

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, and validity and reliability testing, normality and homogeneity testing, data collecting method, data analysis, and hypotheses testing.

A. Research Design

The research conducted by quantitative research, in this study the method use experimental research. Quantitative research emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and explain a particular phenomenon.

According to Kasiram (2008: 149) Quantitative research is a process of finding knowledge that uses numerical data as a tool to analyze information about what you want to know. From the statement it can be concluded that quantitative research is a research that many require the use of numbers, ranging from data collection, interpretation of the data, and the appearance of the results. Similarly, at the conclusion of the study would be better when accompanied by images, tables, graphics, or other views.

According to Arikunto (2006:3) that an experiment is the way to find out the casual relationship between two factors which are raised by the researcher purposeful by reducing or eliminating any distracting factors.

For in this research is classified as pre-experimental research design because it is little or no control of extraneous variable. This design involves one group as its subject it involves three steps, there are pre-test, treatment, and post test. Test before giving treatment called pre-test and after giving treatment called post-test. In the one group pretest-posttest design, a single group is measured or observed not only after being exposed to a treatment of some sort, but also before. The design of this research can be seen at the table below:

Table 3.1 diagram of pretest-posttest design

Y1	X	Y2
Pre-test	Treatment (Independent Variable)	Post test (Dependent Variable)

The procedure of pre-experimental research that use One Group Pretest-Posttest design:

- a. Administering a pre-test before applying strategy a purpose measuring the students writing achievement of seventh grade students at MTsN 2 Kota Blitar.
- b. Applying the experimental treatment teaching writing by Think-Talk-Write (TTW) in descriptive text as strategy to the subject of seventh grade students at MTsN 2 Kota Blitar.

- c. Administering a post test after applying strategy with a purpose of measuring the students writing achievement of seventh grade at MTsN 2 Kota Blitar.

In this research, the researcher wanted to know the effectiveness of Think-Talk-Write (TTW) strategy in teaching writing by conducting pre-experimental research. The impact was assessed by providing a specific treatment. The use of treatment is aimed at providing whether the increase score possibly got by the researcher. Thus, the effectiveness of the treatment will be known the significant differences between the students who were taught before and after applying Think-Talk-Write (TTW) strategy.

B. Population, Sample and Sampling

1. Population

Population is a generalization region consisting of objects or subjects that have a certain quantity and characteristics set by the researchers to be studied and then drawn conclusions. According to Sugiyono (1999:72) Population is a generalization region consisting of objects that have certain qualities and characteristics set by the researchers to be studied and then collect the conclusions. The population of this study is the students of MTsN 2 Kota Blitar, especially 7th grade that consist of eight class. There are 339 students of the seventh grade students at MTsN 2 Kota Blitar.

2. Sample

The sample is part of the population that represents all the characteristics of the population. According to Soehartono (2004: 57) Sample

is a part of the population to be studied and which is considered to describe the population. It means the subject of population. Sample can be taken between 10%-15%-25% if the number of population is more than 100. Here, the researcher takes a sample the seventh grade students only, that is 7H class, in this class there are 39 students.

3. Sampling

According to Gay (1992: 123) state that sampling is the process of selecting a number of individual for a study in such a way that the individuals represent the large group from which they were selected. Sampling is also as a way to obtain sample as a part of population.

In this research, the researcher use purposive sampling technique. Because purposive sampling is technique a type of non probability sampling where the researcher consciously selects subjects for addition in a study so as to make sure that the elements will have certain characteristics pertinent to the research. Purposive sampling is sample which is taken because the researcher believes that students in MTsN 2 Kota Blitar could give sufficient knowledge on English material. So the researcher believes that 7H class at MTsN 2 Kota Blitar can give sufficient information.

C. Research Variable

According to Creswell (2012: 112) state that variable is a characteristic or attribute of an individual or an organization that (a) researchers can measure or observe and (b) varies among individuals or organization studied. Measurement means that the researcher records information from individuals by asking them to answer questions. In addition when variable vary, it means

that scores will assume different values depending on the type of variable being measured. In this research, there are two type of variables, which are :

1. Independent Variable (X) is variable that consequence of or upon antecedent variables. One independent variable must be the treatment variable. One or more groups receive the experimental treatment. The independent variable in this research is teaching writing by using think-talk-write strategy.
2. Dependent Variable (Y) is the response or the criterion variable that in presumed to be caused by influenced or by the independent treatment condition and any other independent variables. The dependent variable in this research is student's achievement in writing ability.

D. Research Instrument

According to Arikunto (2010: 160) instrument is one of the significant steps to conducting the research. By using instrument, the researcher can get the data. Instrument is a tool or facilities that are used by researcher. The researcher must choose some instrument in the process of collecting data. In this research the researcher used achievement test. Achievement test is test that is used to measure the process that students making after learn something, Isnawati (2011: 14). This test used to measure the students achievement in writing skill before and after they taught by think-talk-write strategy.

In this research, there are two kind of test that should be done by the researcher, there are pretest and posttest.

1. Pretest

Pretest was administered before the students were taught by Think-Talk-Write (TTW) strategy or before treatment process. Pretest is given to know how far the students' ability in descriptive text before being taught by Think-Talk-Write (TTW) strategy. This test is writing about descriptive text. Time allocation of the test is 80 minutes. Pretest was held on April 10th 2018.

2. Posttest

Posttest was administered after the students were taught by Think-Talk-Write (TTW) strategy or after treatment process. Posttest is given to know the basic competence for students and to know theory earlier knowledge after they get treatment. It is done to know the final score and to know the difference achievement before and after they get treatment. The test of posttest is writing about descriptive text by applying Think-Talk-Write (TTW). Time allocation of test is 80 minutes. Posttest was held on April, 30th 2018.

E. Validity and Reliability Testing

1. Validity

Gronlund in Brown (2004: 22) stated that validity is the most complex criterion of an effective test and the most important principle of language testing. It is the extent to which inferences made from assessment result are appropriate, meaningful, and useful in terms of the purpose of the assessment.

From the above opinion can be concluded that the validity is the degree of accuracy or feasibility of the instrument used to measure what will be measured and the extent to which the instrument performs its measurement function.

These are four types of validity; 1) Content validity, 2) Criterion related validity, 3) Construct validity, 4) Face validity. In this research, to measure whether the test has a good validity, the researcher analyzed the test from content validity, face validity and construct validity.

a. Content Validity

This research the test have content validity because the researcher asked the students to write about descriptive text based on the picture which was given by the researcher. The content validity in this research as follow:

Table 3.2 Content Validity

No	Material	Competence Indicator
1.	scriptive text	<ul style="list-style-type: none"> - Students are able to write about descriptive text based on the picture - Students are able to write the text on the form of simple present tense - Students are able to write the text with generic structure clearly.

b. Face Validity

Face validity, also called *logical validity*, because it is a simple form of validity where you apply subjective assessment of whether or not your study or test measures what it is supposed to measure. The test in this research was designed to measure students writing skill, thus, to achieve face validity, the researcher provided the instructions to ask students to write. In this study, the researcher used face validity by consulting with the advisor, lecturers, and teacher to validate whether the draft of the test looks like to measure.

c. Construct Validity

According to Brown (2004: 25) state that construct is any theory, hypothesis, or model that attempt to explain observed phenomena in our universe or perception. Based the statement brown construct validity is measuring specific characteristic in accordance with a theory of language behavior and learning. In this research, the researcher ask the students to write about the descriptive text based on the picture to measure the students skill in writing. The researchers classify the score using by Hughes (2003: 104). The technique of scoring is based on five aspect, they are content, organization, vocabulary, grammar, and mechanic.

Table 3.3 Descriptive Text Scoring Rubric

	Score	Level	Criteria
Content	30-27	Excellent to Very Good	Knowledgeable, substantive, thorough development of thesis, relevant to assigned topic.
	26-22	Good to Average	Some knowledge of subject, adequate range, limited development of thesis, mostly relevant to topic, but lacks detail.
	21-17	Fair to Poor	Limited knowledge of subject, little substance, inadequate development of topic.
	16-13	Very Poor	Does not show knowledge of subject, non substantive, not pertinent, or not enough to evaluate.
Organization	20-18	Excellent to Very Good	Fluent expression, ideas clearly stated, succinct, well organized, logical sequencing, cohesive.
	17-14	Good to Average	Somewhat choppy, loosely organized but main ideas stand out, limited support, logical but incomplete sequencing.
	13-10	Fair to Poor	Non-fluent, ideas confused or disconnected, lack logical sequencing and development.
	9-7	Very Poor	Does not communicate, no organization, or not enough to evaluate.
Vocabulary	20-18	Excellent to Very Good	Sophisticated range, effective word/idiom choice and usage, word form mastery, appropriate register.
	17-14	Good to Average	Adequate range, occasional errors of word/idiom form, choice, usage, but meaning not obscured.
	13-10	Fair to Poor	Limited range, frequent errors of word/idiom form, choice, usage, and meaning confused.
	9-7	Very Poor	Essentially translation, little knowledge of English vocabulary, idiom or word form, or not enough to evaluate.
Language Use	25-22	Excellent to Very Good	Effective complex construction, few errors of agreement, tense, word order, articles, pronoun, and prepositions
	21-18	Good to Average	Effective but simple construction, minor problems in complex construction, several errors of agreement, tense, number, word order, but meaning seldom obscured.
	17-11	Fair to Poor	Major problems in simple and complex, construction, frequent errors of negation agreement, tenses, number, word order,

			articles, pronoun, preposition, meaning confused or obscured.
	10-5	Very Poor	Virtually no mastery of sentence construction rules, dominated by errors, does not communicate, or not enough to evaluate.
Mechanics	5	Excellent to Very Good	Demonstrates mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing.
	4	Good to Average	Occasional errors of spelling, punctuation, capitalization, paragraphing but the meaning obscured.
	3	Fair to Poor	Frequent errors of spelling, punctuation, capitalization, paragraphing, poor handwriting, meaning confused or obscured.
	2	Very Poor	No mastery of conventions, dominated by errors of spelling, punctuation, capitalization, paragraphing, handwriting illegible, or not enough to evaluate.

2. Reliability

According to Ary (2002:250) states that reliability is concerned with the effect of such random errors of measurement on the consistency of scores. In addition Heaton (1989: 162) reliability is necessary characteristic of any good test for it to be valid at all, a test must first be reliable as a measuring instrument. The reliability of the test is its consistency. Thus, reliability is a measure of accuracy, consistence, dependability, or fairness of scores resulting from administration of particular examination.

It means that an instrument can be called reliable if it has a consistency in the result of measurement. The reliability of an instrument is needed to support the validity of an instrument. 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 (Zarkasyi, 2015: 206), those are:

- a. If the Pearson Product Moment score 0.00 – 0.20: less reliable
- b. If the Pearson Product Moment score 0.21 – 0.40: rather reliable
- c. If the Pearson Product Moment score 0.41 – 0.70: enough reliable
- d. If the Pearson Product Moment score 0.71 - 0.90: reliable
- e. If the Pearson Product Moment score 0.91 – 1.00: very reliable

To know the items is reliable or not it can be seen from Pearson Product Moment column. If the from Pearson Product Moment under 0,41 means is not reliable. If the from Pearson Product Moment upper 0,41 means that it is reliable. from Pearson Product Moment score = 0,794 means that it is reliable.

F. Normality and Homogeneity Testing

1. Normality

Normality test are used to determine whether a data set is well-modeled by a normal distribution or not, or to compare how likely an underlying random variable is to be normally distribution. For the research, to know the normality, the researcher used *One-Sample Kolmogorov-Smirnov test* with using SPSS 16.0 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_a : If the value of significance < 0.050 , means the distribution data is not normal distribution

2. Homogeneity

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. Data Collecting Method

Data collecting method is the way the researcher collect data. Method of data will provide reality about some steps which are used in the process of collecting data. To get data the researcher used method of data collecting as follows:

a. Pretest

At the first meeting, the researcher gave a pre-test to the students. It was conducted to know the students score in writing before taught by Think-Talk-Write (TTW) strategy. In this test, the researcher ask to the students to make descriptive text by using their own technique in writing descriptive text based on the picture who given by the researcher.

b. Treatment

Treatment is the application of the new technique by the researcher to know that the technique can be accepted or not. The treatment is done after

getting score in pretest. Here, the treatment is done in 7H. The steps in treatment are will be described as follow:

Table 3.4 the steps of treatment

No.	Steps	Teacher Activities	Students Activities
	Opening	<ul style="list-style-type: none"> - Greeting - Pray before learning activities - Checks the presence the class that day - Appreciation and motivation. 	<ul style="list-style-type: none"> - Answering greeting - Praying - brainstorming
	Main Teaching	<ul style="list-style-type: none"> - Giving explanation about descriptive text - Giving example of descriptive text - Giving question related the topic 	<ul style="list-style-type: none"> - Listening the explanation from the researcher - Answering question from the teacher
		<ul style="list-style-type: none"> - The teacher asks the students to create 5 groups, each group consisting of 5 or 6 students. - Students gather with their respective groups - Teachers introduce TTW (Think, Talk, Write) strategy - The teacher gives the picture to the students - Ask students to some note based on the picture (<i>think</i>) - Ask the students to discuss with the group about content their note (<i>talk</i>) - Ask the students to write the result of discussion in the form written text (<i>write</i>) 	

	Closing	- Giving conclusion and comment about material - Closing the meeting	- Giving responses
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c. Posttest

Post-test is to measure their ability after treatment process, this test was given to know the basic competence for 39 students and to know their earlier knowledge after they get treatment. It is done to know the final score and to know the students, difference competence before and after they get treatment.

A pos-test was given in order to know the scores of the students after they were taught by Think-Talk-Write strategy. Time allocation is 80 minutes. This test was used to measure the students' achievement after they were given treatment.

H. Data Analysis

The two variables investigated in this research were Think-Talk-Write and students score. In this research, the research used a quantitative data analysis technique to know the students achievements before and after being taught by Think-Talk-Write (TTW) technique. The quantitative data is analyzed by using statistical method. Here, the researcher conducted test to the students before and after being taught by applying TTW strategy. The data of pretest was compared with the data in posttest to know whether there was significant different of the students writing score. Therefore, the researcher used paired sample T test at SPSS 16.0 for windows to determine whether the technique was effective or not.

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 on the students writing achievement before and after being taught by Think Talk Write (TTW) strategy. The different 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 on the students writing achievement before and after being taught by Think Talk Write (TTW) strategy. The different is no significant.