

CHAPTER III

RESEARCH METOD

A. Research Design

The design of this research is an experimental research, because the researcher wants to know the effect and relationship by implementing the stimulus. According to Gay (2000: 367), the experimental method is the only method which can test truly hypothesis concerning cause and effect relationship. It represents the most valid approach to the solution or educational problems, both practical and theoretical, and to the advancement of education as a science. He also states that an experimental typically there is two groups; an experimental group and a control group.

In this research the researcher used *posttest only control design* (Sugiyono (2013: 112)). The design of this research can be represented as:

Table 3.1 Research Design

Class	Treatment	Posttest
Experiment	X	Y
Control	-	Y

Where:

X = treatment of experimental group

Y = post-test

This design has two classes where the researcher randomly choose. The first, one class is the experimental class that received a treatment (X) or PMI strategy in teaching speaking process, while another class is the control class that received non treatment. The effect of giving treatment is posttest result (O_1 :

O₂). In this research, the effect of PMI strategy is being statistically analyze with t-t.

B. Population and Sample

1. Population

Gay (1987: 107) states that population is the total of group to which the researcher would like to generalize the result of the study and sampling is the processes of selecting a number of represent one the large group from which they selected. In this research, the population is the second year students of SMAN 1 VII Koto Sungai Sarik. They are distributed into five classes. The number of the students is 93 students and each class consist of 21 till 24 of students.

They would be chosen as the population based on assumption that they have the same basic knowledge in speaking English. They are distributed in a same average score, there is no the superior class. They also would be taught with the same teacher, material and syllabus, but different treatment.

Table 3.2
The Population of the Second Year Students of
SMAN 1 VII Koto 2017-2018

NO	CLASS	TOTAL STUDENTS
1	X MIPA ¹	21
2	X MIPA ²	24
3	X MIPA ³	24
4	X MIPA ⁴	24
Total		93

2. Sample

According to Gay (2000:121) sampling is the process of reflecting a number of individuals for a study in such way that the individual represent the large group which it is selected. He also states that a good sample is the one that representative of the population from which is selected. To choose these classes which class would be a sample, the researcher chose cluster sampling technique.

The sample is taken by cluster sampling. Gay, Mills, and Airasian, (2012:135) say that cluster sampling is sampling intact group, not individuals, are randomly selected. The researcher used this sampling technique because it is hard to regroup the existed group.

To get the representative sample of this research, researcher did these steps:

- a. Collect the Mid Term Test of English Communication data from all students at the tenth class.
- b. Test of Normality

Normality test has an objective to know the population normal or not. Based on analyzed by SPSS 16 program all of the groups of population the result of P-value higher than 0.05, it means that the data is normal.

**UIN IMAM BONJOL
PADANG**

Table 3. 3 Tests of Normality

Tests of Normality

KELAS	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
MIPA 1	,149	21	,200*	,935	21	,174
MIPA 2	,121	24	,200*	,962	24	,483
MIPA 3	,104	24	,200*	,954	24	,327
MIPA 4	,104	24	,200*	,951	24	,282

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

c. Test of Homogeneity of Variances

After doing normality, then researcher analyzed the homogeneous variation test. This test has an aim to know the sample homogeneity or not.

Table 3.4 Test of Homogeneity of Variance

Test of Homogeneity of Variance

	Levene Statistic	df1	df2	Sig.
Based on Mean	,630	3	89	,598
Based on Median	,654	3	89	,582
Based on Median and with adjusted df	,654	3	87,817	,582
Based on trimmed mean	,637	3	89	,593

d. After getting the classes, sample of this research consisted of two groups: an experimental group and control group. Based on the five classes above, the researcher chose two classes as the sample. In determining experimental group and control group, the researcher used the draw of the serial number of samples as in the arisan. So, class X MIPA² is selected to be control class and class X MIPA² is selected to be experimental class.

Table 3.5
Samples of the Research

No	Class	Number of the students
1	X MIPA ² (Experimental Class)	24
2	X MIPA ⁴ (Control Class)	
	Total	

C. Place and Time of the Research

This research was done in class at SMAN 1 VII Koto Sungai Sarik. It conducted at October-November 2017. This place is chosen because the researcher interested to do the research at this school and the students in the school also learned speaking skills as a part of their English curriculum.

UIN IMAM BONJOL PADANG

D. Research Variable

According Sugiyono (2013: 64), research variable is an attribute or nature or assess from people, object or activity having certain variation of specified by

researcher to be learned and then took its conclusion. There are two variables in this research:

1. Independent variable

Is variable which is influencing or becoming it is change cause or incidencing dependent variable.

a. Conceptual definition

PMI as a sytategy that requires looking at three perspectives : the positive or pluses, the negative or minuses and the neutral or the interesting. It means “plus” is related to the positive element of the topic. It can be all of benefits or advantages of one thing. “interesting” is related to those points that either good or bad, are regarded as neutral observation, comments or points of interest (Fogarty and Kern 2009)

b. Operational definition

PMI as a sytategy that is given to students during the learning process at experiment class and control class.

2. Dependent variable

Dependent variable is variable which is influenced by independent variable. Dependent variable in this research is students' achievement of speaking ability at class X Senior High School I Wali Kuto Sei. Sarik.

a. Conceptual definition

Students achievement is an ability owned by the students in both experimental and control class after they accepted the learning experiences.

b. Operational definition

Students achievement in this research is students' score after the speaking test is conducted by the researcher at the end of meeting in experimental class. Students achievement in this research will be students' score from speaking test.

E. Instrument

The instrument of the research is speaking test. The speaking test was done on post-test toward one class (experimental and control class). The students of experimental class was taught speaking through using PMI strategy and the students of control class was taught through conventional strategy.

Speaking test can help the researcher to measure students' speaking skill. Where the score is divided into five criteria based on Arikunto (2003: 131-132) such as: accuracy, pronunciation, grammar, fluency, and comprehension. The test is done at the end of meeting (post-test).

Arikunto (2001: 62) says that the characteristics of test validity is content validity. It means the test is valid if it fixes with the material that has been given to the students and it is based on the Curriculum and syllabus. The researcher will use the Curriculum or syllabus and teaching material to construct the test.

In addition, according Burn in Ali (1995: 203) says that the characteristics of test are validity and reliability. The test must have content validity if it measures what is going to be measured related to content validity. It means the test will be valid if it fixes with the material that has been given to

**UIN IMAM BONJOL
PADANG**

the students and it is based on the Curriculum and syllabus. The reliability of the test is synonymous with the consistency of a test.

In order to get students' speaking scores, oral proficiency scoring is categorized by Hughes (2003:131-133) criteria 1-6 in scoring test, such as pronunciation, grammar, vocabulary, fluency, and comprehension.

Table 3.6 Sample of Instrument in Giving Speaking Scores:

Criteria	1	2	3	4	5	6
Pronunciation	0	1	2	3	4	4
Grammar	6	12	18	24	30	36
Vocabulary	4	8	12	16	20	24
Fluency	2	4	6	8	10	12
Comprehension	4	8	12	15	19	24
Total Score						100

Based on the table above, the score that would be given is from one point until five point based on the competence that is done by students. The researcher used indicators of speaking skill that is used by Hughes. It is helpful to assess students speaking skill that measures how better students in speaking English

UIN IMAM BONJOL PADANG
Table 3.7 Sample of Instrument in Giving Speaking Scores

No. Students	Aspect					Total
	P	G	V	F	C	(100)
	(4)	(36)	(24)	(12)	(24)	
1						
2						
3						
↓						
24						

Table 3.8 Blue Print of Speaking Test

No	Types of Test	Component of writing	Indicator	Genre /Topics	Item	
	Writing test	Pronunciation	The students are able to Pronounce words, have a good grammar, have much vocabulary, have good Fluency and comprehend the topic	Describing people ➤ My idol 	1	
		Grammar				1
		Vocabulary				1
		Fluency				1
		Comprehension				1
	Total				5	

UIN IMAM BUKHORI
PADANG

F. Procedure of Experiment

There are some steps to do the research such as preparation, application, and finishing.

1. Preparation

The writer used two classes to collect the data, he would teach the students using PMI strategy for experimental class, and the English teacher would teach a conventional technique for control class. However, the material of the teaching was the same speaking material. In short, the writer had proposed this procedure.

1. Determined place and time of the research
2. Determining population and sample of the research
3. Prepared lesson plan arranged by curriculum
4. Explained to the students about the plan and learning process.
5. Prepared the post test

2. Application

The procedures of teaching writing in the classroom can be seen as follow:

UIN IMAM BONJOL PADANG

Table 3.1
Teaching Procedure/ Treatment

Experiment Class Using Plus Minus Interesting (PMI)	Control Class Using Conventional strategy
Pre- Teaching Activity 1. Teacher greets the students 2. Teacher prays	Pre- Teaching Activity 1. Teacher greets the students 2. Teacher prays

<ol style="list-style-type: none"> 3. Teacher checks students' attendance 4. Teacher asks students about the last material 5. Teacher builds the students' background knowledge 6. Teacher explains the aim of teaching and learning 7. Motivate the students. 	<ol style="list-style-type: none"> 3. Teacher checks students' attendance 4. Teacher asks students about the last material 5. Teacher builds the students' background knowledge 6. Teacher explains the aim of teaching and learning 7. Motivate the students.
<p>Whilst Teaching Activity</p> <p>Exploration</p> <ol style="list-style-type: none"> 1. Teacher build students' background knowledge by shows a picture and gives some question based on the topic 2. The teacher gives the students an example of descriptive text. 3. Both of the teacher and the students discuss the vocabulary that relevan with the text. 4. The teacher explains the generic structure and language features of the text. <p>Elaboration</p> <ol style="list-style-type: none"> 1. The teacher gives the students clearly instruction of what students going to do. 2. The teacher divide students with a pair. 3. The teacher gives a picture for each pairs. 4. The teacher distributes one blank PMI. 5. The students have to think of the plus point, minus point and interesting point of the picture. 6. Each members of group write their own description about the picture (outline of their writing, format from the teacher), and then combine it for class presentation. 7. Each group has to take notes when another group presenting 	<p>Whilst Teaching Activity</p> <p>Exploration</p> <ol style="list-style-type: none"> 1. Teacher build students' background knowledge by shows a picture and gives some question based on the topic 2. The teacher gives the students an example of descriptive text. 3. Both of the teacher and the students discuss the vocabulary that relevan with the text. 4. The teacher explains the generic structure and language features of the text. <p>Elaboration</p> <ol style="list-style-type: none"> 1. The teacher explains about descriptive text. 2. The teacher ask a volunteer to stand up infront of the class. 3. The teacher asks the students to mention the characteristic of the volunteer. Ex: Oh students, what do you think about your friends? 4. The teacher ask the students to write about something and then describe it in front of the class. <p>Confirmation</p> <ol style="list-style-type: none"> 3. The teacher commented on students presentation and explains about generic stucture and language feature of the text

**UIN IMAM BONJOL
PADANG**

<p>their text.</p> <p>8. The teacher monitors the activities while the students presenting the text</p> <p>Confirmation</p> <p>1. The teacher commented on students presentation and explains about generic structure and language feature of the text</p> <p>2. The teacher asked the students to write their own descriptive text based on the topic they interested on in their diary book</p> <p>Post-teaching</p> <p>1. The teacher and students conclude the lesson</p> <p>2. The teacher give some questions to the students to know students comprehension of the lesson</p> <p>3. Teacher give homework to the students in order to understand the lesson well</p>	<p>4. The teacher asked the students to write their own descriptive text based on the topic they interested on in their diary book</p> <p>Post-teaching</p> <p>1. The teacher and students conclude the lesson</p> <p>2. The teacher give some questions to the students to know students comprehension of the lesson.</p> <p>3. Teacher gives homework to the students in order to understand the lesson well.</p>
---	--

3. Finishing

- a. Collected the data (students speaking).
- b. Processed data towards experiment and control class by using T-test formula.
- c. Got finding.
- d. Took conclusion and proposed suggestion.

**UIN IMAM BONJOL
PADANG**

G. Techniques of Data Collection

The data of this research is collected by giving speaking test. The test is given in post-test. Post-test is the process of identifying the students' writing skill after giving the treatment. Treatment is the process of using PMI as a strategy in teaching and learning process to give significant effect toward student's speaking ability.

The class is conducted for five meetings. And the material that would be taught is a kind of the monologue text (descriptive text) by using PMI strategy.

While, Post-test is the process of giving the test after giving the treatment. It will be aimed to conclude the contribution of PMI strategy in teaching and learning speaking process to students' speaking ability. Moreover, speaking test used to know the students' pronunciation, grammar, vocabulary, fluency and comprehension with PMI strategy.

H. Technique of Data Analysis

The data would be described quantitatively. Technique also used to analyze the data statistical procedures by using a set of test. It is used to see the different progress of the student's speaking that will be taught with PMI as a strategy and conventional strategy

1. Descriptive Analysis

The researcher did normality and homogeneity test firstly before using t-test. Statistically procedure gave a way to analyze the differences between the groups by using t-test technique. T-test means a statistical procedure used determine whether there is any significant difference between the

means of two sets of scores. The purpose was to see difference of speaking skill between experiment and control class.

1. Normality testing

This test used to know whether the distribution of each variable is normal or not. Testing normality done by applying kolmogorof-sminov and shapiro-wilk test by using computer program called SPSS (statistical product and service solution) version 16. The criteria of normality test are significance, if the score analysis is biggest than standard significant 5 % (0,05). If the score analysis is biggest than standard significant, the data distribution is normal.

2. Homogeneity Testing

This test used to see whether the sample which sample from population have same characteristic as population or not. The formula which is used in this test is levene test by using SPSS (statistical product and service solution).

Technique that would be use to analyze the data was statistical procedure by using a set of test. It is used to see the different quality of the students speaking with and without implementing Paired-Storytelling technique. Furthermore, the data is analyzed by using T-test formulas as suggested by Sudjana (2005: 239). T-test formulas develop which is presented as follow: in analyzing the students' test score, some step are done before analyzing the different mean by using T-test formula as follows;

**UIN IMAM BONJOL
PADANG**

In analyzing data, the researcher used t-test formula as follow :

1. This formula will be applied to decide mean of students' test score in experimental class and control class.

(Experimental group)

(Control group)

2. This formula will be used to decide standard deviation of experimental group and control class:

(Experimental class)

(Control class)

The formula of T-test is as follows;

UIN IMAM BONJOL PADANG

Where

t = the value of t calculated (observer) obtained

\bar{X}_1 = Mean score of experimental class sample

\bar{X}_2 = Mean score of control class sample

n_1 = the number of subject of experimental class

n_2 = the number of subject of control class

S_1 = standard deviation of experimental class

S_2 = standard deviation of control class

2. Hypothesis testing

The t table is to see whether there is significant difference between the mean score of both experimental class and control class. The value of obtained is consult with the value of t table at the degree of freedom $(n_1-1) + (n_2-1)$ or $(n_1 + n_2 - 2)$ and the level of confidence of $95\% = 0,05$.

If the value of t-observed is less than the value of t-table, the null hypotheses there is no significant difference of the students' achievement in speaking skill between those taught with PMI Strategy and those taught with conventional strategy is accepted. On the contrary if the value of t-observed is equal or bigger than the value of t table, alternative one the students' achievement in speaking skill those taught with PMI Strategy is higher than those taught with conventional technique is accepted.

**UIN IMAM BONJOL
PADANG**