

## CHAPTER III

### METHOD OF THE RESEARCH

#### A. The Research Design

The design of this research was a quasi-experimental, which used non-equivalent control group design “(between experimental and control classes have not been equal)”<sup>40</sup>. According to gay and Airasian, “in order to receive permission to use schoolchildren in a research, a researcher often has to agree to keep students in existing classroom intact. Thus, entire classrooms, not individual students, are assigned to treatments. This design is referred to as quasi-experimental design.”<sup>41</sup> In this research, the writer used pre- and posttest design. In conducting this research, two classes of the second year students of State Senior High School 2 Pekanbaru were participated. Here, the writer gave Pre-Questionnaires to experiment and control classes. Then, the writer gave treatment by using R5 strategy to experimental class only, and by using three phase technique to control class. Finally, the writer gave post-questionnaires to both classes in order to know the difference between using R5 strategy, and three phase technique applied by the writer. The design can be seen as follows:

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<sup>40</sup>Jhon. W. Creswell, *Educational Research Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. (New Jersey: Prentice Hall, 2008), pp.63

<sup>41</sup>L. R. Gay, and Peter Airasian, *Educational Research Competencies for Analysis and Application Sixth Edition*. (New Jersey: Prentice Hall, Inc, 2000), pp. 394

**Table III.1****Non Equivalent Control Group Design**

<b>Group</b>	<b>Pre- Questionnaires</b>	<b>Treatment</b>	<b>Post- Questionnaires</b>
E	O <sub>1</sub>	X	O <sub>1</sub>
C	O <sub>2</sub>		O <sub>2</sub>

**Figure 3.1** Research Design

Where:

E : Experimental Group

C : Control Group

O : Questionnaire

X : Receive the treatment by using R5 strategy

**B. The Time and Location of the Research**

The research was conducted at the second year students of State Senior High School 2 Pekanbaru. It is located on Jl. Nusa Indah Pekanbaru. It was held from March to April 2014.

**C. The Subject and Object of the Research**

The subject of this research was the second year students of State Senior High School 2 Pekanbaru. The object of this research was the effect of using Read and Relax, Reflect and Respond, and Rap (R5) strategy.

**D. The Population and Sample of the Research**

The population of this research was the second year students of State Senior High School 2 Pekanbaru in 2013-2014 academic years. The school

had 7 classes which consisted of 4 classes for science department and 3 classes for social department. The target of population in this research was the second year students of science department. The number of the second year students of State Senior High School 2 Pekanbaru in 2013-2014 was 232 students.

**Table III.2**  
**The Total Population of the Second Year Students at State Senior High School 2 Pekanbaru**

No	Class	Total
1	XI IPA 1	31
2	XI IPA 2	31
3	XI IPA 3	33
4	XI IPA 4	31
5	XI IPS 1	36
6	XI IPS 2	35
7	XI IPS 3	35
<b>Total</b>		<b>232</b>

Based on the research design, the writer took only two classes of seven classes for the samples taken by cluster sampling. According to gay and Airasian, “cluster sampling does not select the individual, but it selects groups. All of the members of selected groups have similar characteristic.”<sup>42</sup> Therefore, the writer took two classes (experimental and control class) that had the same chance as a sample in this research. The

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<sup>42</sup> L. R. Gay, and Peter Airasian, *Op.cit.*, pp. 129

writer used lottery to choose two classes from four classes of science department. One of the classes became the experimental class, and another became the control class. The experimental class was XI IPA 1, and the control class was XI IPA 3.

**Table III.3**  
**The Total Sample of the Research**

No.	Group	Class	Total
1	Experimental	XI IPA 1	31
2	Control	XI IPA 3	33
<b>Total</b>			<b>64</b>

#### **E. The Technique of Collecting Data**

The techniques used in this research for collecting the data are:

##### 1. Observation List

According to Creswell, "Observation is the process of gathering firsthand information by observing and places at a research site."<sup>43</sup> In this research, observation list was used to ensure whether students applied the procedures of the strategy or not. Then, the observation list was filled by teacher of English in the school. Observation list listed the procedures of the strategy that the students applied in every meeting. The meeting was conducted in 8 times meeting. This observation was not used to analyze the data, but it was used to make sure the treatment as work as the theoretical framework.

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<sup>43</sup>John W. Creswell, *Op.cit.*, pp. 625

## 2. Questionnaire

According to Richard, “Questionnaire is a set of questions on a topic or group topics designed to be answered by a respondent.”<sup>44</sup> The questionnaire that is used in this research requires the respondent to indicate answers based on a predefined list or scale. This scale is ranging from a very positive answer to a very negative answer. According to Wilkinson and Peter, “there are a number of ways to scale responses to questions and the most popular approaches is the Likert scale.”<sup>45</sup> To measure the data of questionnaires, the writer used Likert scale. In this research, likert scale consisted of five scales. There were strongly disagree (1), disagree (2), neither (3), agree (4), and strongly agree (5). The questionnaire had 20 items.

In this research, the writer used MRQ (Motivation Reading Questionnaire) designed by Baker and Wigfield. MRQ was used to collect the data of students’ reading motivation. MRQ was designed based on 10 indicators of reading motivation.

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<sup>44</sup>Jack C. Richards, and Richard Schmidt. *Longman Dictionary*, (Oxford: Oxford University Press, 1987), pp. 449

<sup>45</sup>David Wilkinson and Peter Birmingham, *Using Research Instruments; A Guide for Researchers*, (London: RoutledgeFalmer, 2003),pp. 12

**Table III. 4**  
**The Blue Print of Pre Questionnaire**

No	Indicators	Number of items
1.	The students are able to read well (Self-efficacy)	1,2
2.	The students are able to persist in reading difficult text (Challenge)	3,4
3.	The students are able to desire to read the interested topics (Curiosity)	5,6
4.	The students have desire to perform in reading class (Involvement)	7,8
5.	The students have desire to read because it is evaluated by the teacher (Competition)	9,10
6.	The students are able to receive the material for reading activity (Recognition)	11,12
7.	The students are able to enjoy the reading process (compliance)	13,14
8.	The students are able to share and discuss the reading material with other friends (Grades)	15,16
9.	The students are able to share and discuss the reading material with other friends (social)	17,18
10.	The students have belief that reading is valuable (Importance)	19,20

**Table III. 5**  
**The Blue Print of Post Questionnaire**

No	Indicators	Number of items
1.	The students are able to read well	3, 4
2.	The students are able to persist in reading difficult text	1,2
3.	The students are able to identify a reading goal and announce it	7,8
4.	The students are able to desire to read the interested topics	5,6
5.	The students are able to desire to complete a task rather than understand or enjoy the text	11, 12
6.	The students are able to enjoy the reading process	9, 10
7.	The students are able to desire to perform in reading class	15, 16
8.	The students have desire to read because it is evaluated by the teacher	13, 14
9.	The students are able to share and discuss the reading material with other friends	19, 20
10.	The students have belief that reading is valuable	17, 18

In the class, there were some procedures of collecting data:

a. Pre- Questionnaire

Pre-questionnaire was given by the writer before the students were taught by using R5 strategy for experimental class and using non R5 strategy (Three Phase Technique) for control class. Pre-questionnaire was given in the first meeting.

b. Treatment

The treatment was Read and Relax, Reflect and Respond, and Rap strategy for experimental class. R5 strategy was given after they were given pre-questionnaire.

c. Post- Questionnaire

Post-questionnaire was given to the students after they were taught by using R5 strategy for experimental class and by using non R5 strategy (Three Phase Technique) for control class.

3. Interview

Interview is as an *inter-view*, an interchange of views between two or more people on topic of mutual interest, sees the centrality of human interaction for knowledge production, and emphasizes the social situations of research data.<sup>46</sup> In other words, interview is one of ways to gather the data of research. Interview means that conversations conducted by interviewer and respondent (interviewee) that a specific purpose. In this research, the writer used scaled response. Cohen states

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<sup>46</sup>Louis Cohen, et al, *Research Methods in Education*, (New York: Routledge, 2007), pp. 349

“Scaled response as a way to ask questions for interviewee.”<sup>47</sup> In this research, interview was conducted to strengthen the result of questionnaires only, not to be analyzed.

## F. Validity and Reliability

### 1. Validity of the Data

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. According to Gay, “The validity has three kinds, they are content validity, criterion validity, and construct validity.”<sup>48</sup>

The writer provided the criterion validity to measure whether tests taken for this research are valid or no valid. In measuring the validity of the tests, the researcher used the SPSS 17.0 application to find out the validity of the tests.

Then the result is shown. Here is the output table:

**Table III. 6**  
**The Result of Validity of the Data**

		Correlations	
		score 1	score 2
score 1	Pearson Correlation	1	.706**
	Sig. (2-tailed)		.000
	N	31	31
score 2	Pearson Correlation	.706**	1

<sup>47</sup> *Ibid*, pp. 359

<sup>48</sup> L.R., Gay, and Peter Airasian. *Loc. Cit.*, pp. 163-167.

Sig. (2-tailed)	.000	
N	31	31

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

Based on the table above, it was clear that the validity value was 0.706. According Hartono, the score of validity values is 0.70– 0.90, it can be called high<sup>49</sup>. It shows that the validity value in the table above include in 0.70-0.90, it means that the test was valid.

## 2. Reliability of the Data

Reliability of the test can be measured from the consistency and dependability of the test. Relation to the statement stated by Brown, he stated “a reliable test is consistent and dependable”.<sup>50</sup> Of course, the consistency and dependability of the test can be measured through the scores given; it is one of the ways provided by Brown. According to Cohen, “there are three types of reliability: stability, equivalence and internal consistency.”<sup>51</sup>

The writer tried to find out the reliability of the test through the scores of questionnaires. The writer used the SPSS 17.0 application to find out the reliability of the test based on Cronbach Alpha technique.

Then the result is shown. Here is the output table:

<sup>49</sup>Hartono, *Statistik Untuk Penelitian*, (Yogyakarta: Pustaka Pelajar, 2010), p. 87

<sup>50</sup>H. Douglas, Brown. *Language Assesment: Principles and Classroom Practice*. (NewYork: Pearson Education 2004),pp. 20

<sup>51</sup>Louis, Cohen,et al, *Research Methods in Education*, (New York: Routledge, 2007), pp.

**Table III. 7**  
**The Result of Reliability of the Data**

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.778	.828	2

Based on the previous table, it was clear that the reliability value was 0.778. According to Pallant, "if cronbach's alpha above 0.7, so the scale can be considered reliable with our sample".<sup>52</sup> It means that the test was reliable.

#### **G. Normality Test of Data**

Abell states "the Kolmogorov-Smirnov Z test was typically used to assess univariate normality."<sup>53</sup> In order to ensure that the data are normally distributed, the writer used the Kolmogorov-Smirnov Z test. The normal distribution of data was computed by using SPSS 17.

Then the result is shown. Here is the output table:

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<sup>52</sup>Julie Pallant, *SPSS Survival Manual; A Step by Step Guide to Data Analysis Using SPSS for Windows (Version 10 and 11)*, (Philadelphia: Open University Press, 2001), p. 99

<sup>53</sup> Niel Abell, et. al. *Developing and Validating Rapid Assessment Instrument*, (Madison Avenue, New York: Oxford University Press, Inc., 2009), pp. 121

Table III. 8

## The Result of Normality of the Data

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
Experimental	31	56.29	6.404	44	74
Control	33	59.94	7.180	46	73

## One-Sample Kolmogorov-Smirnov Test

		Experimental	Control
N		31	33
Normal	Mean	56.29	59.94
Parameters <sup>a,b</sup>	Std. Deviation	6.404	7.180
Most Extreme	Absolute	.101	.106
Differences	Positive	.101	.106
	Negative	-.065	-.098
Kolmogorov-Smirnov Z		.563	.608
Asymp. Sig. (2-tailed)		.910	.854

a. Test distribution is Normal.

b. Calculated from data.

The SPSS result of normality test of data which computed by using SPSS 17.0 got  $p$ -value 0.910 for control class and 0.854 for experimental class. Both  $p$ -values were higher than 0.05.

**0.910 > 0.05 = experimental class data were normal**

**0.854 > 0.05 = control class data were normal**

It could be concluded that the data of students' reading motivation questionnaire scores in the control and experimental class were normal.

#### **H. The Technique of Data Analysis**

In order to find out whether or not there is a significant difference of reading motivation between the students who are taught by using R5 strategy and those are not taught by using R5 strategy; the data were analyzed by using SPSS version 17. In analyzing the data, the data used score of post-questionnaire of both obtained from experimental and control groups.

Before the post-questionnaire scores of both obtained from experimental and control groups were analyzed, the writer tested the score to see whether they were normally distributed. This analyzing was important to decide whether or not parametric and non parametric data analysis could be employed.

After analyzing the scores of both obtained from experimental and control class to see whether they are normally distributed or not, the data of both classes were normal. So, the writer used parametric data analysis. In analyzing the data, the writer used score of post-questionnaire from experimental and control class. The different mean was analyzed by using Independent T-test formula through using SPSS 17.0 version.

To analyze the scores from the questionnaires, the writer used the formula:

$$S = \frac{\text{total item} \times \text{total answer}}{100} \times 5$$

Where:

S = Individual Score

To analyze the level of students' motivation in reading class, the writer used the following formula:<sup>54</sup>

$$P = \frac{F}{N} \times 100\%$$

Where:

P = total percentage

F = Frequency

N = Total

The interpretation of the formula above is as follows<sup>55</sup>:

**Table III.9**

**The Classification of the Students' Reading Motivation**

No	Categories	Score
1.	Very strong	81%-100%
2.	Strong	61%-80%
3.	Enough	41%-60%
4.	Low	21%-40%
5.	Very low	0%-20%

<sup>54</sup> Anas Sudijono, *Pengantar Statistik Pendidikan*, (Jakarta: PT Grafindo Persada, 2000), pp. 40

<sup>55</sup> Riduwan, *Skala Pengukuran Variable-Variable Penelitian*. (Bandung: Alfabeta, 2000), pp. 216