CHAPTER III

RESEARCH METHODOLOGY

In this chapter, researcher described the method used to collect the data and to answer research problem. Researcher also provided research instrument and research procedures in conducting this study.

A. Research Method

In this study, there were three variables. They were; Think-Pair-Share technique as independent variable that causes the changes of dependent variable, Flashcards as moderator variable or can be called as second independent variable that affect the association of independent and dependent variable, and Speaking Skill as dependent variable that is influenced by independent variable[1].

This research design were conducted using "Non-Equivalent Group Design" as a research design, the researcher used quasi-experimental method. The notation for this design was:

N	O	X	O
N	O		O

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[1] Sugiyono. *Statistika untuk Penelitian,* (Bandung: Penerbit Alfabeta, 2010), 110

Where:

N: noted as sample group

O: measured score

X: treatment.

It showed that first line is experimental group where the treatment was given and second line is control group which was not receiving treatment[2]. In finding the result, the researcher uses statistic for data analysis "t-test". Parametric statistics was used to know the result of the hypothesis. The test had been compared the average of two samples with the interval[3]. This research used quasi-experimental research because this research had control group but it cannot be fully controlled the other aspects that influenced the improvement of the speaking skill. Quasi-experimental design was used because it was impossible to get control group that can fully control the implementation of Think Pair Share technique using flashcards and the speaking skill improvement without involving other aspect that influence it on the experimental group[4].

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[2] William Torchim M.K, *The Research Method Knowledge Base,* (New York: Cornell University, 1999), 241

[3] Sugiyono. *Statistika untuk Penelitian….*, 121

[4] Sugiyono., *Metode Penelitian Kualitatif, Kuantitatif dan R&D,* (Bandung: Penerbit Alfabeta, 2008), 117

B. Research Design

The researcher needed two of ways to manage the design of the research. They were determining the problem and collecting the data. Before the researcher found the complete data, the researcher had to determine the problem and the researcher had to collect the data.

1. Determining the Problem

The researcher took the preliminary study of student's speaking problem at MTs. Hasyim Asy'ari and determined that Think-Pair-Share Technique had been used as a teaching strategy to improve the student's speaking skill of eighth grade at MTs. Hasyim Asy'ari.

2. Collecting the Data:

The researcher used some procedures to collect the data about the effect of Think-Pair-Share technique as teaching media to improve the student's speaking skill of eighth grade at MTs. Hasyim Asy'ari. The procedures applied were stated below:

a) The researcher gave pretest for experimental class to measure skillful in English speaking before applying Think-Pair-Share Technique using flashcard.

b) The researcher gave treatment for experimental class by implementing

Think-Pair-Share technique using flashcard. The treatment had been taken in two meeting. The steps in implementing Think-Pair-Share technique described in the detailed lesson plan.

c) The researcher gave post test for both control and experimental class to measure students' speaking skill after Think-Pair-Share technique was implemented in experimental class.

d) The researcher compared the pretest and post test of experimental class to determine how significant the differences are before and after applying Think-Pair-Share technique using flashcard and compared post test result between both control and experimental class.

e) The researcher used statistic for data analysis "t- test" to find out the result.

f)The researcher explained the result of the research and gave conclusion.

C. Population and Sample

This study was conducted at MTs. Hasyim Asy'ari Tawangsari-Kejapanan-Gempol. It took place at Jl. Akses Tol No. 63A Tawangsari-Kejapanan-Gempol 67155. The population was students of this school. This school had 7 classes and they are 7A-C, 8A-B, and 9A-B.

The sample of this research was eighth grade. Researcher took in 8A class for the experiment or treatment group which had got treatment and took 8B class for control group which had not receive any treatment. 8A class consisted of 32 students and the 8B class consisted of 30 students. This research had been done under the English materials themed "I Had A Great Time".

Researcher took eighth grade as sample by considering the reason follows: First, students of eights grade were assumed as having basic knowledge in English speaking skill and they were ready to be given a treatment and test to improve their speaking skill. Second, students of eighth grade were possible to be research sample because they are not in preparing National Last Examination. Third, students of eighth grade were assumed as mature age where they had responsibility on their own learning achievement[5].

The technique sampling used in this research was simple random sampling where the taking of the sample from the population was random without considering the strata in the population[6]. This way is done because this research is pedagogical research and this sampling technique made it easier to apply.

D. Data Collection Technique

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[5] Nurbaiti Widyasari, Thesis:" *Meningkatkan Kemampuan Penalaran dan Disposisi Matematika Siswa SMP Melalui Pendekatan Metaphorical Thinking",* (Jakarta: Universitas Pendidikan Indonesia: 2013) p. 28

[6] Sugiyono. *Statistika untuk Penelitian…..*, 64

To collect the data of the study, researcher used test. The pretest and post test was taken on both control and experimental class. The pretest was taken before the Think Pair Share technique using flashcards was implemented and the post test was taken after the Think Pair Share Technique using flashcards was implemented.

E. Research Instrument

To answer the research problem, researcher used test. Test was used as measurement evidence that students' English speaking skill was improved. The result of the pretest-post test from experimental group had been analyzed, and the result of the post test from both experimental and control group also had been analyzed.

F. Data Analysis Technique

The researcher used statistics to analyze the data. The data obtained from the result of the test was classified as t- test. Parametric statistics was used to know the result of the hypothesis. The test compared the average of two samples with the interval.[7] It means two sample that had the same of population and sample in the different time.[8] In this study, the researcher wondered the significantly of the research, the researcher used comparative

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[7] Ibid., p.121
[8] Ibid., p.117

hypothesis. Therefore, the researcher used t-test to find the result of the data.

In doing the pretest-post test of experimental group, researcher used the following formula:

$$t = \frac{Md}{\sqrt{\frac{\sum x^2 d}{N\,(N-1)}}}$$

Where:

Md = Mean from difference of pretest and post test

The Md formula is $Md = \frac{\sum d}{N}$

$\sum d$ = Deviation of each subject (d-Md)

$\sum x^2 d$ = The squared deviations

N = Subject of sample

Which is if t_{obs} is higher than t_{cri} or can be said if t_{cri} is smaller than t_{obs}, it means that H_0 is rejected and H_a is accepted. On the other hand, if t_{obs} is smaller than t_{cri}, or can be said that t_{cri} is higher than t_{obs}, it means that H_0 is accepted and H_a is rejected.

Finally, to see the difference between the result of experiment and control group, researcher used the t-test by the formula:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

Where:

X_1 = Mean of experimental group

X_2 = Mean of control group

s_1^2 = variance of experimental group

s_2^2 = variance of control group

n_1 = amount of experimental group

n_2 = amount of control group

The t_{obs} compared with t_{cri}. If the t_{obs} is higher than t_{cri}, H_0 rejected and H_a accepted. On the other hand, if t_{obs} is smaller than t_{cri}, H_0 accepted and H_a have be rejected.