# CHAPTER III

# RESEARCH METHOD

In this chapter, the researcher presents the research design, the population and sample of the research, research instrument, validity and reability testing, data collectin method, and data analysis.

## A. Research Design

To investigate the effectiveness of student team achievement division towards writing skill in recount text, experimental study would be suitable to the purpose of the research. A typical experimental design would be an intervention study which contains at least two groups: the 'treatment' or 'experimental group', which receives the treatment or which is exposed to some special conditions, and the 'control group', whose role is to provide a baseline for comparison (Dornyei,2007:116). Thus, the purpose of experimental research is to test causality relationship between the variables. Actually, in experimental design, it is necessary to randomly select control or experimental groups. When random selection to control or experimental groups are appropriately assigned, this will lead to a true experimental design.

**Table 3.1 The Illustrartion of Research Design One Group Pre-test and Post-test**

| Pre-test | Treatment (STAD strategy) | Post-test |
|----------|---------------------------|-----------|
| YI (DV) | X (IV) | Y2 (DV) |

X   : STAD Strategy ( independent Variable)

Y   : Student's achievement in writing recount text before being taught  by

     using STAD strategy (dependent Variable)

Y2 : Student's achievement in writing recount text after being taught by using

     STAD strategy (dependent Variable).

    The procedures of experimental research that use one group pre-test and post-test design in this study are described as follows:

1. Administering pre-test (Y1) with a purpose of measuring student's recount text writing ability before applying STAD stratyegy.

2. Applying experimental treatment teaching recount text writing by using STAD strategy.

3. Administering post-test (Y2) with a purpose of measuring student'swriting skill ability after being taught by using STAD strategy.

    This research intended to investigate the effectiveness of  student's team achievement division (STAD) at eight grade of SMPN 6 Tulungagung. The use of the treatment is aimed at proving whether the increase scores possibly got by the researcher. Thus, the effectiveness of that treatment is known the increase score when the students taught using STAD strategy by comparing pre-test and post-test score.

**B. Population, Sample and Sampling**

    **1. Population**

       A population is defined as all members off any well-defined class of people, event, or object (Ary, 2010: 148). It means that population is

all subjects of the research. The population of this research was eighth grade students of SMPN 6 Tulungagung

## 2. Sample

Sample is the representative of population. Arikunto (2016, as cited in Fifah, 2016) states that sample as part of representative of population that is observed. By considering the number of population which are many, to determine the sample of population the researcher focuses on one class and using purposive sampling to consider some qualifications. According to Perry (2005:57 as cited in Prastiyo: 2018) purposeful sampling strategy is used to indicate that the sample is chosen to aswer the research question as relevant as possible. By using puposive sampling, the researcher considers some suggestions from certain people who know well which sample is appropriate to be chosen by giving qualification. That is why, one of the good criterion is VIII-G The reason because that class is suitable as subject of research. In addition, English teacher who handles VIII-G suggests to take that class too as subject of sample to be researched by some reasons:

a. This class is taught by recount text.
b. The class is cooperative enough.
c. The characteristics of the students has assumed as homogeneous in writing, means not too good and not too bad.

**Table 3.2 Sample of Research**

| Sample of VIII-G | | Total Participants |
|---|---|---|
| Male | Female | |
| 16 | 16 | 32 participants |

### 3. Sampling

The technique in taking sample is called sampling (Sugoyono, 2006:90). In this research, the researcher uses purposive sampling as the process of sampling. Ary et al (2010: 156) states that purposive sampling also-referred to as judgment sampling-sample elements judged to be typical, or representative, are chosen from the population. In purposive sampling, the researcher uses expert judgment to take some representatives or typical cases from population.

Purposive sampling is a type of nonprobability sampling where the researcher consciously selects subjects for addition in a study to make sure that the elements will have certain characteristics pertinent to the study. Purposive sampling is sample which is taken because the researcher believes that VIII-G could give sufficient information. The researcher uses purposive sampling the class is consists of various background of schools and English proficiency. Some of them are joining English course, any others are graduated from excellent and ordinary schools. Besides, the english teacher give recommendation to this class. Thus, the researcher believes that VIII-G class of SMP Negeri 6

Tulungagung can give sufficient information because of its heteregenous class.

## C. Research Instrument

Research instrument refers to the instrument or tool to collect the data. Instrument which used by the researcher was writing test or essay test. The students were given two kind of tests. The first test was pre-test and second test was post-test. Both of the tests were recount text as the level of students in their grade or level and by considering with core competence and also basic competence. The topic chosen in every tests were different to avoid bias as they can remember on the previous topic given.

To know the result of the tests, the researcher used scoring rubric. The aspects of scoring are content, organization, vocabulary, grammar, and mechanics. There were two kinds of tests in this study, there were pre-test and post-test. Pre-test intended to measure student's writing achievement in recount text before the treatment given. While, post-test was to measure student's writing achievement in recount text after the treatment given. The tests were in the form of subjective test writing recount text to measure student's writing achievement in recount text. The material of the test is taken from English book and Internet, which related to:

1) Try out

Instrument try out was held before the pre-test and post-test were administrated to the chosen classes. The purpose is measure the validity and reliability of the instrument. Try out was administered in another class which was not involved during the research process.

2) Pre-test

The researcher will do the pre-test when the teacher for the first time entered the class. It is aimed to know the students ability in material of writing achievement which given by the researcher.

3) Post-test

Post-test is done in order to know the changeable on student's writing achievement material between learning process with explanatory strategy and learning process through STAD strategy.

I hope that to understand what the step for doing the best test, the writer stated the steps for making instrument there are:

a) Review Literature

The first steps to get valid and reliable test is reviewing literature concerning with the writing achievement 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 information as sources to drafting instrument that related with the materials of Junior High School.

b) Drafting Instrument

After getting some information from reviewing literature, the researcher starts to draft instrument that appropriate with the materials of Junior High School.

c) Expert Validating

After finishing the drafting instrument, the instrument should be validated by the expert like Lecturer or English Teacher where master the writing materials especially recount text. 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 these steps the researcher get feedback and validation guide.

d) Revising Draft

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

e) Conducting Try-Out

After revising the draft of the instrument, the researcher will conduct try the instrument out to the eight grade students of SMP Negeri 6 Tulungagung.

f) Revising

In revising, it parts to revise the instrument again based on the feedback to get the final draft instrument. Therefore, the question of the instrument test is ideal or not easy or too easy, difficult or too difficult.

g) Final Draft Instrument

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

## D. Validity and Reability Testing

Validity and reliability of instrument are integral parts in conducting a study since the instrument which will be used must be valid and reliable before using it to collect the data. In this research the researcher ensured that the instrument (test) was valid and reliable by doing validity and reliability testing.

### 1. Validity

Ary et al (2010: 225) defines validity as the extent to which as instrument measured what it claimed to measure. In other words, validity is measuring what it is designed to be measured. In language testing, Brown (2004) defines validity as the extent to which inference made from assesment results are appropriate, meaningful, and useful in terms of the purpose of assesment. To measure whether the test has a good validity, the

researcher analyzed the test from content validity, face validity, and construct validity.

a. **Face Validity**

If a test item looks right to other testers, teacher, moderators, and testees, it can be described as having at least face validity, Heaton, (1975: 159). In this test, there were some aspects that are considered from this test to make a good test based on the face validity. They are:

The instruction must be clearly for the students, so the students are able to understand what they should do in that test.

1) In this test, the students of eighth grade were instructed to write a recount text. Thus, the theme which gave by the writer must be suitable with their level.

2) The consideration of time allocation must be suitable so that the students are able to supposed, when they finished their task before the time was up.

b. **Content Validity**

Content validity means there was correspondence between curriculum objectives and the objectives being tested. It means that test said to have content validity if its objectives are same with the curriculum objectives. The researcher developed the test by referring to the syllabus that contained standard competence and basic competence. In this case, the researcher also checked the curriculum set to know what students must be able to do in certain level, especially in second grade of junior high school, and the

researcher found that in the second semester they have to able to write the recount text.

### c. Construct Validity

Construct validity is capable of measuring certain specific characteristics in accordance with a theory of language behavior and learning, Heaton (1975: 161). 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 student's writing is based on the five aspects of writing; they are content, organization, vocabulary, grammar, and mechanic.

### 2. Reliability

Based on the Harrison in Johnson (2001) says that the reliability of a test is its consistency. Thus, reliability is a measure of accuracy, consistency, dependability or fairness of scores resulting from administration of particular examination. Ary et al (2006:236) also defines reliability as the degree of consistency with which an instrument measures whatever it is measuring. In this study, the researcher conducts try out before pre-test and post-test. After that, the researcher use SPSS stastistics 18.0 to calcualte the score during try out session. The researchers conducted try out to 28 students of VIII- J at SMP Negeri 6 Tulungagung on 28 March 2019. The criteria of validity of instrument can be devided into five classes as follows (Ridwan:2004);.

**Table 3.3 Cronbach's Alpha Interpretation Based on Triton**

| 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 try out of the test that has been done on 28 March 2019, the researcher can find the result of the reability of the test. The researcher use SPSS program to calculate it and the result of the test can be seen as follow:

**Table 3.4 The Result of Reability Testing by Using Conbach's Alpha**

**Case Processing Summary**

|  |  | N | % |
|---|---|---|---|
| Cases | Valid | 28 | 100,0 |
|  | Excluded[a] | 0 | ,0 |
|  | Total | 28 | 100,0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| ,707 | 5 |

From the table above, it showed that Alpha value was 0.707 it's mean that Alpha value is reliable.

**Case Processing Summary**

|  |  | N | % |
|---|---|---|---|
| Cases | Valid | 28 | 100,0 |
|  | Excluded[a] | 0 | ,0 |
|  | Total | 28 | 100,0 |

**E.  Data Collecting Method**

The data collection method serves the way how the researcher get the data which is needed. To measure the effectiveness of student's team achievement division (STAD) in writing recount text, the researcher uses instruments. The instruments are pre-test and post-test. It can be seen clearly below:

 1.  **Pre-Test**

Pre-test is given to the students to know their achievements in writing recount text before being taught by student's team achievement division (STAD) . The form of pre-test is essay. After finishing the test or student's work, the researcher used scoring rubric to calculate the score of pre-test.

 2.  **Post-Test**

Post-test is done after the students get treatments is taught by using student teams achievement in teaching writing recount text. From the score of this test, the researcher is intended to find out the effectiveness of student's team achievement division (STAD). The form of post-test is essay. The result of the scoring then is compared with pre-test. After finishing the test or student's work, the researcher used scoring rubric to calculate the score of post-test. In addition, the scoring rubric used is Brown Version as below :

**Table 3.5 Recount writing scoring rubric**

| Aspect | Score | Performance Description | Weighting |
|---|---|---|---|
| **Content (C)**<br>-Topic<br>-Detail | 4 | The topic is complete and clear and the details are relating to the topic | 3X |
| | 3 | The topic is complete and clear but the details are almost relating to the topic | |
| | 2 | The topic is complete and clear but the details are not relating to the topic | |
| | 1 | The topic is not clear and the details are not relating to the topic | |
| **Organization**<br>20%<br>-<br>Identification<br>-Description | 4 | Identification is complete and descriptions are arranged with proper connectives | 2X |
| | 3 | Identification is almost complete and descriptions are arranged with almost proper connectives | |
| | 2 | Identification is not complete and descriptions are arranged with few misuse connectives | |
| | 1 | Identification is not complete and descriptions are arranged with misuse connectives | |
| **Grammar**<br>20%<br>-Use present tense<br>-Agreement | 4 | Very few grammatical, and agreement inaccuracies | 2X |
| | 3 | few grammatical, and agreement but not effect the meaning inaccuracies | |
| | 2 | Numerous grammatical, and agreement inaccuracies | |
| | 1 | Frequent grammatical, and agreement inaccuracies | |
| **Vocabulary**<br>15%<br>-Word choice | 4 | Effective word choice, word forms and appropriate word number | 1.5X |
| | 3 | Few misuse of word choice, word forms but not change the meaning and sufficient word number | |
| | 2 | Limited range confusing word choice, no word forms and less word number | |
| | 1 | Very poor knowledge of words and word forms, and limited word number | |
| **Mechanics**<br>15%<br>-Spelling<br>-Punctuation<br>-<br>Capitalization | 4 | It uses correct spelling, punctuation, and capitalization | 1.5X |
| | 3 | It has occasional errors of spelling, punctuation, and capitalization | |
| | 2 | It has frequent errors of spelling, punctuation, and capitalization | |
| | 1 | It is dominated by errors of spelling, punctuation, and capitalization | |

**Table 3.6 Recount writing scoring rubric**

Score: $\dfrac{3C+2O+2G+1.5V+1.5M \; X \; 100}{40}$

**Table 3.7 Standard of Assesment**

The table below states the classification of the scores

| No | Grade | Level | Range of Score |
|----|-------|-------|----------------|
| 1. | A | Excellent | 81-100 |
| 2. | B | Good | 61-80 |
| 3. | C | Fair | 41-60 |
| 4. | D | Poor | 0-40 |

Qualification of scores:

81-100 = Exceeds the standard

61-80 = Meets the standard

41-60 = Approaches the standard

0-40 = Does not meet the standard

### F. Data Analysis

Data analysis is used by researcher to analyze the collected data. the data is taken from student's score in pre-test and post-test. Then, to investigate the effectiveness of STAD towards writting skill in recount text. The collected data will be analyzed by using Paired Samples t-test in IBM SPSS Statistic 18.0. In this case, discussing the relationship between significant value and significant level. Significant values is the output of calculating hypothesis by Paired Samples t-test. Mean while, significant level refers to standard level of hypothesis, it is 0.050. The interpretation can be seen as below:

1. When the significant value < significant level, the alternative (Ha) is accepted and the null hypothesis (H0) is rejected. It means there is significant difference score on the student's writing achievement before and after being taught by using STAD.

2. When the significant value > significant level, the null hypothesis (H0) is accepted and the alternative (Ha) is rejected. It means there is no significant difference score on the student's writing achievement before and after being taught by using STAD.