

CHAPTER III

RESEARCH METHODOLOGY

This chapter discusses about the method used in this research. This chapter introduces the methodology to find the answer of research question which were discussed in the first chapter.

A. Research Method

This research refers to the quantitative research approach. According to (Creswell, 2008) quantitative research is means for testing objective theories by examining the relationships among variables. These vaeiables, in turn , can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedure.

B. Research Design

This research design is quasi experimental, the researcher will conduct an experimental group and control group. An experimental group seeks to determine if a specific treatment influence an outcome. The researcher assesses this by providing a specific treatment to one group and withholding it from another and then determing how both group scored on an outcome (Creswell, 2014).

C. Population and Sample

1. Population

According to Arikunto (2010:186), population is the entire group entities or persons to whom the results of a study are intended to apply. The population in this research is the students of SMPN 1 Karawang Barat grade

VIII which consist of 10 classes. This research there were two class of students' who took part in the research, control class and experimental class. Each class consist of 24 people.

2. Samples

According to Ary, " Sample is a group selected from population for observation in a study. The researcher takes a two class to be a sample. The researcher used cluster random sampling for it. According to Saifuddin Ahmed, in cluster sampling, cluster is a group population elements, constitutes the sampling unit, instead of a single element.

D. Instruments

The instrument used in this research to collect the data ware test (pretest, posttest), observation and questionnaire.

1. Test

a. Pretest

Pretest was given to the students before the treatment to both samples. The researcher gives oral test to student. Students are asked to introduce themselves in front of class and share their interesting experiences.

b. Posttest

Post-test was given to the students as a sample after the researcher gave a treatment to both samples. The researcher gives assignments to students to describe objects, people, animals, or something they like and then share in front of class.

2. Observation

Observation are made for know the situation of students activity and learning process and some of the problems associated with it student speaking skill, and the writer using observation list.

3. Questionnaire

A questionnaire is defined as a document containing questions and other types of items designed to solicit information appropriate to analysis (Babbie, 1990:377). The use of the questionnaire or a set of questions is a similar process in the research. The research questions are firmly constructed to receive answers related to the chosen variables for analysis. The questionnaire was given to both experimental and control groups. Question naire used to answer the third of research question.

E. Data Collection Technique and Analysis

1. Data Collection Technique

This research requires techniques that can be used to collect data. Data collection techniques that will be carried out this research are :

a. Observation

Observation are made for know the situation of students activity and learning process and some of the problems associated with it student speaking skill. The items observed in the experimental class were about how students' enthusiasm at the opening, students' attention to the teacher at the time of delivery of the material, activeness of students in asking and answering questions, students' skills in

arguing or criticizing, student interaction when group discussions, order when following the process learning, the appearance of student work in groups, and work on evaluating learning outcomes can be seen in table 3.1

Activities	Implementation		Comments
	Yes	No	
I. Opening			
• The teacher greets the students. • The teacher checks the students' condition and the attendance • The lesson reviewed material and looked ahead to new material. • The prepared goals/objectives are apparent. • The teacher is well prepared and well-organized in class.			
II. Main Activities			
• The students are ready to learn the materials. • The teacher introduces a model of a spoken recount text • The teacher explains the model of the text. • The students with the teachers' guidance investigate the structural pattern of the model. • The students with the teachers' guidance investigate the language features of the model. • The teacher gives chances to the students to ask questions. • The students deliver questions to the teacher. • The teacher give some speaking tasks to the students. • The students are motivated in doing tasks. • The teacher monitors and checks students' works. • The students use dictionary to help them in finding vocabulary.			
III. Closing			

• Teacher and students reflect to today's lesson. • Teacher gives feedback to students. • Teacher and students summarize materials learned. • Teacher gives further guidance to students. • Teacher says goodbye to students.			
IV. Class Situation			
• The students have enthusiasm or motivation during the teaching process. • The students actively take parts in each class activity. • The time allocation is appropriate. • The media used by the teacher are sufficient in the teaching and learning process. • The teacher's instructions are clear.			

b. Questionnaire

A questionnaire is defined as a document containing questions and other types of items designed to solicit information appropriate to analysis (Babbie, 1990:377). The questionnaire was given to both experimental and control groups.

Table 3.2 Questionnaire

No.	Speaking Problems (<i>Masalah berbicara</i>)	YES (<i>ya</i>)	NO (<i>tidak</i>)
1	You are worried about making mistakes. (<i>Kamu khawatir akan membuat kesalahan</i>)		
2	You don't know how to pronounce it?. (<i>Kamu tidak tahu cara pengucapannya</i>)		

3	You cannot think of anything to say or vocabulary limited). (Kamu tidak memiliki sesuatu untuk dikatakan atau kosakata terbatas)		
4	Do you have difficulty in determining grammar ? . (apakah kamu kesulitan dalam menentukan grammar)		
5	You speak very little or not at all. (Kamu berbicara sedikit atau tidak sama sekali)		
6	You use Indonesia language. (Kamu menggunakan bahasa Indonesia)		
7	You are shy. (Kamu merasa malu)		
8	Didn't have motivation to speak english. (tidak mempunyai motivasi untuk berbicara bahasa inggris)		
9	Students Never Practice speaking English		
10	Student ever use innovative method to improve their speaking skill		

c. Pretest

The test was done before the researcher taught the students by material created teacher. It was aimed at knowing the students skill in speaking.

d. Posttest

Post-test was given to the students as a sample after the researcher gave a treatment to both samples. The researcher gives assignments to students to describe objects, people, animals, or something they

like and then share in front of class.

e. Speaking Assessment

Table 3.3 Scoring Rubric of Speaking

ASPECT	SCORE	EXPLANATION
Pronunciation	1	Pronunciation frequently unintelligible
	2	Frequent errors and a very heavy accent make understanding difficult
	3	Foreign accent requires concentrated listening and pronunciation lead to occasional misunderstanding
	4	Marked as foreign accent and occasional mispronunciation which do not interfere with understanding
	5	No mispronunciation
Fluency	1	Pronunciation frequently unintelligible
	2	Frequent errors and a very heavy accent make understanding difficult
	3	Foreign accent requires concentrated listening and pronunciation lead to occasional misunderstanding
	4	Marked as foreign accent and occasional mispronunciation which do not interfere with understanding
	5	No mispronunciation
Comprehension	1	Understand to little for the simplest type of conversation
	2	Understand only very simple speech on common social topic, requires constant repetition and rephrasing
	3	Understand careful, but may require considerable repetition and rephrasing

	4	Understand quite well, but require occasional repetition and rephrasing
	5	Good Comprehension
Grammar	1	Grammar almost entirely inaccurate
	2	Constant error showing control of very few major patterns and frequently preventing communication
	3	Frequent error showing some major patterns uncontrolled and causing occasional irritation and misunderstanding
	4	Occasional error imperfect control of some patterns but no weaknesses that causes misunderstanding
	5	Few errors, with no patterns of failure
Vocabulary	1	vocabulary inadequate for even the simplest conversation
	2	vocabulary limited to basic personal and survival areas (time, family, food)
	3	choice of words sometimes inaccurate, limitations of vocabulary prevent discussion
	4	Professional vocabulary adequate to discuss special interest
	5	Professional vocabulary broad and precise

Adapted from Brown

(2003)

f. The process of treatment

The test was done before the researcher taught the students by material created teacher. The researcher did treatment in 4 meetings.

- 1) The first meeting, students learn about definition and social function of narrative text.
- 2) The second meeting, students learn about generics structure of narrative text, language features in narrative text, there are past tense and adverb of time, and
- 3) The third meeting, reseaecher gives to students. Studentsare instructed to searching the second of the verb and how to prounounce it and then students must trasnslate of the text.
- 4) The last meeting, the reseaecher discusses the assignment and students practice in front of the class.

2. Data Analysis

a. Validity

Validity is about interferences, claims, or decision that we make based on intstrument score, not the instrument itself (Kane2006, 2013; Meissick 1989;Zumbo 2007,2009)

b. Reliability

This research the researcher using inter rater reliability. Inter rater reliability refers to a comparison of score assigned to the same target (either patient or other stimuli) by two or more raters (Marshall et al.1994)

3. Research Data Analysis

a) Pretest Analysis

Pretest analysis was conducted first before the research. Analysis of pretest experimental class and controls class taken at the beginning of the meeting. This analysis aims to prove that the average pretest between the experimental class and control class has no significant difference or it can be said that the two groups are from the same starting point. The things analyzed at this stage are :

(1) Normality Test

This normality test was conducted to determine the initial condition data taken from the pretest values of the experimental class and control class whether it was normally distributed or not. The normality test in this research uses SPSS version 15 with the *Shapiro-Wilk* test because the number of samples for each class is more than 33. The hypothesis in this test is :

Ho : data is normally distributed

Rules of decision making :

If Sig > 0,05, then Ho is accepted, means that the data is normally distributed,

If Sig < 0,05, then Ho is rejected, which means the data is not normally distributed.

(2) Homogeneity Test

Homogeneity test was conducted to determine whether the variance of pretest data was homogeneous or not. Calculation of homogeneity test is carried out by Levene Test by using the SPSS program.

The hypothesis is as follows :

$H_0 : m_1 = m_2$ (variance homogeneous)

With criteria :

If $\text{Sig} > 0,05$, then H_0 is accepted which means that the data is homogeneous.

If $\text{Sig} < 0,05$, then H_0 is rejected which means the data is not homogeneous.

(3) Independent Sample T Test

This two difference test average is useful to find out whether the pretest values of two samples have different averages or not. Calculation of two difference test on average is done by Independent Sample T Test by using SPSS program.

The hypothesis is as follows :

$H_0 : m_1 = m_2$ (the same average)

$H_1 : m_1 \neq M_2$ (the different average)

With criteria :

If $\text{Sig} > 0,05$, then H_0 is accepted which means that the average is equal. If $\text{Sig} < 0,05$, then H_0 is rejected which means the average is different.

b) Posttest Analysis

After the two groups received different treatment then posttest was held. From the final test, the data used were to test the research hypothesis, whether H_a was accepted or not. The posttest analysis stage is basically the same as the pretest analysis but the data used is the test data after being treated. These stage are :

(1) Normality Test

The normality testing steps in this posttest are the same as normality test stpes at pretest. The sample normality test is intended to determine whether the distribution of research data obtained is normally distributed or not.

(2) Homogeneity Test

The test steps in this posttest are the same as pretest homogeneity test steps. This test is intended to find out whether the two samples have the same variant or not.

(3) Independent Sample T Test

Independent Sample T Test was conducted to determine whether Students Team Achievement Division in the experimental class was better than Discovery Learning approach in control class after treatment. The calculation of the two difference test on average is done by the Independent Sample T Test by using SPSS program.

The hypothesis is as follows :

$H_0 : m_1 = m_2$ (the same average)

$H_1 : m_1 \neq M_2$ (the different average)

With criteria :

If $\text{Sig} > 0,05$, then H_0 is accepted which means that the average is equal.

If $\text{Sig} < 0,05$, then H_0 is rejected which means the average is different.

c) N-Gain Analysis

After analyzing the results of the pretest and post test, the next step is to analyze n-gain. This data is used to determine the improvement in students in reading comprehension. In this case we use the formula:

$$N - Gain = \frac{\text{Mean Posttest} - \text{Mean Pretest}}{\text{Skor Maksimum} - \text{Mean Pretest}}$$

Thus the n-gain results have been obtained. then the data is analyzed using SPSS version 15 which consists of the normality test, homogeneity test and Independent Sample T Test as well as the pretest and posttest analysis.

4. Time of The Research

The research was conducted at the second semester Vocational junior school 1 Karawang Barat. This study was carried on VIII grade, and was conducted around February until April as illustrated in the table.

3.4 Time of The Research

No	Activity	Month						
		February				March		
		6	14	19	21	14	21	26
1	Pretest							
2	Treatment							
3	Posttest							

