

CHAPTER III

RESEARCH METHODOLOGY

This chapter focuses on research design which needed in this research. It consists of some points. The first is research design, second is place and time of the research, third is population and sampling, the fourth is variable of the research, the fifth is research instrument, sixth is criteria of the test, the seventh part is data analysis technique, and the last is research procedure. To elaborate more about this chapter presents bellow.

3.1. Research Design

This research used quantitative research as the research methodology. Creswell (2012:140-141) states,

“There are five steps in the process of quantitative data collection, they are determining the participants to study, obtaining permissions needed from several individuals and organizations, considering what types of information to collect from several sources available to the quantitative research, locating and selecting instruments to use that will net useful data for the study, and finally, administering the data collection process to collect data”.

There are many kinds of group design in experimental research. In this experimental research included in the one-group pre-test post-test design in this study. So, it was only one group that used in this study to find out whether there were significant differences between the pre-test score before treatment and post-test after treatment. When conducted the treatment, the researcher applied small group discussion strategy. The pre-test gave to know the students speaking ability. After that, gave the treatment by using small group discussion strategy in teaching recount and it continued by giving the post-test to know the effectiveness of treatment for student speaking ability.

Table: 3.1 The One Group Pretest Posttest Design (Fraenkel, et.al 2012:269)

<i>O</i>	<i>X</i>	<i>O</i>
Pretest	Treatment	Posttest

Note:

O: Pre-test

X: Treatment (applying small group discussion)

O: Post-test

3.2 The Place and Time of Research

This research was conducted at SMA Muhammadiyah 7 Surabaya and the subject of this research was the students of X IPA1 class that consisted of 21 students. It was located at Sutorejo Street No.98-100 Surabaya. The researcher conducted research from 3 May 2018 until 4 May 2018

3.3. Population and Sampling

Before conducting the research, the researcher formulated the population and the sampling. It was very important part in the research. Population refers to the people which areas the target in research. Creswell (2012:142) says, "A population is a group of individuals who have the same characteristic". The first year students at SMA Muhammadiyah 7 Surabaya was as the population in this research. Sample is a subgroup of the population that the researcher used as the target to conducted the research (*ibid* :142). The researcher took the tenth-grade students of SMA Muhammadiyah 7 Surabaya as the sampling. This class, consisted of three classes which are IPA class and IPS class. In IPA class were devided into two classes and in IPS class only one class. So, in this research, the researcher selected the IPA 1 class as the subject of the study.

On the other hand, it used purposive sampling because the researcher selected the sample based on the information when the researcher conducted the observation in that school. According to Fraenkel, et al. (2012:100) argues, “Purposive sampling is the investigator use personal judgment to select the sample or related to possess the necessary information about the population that leads the researcher to select the sample”. Purposive sampling is including in nonrandom sampling methods.

3.4 Variable of The research

Related to this research, there are two variables. The first is the independent variable and dependent variable. Alison Mackey and Susan M.G (2005:103) state, “The independent variable is the one that we believe may "cause" the results; the dependent variable is the one we measure to see the effects the independent variable has on it”. So, based on the problem, the researcher wanted to know the effectiveness of using small group discussion in teaching speaking. The independent variable is the small group discussion and the dependent variable is student speaking skill.

3.5 Research Instrument

To conducting the research, the instrument is an important one. It is as a way to collect the data. In this research conducts three different tests those are the diagnostic test, pre-test, and post-test. Besides that, it uses another instruments which was observation cheklist and questionnaire. Those instruments as follows:

3.5.1 Test

The test is to measure someone knowledge and ability. Besides, teaching and learning test is a part to evaluate students’ competence. To gain the data the researcher conducted three kinds of tests. The tests were the diagnostic test, pre-test, and post-test.

3.5.1.1 Diagnostic Test

Before giving the pre-test to the students, the diagnostic test was conducted first. The aim of giving diagnostic test are to know how far of student knowledge about that material or lesson. On another hand, conducted the diagnostic test is to know the students’ difficulties and their weakness in learning especially in learning English. So,

it is as references to the teacher to apply the new method, strategy, and media to improve student ability. This test consisted of fifty questions that consist of fifteen reading question and thirty questions of grammar. The researcher took this question test from TOEFL book by Michael A. Pyle and Mary Ellen Munoz Page (2005).

3.5.1.2 Pre-test

The pre-test gave for X IPA1 that consisted of 21 students and it held on 3 May 2018 at 08.00 – 09.30. Pre-test was conducted before given treatment, it to measure students' ability in speaking. On the other hand, the aim of giving pre-test is to know how far a student's speaking ability.

3.5.1.3 Post-test

The post-test gave out after the researcher giving the treatment by using small group discussion. The post-test was given for X IPA1 that consisted of 21 students and it held on 4 May 2018 at 10.30 – 11.30. The purpose of gave post-test is to know the significance of student speaking ability when using small group discussion with the topic recount text. The aim of this kind of test is to know the treatment is successful or not

3.5.2 Treatment

The treatment was conducted after giving the pre-test and it using small group discussion with the topic is recount text. This treatment was conducted in twice on 3 May 2018 and 4 May 2018. In the treatment, the students learned in small group discussion was conducted. In the first meeting, the researcher was as the teacher, divided students in the group that consisted of three students in each group then, gave a text about recount text that contains some questions and asked students to discuss the text and answer the question in the small group. For the second meeting, the researcher was the teacher, divided student in the group that consists of three students in each group then, the researcher as the teacher by given worksheet that contained some questions that related to video, showed the video about recount text. After that, the researcher as the teacher asked the student to discuss the video in small group.

3.5.3 Observation Checklist

When conducting the treatment, it is followed by an observation checklist and field note that was observed by the observer and the teacher. In this research, the researcher used this instrument to know whether the teacher taught related to lesson plan or not and to know students' activity or participation in the learning process. On the other hand, the aim his instrument is to know small group discussion was used in teaching and learning process or not. When conducting observation checklist, conducting field note was followed. It is another instrument that the researcher used in this research. The aim of this instrument for the researcher is to make field note for the specific phenomena during conducting the treatment.

3.5.4 Questionnaire

Questionnaire refers to an instrument that has some questions which related to the use of small group discussion in teaching speaking with the topic of recount text. The researcher using this instrument to know the students' response after has used small group discussion in teaching speaking.

3.6 Criteria of Test

3.6.1 Validity

Fraenkel, et.al (2012: 147) says, "Validity refers to the appropriateness, meaningfulness, correctness, and usefulness of the inferences a researcher makes". The process of gather and analyzing the fact to support the result is the means of validation (*ibid* :147). There are three main types of validity which are; content-related evidence of validity, construct-related evidence of validity and criterion-related evidence of validity. Moreover, expert validation was taken to make a reliable judgement. In this kind of validity, the researcher asked the lectures that who was an expert in speaking to know how the lesson plan was valid or not. So, the researcher was found Armeria Wijaya, SS, M. Pd as the English lecturer at the University of Muhamadiyah Surabaya especially a lecture of speaking master. The table is a validity of lesson plan and test, more clearly seen in the appendix 6 and 7.

Table 3.2 Validity of lesson plan and Test

No	Name	Validity of the Test		Date
		Yes	No	
1	Armeria Wijaya, SS, M. Pd	√		19 April 2018

3.6.2 Reliability of the test

Reliability refers to the consistency of the instrument. A good instrument is valid and reliable. Fraenkel, et al. (2012:154) says, “Reliability refers to the consistency of the scores obtained—how consistent they are for each individual from one administration of an instrument to another and from one set of items to another”.

3.6.3 Basic Competence according to the syllabus of SMA Muhammadiyah 7 Surabaya

The researcher prepared the materials based on the syllabus for the tenth grade of SMA Muhammadiyah 7 Surabaya that related with curriculum 2013 (K-13). The topic that related to this research was about recount text that presented in basic competency. It can be seen in the syllabus in the appendix 2.

3.6.4 RPP (Lesson Plan)

The success of the learning process was when the teacher taught based on the lesson plan. The lesson plan was valid before conducting the treatment. This lesson plan was taken from the expert validation. On the other hand, for the scoring students’ speaking, the researcher used the rubric assessment speaking. In this research, the researcher used the reference to score students’ oral test by using Brown’s rubric in speaking. In Brown’s book (2004:172-173) mentions, there are six of oral proficiency scoring rubric namely; grammar, vocabulary, comprehension, fluency, pronunciation,

and task, but the researcher only used five categories without the task to scoring students speaking. It can be seen in the appendix 1.

3.7 Data Analysis Technique

To analyze the data in this study, the researcher used T-test calculation to calculate the data and it used to answer the research question and used normality test to know whether the test is normal distribution or not. Firstly, the researcher collected the data from student's pre-test score and post-test score. Secondly, the researcher analyzed the data by using T-test. In this research, the researcher used one kind of T-test namely; Paired-Sample T-test to analyze and compare the significant differences of students' speaking skill in speaking recount before and after implementation of small group discussion. All the data in this research were analyzed by using SPSS 17.0 and Microsoft Excel 2010.

3.7.1 Normality Test

The aims to use this test was to know whether the test is normal or not. The formulate of the hypothesis is as follow:

H0 (Sig. *P value* < α): The data is not normality distribution

H1 (Sig. *P value* > α): The data is normality distribution

Criteria:

Ho is rejected, if sig *P value* > α (0.05), it means that the data is not normal distribution

H1 is accepted, if sig *P value* < α (0.05), it means that the data is normal distribution

3.7.2 T-Test

The formula of the t-test is as follow:

Criteria:
Ho is rejected, if sig P value $> \alpha$ (0.05), it means that there is no significant differences students' speaking score in the pre-test and post-test .
H1 is accepted, if sig P value $< \alpha$ (0.05), it means that there is significant differences students' speaking score in the pre-test and post-test.

$$t = \frac{md}{\frac{\sum xd^2}{\sqrt{n(df)}}} \dots \dots \dots (\text{Arikunto, 2006})$$

Explanation:
Md = Meant from derivation (d) between pre-test and post-test
T = t count
Xd = Deviation difference with deviation mean
Df = or db (n-1)
N = Size of the sample

Ho is rejected, if $T_{count} < T_{table}$, it means that there is no significant differences students' speaking score in the pre-test and post-test or the use of small group discussion is not effective in teaching speaking recount at tenth grade of SMA Muhammadiyah 7 Surabaya.

H1 is accepted, if $T_{count} > T_{table}$, it means that there is significant differences students' speaking score in the pre-test and post-test or the use of small group discussion is effective in teaching speaking recount at tenth grade of SMA Muhammadiyah 7 Surabaya.

3.8 Research Procedure

The research procedure and schedule in this research is as follow:

Table 3.3 Research Schedule

NO	Schedule	The Date
1	Meeting the headmaster to asking his permission to conduct pre- observation	January, 29 1018
2	Meeting English teacher	February,15 2018
3	Meeting the headmaster to asking his permission to conduct the research	April 12, 2018
4	Conduct pre-test in experimental group	May 3, 2018
5	Conduct Diagnostic test	May 3, 2018
6	First Meeting: Teaching recount by using Small Group Discussion in experimental group	May 3, 2018
7	Second Meeting: Teaching recount by using Small Group Discussion in experimental group	May 4, 2018
8	Conduct post-test in experimental group	May 4, 2018