CHAPTER III

RESEARCH METHOD

A. Research Design

In this research, the writer used experimental research type. Precisely, it is a comparative experiment. Experiment is testing an idea (practice) to determine whether it influences an outcome or dependent variable.[1] The design of this research was comparative experiment. Comparative experiment is an experiments carried out to make comparisons. This case was done by comparing the experimental treatments and compare the effect of these treatments on the population selected.[2]

The static-group comparison at least involves two groups, one that receives a new (experimental), treatment and another that receives a traditional (control treatment), both groups are posttested.[3] It was an appropriate way to this research in order to know the significant difference on reading ability taught by using index card match and word square of the second year students Darel Hikmah Boarding School Pekanbaru.

This research consisted two variables, they were: Independent variable (Index Card Match as variable X1) and (Word Square as variable X2) and Dependent variable (variable Y) that referred to reading ability. In conducting this research, the writer used two classes. The first class was used as

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[1] John W. Creswell, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (New Jersey: Pearson Education, 2008), 299.
[2] Moh. Nazir, Ph.D, *Metode Penelitian,* Bogor: Ghalia Indonesia, 2005, hlm. 72
[3] L. R. Gay and Peter Airasian, *Educational Research Competencies for Analysis and Application. Six Edition* (New Jersey: Pearson Education, 2000), 397

experimental class taught by using Index Card Match and the second class was used as control class taught by using Word Square Strategy. Both experimental and control groups were treated in the same test.

According to Gay the type of this research can be designed as follows:[4]

Table III. 1
Research Design

Group	Pretest	Treatment	Posttest
E	O1		O2
C	O3		O4

E   : Experimental group

C   : Control group

O1   : Pre-test for both experimental and control group

O2   : Post-test for both experimental and control group

         : Receiving particular treatment

B. The Location and the Time of the Research

The research was conducted to the second year students at junior high school Darel Hikmah Pekanbaru, located on Manyar Sakti Street. The research was done for 6 meetings, starting from October 1 to 21 2013.

C. The Subject and the Object of the Research

The subject of the research was the second year students of islamic junior high school Darel Hikmah Pekanbaru. The object of the research was

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[4] L. R. Gay and Peter Airasian, *Op.Cit,* 398

the difference on reading ability taught by using index card match and word square of the second year students Darel Hikmah boarding school Pekanbaru.

D. The Population and Sample of the Research

The population of the research was the second year students at Darel Hikmah islamic boarding school Pekanbaru in 2012-2013 academic years. There were ten classes, the total number of the population was 292 students.

Based on the total of population, the writer used cluster sampling, the writer limited the population only two classes of the second grade as experiment class. VIII A2 and VIII A3 as an experimental class. Each class consisted of 30 students. So, the total of sample was 60 students.

Table III.2
The Population of the Second Grade Students
at MTs Darel Hikmah Pekanbaru

No	Class	Male
1	VIII B1	26
2	VIII B2	26
3	VIII B3	30
4	VIII B4	30
5	VIII B5	30
TOTAL		142

NO	Class	Female
1	VIII A1	30
2	VIII A2	30
3	VIII A3	30
4	VIII A4	30
5	VIII A5	30
TOTAL		150

Source: the documentation of Junior High School of Darel Hikmah Boarding School Pekanbaru Academic Year 2012-2013

Note : A is for female classes
B is for male classes

The writer took all of the population as the sample, in case the population is below 100 individual.[5]

Then, to determine the experimental classes, the writer used cluster sampling. The description of the sample can be seen as follows:

Table III.3
The Sample of the Research

No	Class	Students	Sample
1	Experimental	30	30
2	Control	30	30
	Total	60	60

According to the table, the writer took 60 students as sample in this research.

E. Technique of Data Collection

In getting the data which are needed to support this research, the writer used test. Test was used to collect the data about the difference between reading ability taught by using Index Card Match and Word Square. According to Gay, test is designed to provide information about how well test takers have learned what they have been taught in school.[6] In this case, there were two test; pre-test which was given before the treatment and post-test was

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[5] Jack R. Fraenkel, Norman E. Wallen, *How to Design and Evaluate a Research in Eduation,* (New York: McGraw-Hill Companies Inc;2006,) p.104
[6] L. R. Gay and Peter Airasian, *Educational Research Competencies for Analysis and Application Sixth Edition* (New Jersey: Pearson Education, 2000), 154.

given after the treatment. The type of the test was multiple choice test. The scores of reading on description text were classified in the table below:[7]

Table III. 3
The Classification of Students' Score

The Score Level	Category
80-100	Very good
66-79	Good
56-65	Enough
40-55	Less
30-39	Fail

F. Technique of Data Analysis

The writer analyzed the data by using statistically. To analyze the data, the writer used the statistical calculation of independent sample T-test formula. The independent sample T-test was used to find out the significant difference between reading ability taught by using Index Card Match and Word Square strategy. The data were analyzed by using SPSS 16.0 Version.

The T-table was employed to see whether or not there was significant difference between the mean score in both experimental and control groups. Statistically hypothesis:

1. H_o = t_o < t-table

2. H_a = t_o > t-table

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[7] Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan*, (Jakarta: PT Bumi Aksara, 2011), 245

Criteria of hypothesis:

H_o is accepted if t_o < t-table or it can be said that there is no significant difference on reading ability taught by using Index Card Match and Word Square strategy.

H_a is accepted if t_o > t-table or there is significant difference on reading ability taught by using Index Card Match and Word Square strategy.