# CHAPTER III

RESEARCH METHOD

A. Research Design

The design of this research is an experimental research, According to Gay (1987: 260), 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 of education problems, both practical and theoretical, and to the advancement of education as a science. He also states that experimental typically involves two classes, an experimental class and control class. In experimental class, the teacher would give some treatment by using Know Want Learn Strategy. While in control class, there was no treatment during this research. This research would be done in six meetings, in which started from the first meeting to the sixth meeting, the researcher would give vocabulary material and introduced Know Want Learn strategy to experiment class. Finally, in sixth meeting, researcher would conducted post-test for both classes.

Table 3.1

Design of the Research
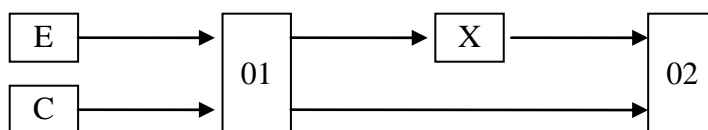
In this case,

E =Experimental Group

C = Control Group

X = Teaching by using KWL strategy

01 = Pre- test

02 = Post-test

B. Population and Sample

1. Population

Gay (1987: 102) states population is the group of interest to the writer, the group to which he would like the result of the study to be generalize. In the other words, population is the total number of students on a research. The population of this research is the Eight year students of SMP Negeri 4 Pariaman. This subject is chosen because the writer is gone to apply Know Want Learn strategy to the very beginning level. There are 110 students in total population for this Eight grade. The distribution of students is stated in the following table.

Table 3.2

The Total Students Population of the Research

Class	Male	Female	Total students
VIII.1	13	16	29
VIII.2	15	13	28
VIII.3	15	11	26
VIII.4	15	12	27
Total	**58**	**52**	**110**

Table 3.3

No	Class	Number of students
1	VIII$_{.1}$	29
2	VIII$_{.2}$	28
3	VIII$_{.3}$	26
4	VIII$_{.4}$	27
	Total	**110**

Source: English teacher at class VIII JHS 4 pariaman

2. Sample

According to Gay (2000:121) sampling is the process of selecting a number of individuals for a study in such way that the individual represent the large group which it is selected. Sample is a part of the population to research. Gay (2000:122) also states that a good sample is the one that representative of the population from which is selected. The sample of this research consists of two groups, experimental group and a control group. Researcher used random sampling to get sample. According to Gay (2000: 123), random sampling is the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of selected for the sample. Based on the three classes above, the researcher chose two classes as the sample. In determining experimental group and control group, the researcher used flapping coin.

To get the sample of the research, the researcher used the lottery to get a class for the sample. Such as class VIII$_{.1}$ lottery A, VIII$_{.2}$ lottery B, VIII$_{.3}$ lottery C, and VIII$_{.4}$ lottery D. All lotteries were put in the box and then the researchers shock it and removed a lottery. The one, which

removed, was chosen as the sample of the research. In this case, VIII.$_2$ as control class, and VIII.$_3$ as experimental class.

Cluster sampling is sampling in which groups, not individuals are randomly selected that have similar characteristics and in which subjects can found. To get the representative sample of this research the following steps:

1. Collecting the score MID test scores the entire students class VIII from the teacher.

2. Test of normality

Normality test had an objective to know the population normal or not. In this research, researcher was used Kolmogrov Smirnov and Shapiro Wilk to know the sample normal or not. Based on analyzed by SPSS (*statistical product and service solution*) 16.0 program all of the groups of population the result of P-value higher than 0.05, it means that the data was normal.

Table 3.4
Tests of Normality

| VAR00002	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
VAR00001 1	.150	29	.094	.926	29	.043
2	.147	28	.127	.959	28	.328
3	.126	26	.200[*]	.963	26	.456
4	.122	27	.200[*]	.974	27	.713

a. Lilliefors Significance
Correction

Based on the table above, could be seen that the significance or probability score of all the classes bigger than 0.05 in both Kolmogorov-Smirnov and Shapiro-Wilk. To see whether the sample normal or not in distribution, researcher also used normal graphic of Q-Q plot, the data is normal if the distribution of data plot isin the surrounding of aslant and athwart line. From the normality test, researcher got the output as below:
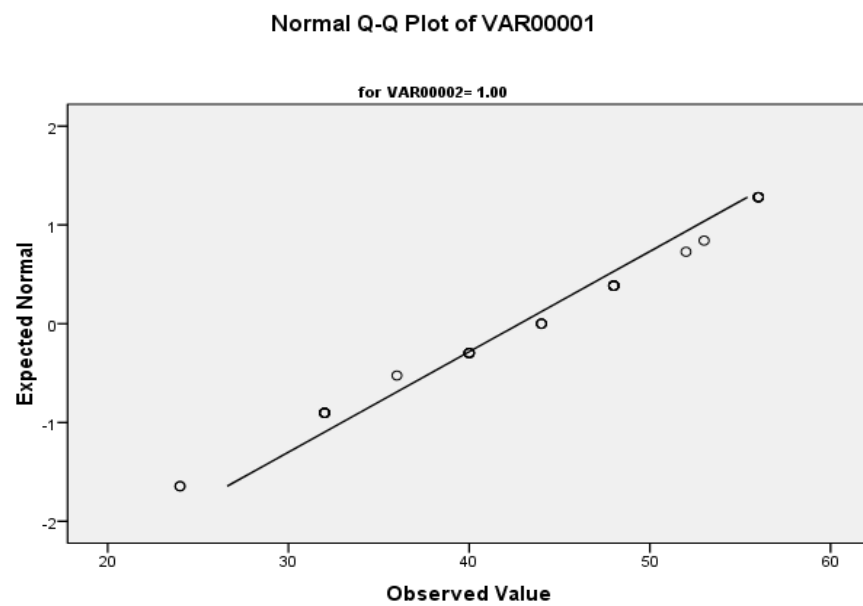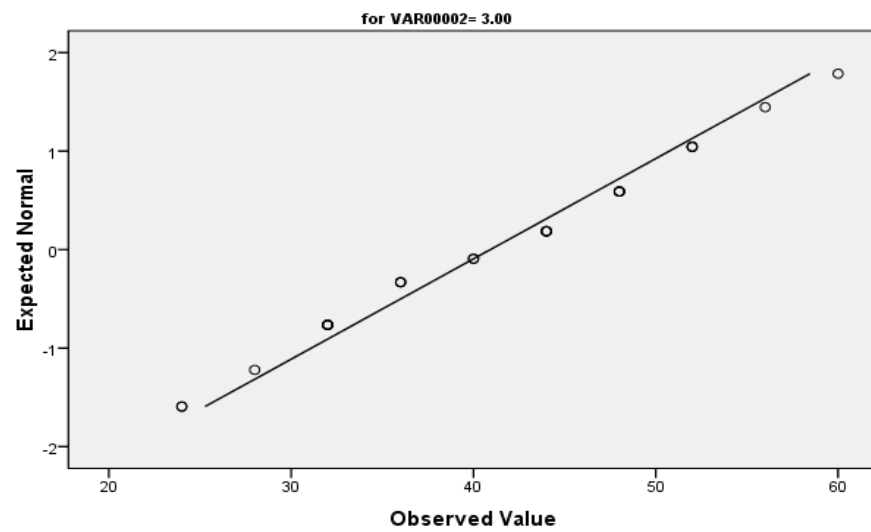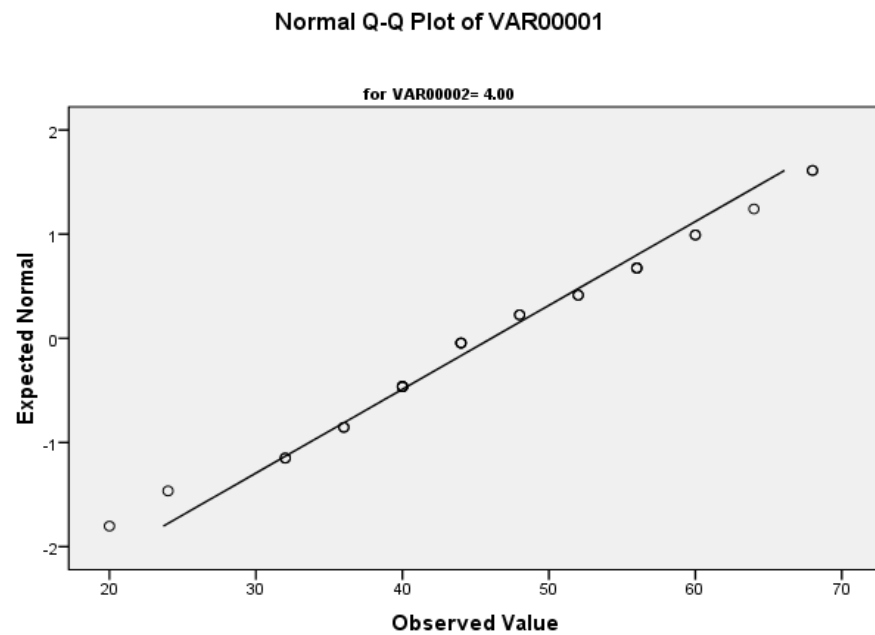

Normal Q-Q Plot of VAR00001

Normal Q-Q Plot of VAR00001

for VAR00002= 2.00

Normal Q-Q Plot of VAR00001

for VAR00002= 3.00

Normal Q-Q Plot of VAR00001

for VAR00002= 4.00
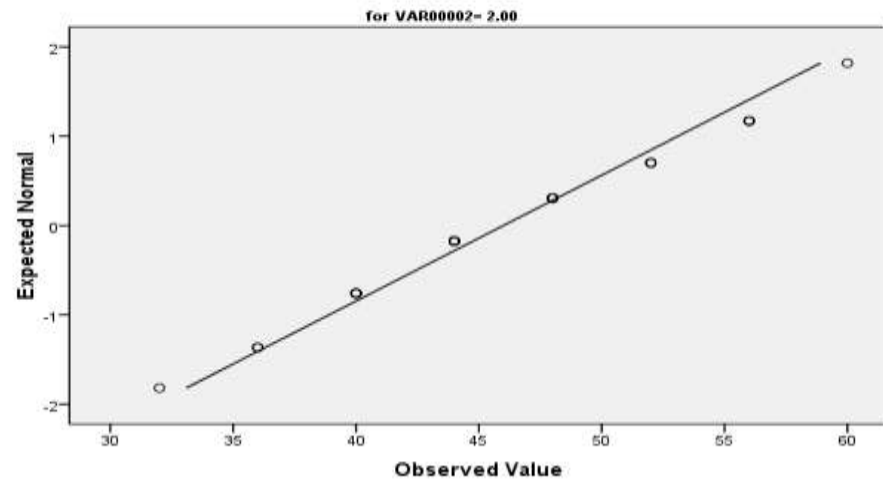
From the graphic above could be seen that the drops spread around the line. So, it could be concluded that the distribution of all the population was normal.

3. Test of Homogeneous Variances

After doing the normality test, then researcher analyzed the homogeneous variation test. This test had an objective as to know the sample homogeny or not. This test used SPSS with the test, if the data significant or the data of more than 0.05 it mean the data was homogeneous.

Table.3.5

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
VAR 00000 1	Based on Mean	2.809	3	106	.043
	Based on Median	2.327	3	106	.079
	Based on Median and with adjusted df	2.327	3	88.320	.080
	Based on trimmed mean	2.820	3	106	.042

4. After getting the class,the sample of this research consisted of two
groups: an experimental group and control group. Then the
researcher has chosen two classes as the sample. In determining the
experimental group and control group, the researcher used cluster
random sampling. So, Class, $VIII_3$ as experiment class and Class
$VIII_2$ as control class.

Table 3.6

Sample of the Research

No.	Class	Description
1.	VIII.3	Experimental class
2.	VIII.2	Control Class

C. Instrument of the Research

The objective of teaching speaking was to improve the students' speaking
skill in English actively and fluently. There were two tests that used in this
research, pre-test, and post-test. The researcher gave the pre test before giving
the treatment. The researcher did the treatment during the five times then
gave the post-test finally.

The test was set based on the goal of teaching and learning that would be achieved. Pre-test used to know the students' speaking skill at the beginning and post-test used to know the development of the students' speaking skill in the ending after using Know Want Learn strategy in teaching and learning speaking skill.

This research was used the test as instrument. Instrument is a tool that is used to measure a data of the research. The first test is Oral test. In this research, the researcher used speaking test in form of performance. The procedures for retrieving students speaking data are as follows: (1) Theteacher prepare two topics that selected by the students between the text going camping and holiday in bali. (2) The teacher calls the students one by one and asks them to choose the topic. (3) The teacher asks the students to tell the experience related to their choice. (4) The teacher records the students when speaking. (5) Assessing some indicators of speaking pronunciation and fluency at the time the students speak. (6) Transcript. (7) Assess the vocabulary, grammar, and comprehension of students after the students speak. The data of this research collected from students' performance. The speaking test gives to the students of the experimental class who wastaught by using know want learn strategy and the students of control class who was taught by using conventional technique.

Furthermore, According to Hughes (2003:130-133) proposes five categories that should be considered in testing students speaking performance such as pronunciation, grammar, vocabulary, fluency, and comprehension.

The scoring consists of five levels that show students spoken performance it can be described in the following table.

Table 3.7
Indicators of speaking based on Hughes's theory

No	Speaking Component	Level Description	Score
1.	Pronunciation	1. Pronunciation frequently unintelligible.	0
		2. Frequent gross error and a very heavy accent make understanding difficult, require frequent repetition.	1
		3. "Foreign accent" requires concentrated listening, and mispronunciation lead to occasional misunderstanding and apparent error in grammar or vocabulary	2
		4. Marked foreign accent" and occasional mispronunciation which do not interfere with understanding	3
		5. No conspicuous miss pronunciation but would not be taken for native speaker.	4
		6. Native pronunciation with no trace of "foreign accent".	5
2.	Grammar	1. Grammar almost entirety inaccurate phrases.	6
		2. Constant errors in showing control of very few major Pattern and frequently preventing communication.	12
		3. Frequent errors showing some major pattern uncontrolled and causing occasional irritation and misunderstanding.	18
		4. Occasional errors showing imperfect control of some pattern but no weakness that causes misunderstanding.	24

		5. Few errors with no pattern of failure.	30
		6. No more than two errors during the interview.	36
3.	**Vocabulary**	1. Vocabulary inadequate for even the simplest conversation.	4
		2. Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc)	8
		3. Choices of words sometimes inaccurate, limitation of vocabulary prevent discussion of some common professional and social topics.	12
		4. Professional vocabulary adequate to discuss special interest: general vocabulary permits discussion of any non-teaching subject with some circumlocutions.	16
		5. Professional vocabulary broad and precise: general vocabulary adequate to cope with complex practical problems and varied social situation.	20
		6. Vocabulary apparently as accurate and extensive as that of an educated native speaker.	24
4.	**Fluency**	1. Speech is so halting and fragmentary that conversation is virtually impossible	2
		2. Speech is slow and uneven expect for short or routine sentence.	4
		3. Speech is frequently hesitant and jerky, sentence maybe left uncompleted	6
		4. Speech is effortless and smooth but perceptibly non native in speech and evenness.	8
		5. Speech is effortless and smooth but perceptibly non native in speech and evenness.	10

		6. Speech on all professional and general topics as effortless and smooth as a native speaker.	12
5.	**Comprehension**	1. Understands too little for simplest type of conversation.	4
		2. Understands only slow, very simple speech on common social and touristy topics: require constant repetition and rephrasing.	8
		3. Understand careful, somewhat simplified speech when engage in dialogue but may require considerable repetition and rephrasing.	12
		4. Understanding quite well normal educated speech when engage in a dialogue but requires occasional repetition or rephrasing.	15
		5. Understands everything in normal educated conversation except for very colloquial or low frequently items or exceptionally rapid or slurred speech.	19
		6. Grammar almost entirety inaccurate phrases.	23

Table 3.8
Weighting Table

	1	2	3	4	5	6
Pronunciation	0	1	2	2	3	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	16	20	24
TOTAL	**16**	**33**	**50**	**66**	**83**	**100**

Source: Hughes,2003

The total of weighted scores is then looked up in following the table which

converts it into a rating on a scale 0-4+.

Table 3.9
Conversion Table

SCORE	RATING	SCORE	RATING	SCORE	RATING
16-25	0+	43-52	2	73-82	3+
25-32	1	53-62	2+	83-92	4
33-42	1+	63-72	3	93-99	4+

D. Procedure of Data Collection

The procedure of this research was conducted in two classes. They were experimental class and control class. Both of classes were treated for six meetings. As mentioned before the experimental class was treated by using Know Want Learn Strategy while control class was treated without Know Want Learn Strategy. In the last meeting, the researcher gave a test to see the students' development, which involves five components. This research was done in several steps as follows:

1. Preparing

The researcher used two classes to collect the data, the researcher taught the students by using Know Want Learn strategy for experimental class, and the English teacher would taught a conventional technique for control class. However, the material in learning is the same. In short, the researcher explains the procedures as bellow:

1. Determining the research time.

2. Prepare the lessons plan arranged by curriculum.

3. Doing the pre-test

4. Doing treatment for both experimental and control classes.

5.After the treatment, each group would have a post-test.

6.The result is calculated using the percentage of improvement.

7.Findings

2. Learning Process

Table 3.10
Teaching Procedure for Experimental Group

Experiment Class
1. The teacher provides the students with the topic of the unit.
2. The teacher asks the students to divide a piece of paper into three columns of equal size. The teacher may draw a similar graphic organizer on a market board.
3. Above the column on the left, the teacher asks the students to write the word " KNOW", Above the middle column, the teacher directs students to write the word " WANT," and Under the right column, the teacher asks the students to   write   the word " LEARN."
4. The teacher explains to students that before they begin reading on the specific topic, the students should always reflect upon what they already know. Have students' brain storm and record what they already "KNOW" about the subject and place the information in the appropriate column. If the students provide incorrect facts, record them and make corrections after the reading. The teacher records information on the marker board, and students records information on individual papers.
5. The teacher tells to students about brainstorm what the " WANT" to know about the topic and place questions in the middle column. Be prepared to supply questions if students seem unsure of what to ask.
6. The teacher instructs the students to read the text for the purpose of answering the questions, as well as to correct any misinformation previously recorded.
7. After the student finishes to read, the teacher instructs the students to discuss and complete the third column on the   right side of the paper. If possible, this should include writing answers to the questions from the middle column, as well as other pertinent information gleaned from the text.

Teaching Procedure for Control Group

Control Class
1. The students see the topic in the whiteboard. 2. The student read a recount text 3. The teacher gives some question based on the topic to build students' background knowledge. 4. The students answer the questions about the text. 5. The student identify the text social function, then find its characteristics, purpose, and generic structures. 6. The teacher and students discuss some vocabularies related to recount text. 7. The student complete the blank text, then the teacher instructs the students to speak about recount text in front class based on the characteristic, purpose and generic structure in

3. Evaluation

After doing the learning process so the next step is the final test. The test is given to the group as a sample. The test used an oral test. The students are given an explanation about the components of speaking that is measured. Such as accent, grammar, vocabulary, fluency, and comprehension.

In finishing:

a. Giving test to experimental and control class in the last meeting

a. Processing data towards experimental and control class

b. Taking conclusion from technique of data collection

E. Technique of Data Collection

The data of this research was collected by giving the speaking test. The data of this research is student's score in a pre-test and post-test. Pre-test is the process of identifying the students' skill before giving the treatment. Treatment is the process of using Know Want Learn in teaching and learning process toward the students' speaking skill. While, post-test is the process of giving the test after giving the treatment. It aims to conclude the contribution of Know Want Learn in teaching and learning speaking process to students' speaking skill. Moreover, the speaking test used to know the students' pronounciation, vocabulary, grammar, fluency, and comprehention with used Know Want Learn Strategy. Then, the researcher evaluated the sentence by sentence of students' performance and gave the score based on the Hughes scoring.

F. Technique of Data Analysis

The researcher would be used the statistical procedures to analyze the scores. It gives a way to analyze the differences of speaking achievement between control group and experimental group. To found the standard deviation in experimental and control class, the writer would be used the formula of t-test.

In this case, T-test means a statistical procedure, which was used to determine, whether there was any significant difference between the means of the two sets score from control and experiment class.In analyzing the students'

test scores, there were some steps that would be done before analyzing the different mean by using t-test formula as follows:

a. This formula applied to decided mean of students' test score in experiment and control group:

$$\overline{X_1} = \frac{\sum F_1 X_1}{\sum F_1} \quad \text{(Experimental group)}$$

$$\overline{X_2} = \frac{\sum F_2 X_2}{\sum F_2} \quad \text{(Control group)}$$

b. This formula would be used to decide standard deviation of experimental group;

$$S_1^2 = \frac{n_1 \sum F_1 x_1^2 \ (\sum F_1 X_1)^2}{n_1 (n_1 - 1)}$$

c. This formula would be used to decide standard deviation of control group;

$$S_2^2 = \frac{n_2 \ x \sum F_2 x_2^2 \ (\sum F_2 X_2)^2}{n_2 (n_2 - 1)}$$

The formula of t-test as follows (Sudjana, 2005:239)

$$t = \frac{\overline{X_1} - \overline{X_2}}{S \sqrt{\dfrac{1}{N_1} + \dfrac{1}{N_2}}}$$

Note:

t   = The value of t calculated

$\overline{X_1}$ = Mean of posttest score experimental group

$\overline{X_2}$ = Mean of posttest score of control group

$S_1{}^2$ = Standard deviation of score experimental group

$S_2{}^2$ = Standard deviation of score control group

n_1 = The number of subject of experimental group

n_2 = The number of subject of control group

The t-$_{\text{table}}$ would be employed to see whether there was a significant difference between the mean score of both experimental group and control group. The value of t-$_{\text{calculated}}$ would be consulted with the value of t-$_{\text{table}}$ at the degree of freedom $(n_1-1) + (n_2-1)$ and the level of confidence of 95% = 0.05. If the value of t-$_{\text{calculated}}$ is less than the value t-$_{\text{table}}$, the null hypothesis was not accepted, on the contrary, if the value of t-$_{\text{calculated}}$ is equal or bigger than value of t-$_{\text{table}}$, the alternative one is accepted.

G. Hypothesis Testing

To know whether the used of Know Want Learn strategy gives significant effectively to students speaking ability in Eight year student of Junior High School 4 Pariaman, the estimation used is a t-test. The purpose is to find differences in speaking ability between experimental group and control group. If the obtained value (t-obtained) is higher than the table value (t-table) with the level significance is 0.05, the proposed hypothesis is accepted.