

CHAPTER III

RESEARCH METHOD

A. Method of the Research

The type of this research is Experimental research. According to Creswell, experimental research is used when the writer wants to establish possible cause and effect between the independent and dependent variables.¹ In this research, the writer used a quasi-experimental design with nonequivalent control group which was intended to find out the effect of using Praise-Questions-Polish Strategy on students' ability in writing descriptive paragraphs at the first year of SMAN 5 Pekanbaru.

According to Cresswel, the quasi experimental approach introduces considerably more threats to intent validity and it also has the advantage in utilizing existing groups in educational setting because it introduces many threats that you can address in the design of the experiment.² Meanwhile, nonequivalent control group design is one of the most widespread experimental designs in educational research that involves an experimental group and a control group in both pretest and posttest, but in which the control group and the experimental group do not have pre-experimental sampling equivalence.³

¹Jhon.w.cresswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. (New Jersey: Pearson Education,2008), pg.299

²Ibid, Pg 314

³Donald T. Campbell and Julian Stanley, *Experimental and Quasy Experimental Designs for Research*, (New York: Rand McNally and Company, 1963) pg. 47

Furthermore, this research used two classes as sample. The first class functioned as an experimental class (X) treated by using Praise-Questions-Polish(PQP) Strategy and the second was a control class (Y) which was treated without using Praise-Questions-Polish(PQP) strategy. In the experimental class, the students were given pre-test at the beginning of the teaching learning in order to know students' ability in writing descriptive paragraphs. Then there was a treatment in the middle. During the treatment, the writer corporated with the observer, and posttest was done at the end of the teaching learning processes in order to know the effect of using Praise-Questions-Polish (PQP) strategy on students' ability in writing descriptive paragraphs. So, the design of this research can be illustrated as follows:

**Diagram III.1
Research Design**

1. Experimental class

| | | | |
|--------------------|----------|--------------|-----------|
| Control Class | Pre-test | No Treatment | Post-test |
| Experimental Class | Pre-test | Treatment | Post-test |

B. Time and Location of the Research

This research was done at SMAN 5 Pekanbaru. It is located on Bawalstreet 43 PekanbaruRiau. In addition, this research was conducted on Maret to May 2014.

C. Subject and Object of the Research

The subject of this research was the first year students at SMAN 5 Pekanbaru and object of this research was the effect of using Praise-Question-

Polish Strategy on Student' ability in writing descriptive paragraphs of the first year students at SMAN 5 Pekanbaru.

D. Population and Sample of the Research

The population of this research was the first year students at SMAN 5 Pekanbaru in 2013-2014 academic years. It had 148 students which were divided into five classes. The population was large enough to be taken as sample of the research. Based on the limitation of the research, the writer took only two classes after doing cluster sample randomly. According to Gay, cluster sample randomly is select group, not individuals. All the members of selected groups have similar characteristic.⁴

E. Technique of Collecting Data

In this research, the writer used test (pre-test and post-test) for collecting data. The purpose of the research was to know students' ability in writing descriptive paragraphs by using Praise-Questions-Polish(PQP) Strategy. Pre-test was given before teaching descriptive paragraph with Praise-Questions-Polish(PQP) Strategy. In pre-test, the students wrote descriptive paragraphs based on the topic given in 45 minutes. After that, the writer began to do the treatment by using Praise-Questions-Polish(PQP) Strategy in teaching writing descriptive paragraphs and gave an exercise of writing. At the last meeting, the writer gave post-test to the students. The

⁴L.R. Gay and Peter Airasian.Op.Cit. p.129

purpose of this test was to know how well writing ability of the students after being taught through Praise-Questions-Polish(PQP) Strategy was.

According to Syafii, the criteria of writing which present the profile as follows: content, organization, vocabulary, language use, and mechanics. They have typical skill where its component has asset of qualities (level) to be rate and series of possible writing.

1. Validity of the Test

The test used for testing students' writing ability had to have validity. According to Hughes, a test is said to be valid if it measures accurately what it is intended to measure.⁵ It means that the test should be appropriate, meaningful and also useful in terms of the purpose of the assessment. According to Gay, validity is the appropriateness of the interpretations made from the test score.⁶ Gay also states that there are three types of validity. They are content validity, criterion-related validity which consist of concurrent and predictive validity, and construct validity.

A test is said to have content validity if its content constitutes a representatives sample of the language skills, structures, etc. with which it is meant to be concerned.⁷ It means that content validity focuses on how well the items represent the intended area. According to Gay, content validity is determined by expert judgment and there is no formula by

⁵Arthur Hughes, *Testing for Language Teachers*, (Cambridge: Cambridge University Press, 2003) p. 26

⁶L.R. Gay and Peter Airasian, *Op cit.* p. 161

⁷Arthur Hughes, *Loc.cit.cit.* p. 26

which it can be computed and there is no way to express it quantitatively.⁸ According to Arikunto, content validity measures specific purpose that is parallel with the material that is learned in curriculum.⁹ It means that content validity can be determined by referring to the material given to the students based on the curriculum.

The tests used by the writer in this research had been approved by writers' supervisor who was familiar with language teaching and testing, and the tests given to the students were based on the material learned. Based on the explanation above, the writer assumed that the test used had content validity.

2. Reliability of the Test

According to Brown, a reliable test is consistent and dependable.¹⁰ Gay also states that reliability is the degree to which a test consistently measures whatever it is measuring.¹¹ It means that the same test that is given to the same students or matched students on two different occasions, the test should show the similar result.

Furthermore, According to Gay, subjective tests – such as essay tests, short-answer tests, performance and product tests, projective tests, observations, and almost any test that calls for more than one word response, are concerned with inter-judge and intra-judge reliability. Inter-

⁸ L.R. Gay and Peter Airasian, Op.cit. p. 164

⁹SuharsimiArikunto.*Dasar-DasarEvaluasiPendidikan*. (Jakarta: BumiAksara, 2009) p. 67

¹⁰ H. Douglas Brown, Opcit pg. 20

¹¹L.R. Gay and Peter Airasian, Loc. cit. pg. 169

judge reliability is also known as inter-scorer, inter-rater, and inter-observer reliability.

Inter-rater reliability refers to the scoring reliability of two (or more) independent scorers. Meanwhile, intra-rater reliability refers to the consistency of the scoring of a single judge or rater over time. In this case, the writer used inter-judge (inter-rater) reliability because the scores of the test in writing descriptive paragraphs done by writer in both experimental and control class were evaluated by two raters.

F. Technique of Data Analysis

In analyzing the data, the researcher used scores of pre-test and post-test of experimental and control group. This score was analyzed statistically by using both descriptive statistics and inferential statistics. Descriptive statistics permit the writer to meaningfully describe many pieces of data with a few indices.¹² Meanwhile, inferential statistics allow the writer to generalize to a population of individuals based on information obtained from a limited number of research participants.¹³ The data were analyzed by using statistical software which is SPSS 17.0 Version for the inferential statistics. The different mean was analyzed by using T – test formula.¹⁴

$$t_o = \frac{Mx - My}{\sqrt{\left(\frac{SD_x}{\sqrt{N-1}}\right)^2 + \left(\frac{SD_y}{\sqrt{N-1}}\right)^2}}$$

¹²L.R. Gay and Peter Airasian. Loc.cit. pg. 437

¹³ Ibid. pg. 469

¹⁴Hartono. *Statistik Untuk Penelitian*. (Yogyakarta: Pustaka Pelajar, 2008) p.193

| | | |
|--------|---|--|
| t_o | = | The value of t – obtained |
| M_x | = | Mean score of experimental sample |
| M_y | = | Mean score of control sample |
| SD_x | = | Standard deviation of experimental group |
| SD_y | = | Standard deviation of control group |

The t – table was employed to see whether there is a significant difference between the mean score of both experiment and control group. The t - obtained value was consulted with the value of t – table at the degree of freedom (df) = (N1+N2) – 2 statically hypothesis:

$$H_a : t_o > t - \text{table}$$

$$H_o : t_o < t - \text{table}$$

H_a is accepted if $t_o > t - \text{table}$ or there is effect of using Praise-Questions-Polish (PQP) Strategy on students' ability in writing descriptive paragraphs.

H_o is accepted if $t_o < t - \text{table}$ or there is no effect of using Praise-Questions-Polish(PQP) Strategy on students' ability in writing descriptive paragraphs.