

From the table above, it can be inferred that both groups which are treatment and control class got the pretest and post test test. Meanwhile, the experimental group obtained field trip as the treatment the control group would not receive field trip as treatment.

This research intended to investigate the effectiveness of field trip on writing ability of descriptive text at SMPN 1 Sumbergempol. The use of the treatment is aimed at proving whether the increase scores possibly got by the students. Thus, the effectiveness of that treatment is known the significant score when the students taught using field trip technique.

B. Population, Sample and Sampling

1. Population

The first step to do the research is finding the target of population. Population is a set to which a researcher wishes to generalize. According to Borg, (1989:216). As all the members of a real or hypothetical set of people, event, or object to which educational researchers wish to generalize the result of the research. Because the target population is very large, the researcher must have limitation area. Other explanation about population by Wampold, (1990:84) the population is a sample space of elementary events. Another way to think of the population is a set of units from which the

researcher will sample. The units need not to be restricted to people; researchers may be interested in populations of animals or objects.

The population on this research is the Second grade of SMPN 1 Sumbergempol that consists of nine classes. There are 270 students of the second grade students of SMPN 1 Sumbergempol. According to Ary (2002:163) population is all members of any well-defined class of people, events of objects. A population is a set (or collection) of all elements possessing one or more attributes of interest stated by (Arikunto 2006:108).

2. Sample

Selected of the sample is very important step in conducting a research study. According to Charles (1995:96), a sample is a small group of people selected to represent the much larger entire population from which it is drawn. It means that a good sample must be representative of the entire as possible, so that the generalization of the sample as true as population.

According the explanation above to take a sample the writer just uses two classes, these class are VIII-A as experiment group and VIII-D as control group.

3. Sampling

Sampling is a technique to taking the sample according to Sugiyono (2007). Sampling is also as a way the researcher select number of individuals as a sample which represents the population. Sampling is the process of selecting a number of individuals for a study in such as a way that the individuals represent the large group from which they were selected.

The purpose of sampling is to gain information about a population; rarely is a study conducted that includes the total population of interest as subject (Gay, 1992:123).

In this research, the researcher does not have chance to random the sample, because there are some of lacks when researcher tries to random this sampling. To define which group that control or treatment group, I write the name both of group and then I random and I get VIII-A as experiment group and VIII-D as control group.

C. Research Variable

In this research, the writer thinks it is important to know the meaning of variable itself. According to R.Franklen (1996:51) variable is concept a noun that stands for variation within a class of objects. According to Donald Ary (1985:39) A variable is a construct or a characteristic that can take on different values or scores. The most important classification is on the basis of their use within the research under consideration, when they are classified as independent variables or dependent variables.

1. Independent variable (X)

Independent variable is variable which is manipulated by a researcher deliberately. In this research, independent variable is field trip.

2. Dependent variable (Y)

Dependent variable is a variable that engage in function relationship influence by independent variable. In this research, dependent variable is learner's interest in English learning.

D. Research Instrument

Instrument of research are the tools to measure something that we observe in order to obtain the data and answer the research problems, stated by Sugiyono (2011). The instrument used in this research is a test which it is given before and after taught by using field trip technique. The instrument was developed through the following steps:

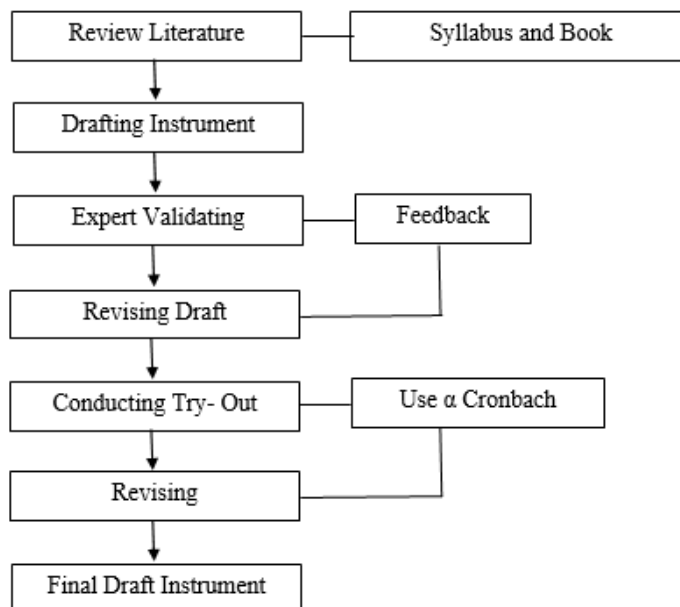


Diagram 3.2 instrument

The steps of instrumentation, are:

1. Review Literature

The first steps to get valid and reliable test is reviewing literature concerning with descriptive writing skill especially that in junior high school. Therefore, the researcher reviewed some literatures from syllabus and book used in junior high school to get some important informations as sources to drafting instrument that related with the materials of junior high school .

2. Drafting Instrument

After get some informations from reviewing literature, the researcher started to draft instrument that appropriate with the materials of junior high school.

3. Expert Validating

After finishing the drafting instrument, the instrument should be validated by the expert like English teacher or lecturer where master the materials. The purpose of the expert validating is to know how much valid the instrument is either related with its construct validity, face validity, or content validity. So, in this steps the researcher will be get feedback and validation guide.

4. Revising Draft

In revising draft of the instrument, the researcher uses feedback collected from the expert validation.

5. Conducting Try- Out

After revising the draft of the instrument, the researcher conduct try the instrument out to the first grade students of SMPN 1 Sumbergempol who share common characteristics with the subjects of this research. The result of try out which is analyzed using alpha cronbach is used to revise the draft to be the valid instrument because the reliability and validity of the instrument can be objectively computed by using the formula of alpha cronbach.

6. Revising

In revising, it is part to revise the instrument again based on the feedback to get the final draft instrument. So, researcher will revising the instrument to make the questions ideal or not easy or too easy, difficult or too difficult.

7. Final Draft Instrument

The last step is final instrument means that the instrument has good or best quality where the instrument is appropriate.

In this study, the researcher applied pre-test and post-test. Pre-test was given before teaching by field trip, in this pre-test students were given task during 60 minutes. For experimental group researcher give 45 minutes again for giving treatment to the students. The next treatment given the second meeting during 60 minutes. Post-test which was given after teaching by field trip, in this post-test the students given task by using field trip technique during 60 minutes after the last meeting for giving treatment.

To get the data, which is both of groups that becomes an experimental group the researcher as a teacher teaches the students during three meetings. First meeting, in the teaching learning process the teacher give pre-test in learner's interest. Second meeting, the teacher teaches material by using field trip technique just for experimental group. In the end, the teacher gives post-test in learner's interest to the students.

E. Validity and Reliability

1. Validity

Validity is the extent to which inferences made from assessment result are appropriate, meaningful, and useful for the purpose of the assessment.

The validity of test as extent to which it measures what is supposed measure and nothing else (Heaton: 1989). To measure whether the test has a good validity, the researcher analyzed the test from content validity and construct validity.

In experimental research, the researcher had to check validity and reliability of the instrument. Validity (in testing) is the degree to which a test measure what it is supposed to measure, or can be used successfully for the purpose for which it is intended (Richard, 1992:296).

According to Brown, 2004:22 as quoted by Isnawati, 2011:16 validity is the extent to which inferences made from assessment result are appropriate, meaningful and useful in terms of the purpose of the assessment.

a) Content Validity

A test is said to have content validity if its contents constitute a representative sample of language skills, structures, etc, being tested. In order to judge whether or not the test has content validity, we need a specification of the skills or structure being tested. A comparison of test specification and test content is basis for judgment for content validity. The researcher made this test based on the course objective in the syllabus of first years of SMPN 1 Sumbergempol. Therefore, this is valid in term of content validity.

b) Face validity

Face validity if it looks as it measures what it is supposed measure. For example, a test which pretended to measure pronunciation ability but which did not require the test-takers to speak might be through to lack face validity. This is true even if the test is constructing and criterion-related validity can be demonstrated. Face validity is hardly a scientific concept, yet it is very important. A test which does not have face validity may not be acceptable by test-takers, teachers, education authorities, and employers. The researcher used face validity by consulting with the advisor and teacher to validate whether the draft of the test looks like to measure.

c) Construct Validity

The construct validity of test which is capable of measuring certain specific characteristic in accordance with a theory of language behavior and learning. Based on the theory above, in the test the researcher asked the students to answer the multiple choices based on congratulating and complimenting to measure the student's vocabulary mastery therefore, valid in term of construct validity.

The validity and reliability of the test can be measured by SPSS Alpha Cronbach. The process of using SPSS, are: Click analyze > scale >reliability analysis, then enter all of variable x to items (Alpha model) and click OK. If the result shows alpha > 0,05 it mean that the validity is sufficient, while if the alpha > 0,0 it mean that all of items are valid. In this case, the researcher gave the students test in using field trip technique.

Besides, the researcher tried to check the empirical validity by using SPSS 16.0 after trying out the instrument (pre-test and post-test). In this research, the researcher used SPSS 16.0 for windows to know the validity of test instruments. It can use corrected item-total correlation formulation. the criteria of validity of the instrumen can be divided into 5 classess as follows (Ridwan: 2004) :

1. If the *item-total correlation* score 0.00 – 0.20: less valid
2. If the *item-total correlation* score 0.21 – 0.40: rather valid

3. If the *item-total correlation* score 0.41 – 0.60: enough valid

4. If the *item-total correlation* score 0.61 - 0.80: valid

5. If the *item-total correlation* score 0.81 – 1.00: very valid

In this test the researcher, give the multiple-choice test to measure student's interest in English course. The researcher made this test based on the course objectives in the syllabus of first grade of SMPN 1 Tulungagung. Therefore, this test is valid in term of content validity.

Table 3.3 result of validity

		Correlations					
		content	organizing	vocabulary	grammar	mechanic	total_score
Content	Pearson Correlation	1	,756**	,311	-,089	,355*	,707**
	Sig. (2-tailed)		,000	,069	,609	,036	,000
	N	35	35	35	35	35	35
organizing	Pearson Correlation	,756**	1	,387*	,012	,275	,727**
	Sig. (2-tailed)	,000		,022	,944	,109	,000
	N	35	35	35	35	35	35
vocabulary	Pearson Correlation	,311	,387*	1	,297	,298	,654**
	Sig. (2-tailed)	,069	,022		,083	,082	,000
	N	35	35	35	35	35	35
grammar	Pearson Correlation	-,089	,012	,297	1	,582**	,499**
	Sig. (2-tailed)	,609	,944	,083		,000	,002
	N	35	35	35	35	35	35
mechanic	Pearson Correlation	,355*	,275	,298	,582**	1	,770**
	Sig. (2-tailed)	,036	,109	,082	,000		,000
	N	35	35	35	35	35	35
total_score	Pearson Correlation	,707**	,727**	,654**	,499**	,770**	1
	Sig. (2-tailed)	,000	,000	,000	,002	,000	
	N	35	35	35	35	35	35

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Based on the table above shows that the result item-total correlation was valid based on criteria of validity.

2. Reliability

The reliability of the test is its consistency and dependable (Brown, 2003:20). Thus, reliability is a measure of accuracy, consistency, dependability or fairness of scores resulting from administration or particular examination. Reliability is necessary characteristic of any good test: for it to be valid all, a test must first be reliable as a measuring instrument (Heaton : 1989).

Actually, the ideal test should be both reliable and valid. In this research, the researcher also used SPSS 16.0 for window to know the reliability of test instruments.

The criteria of reliability instrument can be divided into 5 classes as follows (Ridwan : 2004), those are:

1. If the *alpha cronbach* score 0.00 – 0.20: less reliable
2. If the *alpha cronbach* score 0.21 – 0.40: rather reliable
3. If the *alpha cronbach* score 0.41 – 0.60: enough reliable
4. If the *alpha cronbach* score 0.61 - 0.80: reliable
5. If the *alpha cronbach* score 0.81 – 1.00: very reliable

In this research, the researcher uses SPSS 16.0 window to know the reliability of test as instrument intended to use. The result of reliability testing by using SPSS 16.0 can seen from the table :

Table 3.4 result of reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
,705	5

To know the items is reliable or not it can be seen from Alpha Cronbach's column. If the Alpha Cronbach's under 0,60 means is not reliable. But if the Alpha Cronbach's upper 0,60 means that it is reliable. Alpha Cronbach's score = 0,705 means that it is very reliable.

F. Normality and Homogeneity Testing

1. Normality Testing

Normality testing is conducted to determine whether the gotten data is normal distribution or not. The computation of normality testing in this research using SPSS.16. *One- Sample Kolmogorov-Smirnove test* by the value of significance (α) = 0.050 rules as follow:

- a. H_0 : If the value of significance > 0.050 , means data is normal distribution
- b. H_1 : If the value of significance < 0.050 , means the distribution data is not normal distribution

2. Homogeneity Testing

Homogeneity testing is conducted to know whether the gotten data has a homogeneous variance or not. The computation of homogeneity testing using SPSS Statistics 16 is *Test of Homogeneity of Variances* by

the value of significance (α) = 0.050. Before doing homogeneity testing, the researcher decides hypothesis in this homogeneity as follow:

- a. H_0 : If the value of significance > 0.050 , means data is homogeny
- b. H_1 : If the value of significance < 0.050 , means data is not homogeny

G. Technique of Data Collection

Data collection is all of process to collecting data in the research (Fraenkel and Wallen, 2009:293). Data Collection is done by observing a situation, setting or interaction using the constructed instrument (Muijs, 2004:22). The data of this research were collected by administering test with answering some questions based on the text that they read previously. It was done twice : pre-test and post-test. Test is generally prepared, administered, and scored by one teacher (Harris: 1969). To know more the details of the test accomplished, the test is done through two steps, are:

1. Pre-Test

A pre-test provides a measure on some attribute or characteristic that you assess for participant in an experimental before they receive treatment (Creswell: 2003). This test can be called as the pre-test before the treatment of this research. The pretest is aimed is to know the students' interest before the treatment carried out. In the testing process, the students have to answer the pre-test. There were 1 items of essay questions, but there are 5 score criteria in every questions, The score per item was 5 for correct answer, after get the final score in every items, the scores must be multiple 4, students would get 100 point if they could answer correctly to

all of the questions. This result of the test became the evaluation before using field trip as technique in teaching material is applied in the class.

2. Post-Test

Post-test is done after the students get treatments is taught by field trip Technique in teaching English course . As like pre-test, post-test also contained of 1 items of essay questions. The score per item was 5 for correct answer. From the score of this test, the researcher is intended to find out the effectiveness of field trip as technique in teaching English course to know the interest of learner. The result of the scoring then is compared with pre-test. After compare with pre-test, the researcher must compare again with control group, In this case, the researcher knows how far is the effectiveness of field trip as technique to enhance the interest of learner.

H. Techniques of Data Analysis

Data analysis is a time consuming and difficult process, because typically the researcher faces massive amounts of field notes, interview transcripts, reflections, and information from documents to examine and interpret (Ary, 2002:465). The data obtained from research result is the results of student's test that were analyzed quantitatively. Quantitative analysis was done using statistics which is called statistical analysis or inferential statistics. The quantitative data of this research in analyzed using statistical

computation. This technique was used to find the significant difference on the students' interest after being taught by using *field trip technique* .

I. Hypothesis Testing

The hypothesis of this study was as follow:

1. If P-value is bigger than 0,05. So, the alternative hypothesis (H_a) is accepted. It means that there is different score between the experiment group and control group. The difference is significant.
2. If P-value is smaller than 0,05, the null hypothesis (H_0) is rejected. It means that there is no different score between the experiment group and control group. The difference is not significant.

