

## CHAPTER III

### THE METHODOLOGY OF THE RESEARCH

#### A. Research Design

This research is a kind of experimental research. “It is procedures in quantitative research in which the investigator determines whether an activity or materials make difference in result for participants.”<sup>1</sup> In this research, the researcher used quasi experimental design with nonequivalent control group.

Design variable:

X  $\longrightarrow$  Y      Variabel X as independent

Variabel Y as dependent

Gay and Airasian stated that quasi experimental design is used when the researcher keeps the students in existing classroom intact and the entire classrooms are assigned to treatments.<sup>2</sup> It is the appropriate one to use in this research. This design used two classes. One class was as a control class taught without using Four Coners Strategy and the other class was as a treatment/ experimental class taught by using Four Corners strategy. In both of classes, the researcher gave pre-test first. It is to know the basic ability of students. After that, the researcher gave treatment by using Four Corners strategy to the experimental class and without using Four Coners strategy for the control class. The last one after teaching several meetings, the researcher gave post test to know the

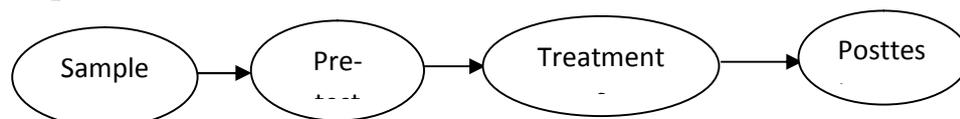
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<sup>1</sup> Jhon.w.cresswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. (New Jersey: Pearson Education,2008),p. 60

<sup>2</sup> L.R Gay and Peter Airasian. *Educational Research: Comptecies for Analysis and Application*. ( New Jersey: Prentice- Hall Inc, 2000). p. 367.

significant effect of using Four Corners strategy toward speaking ability of the second year students at SMAN 3 Pekanbaru. The control class was also given the post test to know the differences between both classes. To give the clear one, the researcher delivers the illustration as follows:

### 1. Experimental Class



### 2. Control Class



## B. Subject and object of the research

### 1. Subject of the Research

The subjects of this research were the teacher (the researcher) and the second year students of SMAN 3 Pekanbaru, in 2012-2013 in academic year.

### 2. The Object of the Research

The objects of this research were Four Corners strategy and Students' Speaking ability.

## C. Location and Time of the Research

The research has been conducted at the second year students of SMAN 3 Pekanbaru that is located at Yossudarso Street, Rumbai Pekanbaru in 2012/2013 of academic year. The research was done on December 2013.

## D. Population and Sample

### 1. Population

The population of this research was the second year students of SMAN 3 Pekanbaru, in 2012-2013 academic years. It had nine classes.

The number of the population was 160 students.

**Table III.1**  
**Population of the Research**

No	Classes	Population		Total
		Female	Male	
1	XI IPA 1	25	7	33
2	XI IPA 2	23	8	33
3	XI IPA 3	24	8	32
4	XI IPA 4	25	7	32
5	XI IPA 5	24	8	32

### 2. Sample

The total number of the second year students at SMAN 3 Pekanbaru, in 2012-2013 academic years was large enough to be all taken as sample of the research. In this research, the researcher only needed two classes. One class was as the experimental class and the other was as the control class. So the researcher limited the population by using cluster sample randomly.<sup>3</sup> The classes that had been chosen were XI.IPA.4 as an experimental class and XI. IPA.5 as a control class.

**Table III.2**  
**The Sample of the Research**

No.	Class	Total
1	XI.IPA. 4	32
2	XI.IPA. 5	32

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<sup>3</sup> *Ibid.* p. 129.

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

To find out the effect of Four Corners strategy toward students' speaking ability at second year of SMAN 3 Pekanbaru, the writer used test as the instruments to collect the data.

The researcher did the test to find out the result of teaching and learning process by using new strategy. In here , the researcher used oral production test to collect the data.

The kinds of test given to the students are as follows:

1. Pre –test was given to both of classes , experimental and control class , in order to know the basic ability of students' speaking . The researcher gave a text about analytical exposition. The students should read it about five until ten minutes. After that , the researcher asked the students to give arguments or their point of view about the writer's opinion on the text. They should present it about 3 minutes maximally. The researcher recorded them on videos.
2. Post test was given after teaching several times to both of classes. It was to know the students' speaking ability after being taught by using Four Corners strategy and without using Four Corners strategy. The procedure was the same as the pre-test , but the topic of the text was different.

There are some components that have to be considered in assessing students' speaking ability. They are: accent, grammar, vocabulary, fluency and

comprehension.<sup>4</sup> So, this research used this technique in assessing the students' ability. They have typical scale where each component has a set of qualities (level) to be rated and a series of possible rating. Hughes describes the rating as follows:

a. Accent

**Table III.3**  
**Accent**

<b>Score</b>	<b>Requirement</b>
1.	Pronunciation frequently unintelligible.
2.	Frequent gross error and a very heavy accent make understanding difficult, require frequently repetition.
3	“Foreign accent” requires concentrated listening, and mispronunciations lead to occasional misunderstanding and apparent errors in grammar of vocabulary.
4	Marked “Foreign accent” and occasional mispronunciations which do not interfere with understanding.
5	No conspicuous, mispronunciations, but would not be taken for a native speaker.
6	Native pronunciation, with no trace of “foreign accent”

b. Grammar

**Table III.4**  
**Grammar**

<b>Score</b>	<b>Grammar</b>
1	Grammar almost entirely inaccurate except in stock phrase.
2	Constant errors showing control of view major patterns and frequently preventing communication.
3	Frequent errors showing some major patterns uncontrolled and causing occasional irritation and misunderstanding.
4	Occasional errors showing imperfect control of some pattern but no weakness that causes misunderstanding.
5	Few errors, with no patterns of failure.
6	No more than two errors during the interview.

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<sup>4</sup> Arthur Hughes. *Testing for Language Teacher*. United Kingdom: Cambridge University. 2003. p.131

## c. Vocabulary

**Table III.5**  
**Vocabulary**

Score	Requirement
1	Vocabulary inadequate for even the simple conversation.
2	Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc.).
3	Choice of words sometimes inaccurate, limitations of vocabulary prevent discussion of some common professional and social topics.
4	Professional vocabulary adequate to discuss special interest; general vocabulary permits discussion of any non-technical subject with some circumlocutions.
5	Professional vocabulary broad and precise; general vocabulary adequate to cope with complex practical problems and varied social situations.
6	Vocabulary apparently as accurate and extensive as that of an educated native speaker.

## d. Fluency

**Table III.6**  
**Fluency**

Score	Requirement
1	Speech is so halting and fragmentary that conversation is virtually impossible.
2	Speech is very slow and uneven except for short or routine sentences.
3	Speech is frequently hesitant and jerky; sentences may be left uncompleted.
4	Speech is occasionally hesitant, with some unevenness caused by rephrasing and grouping for words.
5	Speech is effortless and smooth, but perceptively non-native in speed and evenness.
6	Speech on all professional and general topics as effortless and smooth as a native speaker's.

## e. Comprehension

**Table III.7**  
**Comprehension**

<b>Score</b>	<b>Requirement</b>
1	Understands too title for the simplest types of conversation.
2	Understands only show, very simple speech on common social and touristic topics; requires constant repetition and rephrasing.
3	Understands careful, somewhat simplified speech when engaged in a dialogue, but may require considerable repetition and rephrasing.
4	Understands quite well normal educated speech when engaged in a dialogue, but requires occasional repetition or rephrasing.
5	Understands everything in normal educated conversation except for very colloquial or low-frequency items, or exceptionally rapid or slurred speech.
6	Understand everything in both formal and colloquial speech to be expected of an educated native speaker.

Note: for non-native speaker, number 5 is the highest score.

The speaking result was evaluated by concerning on five components and each component had score or level. Each component had 20 highest score and the total of all components was 100. The specification is as follows:

**Table III.8**  
**The Specification Of The Test Score**

<b>No</b>	<b>Speaking skill</b>	<b>The Highest Score</b>
1	Accent	20
2	Grammatical	20
3	Vocabulary	20
4	Fluency	20
5	Comprehension	20
Total		100

### 1. Procedures of Collecting Data for Control Class

In control class, there were two procedures of collecting data:

a. Pre test

Pre test was given by the researcher to know the basic ability of students' speaking. The researcher gave a text about analytical exposition . The students should read it about five until ten minutes. After that , the researcher asked the students to give arguments or their point of view about the writer's opinion on the text. They should present it about 3 minutes maximally. The researcher recorded them on videos.

b. Post-test

Post test was given to the students after teaching English for several times. It was to know the students' speaking ability after teaching without using Four Corners strategy. The procedure was the same as the pre-test , but the topic of text was different.

## **2. Procedures of Collecting Data for Experimental Class**

In the experimental class, there were three procedures of collecting data: In the experimental class, there were three procedures of collecting data:

a. Pre-test

Pre-test was given by the researcher to know the basic ability of students' speaking. The researcher gave a text about analytical exposition. The text was same as the control's. The students should read it about five until ten minutes. After that, the researcher asked the students to give arguments or their point of view about the writer's

opinion on the text. They should present it about 3 minutes maximally.

The researcher recorded them on videos.

b. Treatment

In the experimental class, the researcher taught six times to give the treatment. The treatment was Four Corners strategy. The teacher used Four Corners procedure on the analytical exposition material. The topics given in each meeting were:

**Table III.9**  
**The Topic of Teaching Speaking in Each Meeting**

No	Meeting	Topic
1	I	Cars should be banned in the city
2	II	Corruption and Indonesian Culture
3	III	Learning English
4	IV	Smoking in restaurant
5	V	Being Fat matters
6	VI	Should Mobile Phone be Banned in the Schools

c. Post-test

Post test was given after the students were taught several times by using Four Corners strategy. It was to know the speaking ability of the students after giving the treatment. The procedure was the same as the pre-test, but the topic of the text was different.

Finally, the result of the test in control and experimental classes was assessed by two raters. The score from the raters was analyzed in data analysis to know the difference of students' speaking ability between those who are taught without using Four Corners strategy and taught by using Four Corners strategy.

## F. The Validity and Reliability of Test

The test used for testing students' speaking ability had to have validity and reliability. The test can be said to be valid if it measures accurately what it is intended to measure.<sup>5</sup> There are four types of validity, they are content validity, concurrent/ criterion validity, predictive validity, and construct validity.<sup>6</sup> Setiyadi stated that to know the validity of the test, the researcher used construct validity; in construct validity the researcher consulted with the expert to discuss the instrument used in measuring speaking ability of the students.<sup>7</sup> Sugiyono said that validity was divided into two kinds; they were internal validity and external validity. Test was included into internal validity. It should consider the construct validity and content validity.<sup>8</sup>

To analyze the construct validity, it can be used judgment experts based on some components that should be considered in giving students' score. To analyze the content validity, it can compare between the content of test and the material taught.<sup>9</sup> The test of pre and post tests of this research were valid, because the students' speaking was measured by two raters by using the standard score of assessing speaking from Hughes. The test was based on the material studied by the students at the moment. In making the test, the researcher had consulted first with the researcher's supervisor.

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<sup>5</sup>Ibid. p. 26.

<sup>6</sup>Jhon.w.cresswell Ps. 172-173.

<sup>7</sup>Bambang Setiyadi. *Metode penelitian untuk Pengajaran Bahasa Asing*. (Yogyakarta: Graha Ilmu, 2006). p. 25

<sup>8</sup>Sugiyono. *Metode Penelitian Pendidikan*. (Bandung: Alfabeta, 2011). p. 176

<sup>9</sup>Sugiyono. *Statistika untuk Penelitian*. (Bandung: Alfabeta. 2012). Ps. 352-353.

According to Gay, reliability is the degree to which a test consistently measures whatever it is measuring.<sup>10</sup> It is reflected in obtaining how far the test or instrument test is able to measure the same subject on different occasions indicating the similar result. Hartono states that reliability is an instrument that can give the consistent result of test in several times.<sup>11</sup> In short, the characteristic of reliability is sometimes termed consistently. It is clear that reliability is used to measure the quality of the test scores and the consistency of the test.

Gay said that “inter judge reliability can be obtained by having two (more) judges independently score to be compared to the score of both judges.”<sup>12</sup> In this research, the researcher used inter rater reliability, because the researcher had two raters in order to assess the students’ speaking ability.

### **G. Technique of Data Analysis**

In analyzing the data, the researcher used scores of pre-test and post-test of experimental and control group. These scores were analyzed statistically. To analyze data from the classroom observation, the writer used the category standard as follows:<sup>13</sup>

1. 80-100% = Very good
2. 66-79% = Good
3. 56-65% = Enough
4. 40-55% = Less
5. 30-39% = Bad

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<sup>10</sup> L.R. Gay and Peter Airasian, *Op . Cit.* p. 169

<sup>11</sup> Hartono. *Metodologi Penelitian.* (Pekanbaru: Zanafa, 2011). p. 80

<sup>12</sup> Ibid , p . 169

<sup>13</sup> Suharsimi Arikunto. *Dasar-Dasar Evaluasi Pendidikan.* (Jakarta: PT. Rineka Cipta, 2009). p. 245

“The different mean is analyzed by using T – test formula.”<sup>14</sup> In this research, the researcher used T-test to know whether the result of the research is statistically significant. The data were analyzed by using the formula as follows:

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

- $t_o$  = 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) as follows:

- df =  $(N_1 + N_2) - 2$
- df = the degree of freedom
- $N_1$  = the number of students in experimental class
- $N_2$  = the number of students in control class

Statically hypothesis is:

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

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<sup>14</sup> Hartono. *Statistik untuk Penelitian*. (Yogyakarta: Pustaka Pelajar, 2008) p.193

$H_a$  is accepted if  $t_o > t - \text{table}$  or there is a significant effect of using Four Corners strategy toward students' speaking ability at second year of SMAN 3 Pekanbaru.

$H_o$  is accepted if  $t_o < t - \text{table}$  or there is no significant effect of using Four Corners strategy toward students' speaking ability at second year of SMAN 3 Pekanbaru.