

BAB III

RESEARCH METHOD

This chapter discusses the research methodology, they included: research method, research design, population and sample, research instrument, data collecting techniques and data analysis.

A. Research Methodology

In conducting a research this researcher was used quantitative research method to get the specific data students speaking skill in descriptive text in communicative approach and problem based learning. According to Cresswell (2004) quantitative study, consistent with the quatitative paradigm, is an inquiryinto a social or human problem, based on testing a theorycomposed of variables, measured with numbers and analyzed with statistical procedures, in order to determine whether the predictive generalization of the theory hold true. Supported by Mujis (2004: 2), quantitative research is essentially about collecting numerical data to explain a particular phenomenon. Quantitative research is a means for testing objective theories by examining the relationship among variables. These variables can be measured, typically on instruments, so that numbered data can be analyzed

using statistical procedures. Moreover, Apsari, (2016) states that quantitative data obtained is statistically analyzed. In addition quantitative research involves the use of computational, statistical, mathematical tools to derive result.

B. Research Design

In conducting a research, this research design is Quasi-experimental. An experimental group is one class that uses communicative approach (sowball throwing method) that receiver's treatment in an experiment. Control group is one class that use problem based learning method study that does not include the thing being tested and is used as a benchmark to measure the results of the other group. In this quasi experiment, the subject was not randomly grouped, but researcher accepted makeshift subjects (Ruseffendi, 2010). It is supported design form of quasi experimental design according to Sugiyono (2011: 79) can be described as shown in the Table 3.1.

Table 3.1: Quasi Experimental Design

Group	Pretest	Treatment	Posttest
Experimental	T1	7 1	T2
Control	T1	7 6	T2

C. Population and Sample.

a. Population

According to Sugiyono (in Kamilah 2017: iii) "Population is a region of generalization consisting of objects/subjects that have certain qualities and characteristics set by researcher to be studied and then drawn to conclusions". Arikunto (1993, p. 102-104) in maghfirah (2018:20) stated that "population is the entire course who is going to be observed in research.". 2 In this research, the writer was select the students of SMPN 1 CIHAMPELAS as the population, especially the seven grade in academic years 2018/2019 which consists of 182 students.

b. Sample

It is supported Sugiyono (in Kamilah 2017: iii) "Samples are part of the sum and characteristics possessed by the population". there are two groups of techniques which can be used in conducting the sample, which is probability sampling or random sampling and non-probability sampling. In this research, the writer was use random sampling. Random sampling is a sampling procedure wherein every member of the overall population has a fixed and known probability or chance of being included in the sample. The sample of this research will be 60 students of 7 (seven) grade and divided into two class.

D. Instrument

The instrument used in this research to collect the data was test. Both of pre-test or post-test will give students some problems. Could be defines Arikunto (2002: 136) The instrument is the tool or facility, that can be used by researcher in setting the data to make more easily. The writer used pretest to measure the degree of student' speaking ability and post-test to see the improvement after the method is implemented.

There were three instruments used in this study. There are test, observation and interview. The description of the instrument is as follows:

1. Test

Test was in the form pretest and posttest. Pretest aimed to know difference of students' initial abilities in speaking. Meanwhile, posttest aimed to know the students score after the treatment was given. Concerning the validity, the test was valid. It was based on the result of validity test below:

a. Validity

Definition by Kaswan (2018) states validity is the term used to describe the variable in which the measure of the variable can describes the variable. Variable contained in this research are students' scores. Validity for speaking is taken

from two assessors. Where the results of first assessors and second assessors are divided by.

Validity test of Speaking was to find out whether the results obtained from interraters are valid or not. If corrected item total correlation = or > 0.3 then all item is valid. The table of as below.

Table 3.2 Validity of Speaking

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cranach's Alpha if Item Deleted
item1	9.2833	1.546	.945	.862
item2	9.3333	1.851	.551	.944
item3	9.2833	1.546	.945	.862
item4	9.2833	1.546	.945	.862
item5	9.2833	1.943	.574	.935

Based on the table above, the value of corrected item-total correlation was higher than 0,3. It means all of item was valid.

b. Reability

Reliability can be defined as the level of a test or measurement instrument produces consistent results when carried out under the same or similar conditions (Hatch & Farhady, 1982).

Realibility test of Speaking was to find out whether the results obtained from interraters are significant or not. In addition, to know whether the instrumen has interreter realibility low or high. The table of realibility as below:

Table 3.3 Reability of speaking

Intraclass Correlation Coefficient							
	Intraclass Correlation ^b	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	,768 ^a	,567	,882	7,6 13	29	29	,00 0
Average Measures	,869 ^c	,724	,937	7,6 13	29	29	,00 0

Based on the table of reliability test showed that the result of interrealibility was significance, because significance value of average measure was $0.000 < 0,0$ furthermore, the instrument, has higher intereterrealibility, because interclass correlation of average measures $(0,869) > 0,8$.

1. Observation

Observation aimed to observe the situation in the classroom during the treatment. In this research, observation was needed to see students' motivation and antusias about the method or technique that was used.

2. Interview

Interview aimed to find out students' difficulties in speaking during the lesson. In this research, interview was conducted in experiment class and control class. From each classes, there were three students selected as interviewee. These students had different levels; low, mid and high achievement students.

C. Data Collection Technique

1. Pre-test

Pre-test is given to the students as a sample before the treatment. The purpose of giving pre-test to student is to know the level of students speaking ability both experiment class and control class.

2. Post-test

Post-test is given to the students as a sample after the writer gives a treatment. It is given to both experiment and control class. The aims of post-test are to see the significance differences between experiment class and control class achievement.

3. Treatment

The test was done before the researcher taught the students by material created teacher.

The result of a test was asses by used speaking rubric by Brown (2001 : 406-407) as below:

No	Criteria	Score	Description
1	Accent	1	Pronunciation frequently unintelligible.
		2	Frequent gross errors and a very heavy accent make understanding difficult, require frequent repetition.
		3	“Foreign accent” requires concentrated listening and mispronunciation lead to occasional misunderstanding and apparent errors in grammar or vocabulary.
		4	Marked “foreign accent” and occasional mispronunciation which do not interfere with understanding.
		5	No conspicuous mispronunciations, but would not be taken for a native speaker.
2	Grammar	1	Grammar almost entirely inaccurate except in stock phrases.
		2	Constant errors showing control of very few major patterns and frequently preventing communication.
		3	Frequent errors showing some major patterns uncontrolled and causing occasional irritation and misunderstanding.
		4	Occasional errors showing imperfect control of some patterns but no weakness causes misunderstanding.
		5	Few errors, with no patterns of failure.

3	Vocabulary	1	Vocabulary inadequate for even the simplest conversation.
		2	Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc.)
		3	Choice of word sometimes inaccurate, limitation of vocabulary prevent discussion of some common professional and social topics.
		4	Professional vocabulary adequate to discuss special interests; general vocabulary permits discussion of any non-technical subject with some circumlocutions.
		5	Professional vocabulary broad and precise; general vocabulary adequate to cope with complex practical problems and varied social situations.
4	Fluency	1	Speech is so halting and fragmentary that conversation is virtually impossible.
		2	Speech is very slow and even except for short or routine sentences.
		3	Speech is frequently hesitant and jerky; sentences maybe left uncompleted.
		4	Speech is occasionally hesitant, with some unevenness caused by rephrasing and groping for words.
		5	Speech is effortless and smooth, but perceptively non native in speed and evenness.

5	Comprehension	1	Understand too little for the simplest type of conversation.
		2	Understand only slow, very simple speech on common social and touristics topic; requires constent repetition and rephrasing.
		3	Understand careful, somewhat simplified speech when engaged in a dialogue, but may require considerable repetition and rephrasing.
		4	Understand quite well normal educated speech when engaged in adialogue, but requires occassional repetition or rephresing.
		5	Understand everything in normall educated conversation except for very colloquial or low-frequency items, or exceptionally rapid or slurred speech.

Maximum Score for each students = 25

Maximum Grade = 100

$$Grade = \frac{\text{Total}}{\text{Max. Score}} \times 100$$

F. Data Analysis

To analyze the data, the researcher used SPSS version 15. SPSS (Statistical package for the Social Sciences) is an program used to perform advanced

statistical analysis. In analyze the data, the researcher did some steps. They are as follows:

1. Reliability

Realibility test of speaking was to find out whether the results obtained from interraters are significant or not. If interclass corelation was lower than 0,8, it meant that instrument has higher intereter reliability (Berkman & Raise, 2012, retrived from Kaswan, Suprijadi, D. Sadikin, I.S. 2019).

2. Validaty

Validity test of speaking was taken from two raters. It was to find out whether the results obtained from interraters were valid or not. If corrected item total correlation = or $> 0,3$ then all item was valid. (Pallant, 2011:100).

3. Normality

After getting the results of the test, the normality distribution test was then carried out. If the data of the test was normally distributed, then proceed immedietely to the homogeneity test. However, if it was not normally distributed, then proceed to the non parametric test. To find out the data of the research was normal or not, the researcher used SPSS program. Data was normally distributed if the significance values was higher than 0,05. If the significance value was lower than 0,05, the data was not distributed normally (Ghozali, 2013).

4. Mann- Whitey

Mann Withney test was did because in the normality distribution showed that the data was not normally distributed. Moreover, non-parametric test or Mann Whitney test used for to know whether H_0 was accepted or rejected. It could be said that H_0 was accepted if significance value of asymp (2-tailed) was higher than 0,05 (Corder & Foreman, 2009).

5. N-GAIN

According to Hake (1999), Gain Test is a test that can provide a general picture of on creasing the score of learning outcomes between before and after application of the method. Classification of N-Gain according to Sundayana (2014:51) can be seen as below:

Table 3.6. Classifications of N-Gain

Retara N-Gain	Classification
$0,70 \leq g \leq 100$	Higher
$0,30 \leq g < 0,70$	Average
$0,00 < g < 0,30$	lower
$g = 0,00$	no increas
$-1,00 \leq g < 0,00$	a decline

