

CHAPTER III

RESEARCH METHOD

The research method is a method that will be used in data collection in the field. The research method used by researchers is a quasi-experimental method (Quasi Experiment). In this chapter the researcher will explain the thesis of research method. It needs research design, population, sample, and sampling technique, variables of the research, research instrument, treatment procedure, normality and homogeneity, technique of collecting data, and data analysis.

A. Research Design

The research design is the entire process carried out in conducting research. It is important to get as much information as possible that can support the results of the study. This research was included in the experimental research design. This research can classified as a Pre-experimental research design because it has little or nothing control of foreign variables. This design only involves one group as the research subject and there are three steps in taking this data, including pretest, its application in class, and posttest.

First, the teacher will give pretest before experimental use is applied in class. Then, give treatment and after treatment finished, the teacher will give a post-test to find out the results. The design of this research can see in the table below:

Table 3.1 The Research Design

Group	Pre-test	Treatment	Post-test
Experimental Group	Y ₁	X ₁	Y ₂
Control Group	Y ₃	-	Y ₄

(Sugiyono, 2015 : 116)

Note :Y₁ : Pre-test of experimental groupY₂ : Post-test of experimental groupX₁ : Treatment using reciprocal teachingY₃ : Pre-test of control groupY₄ : Post-test of control groupX₂ : Treatment of control group

There are several procedures for pre-experimental research that need attention, including:

1. Manage pretest with the aim of measuring speaking skills second graders at SMAN 6 Kota Kediri before being taught together using reciprocal teaching strategies.
2. Carry out experimental teaching of speaking by using reciprocal teaching completion techniques for research subjects.

3. Manage posttests with the aim of measuring speaking skills eleventh grade in SMAN 6 Kota Kediri after using a reciprocal teaching strategy in it is completion.

Based on the explanation above, the effectiveness of this technique will be known after it is known score differences between students taught before and after applying reciprocal teaching strategy. The difference score will be identified from the test results the statistical value compares the pre-test and post-test scores. This study was intended to determine the effectiveness of using reciprocal teaching strategies for students' speaking skills in SMAN 6 Kota Kediri.

B. Population, Sample, and Sampling

1) Population

Population is the whole subject which is used as an important focus on research. Population is the source data and information that helps or a subject, either human, values, test, objects or events that can be used as evidence in research. Noor (2011: 147) states that population that is all elements / members of the area that is used as the main objective of the study or is the whole object to be studied. The population in this study are:

- a. Students' speaking ability in class XI of SMAN 6 Kediri;
- b. The ability of grade XI students of SMAN 6 Kediri in English.

2) Sample

In determining the sample, researchers will use certain sampling techniques from the existing population. Sampling is a way of taking data from a group of people to represent a large group. In applying reciprocal teaching method the researcher used purposive sampling in choosing a sample group. In this research, the researcher took two classes as the sample. One class would be treated as experimental group and other as control group. The experimental group class XI MIPA 3 consists of 34 students and the control group class XI MIPA 2 consists of 35 students.

Table 3.2 The Sample of the Research

No	Class	Group	Number of the Students
1.	XI MIPA 3	Experiment	34
2.	XI MIPA 2	Control	35
Total			69

3) Sampling technique

Sampling can be interpreted as a technique to retrieve research data according to Sugiyono (2016). Sampling also have function as a way of selecting each individuals to be sampled that represent the population. Sampling is the process of selecting each individual for the sample research and the individual will represent a large group. The purpose of sampling is to get information about population, there are very few studies conducted which cover

the population (Gay,1992: 123). Based on the explanation that has been describe researcher will use a purposive sample for data results. Purposive sampling is the drawing of sample that is based that is based on specific purpose by considering the limited time and interested research.

C. Variable of the Research

In this study, there are two variables, namely independent variables and dependent variables, they are as follows:

1. Independent Variable

According to Sugiyono (2010:4), independent variable is always named stimulus and antecedent variable. Independent variable is a variable that cause a dependent variable. The independent variable of this research is teaching speaking using reciprocal teaching, which is symbolized by 'X'.

2. Dependent Variable

Dependent variable is a measure of the effect of the independent variable. Dependent variable is called output, criteria, consequent variable (Sugiyono, 2010:4). The dependent variable of this research is the students' speaking ability, which is symbolized by 'Y'.

D. Research Instrument

The instrument is needed to support data during teaching and learning in class. Research instrument is one of the important things in research. The instrument that is carried out according to the procedure will be useful as data accuracy and can show that the researcher is successful in this study. Achievement

test is test used to measure the extent to which students' abilities after learning material that has been discussed during the teaching and learning process. To collect data, researchers will give students two tests, namely pre-test and post-test. Then, researchers get their scores from Grammar, Vocabulary, Understanding, Fluency. These test is pre-test and post-test. Pre-test data will be taken before researchers conduct experimental studies or after teaching by applying the reciprocal teaching method. The pre-test is conducted in January 2020. The second is the Post Test value, this value will be taken after the researcher used experimental studies or after teaching by applying the reciprocal teaching method. Post-test will be carried out in February 2020.

This test by using speaking assessment rubric according to Brown (2004, pg. 172-174). There are six categories in the oral proficiency scoring that range from poor (1) to excellent (4). The following are the numerical ratings that are used to describe each category:

Table 3.3 The Scoring Rubric for Speaking

No	Component of Speaking	Numeral Rating			
		1	2	3	4
1	Grammar	Errors in grammar are frequent, but speaker can be understood by a native speaker used to dealing with	Can usually handle elementary constructions quite accurately but does not have confident	Control of grammar is good. Able to speak the language with sufficient structural accuracy to participate effectively in	Able to use the language accurately on all levels normally pertinent to professional needs. Errors in grammar are quite rare.

		foreigners attempting to speak his language.	control of the grammar.	most formal and informal conversations on practical, social, and professional topics.	
2	Vocabulary	Speaking vocabulary inadequate to express anything but the most elementary needs.	Has speaking vocabulary sufficient to express himself simply with some circumlocutions.	Able to speak the language with sufficient vocabulary to participate effectively in most formal and informal conversations on practical, social, and professional topics. Vocabulary is broad enough that he rarely has to grope for a word.	Can understand and participate in any conversation within the range of his experience with a high degree of precision of vocabulary.
3	Comprehension	Within the scope of his very limited language experience can understand simple questions and statements if delivered with slowed speech, repetition, or paraphrase.	Can get the gist of most conversations of non-technical subjects (i.e., topics that require no specialized knowledge).	Comprehension is quite complete at a normal rate of speech.	Can understand and participate in conversation within the range of his experience.

4	Fluency	No specific fluency description. Refer to other four language areas for implied level of fluency.	Can handle with confidence but not with facility most social situations, including introductions and casual conversations about current events, as well as work, family, and autobiographical information	Can discuss particular interest of competence with reasonable ease. Rarely has to grope for words.	Able to use the language fluently on all levels normally pertinent to professional needs. Can participate in any conversation within the range of this experience with a high degree of fluency.
5	Pronunciation	Errors in pronunciation are frequent but can be understood by a native speaker used to dealing with foreigners attempting to speak his language.	Accent is intelligible though often quite faulty.	Errors never interfere with understanding and rarely disturb the native speaker. Accent may be obviously foreign.	Errors in pronunciation are quite rare.

E. Treatment Procedure

This research uses a quasi-experimental design including an experimental group and a control group consisting of pre-test and post-test. In class activities there are three stages including pre-teaching, teaching activity, and post-teaching. Based on that, the pre-teaching phase of the teacher gives a pre-test exam to determine the students' initial abilities, the teaching activity stage of the teacher begins to apply methods that make it easier for students to understand the material, and the post-teaching teacher provides a post-test exam to determine the results of student development after the method applied. There are 2 classes, namely an experimental group that uses the Reciprocal teaching method and a control group uses the Teacher centered method. Following are the teaching procedures from the Reciprocal teaching and Teacher centered methods, including:

Table 3.4 Teaching Procedure

Experimental Group (Reciprocal Teaching Strategy) Palincsar, A.S., & Brown, A.L. (1984)	Control Group (Teacher-Centered Learning)
<p>➤ Meeting 1 :</p> <p>1. Preliminary Activity</p> <ul style="list-style-type: none"> - Prepare the students to follow the learning process, such as praying, greeting and check the attendance of students. 	<p>➤ Meeting 1 :</p> <p>1. Preliminary Activity</p> <ul style="list-style-type: none"> - Prepare the students to follow the learning process, such as praying, greeting and check the attendance of students.

<ul style="list-style-type: none"> - Motivate students contextually according to the benefits and application of learning materials in daily life, by providing examples of explanation texts. <p>2. Main Activity</p> <ul style="list-style-type: none"> - The teacher gives some topics about explanation text on the paper or using power point. - The teacher asks the oral practice about the topics given (Pre-test) <p>3. Closing</p> <ul style="list-style-type: none"> - Provide feedback on the learning process: well class, you have done a very good job today. How do you feel during the lesson. - Deliver a plan of learning activities for next meeting. 	<ul style="list-style-type: none"> - Motivate students contextually according to the benefits and application of learning materials in daily life, by providing examples of explanation texts. <p>2. Main Activity</p> <ul style="list-style-type: none"> - The teacher gives some topics about explanations text using power point. - The teacher asks the make an oral practice about explanation text using power point. - The teacher give explanation about explanation test and example of explanation text <p>3. Closing</p> <ul style="list-style-type: none"> - Provide feedback on the learning process: well class, you have done a very good job today. How do you feel during the lesson. - Deliver a plan of learning activities for next meeting
<p>➤ Meeting 2 :</p> <p>1. Preliminary Activity</p> <ul style="list-style-type: none"> - Prepare the students to follow the learning process, 	<p>➤ Meeting 2 :</p> <p>1. Preliminary Activity</p> <ul style="list-style-type: none"> - Prepare the students to follow the learning process,

<p>such as praying, greeting and check the attendance of students.</p> <ul style="list-style-type: none"> - Motivate students contextually according to the benefits and application of learning materials in daily life, by providing examples of explanation texts. <p>2. Main Activity</p> <ul style="list-style-type: none"> - The teacher creates groups of 4 to 5 students to discuss the material provided by the teacher. - The groups predict the title that the teacher given. And then clarify the problem and give solutions about the problem on the title given. - The teacher appoints one students as a representative of the group to explain the result of the discussion in front of the other group. - The teacher ask the other member of group to give question or suggestion when their friend presentation. 	<p>such as praying, greeting and check the attendance of students.</p> <ul style="list-style-type: none"> - Motivate students contextually according to the benefits and application of learning materials in daily life, by providing examples of explanation texts. <p>2. Main Activity</p> <ul style="list-style-type: none"> - The teacher shows the example of explanation text. - The teacher gives some questions related to short explanation text. - The teacher gives a piece of paper consist of story. - The teacher asks the students to work in pair to discuss about the information of the text. - And then, the student presentation in front of the class and the other friend give question. <p>3. Closing</p> <ul style="list-style-type: none"> - The teacher reviews the activity and the materials
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<ul style="list-style-type: none"> - And then, the other of group make a summarize after their friend presentation. <p>3. Closing</p> <ul style="list-style-type: none"> - The Teacher reviews the activity and the materials that is learned along the class meeting - The teacher open the question if the students don't understand about the material today. - The teacher closes the class with greeting. 	<p>that is learned along the class meeting.</p> <ul style="list-style-type: none"> - The teacher open the question if the students don't understand about the material today. - The teacher closes the class with greeting.
<p>➤ Meeting 3 :</p> <p>1. Preliminary Activity</p> <ul style="list-style-type: none"> - Prepare the students to follow the learning process, such as praying, greeting, and check the attendance of students. <p>2. Main Activity</p> <ul style="list-style-type: none"> - The teacher gives some topics about explanations text on the paper or power point. - The teacher asks the students to make oral practice by self. 	<p>➤ Meeting 3 :</p> <p>1. Preliminary Activity</p> <ul style="list-style-type: none"> - Prepare the students to follow the learning process, such as praying, greeting, and check the attendance of students. <p>2. Main Activity</p> <ul style="list-style-type: none"> - The teacher gives some topics about explanation text on the paper or power point. - The teacher asks the students to make oral practice by self.

<ul style="list-style-type: none"> - Then, the students practice in front of the teacher (Post-test). <p>3. Closing</p> <ul style="list-style-type: none"> - The teacher reviews the activity and the material that is learned along the class meeting. - The teacher closes the class with greeting. 	<ul style="list-style-type: none"> - Then, the students practice in front of the class (Post-Test). <p>3. Closing</p> <ul style="list-style-type: none"> - The teacher reviews the activity and material that is learned along the class meeting. - The teacher closes the class with greeting.
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F. Normality and Homogeneity Testing

1. Normality

Normality test is a way to determine whether all data is well formulated with a normal distribution or not or to calculate how likely a random variable must have a normal distribution. In this study, to test normality analyzed using SPSS. To know the normality of learning outcomes, then researchers used One-sample kolmogorov-Smirnov. In normal testing has the following hypothesis:

- H₀: Data is in normal distribution. If the importance > 0.05 , means that the data is normally distributed
- H_a: Data not in normal distribution. If the significance value < 0.05 , it means that the distribution data is not a normal distribution.

2. Homogeneity

Homogeneity testing is the researcher's activity to find out the presence of homogeneous variants or the absence of homogeneous variants in the data obtained during the study. This homogeneity testing calculation used SPSS Statistics 25.0 which is a Test for Homogeneity of Variance with values significance (α) = 0.05. Before a researcher conducts homogeneity testing, the researcher must determining hypotheses in this homogeneity includes:

- a. H0: If the significance value > 0.05 , it means that the results of the data are homogeneous.
- b. H1: If the significance value < 0.05 , it means that the results of the data are not homogeneous.

G. Technique of Collecting the Data

The method of collecting data is really needed by a researcher because with this the researcher will get research data. The method used to collect data in this study is the administration test. Test is an important instrument used by researchers to find out the results of research. While the instrument is the device used researchers to collect data. According to Zarkasyi (2015) there are two types of instruments that can be used when research are test instruments and non-test instruments. The instrument test is used to measure the level of achievement students have achieved during the learning process and non-tests. The instrument is used to measure student attitudes when studying in classrooms. In addition, according to Ary et al (2006), a test is a tool or procedure used by a researcher to

find out or measure a particular test in accordance with procedures and stages that are careful.

In this research, researchers used the oral speaking test as a way to find out the scores obtained when speaking students. The process carried out by researchers is providing worksheets to students and then the researchers record the results of tests that have been given. Researcher use this a kind of test because the test is most suitable for getting students' lectures. The score related to the topic explains the purpose of the reading being discussed in applying the method. In order to get good results the researchers used two types of tests namely pre-test and post-test.

H. Technique of Analyzing the Data

Two variables investigated in this study are reciprocal teaching techniques and student scores in speaking skills. In this study, a quantitative data analysis technique will be used by researchers to determine students' speaking skills before and after the application of reciprocal teaching techniques. After the researcher collect the data, the data analyst by using ANCOVA and SPSS. According to Abbas (2015:1) Analysis of Covariance (ANCOVA) is a more sophisticated method of analysis of variance. Analysis of Covariance is used to compare response between two or more groups (categorical variables) adjusted for a quantitative variable (covariate), thought to influence the outcome (dependent).

(Donald et al, 2010) ANCOVA is a statistical technique used to control the effect of independent variable that connected with the dependent variable. In order to know and analyze the differences between pre-test and post-test, the researcher used analysis of covariance. The researcher uses ANCOVA because the sample is not randomly. In this data analysis, the researcher use SPSS 25 to analyze the data.