CHAPTER III
RESEARCH METHOD

This chapter describes about the research method that used in conducting the research. In this case the researcher divided the research method into six parts there are research design, population and sample, research instrument, validity and realibility testing, normality and homogenity testing, data collection method, and data analysis.

A. Research Design

Research design is all needed process in planning and conducting the research. It is important ways to achieve scientific truth for a research. Therefore, to get the systematically and logically the researcher have to follow the procedure of the research design that have been conducted.

This research is conducted in quantitative approach. According to Ary (2002: 22), quantitative approach uses objective measurement and stastical analysis of numeric data to understand and explain phenomena. This research is conducted in pre-experimental design using quantitative approach with one group pretest-posttest design. This research uses pre-experimental research design because the researcher can not determine the homogenity of students' reading comprehension at MTs Sunan Ampel Ringinrejo Kediri. Therefore in this research the researcher just takes one group or class to use pre test and post test design to know the result of treatment. The researcher use one group pre-test and post-test. One single group was measured or observed before and after being exposed to a treatment. Pre-experimental research involved administering pre-test to dependent variable,

appliying the experimental treatment to the subjects, and administering the posttest. The result of the treatment is comparing in the pretest and posttest score. The design of this research can be seen at the table below:

Table 3.1 The Design of One-Group Pretest Posttest

Pre-test	Independent variable	Post-test
YI	X	Y2

The one group pre-test post-test design involves three steps:

1. Administering a pre-test to measure the independent variable

2. Applying an experimental treatment X to the subject

3. Administering post-test again measuring independent variable

The procedure of experimental research that use on group pre-test post-test design applied in this study are:

1. Administering a pretest with a purpose of measuring reading comprehension at eighth grade students of MTs Sunan Ampel Ringinrejo Kediri.

2. Applying the experimental teaching reading by using Read, Encode, Annotate, and Ponder (REAP) strategy as the strategy to the subjects (students of eighth at MTs Sunan Ampel Ringinrejo Kediri).

3. Administering a post-test with a purpose of measuring reading comprehension in eighth grade in MTs Sunan Ampel Ringinrejo Kediri.

There are procedures of conducted the research:

1. Introduction the steps or research

a. Firstly, consultation with vice master of curriculum of MTs Sunan Ampel Ringinrejo Kediri and the English teacher. Consultation with Mr. Nurrahman, S.Pd. as vice master of curriculum and the English teacher is Mr. Joko Lelono, S.Pd.I. about the time of conducting research, sample and population as the subject of the research and discussing about the sample that would be subject of the research and the suitable item writing card question

b. Making research instrument, test, to measure the effectiveness of REAP strategy

c. Arranging lesson plan

d. Conducting validity and reliability of test

e. Analyzing the result of the test to know validity and reliability of instrument which is used as research instrument.

2. The implementations step of research

a. Pretest

The pretest was given to the students before researcher doing treatment. The purpose of it is to get score of the students before doing treatment. In pretest researcher give a test to the students consist of 20 multiple choice questions.

b. Treatment

1. The researcher divided the students into groups that consist of 4-5 students.

2. Then researcher gave the narrative text to the students in group as the material.

3. After that, the researcher asked students to read aloud and understand the text.

4. Next, the students picked up the gist from the text they have read by using their own words or write down the difficult vocabularies.

5. In annotate step the students should write down their main idea about the content of narrative text.

6. Then the students should ponder or make the consideration about the ideas by thinking, talking, and discussing with the other members of group then make one perfect summarize about the narrative text.

7. The researcher asked students to present their result in front of the class one by one of groups.

c. Posttest

Post test was given to students after giving the treatment. The purpose of doing posttest is to get reading score of the students after they are doing the treatment.

B. Population and Sample

1. Population

According to Ary (2002: 163) population is all members of anywelldefined class of people, events or subject. The population in thi

reseach is all of students from eighth grade in MTs Sunan Ampe Ringirejo Kediri from A class until C class which consist of 57 studens

2. Sample

Selected of the sample is very important step in conducting a research stud. Sample is a part of population which will be analyzed. Sample takn fom the population should be representative. The sample in this rearch is students at eighth B class that consist of 18 students; 8 male a 10 female. In this study researcher used purposive sampling techniqu These samples were taken by taking the subject is not based on strata, random, region but based on their specific purpose

In this research, researcher chooses eighth B class as the sample of this research based the characteristics. The researcher chooses eighth B class because according to the English teacher. Then, based on the English teacher the characteristic of B class is students tend to be passive in learning English especially for reading activity.

C. Research Instrument

Research instrument is tool of collecting data. Instrument is a tool used to measured natural phenomena or social will be observed. The instrument of this research is test. Test is a method to gain the data by giving some questions to the respondent. The test was developed from K13 and syllabus which was used by MTs Sunan Ampel Ringinrejo Kediri and seeing the standard competence. After knowing the standard competence, researcher developed some indicators that must be reached by the students. From those indicators, researcher developed the test that consists of two kind test; pretest and post test.

The test were in the form of objective test that are multiple choices. The researcher requires 20 questions which is 20 questions of multiple choices. The score the objective tests the researcher treats them without any differences. Means, there was only one correct answer for each items. The test is used to measure the process that students making after learn something in achieving objects.

D. Validity and Reliability Testing

1. Validity

The result of research called valid if there is the similarity between gotten data and actually happened to research object. Valid instrument is measurement's tool uses to get data. There are four types of validity; content validity, criterion validity, construct validity, face validity. In this research, the researcher analyzed the test from content validity and face validity.

a. Content validity

Content validity is the degree to which a test measures what is supposed to measure (Gay, 1992: 155). In this study the test had content validity because this test based on the course objectives in the syllabus of second grade of MTs Sunan Ampel Ringinrejo Kediri. This content validity can be showed as follow:

Table 3.2 Content Validity

No.	Competence Indicator	Test Item
1.	Students are able to determine the information of the text	4, 5, 7, 9, 10, 11, 12, 15, 16, 19

	(literal comprehension)	
2.	Students are able to determine the main idea	14
3.	Students are able to determine the implicit meaning of the text / purpose of the text (inferential comprehension)	1, 2, 3, 6, 8, 13, 17, 18, 20

b. Face Validity

Face validity is sometimes used in describing tests. Basically, face validity refers to the degree to which a test visible to measure what it purpose to measure (Gay, 1992:156). In this study the researcher wants to know the students' score in reading after given treatment. Therefore the tests were in the form of objectives test.

2. Reliability

The way to know a good test is by reliability. Ary (2002:250) states that reliability is concerned with the effect of such a random errors of measurement on the consistency of the scores. Reliability is the consistency of the measurement, or degree to which an instrument measures the same way each time it is used under the same condition with the same sbject.

To masure that reliability of test item, the researcher firstly gained tryout to another subject of sample will be used in this reseach. Tryout implemented to 17 students of VIII A at MTs Sunan Ampel Ringinrejo Kediri. It is to know whether the instrument is suitable or not. In this research, the researcher used SPSS 18.0 for windows to know the

reliability of test instruments. According to Sugiyono (2015:231) the value of cronbach's alpha can beinterpreted as follow:

Table 3.3 Cronbrach's Alpha interpretation based on Sugiyono

Cronbach's Alpha	Interpretation
0,00 – 0,199	Less Reliable
0,20 – 0,399	Rather Reliable
0,40 – 0,599	Quite Reliable
0,60 – 0,799	Reliable
0,80 - 1,00	Very Reliable

From the answer of students' response in try out test, the researcher then analyze using reliability test based on Cronbach's Alpha. The result of reliability test was :

Table 3.4 Reliability Testing

Reliability Statistics

Cronbach's Alpha	N of Items
.852	17

From the computation in SPSS, the reliability value of multiple choice was 0,852. Based on the Cronbach scale on the Cronbach value between 0,80-100 so it can be said that the instrument was very reliable.

E. **Normality and Homogenity Testing**

Normality test are used to determine whether a data set is well-modeled by a normal distribution or not, or to compute how likely an underlying random variable is to be normally distributed. Normality test is intended to show that the sample data come from a normally distributed population.

To know the normality the researcher used *Kolmogorov-Smirnove test* by using SPSS 18.0. *Kolmogorov-Smirnove D test* is a test of normality for large samples. If the result are significant, then the null hypothesis of no difference between the observed data distribution and normal distribution is rejected. Simply put, a value less than 0.05 indicates that the data are non-normal. The result can be seen in the table below:

Table 3.5 Normality Test

One-Sample Kolmogorov-Smirnov Test

		Pretest	Posttest
N		18	18
Normal Parameters[a,b]	Mean	75.28	85.28
	Std. Deviation	17.276	16.040
Most Extreme Differences	Absolute	.271	.215
	Positive	.173	.179
	Negative	-.271	-.215
Kolmogorov-Smirnov Z		1.151	.913
Asymp. Sig. (2-tailed)		.141	.374

a. Test distribution is Normal.

b. Calculated from data.

The result of normality test show that the test is normal, because the significant of pretest is 0.141 and the significant of posttest is 0.374 more than 0.05.

Homogenity test is intended to show that two or more groups of data samples from population having the same variance. To know the homogenity the researcher used *One way anova* by using SPSS. The result can be seen in the table below.

Table 3.6 Homogenity Test

Test of Homogeneity of Variances

score1

Levene Statistic	df1	df2	Sig.
.001	1	34	.982

Based on the result, the test is homogen because the significant show 0.982 it's more than 0.05.

F. Data Collection Method

In this research the data collection method is administering test that consist of pretest and posttest. The procedures of administering test wa clarified as follow:

1. Pre test

As the first meeting, the researcher gave a pre test to the students. It was conducted to know students' score in reading comprehension before being taught the treatment. The test is given in order to know how far the students ability in reading comprehension of narrative text. The pre test consist of 20 items in form of multiple choices.

2. Post test

The post test is given to the students after conducting the treatment of using Read, Encode, Annotate, and Ponder (REAP) to increase students' reading comprehension. Similarly to pre test the post test also consist of 20 items in form of multiple choices.

G. Data Analysis

In this research the researcher uses a quantitative data analysis technique. The quantitative data of the research is analyzed by using stastical method. The data

collected was processed by comparing with the first data (pre-test) and the second data (post-test) to see whether there will be significant difference after give by treatment.

The researcher uses the application SPSS Statistics 18.0 for windows to analyzed Paired-Sample-T-test. There are some steps in analyzing data in SPSS 18.0. Firstly, the researcher input the data in SPSS Statistics to know the frequency of pre-test and post test score. After that, by using this application the researcher know the mean, median, and mode. Then, from the compare of the data the researcher know the pair sample statistics and finally the researcher find pair sample correlation from two kind of the test. The researcher can be analysis about the result of significant two tail.

After the researcher knows the result of significant two tail from SPSS Statistics, the researcher can give the conclusion about the effectiveness or not about using Read, Encode, Annotate, and Ponder (REAP) in reading comprehension ability of the eighth grade students at MTs Sunan Ampel Ringinrejo Kediri. This technique is used to find the significant different on the student reading comprehension using REAP if the significant two tail is bigger than the level of significant (0,05), the alternative hypothesis (H_a) is accepted. It means that there is different score of students' achievement before and after taught by using REAP. On the other hand, if the significant two tail is smaller than the level of significant (0,05) the null hypothesis(H_o) is rejected. Indicating that there is no different score of students achievement before and after taught by using REAP.