

CHAPTER III

RESEARCH METHOD

In general, research methods discussed how the research is to be done. This chapter presented the researcher design, population sample and sampling, research instrument, validity and reliability testing, data collecting method, data analysis and hypotheses testing. All of them will be presented below.

A. Research Design

The design of this research was pre experimental research, which intended to find out the difference on students' reading comprehension in recount text between taught before and after using fix-up strategy. The experimental research is the only type of research that can test hypotheses to establish cause-and-effect relationship. In addition, the experimental research design is research in which the investigator determines whether the activity or materials make a difference in result for participant.

In this research, there were two variables; the independent variable (X) is a condition that influences other variable and the dependent variable (Y) is a condition that influenced by experimental. In the dependent variable before the manipulation of the independent X, it is usually a pre-test (before the experimental group is given treatment) and after the manipulation of the independent variable

X, it is usually a post-test (after the experimental group is given treatment), stated by Donald (2010). The two variables are:

1. Independent Variable (X): Fix-Up Strategy
2. Dependent Variable (Y): Reading comprehension skill of students

That is why in this research the researcher just takes one group of class and uses pre-test and post-test to see the result of the treatment.

There are three steps of this design, are:

1. Administering a pre-test and measuring the dependent variable.
2. Applying the treatment X to the experimental group.
3. Administering a post-test and measuring the dependent variable.

The One Group Pretest-Posttest Design as follows:

Table 3.1 The One Group Pretest-Posttest Design

Pretest	Independent	Posttest
Y_1	X	Y_2

Where:

Y_1 : Pre-test

Y_2 : Post-test

X : Treatment on the experimental group

This research intended to investigate the effectiveness of using Fix-Up Strategy towards reading comprehension skill at Second Grade of SMPN 1 Sumbergempol. 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 significant score when the students taught using Fix-Up Strategy.

B. Population, Sampling, and Sample

1. Population

Before the sample collected, the researcher had to determine the population. Population is object that has some qualities and characteristic that chosen to be cleared and to be concluded by the researcher Louis (2005). This research will conduct at SMPN 1 Sumbergempol. This research intended for the second grade students of SMPN 1 Sumbergempol in academic year 2018/2019.

In this study, the populations are all of eighth grade students of SMPN 1 Sumbergempol which consist of twelve classes (A, B, C, D, E, F, G, H, I, J, K, L). They are 337 students.

2. Sampling

Sampling is a process of selecting a number of the students who will be represent from the large group Ary (2010: 155). To determining the sample, the researcher used purposive sampling because, it does not choose randomly. Purposive sampling is a type of non-probability sampling where the researcher consciously selects subjects in a study to make sure that the elements will have certain characteristics concerned to the study.

3. Sample

Sample is a group of units selected from large group (population) to represent it Fraenkel and Wallen (2009: 90). 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. To take a sample the researcher use purposive sampling where the researcher choose VIII G class to be a sample that consist of 32 students, there are 17 male and 15 female at SMPN 1 Sumbergempol in academic year 2018/2019 and it will be the experimental and control class.

Table 3.2 Sample of Research

Sample of VIII G		
Male	Female	Total
17 Students	15 Students	32 Students

C. Research Instrument

In this study, the writer use test to get the scores of the pupils. Arikunto (1998: 130) states that; test is question, which used to measure the skills, knowledge, intelligence, achievement aptitude, and another capability of someone or a group of people. It is in line with what Brown (1994: 253) states that; a test has a purpose of measuring a test measures a person's ability or knowledge. Based on the theories it can be conclude that test is an assessment intended to measure

test-takers knowledge, skill, aptitude, physical fitness, or classification in many other topics.

There were two kinds of tests in this study, there were pre-test and post-test. Pre-test intended to measure students' reading achievement in recount text before the treatment given. While, post-test was to measure students' reading comprehension in recount text after the treatment given. The tests were in the form of subjective test reading recount text to measure students' reading comprehension 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 reading comprehension which given by the researcher.

3) Post-test

Post-test is done in order to know the changeable on students reading comprehension material between learning process with explanatory strategy and learning process through fix-up strategy.

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

1. Review Literature

The first steps to get valid and reliable test is reviewing literature concerning with the reading comprehension 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.

2. Drafting Instrument

After getting some information from reviewing literature, the researcher starts 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 Lecturer or English Teacher where master the reading 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.

4. Revising Draft

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

5. Conducting Try-Out

After revising the draft of the instrument, the researcher conducts try the instrument out to the eight grade students of SMPN 1 Sumbergempol at 08 March 2019. The tryout test has conducted to the VIII I class, which consist of 31 students, then the researcher find the validity, and reliability in this moment. Therefore, this multiple choice is valid by 21-question item checked by SBM SPSS v18.0 by using the form of *Product Moment Correlation*, and valid as a reliability analyzed using Alpha Cronbach. Then, the researcher took only 20 questions to make it valid as a pre-test and post-test.

6. 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.

7. 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 Reliability Testing

Validity defined as the extent to which a concept accurately measured in a quantitative study. For example, a survey designed to explore depression but which actually measures anxiety would not considered valid. The second measure of quality in a quantitative study is reliability, or the accuracy of an instrument. In

other words, the extent to which a research instrument consistently has the same results if it used in the same situation on repeated occasions. In this research, reading comprehension in recount text test used to measure the students' achievement in reading comprehension after they have taught by using fix-up strategy. Validity and reliability testing of this test was very important to know scores derived from instruments used in the research.

1. Validity

Fraenkel and Wallen (2005:113) states that a valid instrument is measures what it supposed to measure. Validity is the most important idea to consider when preparing or selecting an instrument for use. An instrument or a test can be called valid if it at least consists of the content and construct validity. Therefore, in this study, the researcher used content validity, construct validity and face validity to know the validity of test.

a. Face Validity

Face validity becomes one of the validity types that can established. Validity was measurement that showed the validity level of the instrument Arikunto (1998: 160). Face validity was hardly a scientific concept that very important. Test takers, teachers, education, authorities or employers may not accept a test, which does not have face validity. In this test, some aspects should considered from this test to make a good test based on the advisor lecturer and the teacher of second grade of junior high school. The writer used multiple

choices as a test to measure the students reading comprehension especially in form of recount text.

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 identify the recount text.

Table 3.3 Content Validity

Kompetensi Inti	<p>3. Memahami dan menerapkan pengetahuan (factual, konseptual, procedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata.</p> <p>4. Mengolah, menyaji dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain dalam sudut pandang/ teori.</p>
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Kompetensi Dasar	3.11. Teks Recount 3.11.1. Menangkap makna secara kontekstual terkait fungsi sosial, struktur teks, dan unsur kebahasaan teks <i>recount</i> lisan dan tulis, sangat pendek dan sederhana, terkait pengalaman pribadi di waktu lampau (<i>personal recount</i>)
Indikator Kompetensi	<ul style="list-style-type: none"> • Siswa mampu menerapkan struktur teks dan unsur kebahasaan tentang kejadian yang terjadi di waktu lampau. • Siswa mampu menyatakan dan menanyakan tindakan/ kejadian yang dilakukan/terjadi di waktu lampau. • Siswa mampu menangkap makna yang terdapat dalam teks recount yang disajikan secara tertulis. • Siswa mampu menangkap makna yang terdapat dalam teks recount yang disajikan secara lisan.
Teknik	Multiple choice
Instrument of Test	Pre-test Post-test
Alokasi Waktu	60 minutes

From the table above, the test has a content validity because there was appropriateness between the test and the indicator. It was appropriate with course objectives based on syllabus of the eighth grade of junior high school.

c. Construct Validity

According to Brown (2004: 45) mentioned that a construct is any theory, hypothesis, or model that attempts to explain observed phenomena in our universe of perception. Based on the theory above,

the researcher asked the students to answer the question about recount text based on the text to measure students' achievement in reading comprehension in the form of multiple choices to fulfill the construct of reading test and valid in term of construct validity. Therefore, the test has fulfilled the theory of reading in part of recount text. The test contains seven texts all of which are about recount text especially in the personal recount that contain the orientation, events and re-orientation and the test was appropriate for testing reading comprehension.

5. 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 statistics 18.0 to calculate the score during try out session. The researchers conducted try out to 27 students of VIII I at SMP Negeri 1 Sumbergempol on 6 March 2019. The criteria of reliability can be seen below:

3.4 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 tryout of the test that has been done on 6 March 2019, the researcher can find the result of the reliability of the test. The researcher use SPSS program to calculate it and the result of the test can be seen as follow:

Table 3.5 The Result of Reliability Testing by Using Cronbach's Alpha

Case Processing Summary

		N	%
Cases	Valid	27	100.0
	Excluded ^a	0	.0
	Total	27	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.721	21

From the table above, it showed that the Alpha value was 0.721, thus the value is included in *alpha cronbach* score 0.61-0.80, it can be concluded that the test was reliable.

E. Data Collecting Method

In collecting data for this research, the writer used reading test as the instrument, the kinds of test that given to the students are as follows:

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 a treatment, Creswell (2008:301). At the first meeting, the researcher gave a pre-test to the students. It conducted to know how far the students score in reading. This test is given in order to know how far the students ability in reading comprehension of recount text. The pre-test comprised 20 items, in the form of multiple choices items.

2. Post-test

The post-test is a measure on some attribute or characteristic that is assessed for participants after a treatment, Creswell (2008:301). The researcher conducted post-test after conducting the teaching through fix-up strategy. The post-test comprised also 20 items, in the form of multiple-choice items.

F. Data Analysis

In this research, the researcher used statistical data analysis technique to know the different score between the student's achievement in reading ability before and after being taught by using fix-up strategy. Data

analysis in research includes scoring technique, data analysis on the pre-test and post-test:

Analyzing data is a process of analyzing the acquired from the result of the research. The data which is needed in this research is students' comprehending about the text of the eighth grade students of SMPN 1 Sumbergempol in the academic year 2018/2019 before and after taught by using Fix-Up Strategy. To analyze the data, the writer will used statistically calculation of the test to determine the final calculation, which it will be done to measure the last score of the research test.

Ary (2010:32) states that analyzing the data is the data collected in research must be analyzed. Quantitative data were usually in the form of numbers that the researcher analyzes using various statistical procedures. Even verbal data, such as compositions written by high school students, would be converted through the scoring process to a numerical form. The analysis of the numerical data in quantitative research provided evidence that supports or fails to support the hypothesis of the research. In this research, the researcher used a quantitative data analysis technique by using statistical method.

Statistical method was used to find the significant difference on the students' score before and after being taught by using fix-up strategy. To know the effectiveness of fix-up strategy in the students reading comprehension, the data was collected from students' score in pre-test and post-test. Then the data, which was gained from those two tests, are analyzed by using t-test for dependent

sample, this test is also known as the correlated, non-independent, or Paired-Sample-t test.

The measure to be analyzed by the dependent t test was the mean difference between the paired scores. Pre-test and posttest scores of the same individuals are an example of paired score (Ary, 2010:176). Paired Sample t-Test was used when the samples were pair or correlate where each individual results in two data. In other word, the scores for pre-test and post-test were correlated because those scores were resulted by same individuals. To know the significant differences researcher used SPSS 18.0 version.