

## CHAPTER III

### RESEARCH METHODOLOGY

#### 3.1 Research Design

The research design of this study was pre-experimental design which was one-group pretest-posttest design. According to Arikunto (2000), there are two types of experimental research: true experimental research and quasy-experimental research. True experimental research is divided into three categories; one-group pretest-posttest design, two-group pretest-posttest design and four group pretest-posttest design.

This study was pre-experimental research that was conducted by applying pretest – treatment – posttest. Pre-test (Y1) was aimed to find out the students' prior vocabulary mastery before the treatment was given. Treatment (X) was taught by using REACT strategy in vocabulary. Post-test (Y2) was aimed to see the improvement of the students' vocabulary mastery after taught by using REACT strategy. The design as follow:

<b>Y<sub>1</sub></b> <b>Vocabulary</b> <b>mastery</b> <b>(Pre-Test)</b>	<b>X</b> <b>REACT</b> <b>Strategy</b>	<b>Y<sub>2</sub></b> <b>Vocabulary mastery</b> <b>(Pos-Test)</b>
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Where :

Y1 : Pre-test

Y2 : Post-test

X : Treatment

### 3.2 The Location

This research was conducted from January 8<sup>th</sup> to February 9<sup>th</sup> 2016 at SDN 129 Pekanbaru which is located on Sakuntala street, Kabupaten Pekanbaru. The treatment of this research took four weeks. The data were taken for eight meetings with the time allocation of 2x45 minutes. The participants of the research were the fifth grade students of the second semester of the academic year 2017/2018.

### 3.3 Population and Sample of the Research

#### 3.3.1 Population

Population is an aggregate or totality of all the objects, subjects or members that conform to a set of specifications (Polit and Hungler, 1999:37). The population of this research is one class of the fifth grade students of SDN 129 Pekanbaru in academic year 2016/2017 from VA and it contained 21 students. In table 3.2.1.

**Table 3.3.1 Population of the Research**

<b>Classes</b>	<b>Number of Students</b>
<b>V A</b>	21
<b>Total</b>	<b>21</b>

### 3.3.2 Sample

Sample is the process of selecting a portion of the population to represent the entire population (LoBiondo-Wood & Haber 1998:250; Polit & Hungler 1999:95). In this research, the researcher selected the group being four groups and choose the students. However, the sample of this research was take from class VA as many as 21 students, each group has five students as in table 3.2.2.

**Table 3.3.2 Sample of the research**

Class	Students
V A	21

The reason for choosing this class as the sample because based on the interview with the teacher (May 2016), this class has higher motivation than other classes in learning English.

### 3.4 Research Instrument

The instrument of this research is a test. The test items are adopted from curriculum in SDN 129 Pekanbaru. The material is multiple choice. The blue print of the test as in the following :

**Tabel 3.4 Blue Print of Pre-Test**

No	Materials	Topic	No of Item	Total Number
1	Daily Activity	Noun	1,2,3,4,5	5
		Verb	6,7,8,9,10	5
		Adjective	11,12,13,14,15	5
		Adverb	16,17,18,19,20	5

**Tabel 3.5 Blue Print of Treatment**

NO	MATERIALS	TOPIC
1	Animals	Verb
		Noun
		Adjective
		Adverb
2	Part Of Body	Verb
		Noun
		Adjective
		Adverb
3	Fruits	Verb

			Noun
			Adjective
			Adverb
4	Room	At	Verb
	Home		Noun
			Adjective
			Adverb

**Tabel 3.6 Blue Print of Post-Test**

No	Materials	Topic	No Of Item	Total Number
1	Place	Noun	1,2,3,4,5	5
		verb	6,7,8,9,10	5
		Adjective	11,12,13,14,15	5
		Adverb	16,17,18,19,20	5

### 3.4.3 Validity of the Instrument

This research was validate by lecturers and teacher of English subjects who teaching schools to be studied. The test wasvalidate to students five grade, the result of validity of test was valid from 21 students by SPSS paired samples statistics. The students' total score in each item of vocabulary significantly increased. In addition, the improvement of the students' average score in pre-test and post-test was also very good.

### **3.4.4 Reliability of the Instrument**

Whether the research was reliable or not in the process of teaching. The test reliable in process of teaching.

### **3.5 Research Procedure**

This research was carry out in six meetings. It used to help teacher to achieve the goals of teaching. The procedures if this research divided into:

#### **3.5.1 Pre-Test**

Before the treatment, the students were give pre-test. The purpose was to know the students' vocabulary mastery. The test items were use for pre-test was 20 items. The test was about vocabulary based curriculum in SDN 129 Pekanbaru.

##### **First Meeting**

Pre-teaching:

- a. Teacher greets to the students
- b. Students check the attendance list
- c. The teacher motivates students to interest the vocabulary in upcoming selection and entice them to read it (motivating)

While teaching (doing treatment):

- a. Pre-test

Post-teaching:

- a. Submit the test

#### **3.5.2 Treatment**

This research was validate by lecturers and teacher of English subjects who teaching schools to be studied. The test was validate to students five grade, the result of validity of test was valid from 21 students by SPSS one samples statistics. The students' total score in each item of vocabulary significantly increased. In addition, the improvement of the students' average score in pre-test and post-test was also very good.

## Second Meeting

### a. Pre-activity (10 minutes) :

- Teacher greets to the students
- Students check attendance list
- Teacher gives explanations to the students how to apply REACT Strategy

### b. Main-activity (60 minutes) :

- Teacher explains about the procedures of REACT strategy :
  1. The teacher shows a picture about animals and asks students to make groups and each group consists of five students.(Relating)
  2. The teacher asked the students what is the animal and give some example about vocabulary animals (Relating and Experiencing)
  3. The teacher requires students to cite example part of animal. The students mentioned about vocabulary(Experiencing)
  4. The teacher asked the students to spell and pronounce the words and mention the noun/adjective. (Applying)
  5. The teacher asked students for write at white board. (Applying, Cooperating, and transferring)

### c. Post-Activity (20 minutes)

- Teacher asks each group to explain about animals in front of class.
- Teacher asks other groups to give comments.
- Teacher gives conclusion or reviewed the process after the student had finished their discussion.

- Teacher gives evaluation.

### **Third Meeting**

#### a. Pre-activity (10 minutes) :

- Teacher greets to the students
- Students check attendance list
- Teacher asks students some questions :
  1. Do you still remember about REACT Strategy?
  2. Do you understand about it?
- Teacher gives explanations to the students how to apply REACT Strategy

#### b. Main-activity (60 minutes) :

- Teacher explains about the procedures of REACT strategy :
  1. The teacher motivates students to interest the topic in upcoming selection
  2. Teacher gives a picture about part of body and asks students to make groups and each group consists of five students. (Relating)
  3. The teacher asked the students to give some examples about vocabulary part of body.(Relating and Experiencing)
  4. The teacher teach the students about the meaning of word in part of body and requires students to cite example part of body then the students mentioned about vocabulary(Experiencing)
  5. The teacher asks the students to spell and pronounce the words and mention the noun/adjective. (Applying)

6. The teacher asked students for write at white board. (Applying, Cooperating, and transferring)

c. Post-Activity (20 minutes)

- Teacher asks each group to explain about part of body in front of class.
- Teacher asks other groups to give comments.
- Teacher gives conclusion or reviewed the process after the student had finished their discussion.
- Teacher gives evaluation.

#### **Fourth Meeting**

a. Pre-activity (10 minutes) :

- Teacher greets to the students
- Students check attendance list
- Teacher gives explanations to the students how to apply REACT Strategy

b. Main-activity (60 minutes) :

- Teacher explains about the procedures of REACT strategy :
  1. The teacher shows a picture about fruits and asks students to make groups and each group consists of five students. (Relating)
  2. The teacher guides students relating the topic with their own background knowledge (Relating and Experiencing)
  3. The students give some example about vocabulary fruits (Relating and Experiencing)

4. The teacher teachstudents about the meaning of word and requires students to cite example part of body then the students mentioned about vocabulary(Experiencing)
  5. The teacher asked the students to spell and pronounce the words and mention the noun/adjective. (Applying)
  6. The teacher asked each group discussing write the adjective of fruits. (Applying, Cooperating, and transferring)
- c. Post-Activity (20 minutes)
- Teacher asks each group to explain about fruits in front of class.
  - Teacher asks other groups to give comments.
  - Teacher gives conclusion or reviewed the process after the student had finished their discussion.
  - Teacher gives evaluation.

#### **Fifth Meeting**

- a. Pre-activity (10 minutes) :
  - Teacher greets to the students
  - Students check attendance list
  - Teacher gives explanations to the students how to apply REACT Strategy
- b. Main-activity (60 minutes) :
  - Teacher explains about the procedures of REACT strategy :

1. The teacher introduces vocabulary about room at home and asks students to make groups and each group consists of five students.  
(Relating)
  2. The teacher asked the students what did you know about room at home? and give some example about vocabulary of room at home  
(Relating and Experiencing)
  3. The teacher asked the students to spell and pronounce the words and mention the noun/adjective. (Applying)
  4. The teacher asked each group for write at white board. (Applying, Cooperating, and transferring)
- c. Post-Activity (20 minutes)
- Teacher asks each group to explain about room at home in front of class.
  - Teacher asks other groups to give comments.
  - Teacher gives conclusion or reviewed the process after the student had finished their discussion.
  - Teacher gives evaluation.

### 3.5.3 Post-Test

After doing pre-test and treatment, the researcher will give post-test. The test items for post-test is 20 items. The test is about noun and adjective based curriculum in SDN 129 Pekanbaru.

## Sixth Meeting

- a. Pre-activity (10 minutes) :
  - Teacher greets to the students
  - Students check attendance list
  - The teacher motivates students to interest vocabulary using REACT strategy
- b. Main-activity (60 minutes) :  
Post-test
- c. Post-Activity (10 minutes)  
Submit the test

## 3.6 Data Collection Technique

### 3.6.1 Pre-Test

A pre-test was the test before the treatment was administered. It aims to see the understanding of the students. The test was administered as the first step to find out the students' vocabulary mastery before the treatment was applied especially about noun and adjective as an indicator in this research. The pre-test was conducted in the form of written test.

### 3.6.2 Post-Test

After teaching for five meetings, the writer was given post-test, Post-test was conducted after treatment to know the effect of using REACT strategy on students' vocabulary.

### 3.7 Data Analysis Technique

The classification of students' scores by Harris (1974) was used to score students' work and classify students' scores in pre-test and post-test.

**Table 3.7 The Classification of Students' Scores**

No	Test Score	Level of Ability
1.	80-100	Excellent
2.	60-79	Good
3.	50-59	Mediocre
4.	0-49	Poor

Adapted from Harris (1974)

The data was analyzed by using statistical analysis. In order to compare the results of students' score in vocabulary, the t-test was used by employing SPSS 16.0. (*Statistical Product and Service Solution*). The researcher found out the complete results in SPSS including the mean, the variance and the accuracy of the test. T-test was chosen to compare the differences of the students' scores in the pre-test and the post-test.