CHAPTER III

RESEARCH METHOD

A. The Research Design

The type of this research is experimental research. The experimental research is the only type of the research that can test hypotheses to establish cause-and-effect relationship[1]. This research is categorized as quasi-experimental research. Quasi-experiment is a research design having some but not all of the characteristics of a true experiment. The element, most frequently missing is random assignment of subjects to the control and experimental conditions.[2]

In this research, the writer used two groups as sample, namely: experimental group and control group. For experimental group, the students were treated with particular teaching on what problems of research the writer had. Meanwhile, control group was only given a pre-test and pos-test without particular treatment as given to the experiment group. Both experimental and control groups were treated with the same test.

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[1] L.R. Gay and Peter Airaisian, *Educational Research Competencies for Analysis and Application.* Six Ed. (New Jersey: Prentice-Hall, Inc., 2000), pp.36.
[2] Gay, L.R and Peter Airasian. *Educational Research Competencies for Analysis and Application .6thEd.* (New Jersey: Von Hoffmann Press, 2000) pp.389.

Table III.1
Research Type

Group	Pre-test	Trearment	Post-test
Experimental	TO	X	T1
Control Group	TO	-	T2

B. The Time and Location of the Research

The research was conducted at the second year students of SMP Negeri 23 Pekanbaru.This research was st   24   m July until September 2012.

C. The Subject and Object of the Research

The subject of this research was the students at the second year of SMP Negeri 23 Pekanbaru, and the object of this research was the effect of reading workshop approach on reading comprehension.

D. The Population and Sample of the Research

The populations of this research consisted of 369 students. It was divided into nine classes namely 8.A=40, 8.B=40, 8.C=40, 8.D=40, 8.E=40, 8.F=40, 8.G=40, 8.H=40 and 8.I=40. In this research, the writer used quasi-experimental research; the writer took two classes only. They were 8.B class that consisted of 40 students as control group, and 8.C class that consisted of 40 students as experimental group. So, the total of sample was 80 students.

In determining sample of this research, the researcher used cluster random sampling because the population was large. To decide which one the population that would be taken as sample, the sample was taken based on the population that was specified. The sample of the research was 40 students taken from 8.C class.

Table III. 2

Total of Population at the Second Year

Students of SMPN 23 pekanbaru

No	Class	Students		
		Female	Male	Total
1	VIII. A	18	22	40
2	VIII. B	25	15	40
3	VIII. C	17	23	40
4	VIII. D	19	21	40
5	VIII. E	21	19	40
6	VIII. F	24	16	40
7	VIII. G	21	19	40
8	VIII.H	23	17	40
9	VIII.I	25	15	40
Total		**192**	**168**	**360**

Table III. 3

The Sample of the Research

No	Class	Type	Students		Total
			Female	**Male**	
1	VIII. G	Experimental Class	21	19	40
2	VIII. H	Control Class	25	115	40
Total					**80**

E. The Technique of Data Collection

   Test

   In getting the data which are needed to support this research, the writer used the test. Test is used to collect the data about the effect of using reading workshop approach toward students' reading comprehension. In this case, there were two tests; pre-test which was given before the treatment and post-test was given after the treatment. In this test, the writer used multiple choice tests in reading comprehension.

   Test was conducted in order to determine the students' reading comprehension. Test was given in the pre-test and post-test. To know the homogeneity of two variances, the researcher took pre-test. According to Punaji, pre-test is given to analyze the homogeneity variance[3].

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[3] Prof. Dr. H. Punaji Setyosari, M.Ed. *Metode Penelitian Pendidikan dan Pengembangan*. (Jakarta : Kencana Media, 2012), P.278

The researcher gave test in form of written form (multiple choice items) related to reading comprehension. Before giving pre-test and post-test,the researcher gave try out to the students, did not include as sample tried in this research, to measure the validity and reliability of each items test.

1. Test Blueprint

For further information about the instruction of the text, the writer showed the blueprint of both tests as follows:

Table III.4
The Blueprint of the Test

Number	Indicator of Items	Number of items	Items number
1.	Finding the topic	5 items	1,6,11,16,21
2.	Infomation of the text	5 items	2,7,12,17,22
3.	The difficult vocabulary	5 items	3,8,14,18,23
4.	The words reference	5 items	4,9,13,19,24
5.	The inference of the text	5 items	5,10,15,20,25

2. Validity

Before the tests were given to the sample, both of tests had been tried out to 40 students at the second year. The purpose of try out was to obtain validity and reliability of the test. It was determined by finding the difficulty level of

each item. Item of difficulty was determined as the proportion of correct responses. The formula for item of difficulty is as follows: [4]

$$P = \frac{B}{JS}$$

Where P   : index of difficulty or facility value

        B   : the number of correct answers

        JS   : the number of examinees or students taking the test

The difficulty level of an item shows how easy or difficult a particular item in the test. The items that do not reach the standard level of difficulty are excluding from the test and they are changed with the new items that are appropriate.

The standard level of difficulty used is **<0, 30 and >0, 70**.[5] It means that the item test that is accepted if the level of difficulty is between 0.30-0.70 and it is rejected if the level of difficulty is below 0.30 (difficult) and over 0.70 (easy). Then, the proportion correct is represented by "p", whereas the proportion incorrect is represented by "q". See in appendix 5.

Based on the try out result, it was determined that there were some items tests that were rejected because those items were too easy and too difficult. It

[4]Suharsimi Arikunto. *Dasar-dasar Evaluasi Pendidikan*. (Jakarta: PT. Rineka Cipta,2009) pp. 245

[5] *Ibid*. pp. 210

means that they should be revised with new items that were appropriate ones.

The result of try out is as follows:

Table III.4
The Item Difficulty of Try Out

Item number	Item difficulty	Result
1.	0.98	Rejected/easy
2.	0.60	Accepted
3.	0.40	Accepted
4.	0.63	Accepted
5.	0.08	Rejected/difficult
6.	0.40	Accepted
7.	0.55	Accepted
8.	0.68	Accepted
9.	0.65	Accepted
10.	0.43	Accepted
11.	0.48	Accepted
12.	0.60	Accepted
13.	0.45	Accepted
14.	0.53	Accepted
15.	0.40	Accepted
16.	0.55	Accepted
17.	0.20	Rejected/difficult
18.	0.58	Accepted
19.	0.48	Accepted
20.	0.63	Accepted
21.	0.60	Accepted
22.	0.53	Accepted
23.	0.50	Accepted
24.	0.63	Accepted
25.	0.50	Accepted

Some items rejected were item number 1, 5, and17. They had been revised.

3. Reliability

A test must first be reliable as measuring instrument. Reliability is a necessary characteristic of any good test. Heaton explains that reliability is of primary importance in the use of both public achievement and proficiency test and classroom test.[6] There are some factors affecting the reliability of a test, they are:

a. The extent of sample of material selecting for testing

b. The administration of the test, clearly this is an important factor in deciding reliability.

According to Grant Henning[7], reliability is thus a measure of accuracy, consistency, dependability, or fairness of scores resulting from administration of a particular examination. If reliability is associated with accuracy of measurement, it follows that reliability will increase as error measurement is made to diminish. We actually quantify reliability so that we can be aware of the amount of error present in our measurement and the degree of confidence possible in score obtained from the test.

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[6] J.B Heaton. *Writing English Language Test*. (New York: Longman Group UK Limited, 1988), pp.159

[7] Grant Henning. A *Guide to Language Testing: Development, Evaluation, Research.* (Cambridge: Newbury House Publishers, Inc, 1987), pp.74

Then, Tinambunan in Ida Maulina[8] stated that the reliability for good classroom achievement tests are expected to exceed 0.0 and closed 1.00. He states that reliability of test is considered as follows:

0.00-0.20   : Reliability is low

0.21-0.40   : Reliability is sufficient

0.41-0.70   : Reliability is high

0.71- 1.0   : Reliability is very high

In this research, the writer used software SPSS 16.0 version to calculate the reliability of test.

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	40	100.0
	Excluded[a]	0	.0
	Total	40	100.0

a. Listwise deletion based on all variables in the procedure.

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[8] Ida Maulina. *The Effect of Using Win, Lose or Draw Game to Increase the Vocabulary Mastery at the First Year Students of SDN 035 Tampan Pekanbaru*. (Pekanbaru: Unpublished Thesis, UNRI 2005), pp.20

Table III.5
Reliability Statistics

Cronbach's Alpha[a]	Cronbach's Alpha Based on Standardized Items[a]	N of Items
.524	.526	25

Table III.6
Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.509	.375	.625	.250	1.667	.007	25

The reliability of test was 0.53. It is categorized into high reliability level.

F. The Technique of Data Analysis

In order to find out whether there is significant effect of using reading workshop approach on reading comprehension, the data were analyzed statistically. To analyze the data, the writer used score of post-test of the experimental and control groups. These scores were analyzed by using statistical analysis. The data were analyzed by using T-test (independent sample t-test), and it was calculated by using software SPSS 16.

The t-table was employed to see whether or not there was significant different between the mean score in both experimental and control groups.

Statistically hypothesis:

$H_0 = t_0 < t$ table

$H_a = t_0 > t$ table

Criteria of hypothesis:

1. H_0 is accepted if $t_0 < t$ table or it can be said that there is no a significant effect of reading workshop approach on reading comprehension.

2. H_a is accepted if $t_0 > t$ table or there is significant effect of reading workshop approach on reading comprehension.