CHAPTER III

RESEARCH METHOD

In this chapter, the researcher presents research method including research design, population and sample, research variable, research instrument, validity and reliability testing, normality, data collecting method, treatment and data analysis.

A. Research Design

In conducting research, the researcher investigate the effectiveness of Buzz Group Technique in improving students' writing skill in recount text, the researcher belongs to a pre-experimental research design involved one group which is pre-tested and post-tested (Ary et al, 2002 : 302). Because in this research design suitable with condition met by researcher in the school. Furthermore, the goal of experimental research is to tested causality relationship between two or more variables.

In this research classify into pre-experimental research design that used one group pre-test and post-test. In the one group pre-test and post-test design, a single group measure or observe not only after being treatment, but also before giving the treatment. Pre-test provides a measure on some attribute or characteristic that is assessed in experiment before the group gets a treatment, while in the post-test measure on some attribute or characteristic that assessed for participants in experiment after the treatment.

Table 3.1 One-Group Pretest-Posttest Design

Pre test	Treatment	Post test
O1	X	O2

X   :   Writing recount text through buzz group technique

O1   :   Students' achievement on writing before treatment

O2   :   Students' achievement on writing after treatment

The procedure of experimental research that use one group pre-test and post-test design in this research are described as follows :

1. Administering pre-test with a purpose of measuring students writing achievement before applying treatment.

2. Applying experimental treatment teaching writing recount text by buzz group technique.

3. Administering post-test with a purpose of measuring students writing achievement after applying treatment.

The researcher intended to investigate the effectiveness of using buzz group technique in teaching writing towards students' writing recount text ability at SMA Antartika Sidoarjo. The use of the treatment is aimed at proving wether the increase scores possibly got the researcher. Thus, the effectiveness of that treatment is known the increase score when student taught using buzz group technique by compraring pre-test and post-test score.

The researcher conducted 5 meeting in the classroom on 5,7,12,14, and 19 February 2020. For the first meeting, the researcher conducted pre-test in

order to know the students' general knowledge about the material with students make a small group 4 to 6 participants consist of leader, note taker, time keeper, and other participants. It was free to choose the participants in a small group discussion. After that, a small group have 20 minutes to discussed about pre-test with the theme was imaginative recount text. Next, in the second meeting, the researcher give explanation about recount text with showed in the LCD and supported with microphone. The third meeting, the researcher continued the explanation about the material of recount text, after gave explanation, the researcher told the students about difference between kind of the recount text and examples of recount text. Then, the fourth meeting, the researcher give explanation about buzz group technique, writing skill, and genre of the text. In the last meeting on fifth meeting, the researcher conducted the post-test with the theme was factual recount text. In the post test, a small group still the same as pre-test.

Table 3.2 Schedule of Researcher's Activities

1.	February, 5th 2020	Administering pre-test
2.	February, 7th 2020	Administering the treatment by using lesson plan 2
3.	February, 12th 2020	Administering the treatment by using lesson plan 3
4.	February, 14th 2020	Administering the treatment by using lesson plan 4
5.	February, 19th 2020	Administering the post-test

B. **Population, Sampling, Sample**

1. **Population**

Population and sample is crucial part when conducted a research. According to Ary (2006:167), the small group that observed is called a sample, and the larger group about which the generalization made is called a population.

The population in this research included the whole tenth grade of students of SMA Antartika Sidoarjo at the second semester in the academic year 2019/2020 that consisted of 512 students of tenth grade comprised X Ef 1, X Ef 2, X A 3 - X A 7, and X S 1 - X S 6.

2. **Sampling**

In conducting this research, Nawawi (2012) that he stated about sampling technique as the way to take the sample whose numbers are appropriate to sample size which will be used as real data source, by concentrating on the characteristics and the spread of population in order to get representative sample or truly represent the population. According to Cohen et.al (2007) he said that purposive sampling technique is satisfactory to specific needs. The researcher chose SMA Antartika Sidoarjo as a place of conducted the research were the headmaster and teacher receive researcher be carried out at the school could be invited to cooperate and had never before a researcher who used buzz group as technique of learning process.

The researcher used purposive sampling technique. As its name suggests, the sample has been chosen for a specific purposes. Ary, et al. (2010:154) had

statement about sampling technique as the unit chosen is not individual, but a group of individuals who are naturally together.

3. Sample

Selecting sample is necessary in the conducting a research. According to Cresswell (2012:142) stated that a sample is a subgroup of the target population that planned by the researcher to study for generalizing about the target population. It means that good sample must represent the entire population as good as possible, so that the generalizing of the sample as true as population.

In this study, the researcher select 1 class it is X S 3, the reason because that class is suitable as subject of the research. Next, the researcher selected X S 3 class consisted of 38 students as the sample. More clearly, there were 38 students consisting of 19 males and 19 females as the participants of the study. In addition, English teacher who hadles X S 3 suggest to take that class as subject of sample to be researcher by some reasons :

1. This class is taught by recount text
2. The characterictic of the students has assumed as homogenous in writing means not to good and not to bad

C. Variable

A variable is defined as anything that has quantity or quality that varies. Santrock (2004:47) explained that variable is the characteristic or attribute of individual, group, or educational system that researcher is interested in.

1. Independent Variable

Independent variable is variable that is antecedent to another variable (Ary et al. 2006:42). It means that the the variable influences the other variable. Independent variable can appear and exist by itself without added any factors. The independent variable in this research is "using buzz group technique".

2. Dependent Variable

Dependent variable is variable is consequence of another variable (Ary et.al, 2006:42). It means that this variable which is influenced by other variable. Dependent variable in this research is "students' achievement in writing recount text".

D. Validity and Reliability Testing

Validity and reliability of instrument are integral parts in conducting a research since the instrument which will be used must be valid and reliable before using it to collect the data. In this study, the researcher ensured that the instrument (test) was valid and reliable by doing validity and reliability testing as follows:

1. Validity

Validity is measuring what it is designed to measure. In language testing, Brown (2004) state that validity as the extent to which inference made from assessment results are appropriate, meaningful, and useful in

terms of the purpose of assessment. Before conducting the research, the researcher enactived that the instrument had three of validity as follows:

a. Face validity

Face validity refers to the degree to which a test looks rights, and appears to measure the knowledge or abilities it claims to measure, based on subjective personnel who decide on its use, and other phsycometrically unsophisticated observes (Brown, 2004). In this research was designed to measure students' writing skill. There are some aspects that were considered from this test to make good test based on the validity.

1. The instruction must be clear to student, what they should do in the test.

2. In this test, students of first grade are instructed to write recount text. Thus degree of the test must be suitable for their level.

3. The consideration of time allocation must be clearly. The researcher gives time about 15-20 minutes for each group discussion do activity the instrument.

b. Content validity

Content validity is focus on wheter the instrument covers all the variable contents. In other word, content validity is focused on what students learn in the classroom. In content validity, the instrument in this research achieved since the test was designed based on main competence

and basic competence in curriculum of 2013 in the school the researcher conducted the research. Table 3.3 shows the main and basic competence in curriculum 2013.

Table 3.3 main competence and basic competence in curriculum of 2013

Core Competence	Basic Competence
3. Understanding, implementing, analyzing factual, conceptual, and procedural knowledge based on the curiosity towards science, technology, art, culture, and humanity with the knowledge of humanism, nationalism, and civilization related to the cause of phenomena and events, and implementing the procedural knowledge in a specific field according to the skill and interest to overcome the problem.	3.9 Analyzing social function, text structure, and language feature in recount text related to the simple experience and events according to its context.
4. Analyzing thinking, and perfoming in both concrete and abstract field related to the development of what has been learnt in school individually, and being able to use the method based on the theory in science.	4.14 Composing simple written and spoken recount texts about activity and events by concerning on the social function, text structure, and language features correctly according to its context.

c. Construct Validity

Construct validity deals with the relationship between a test and particular view of language and language learning (John, 2001:303). Furthermore, Ismawati (2012:29) said that a test should have construct validity if the test want to be demonstarated The test had high construct validity since it contained prompt in form of guided questions to measure of students' achievement in writing a recount text. in this research, the writer administered a writing test and the technique of scoring the

students' writing is based on the five aspects of writing; they are content, organization, vocabulary, grammar and mechanics.

2. Reliability

Based on the Ary et,al. (2006:236) define that reliability as the degree of consistency which an instrument measures whatever it is measuring. Reliability is consistency of instrument in producing the same score on different testing occasion or with different raters. The test called reliable if there is not far distance of the results between pre-test and post-test. Thus, the result test is reliable or not, the writer testing the students twice minimally to conducted the research with the same condition and time.

Before giving post-test, the researcher made test to be tried out to the students to know how far the reliability of the instrument. After that, the researcher calculated two sets of score to get correlation between them. The formula to find correlation was *Pearson Product-Moment* in SPSS Statistics 16.0. Table 3.4 showed the result of try-out of pre-test gained from two raters, and followed by Table 3.4 showing the statistical calculation of *Pearson Product Moment* from SPSS Statistics 16.0

Table 3.4 The Statictical Correlation of *Pearson Product-*

***Moment* from SPSS Statistic 16**

Correlations

		Rater1	Rater2
Rater1	Pearson Correlation	1	.574[**]
	Sig. (2-tailed)		.000
	N	36	36
Rater2	Pearson Correlation	.574[**]	1
	Sig. (2-tailed)	.000	
	N	36	36

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the table above, the result of computing showed 0.574. It can be concluded that the instruments of this research is reliable, because closer the reliability coefficient 1.

E. Data Collecting Method

The researcher showed the instrument can be defined as a tool to collect data of the research. According to Arikunto (2010:262) explained that research instrument refers to any equipment used to collect the data. as an experimental research, the instrument used in the research was test. Ary et. al, (2010:201) test is a set of stimuli presented to individual in order to elicit response on the basis of which a numerical score can be assigned. In this research, the data was collected in three steps :

1. Pre-test

Pre-test is given to the students to know their achievement in writing recount text before being taught by using using buzz group technique. A

pre-test provided a measure on some attribute or characteristic that you assess for participants in an experimental before they receive treatment (Cresswell:2003). The form of pre-test was essay.

2. Post-test

Post test is done after the student get treatments is taught by using buzz group technique in teaching recount text. From the score of this test, the researcher is intended to find out the effectiveness of using buzz group technique in teaching recount text. the form of post-test is essay, form of post-test is mostly the same with the pre-test, but the different in the topic. The number of students who got post-test was completely 38 students. After finishing the test ot students' work, the researcher calculated the score of post-test. The result of the scoring then is compared with pre-test. A post-test is a measure on some attribute or characteristic that is assessed for participants in an experiment after a treatment (Creswell, 2008:301).

F. Treatment

After administering the pre-test, the researcher gave the students treatment. The researcher explained the material about recount text and introduction of using buzz group technique. Next, the researcher asked to students to make a recount text based on the buzz group technique. After that, the researcher reviewed the material and asked the students to make recount text based on topic given. Teaching recount text used buzz group technique

consisted of some steps. The step in teaching students' writing skill through buzz group as teaching technique are as following :

a. The researcher started the lesson by greeting. After that, check the students' attendance list. The researcher give motivation to students. The first step, the researcher give the instruction to students that make a small group discussion consisted of leader, note taker, time keeper, and other participants. The next researcher explained in general about learning recount text.

b. The researcher explained about the material that would be discussed. Learning process in recount text beginning with observing process. The teacher gave the topic that match by materials of recount text.

c. After that, the researcher showed the power point about kind of recount text and example. Students discussed with their group discussion of the material.

d. In the next meeting, the researcher explained about recount text again in order to students understood more about the material and able to distinguish the kind of recount text and example of recount text.

e. In the next meeting, the researcher explained about introduction buzz group technique, procedure buzz group technique, and writing skill. The aimed explained the material in order to students understood more of the material.

G. Data Analysis

In this research, the researcher used quantitative data analysis technique to know students' achievement before and after being taught by using buzz group technique. The quantitative data was analyzed by using statistical method.

1. Normality Testing

The analyzing significant difference between the student taught after using buzz group technique the data should be normal distribution. To measure the data computation were normal distribution, the researcher conducted normality testing. However, normality testing be needed as assumption or requirement of parametric testing.

Then, based on parametric statistical analysis had requirements for the research data. For instance the research data analyzed must be normally distributed. Afterwards the researcher to know data analyzed in *Paired Sample T test* was normally or not, the researcher did the normality testing was done first. In this research the researcher used SPSS 16.0 to measure the normality testing. *One Sample Kolmogrov – Sminorv* method by the value of significant (α) = 0.05. basic decision making normality testing were as follows :

    a. If the significance value > 0.05, the data had normality distribution

    b. If the significance value < 0.05, the data did not have normal distribution

2. Paired Sample T-test

The data was gained from pre-test and post-test were analyzed by using t-test for dependent sample. This was also known as the correlated or non independent or *Paired Sample T test*. The measure was to be analyzed by the dependent test was the mean difference between the paired score (Ary, 2010:176).

The score of the data will be analyzed by using statistical instrument (SPSS) especially using t-test to know the effectiveness. The data is needed in this research to know before and after being taught by using buzz group as a teaching technique. in addition to analyze data the researcher need to count mean and trying out to find of the mean and standard of deviation.

After the researcher calculating standard of deviation, the researcher find out the significant difference of the students' results of the students' mastery of writing recount text by using buzz group technique of the tenth grade at senior high school before and after being taught by using buzz group technique. After getting the students' score, then determine the criteria of the students by the final result.

There are some steps to analyze the data in SPSS. Firstly, the researcher input the data in SPSS to know frequency of pre-test and post-test. The researcher find the mean, median, mode, and standars deviation by using buzz group technique. Then, from comparing the data, the researcher knows the pair simple statistics and finally the researcher find pairs sample correlation from two-tail. After knowing the result of two-

tail, the researcher gives the results whether or not the treatments by using buzz group technique in teaching writing recount text is effective.