CHAPTER III

METHOD OF THE RESEARCH

A. Research Design

This research is an experimental research. The experimental research is the only type of the research that can test hypotheses to establish "cause-and-effect relationship" (L.R. Gay and Peter Airasian, 2000, p.36). The writer used quasi-experiment. Creswell (2008, p. 50) stated that quasi-experiment is experimental situation in which the writer assigns, but not randomly, participants to groups because the experimenter cannot artificially create groups for the experiment.

Moreover, The writer applied the pre-test and post-test design approach to this research. The writer assigned intact groups the experimental and control treatments, administers a pre-test to both groups, and conducts experimental treatments activities with the experimental group only, finally administers a post- test to assess the differences between the two groups (experimental and control).

Furthermore, there are two variables in this research. The first is independent variable and the second one is dependent variable. The Board Game is independent variable, symbolized by "X" and the students" writing ability is dependent variable symbolized by "Y". Then, in conducting this research, there are two classes involved. The first is an experimental class. The second one is a control class. The design can be seen in the following table (Creswell 2012, p.310).

Table III. 1
The Design of the Research

Group	Pre-test	Treatment	Post-test
Experimental	O_1	X	O_2
Control	O_3	-	O_4

Explanations**:**

X   : Treatment

O_1 : Pre-test of Experimental Group

O_2 : Post-test of Experimental Group

O_3 : Pre-test of Control Group

O_4 : Post-test of Control Group

B.   Time and Location of the Research

This research was conducted from May to July, 2019 at tenth grade of Vocational High School 6 Pekanbaru. It was located at Seroja street, Kulim district, Tenayan Raya regency, Pekanbaru.

C.   Subject and Object of the Research

The subject of this research was the tenth grade students at Vocational High School 6 Pekanbaru in 2019-2020 academic year. The object of this research was students' writing ability taught by using board games.

D.   Population and Sample of the Research

1.   Population of the Research

The population of this research was the tenth grade students of Vocational High School 6 Pekanbaru. There are 8 classes. The total

numbers of the students were 249 students. The total of the students in each class shown in table below :

Table III.2
The Population of the Research

No	Class	Population
1	X MK. 1	32 students
2	X MK. 2	31 students
3	X RPL. 1	30 students
4	X RPL. 2	31 students
5	X AK. 1	31 students
6	X AK. 2	30 students
7	X GF. 1	33 students
8	X GF. 2	31 students
Total		249udents

2. Sample of the Research

The technique used in this research was a cluster sampling. Gay (2000:129) stated that cluster sampling randomly select the groups, not individuals. All the members of selected groups have similar characteristics.

In this research, class X RPL 1 as an Experimental Group was chosen and class X AK 2 as a Control Group.

Table III.3
The Sample of the First Year Students of Vocational High School 6 Pekanbaru

No.	Class	Number of Students
1	X RPL.1	30 students
2	X AK.2	30 students
Total Sample		60 students

E. Technique of Collecting Data

Data collecting method is the method that is used by the researcher to collect data. In collection of data the researcher uses instrument. Instrument is the tool that use to get the data. In this research the instrument was only a test. The test was in the form of writing test which is to measure the skill and ability of an individual. There are two kinds of test:

1. Pre-test

   Pre-test is a test given to the experimental group and control group to measure their ability before treatment process. This test was given to know the basic competence for the students and to know their earlier knowledge before they get the treatment. Pre-test was given to the experimental group and control group by asking the students to write their good experiences in their own words.

2. Treatment

   Before having post-test, the students got treatment. Treatment here means that the researcher applied board game as media in teaching writing. This treatment or using board game only applied in the experiment class.

3. Post-test

   Post-test is a measure on some attribute or characteristic that is assesed for participant in an experiment after treatment. Pos-test is a measure taken after the experimental treatment has been applied (Wiersama:1991). Post test was also given for the students of experimental group and control group. Post-test used to measure students ability after

treatment process, to know their knowledge after they got treatment. It is be done to know the final score and to know the students difference competence before and after they got treatment.

F. Validity and Reliability of the Test

1. Validity of the Test

According to Frankle (2009, p. 148), the term validity, as used in research, refers to the appropriateness, meaningfulness, correctness, and usefulness of any inferences a researcher draws based on data obtained through the use of an instrument.

Brown (2004, p. 65) that a test is a method to measure a person's ability, knowledge, or performance in a given domain. The more explanation explained also by Brown that one of criteria for testing a test is validity. A valid test should be appropriate, meaningful, and useful in terms of the purpose of the assessment. The validity has three kinds, they are content validity, criterion validity, and construct validity.

In this research, researcher used two kinds of validity, the content and the construct validity, to prove the validity of the test. In the first of kinds, the researcher used the materials test based on the materials that they learned. It was about recount text.

For more clear evidence, the researcher also provided the construct validity to measure whether tests taken for this research are or no valid. In measuring the validity of the tests, the researcher used the SPSS 23 application to find the validity of the tests.

Table III.2
The Result of the Validity Test

		Experiment	Control Class
Experiment	Pearson Correlation	1	,923
	Sig. (1-tailed)		,314
	N	30	30
Control Class	Pearson Correlation	,923	1
	Sig. (1-tailed)	,314	
	N	30	30

Based on the tabel above, it was clear that the validity value was 0.923. it was compared with the r- tabel in significance of 1% (0.463), the comparison between r – tabel and r – observed can be written as follows:

0.463 < 0.923

It shows that the score of r – observed was higher than the score of r – table, it means that the test was valid.

2. **Reliability of the Test**

According to Frankle (2009, p. 156) 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. Consider, for example, a test designed to measure typing ability. If the test is reliable, we would expect a student who receives a high score the first time he takes the test to receive a high score the next time he takes the test. The scores would probably not be identical, but they should be close.

Reliability of the test can be measured from the consistency and dependability of the test. Relation to the statement stated by Brown (2003,

p. 55) stated that a reliable test is consistent and dependable. Of course, the consistency and dependability of the test can be measured through the scores given.

In this part, the researcher tried to measure the reliability of the test through the rater reliability, specifically in inter-rater reliability. The researcher chose inter-rater reliability because the scores gotten from the test is evaluated by two raters, of course, the scores given are different. So that, the researcher uses the SPSS 23 application to find the reliability of the test based on Alpha Cronbach technique.

Table III.3
The Result of the Realibility Test

Cronbach's Alpha	N of Items
,735	1

G. Technique of Analayzing Data

The researcher used a static's analysis to analyze the data in order to know the result wheter it has statically significant, it was abalyzed by using Independent Sample T – Test. According to Julie Pallant (2011, p. 239) independent sample t-test is used when you want to compare the mean scores of two different groups of people or conditions.