

CHAPTER III

RESEARCH METHOD

A. Research Design

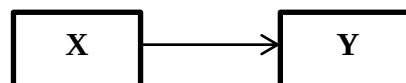
In this study, researchers used quantitative research. Quantitative research is one type of research whose specifications are systematic, well planned and clearly structured from the beginning to the making of the research design.

According to Sugiyono, quantitative research based on the philosophy of positivism is used to examine samples of certain populations, data collection using research instruments, statistical / quantitative data analysis, with the aim of testing predetermined hypotheses. It is said to be quantitative because the presentation of research results using statistical numbers, besides that this study also aims to describe or explain the relationship between the independent variable and the dependent variable.

The variables of this study are learning model teams games tournament (X) and students speaking skills (Y). The research design is as follows:

Figure 3.1

Variabel of research



X: Teams games tournament technique.

Y: Students speaking skills.

This research design is posttest control class design using three steps, namely:

1. Giving treatment is carried out.
2. Conducting the treatment to the experimental class by using the Team Games Tournament technique.
3. Giving a posttest to the experimental class and the control class to get the final result of the students speaking ability after the treatment is carried out.

The treatment in this study was the use of the TGT technique in learning speaking ability in the experimental class and the general technique for the control class, as listed in the table below:

Tabel 3.1

Design Of Experiment

No	Class	Treatment	Post – test
1	E1	-	O2
2	E4	X	O2

Information:

O2 : Post-test

X : Treatment

–:Without treatment

E4 : Experimental Class

E1 : Control Class

Based on the table above, the experimental class and Control class were given the treatment. After that, the experimental class is given

treatment (X) which is applied using this technique meanwhile the control class does not use the technique (-) and the last step is post-test (O2) to both classes to determine students' achievement.

B. Population and Sampling

1. Population

The population is the overall study subject to be investigated. In this study, the population consisted of all students from class X SMAN 17 Padang, which was separated into four classes: E1, E2, E3 and E4.

Table 3.2

Population

Class	Female	Male	Total
E1	15	22	37
E2	20	16	36
E3	17	19	36
E4	14	22	36
TOTAL	66	79	145

2. Sample

The sample is part of the population or representative of the population to be studied. In this study, researchers used random sampling technique and took 2 classes namely E1 and E4 from a total of 73 students. E4 as an experimental class (36 Students) taught using the Teams Games Tournament (TGT) Technique. E1

as the control class (37 Students) who were taught using conventional.

Table 3.3

Sample

No.	Class	Female	Male	Total
1.	E1	15	22	37
2.	E4	14	22	36

C. Research Instrument

The instrument is the tool that the researcher uses to gather data. The data refer to the information which is obtained on the subject of the research. The entire process of preparing to collect the data is called instrumentation. In this research, the researcher will use an oral presentation, interview, and document as the instrument to collect the data.

1. Oral Presentation Test

The oral presentation test is one of the speaking tests that are very useful to know the ability of students. In this research, the student will explain the series of picture in front of the class related to the materials. Some aspects will be assessed to find out the Students' abilities. When assessing the students' speaking, the researcher will use a rubric adapted from Arthur Hughes to analyze

the students ability. Based on the rubric, the researcher makes the assessment rubric as follows.

Table 3.4
Speaking Rubric Assessment

No	INITIAL NAME	ASPECTS					SCORE	TOTAL
		A	G	V	F	C		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								

Note:

A: Accent- G : Grammar V : Vocabulary
F : Fluency C : Comprehension.

Table 3.5
Weighting Table

Criteria	1	2	3	4	5	6	(A)
Accent	0	1	2	3	4	5	
Grammar	6	12	18	24	30	36	

Vocabulary	4	8	12	16	20	24	
Fluency	2	4	6	8	10	12	
Comprehension	4	8	12	15	19	23	
TOTAL							

Based on the percentage above, the student will pass the test if they can get a score of 63 or more. To calculate the Students' average the researcher formulates the score as follow:

a) The formula to calculate the students' average

$$\bar{x} = \frac{\sum x}{N}$$

Explanation:

$\sum x$: Total of students' score

N : Total of subject

X : Average

2. Documents

Documentation is a part of the instrument of collecting data in this research. In this research, the documents consist of student attendance list, handbook or pictures which are added, speaking worksheet to complete the data in the process of teaching speaking skill

D. Technique of the data Collection

1. Speaking Test: post-test. To assess students' speaking abilities the learning program, the TGT technique was used. Following treatment, a post-test is administered to see whether the ability has improved.
2. Participatory observation while learning. To assess student participation and the use of the TGT paradigm in the classroom.
3. Document the learning process, including student grades and oral test recordings. To support test and observation results.

E. Technique of the data Analysis

1. Descriptive Statistics to Describe pre-test and post-test scores (mean, median, standard deviation). Calculate the average post-test scores for experimental and control classes. Presenting data in the form of tables and graphs.
2. Inferential Statistics
 - a) Normality Test: to ensure the data is normally distributed.
 - b) Variance Homogeneity Test: to see if the variances between groups are equal.
3. T-Test (Independent Samples T-Test or Paired Samples T-Test)
 - a) Paired Sample T-Test: Used to compare pre-test and post-test in one class (e.g. experimental class).
 - b) Independent Sample T-Test: Used to compare post-test results between the experimental class (TGT) and the control class (without TGT). To

find out if there is a statistically significant difference in students' speaking ability.

