

III. METHODS OF THE RESEARCH

This chapter will discuss about design, population and sample, research procedure, procedure of data collecting technique, instruments, validity and reliability of instruments, scoring criteria, data analysis, and hypothesis testing.

3.1. Design of the Research

This research was intended to find out where there any significant difference of the students' speaking procedure text skill after being taught by using authentic material and non authentic material and to find which kind of those most different. Besides that, to find out aspects of speaking would be the most different after being taught through authentic material and non authentic material. In conducted the research, the observer used true experimental design by giving different topics for each treatment in every test. The observer used two classes in which the students would be given two times treatment and two times tests. According to (Hatch and Farhady, 1982), the formulated is:

$$\begin{array}{l} \mathbf{G1 = T1 X1 T2} \\ \mathbf{G2= T1 X2 T2} \end{array}$$

G1 : Experimental class.

G2 : Control class.

T : Test.

X : Treatment.

3.2. Population and Sample

The population of this research was the second year students of SMAN 8 Bandar Lampung in academic year of 2014/2015. There are two classes as the sample of the research. The class was XI Science I that consist of 29 students as Experimental class and XI Science II consists of 29 students as Control class. In this research, experimental class was for the students who taught by using authentic material and control class was for the students who taught by using non authentic material. In this research, would be used lottery technique; this was the most commonly used method. After choosing the experimental class and control class the groups were be given different topic about authentic material and non authentic material. This was aimed to make easily looking for which one of both materials could increase students' speaking achievement. Every class would be taken 5 groups randomly as the sample.

3.3 Research Procedures

In collecting the data, the observer following procedures are used; they are:

1. Pretest

The pretest was administered in order to find out the students' basic ability. It required 90 minutes for the pretest. In this test, the observer provided some topics to be chosen by the students to spoke orally. The topic in this test was how to make your favorite food or drink.

2. Treatment

Treatments were conducted before test to teach the students by using authentic material and non authentic material. There were two times treatments. The first topic of the treatment was several kinds of authentic material such as authentic printed material, videos, and relia. The second topic of the treatments was non authentic material.

The observer would be taught the students with the target to reach the objectives in those 4 meetings as stated in lesson plan. There were 4 lesson plans to be implemented for three different topics.

3. Posttest

Posttest was administrated after giving treatments to find out which kinds of the aspects of speaking skills are increased by using of authentic material and non authentic material. The results could be seen from the average scores of pretest and posttest

4. Recording

The recording activities were done in order to transcribe the students' speaking skill during the test by using authentic material and non authentic material. It would be used to help the observer in scoring the students' speaking test. So if the observer would slip the students' performance during the test, the observer could replay the record.

5. Transcribing

At last, the data of the students' speaking skill from the audio recording that were conducted in order to investigate the students' increasing by analyzing the transcript and to help in scoring.

3.4. Procedure of Data Collecting Technique

The procedure of data collecting technique was done as follow:

1. Finding and selecting the materials.

In this stage, the observer would use some topics of both authentic material and non authentic material. The topics would take from the students' book and based on the teaching and learning syllabus.

2. Conducting treatment by using authentic material and non authentic material.

In this case, the observer would give treatments in four meetings. The experimental class would given the treatment by using authentic material and non authentic material as the media and has been explained about the procedure text. In the first meeting the observer would use instant coffee packages and instant fried noodle packages as the authentic printed material. In the second meeting the observer would use two videos (how to make a kite and how to make *gado-gado*) and the topic of the third and the last treatments was non authentic material.

3. Analyzing the data.

After scoring students' work, the observer would compare the result of the test based on authentic material and non authentic material to find out the increase to foster students' speaking ability.

3.5 Instrument of the Research

Naturally to gain the objective data, this research applied one kind of instrument:

Speaking Test

The Instrument of this research was speaking test. The speaking test of this observer conducted to find out how far teaching procedure text after given the treatment based on authentic material and non authentic material and find out which one for both material would increase to foster students' speaking ability.

The students will ask to speak procedure text by the observer.

3.6. Validity and Reliability of the Instrument

In this study the instrument of the research is valued in terms of validity and reliability.

3.6.1. Validity of the Instrument

Validity is a matter of relevance. A test is said to be valid to the extent that it measures what is supposed to measure. This means that it relates directly to the purpose of the test. There are several types of validity according to the different of this test. But in this research, the observer only used Content Validity and Construct Validity.

Content validity is concern with whether or not the content of the test is sufficiently representative and comprehensive for the test to be valid measure it is supposed to measure. In content validity, the materials would be given by the curriculum used. In this case, the observer would be gave procedure text that supposed to comprehend by the second year students of senior high school. To get the content validity of speaking test, the observer tried to arrange the materials based on the objective of teaching in syllabus for second grade of senior high school students, and the students made a procedure text speaking based on teacher instruction (how to make your favorite food or drink or how to operate a thing). Construct validity is concern with wheather the test in line with the theory of what it means to know the language that is being measured, it would be examine whether the test questions actually reflect what it means to know a language. If a test has construct validity, it is capable of measuring certain specific characteristic in accordance with a theory of language behavior and learning. This type of validity assumes the existence of certain learning theories or constructs underlying the acquisition of abilities and skill. To find out the construct validity of the test, the observer used the formulated the test by the concept of speaking skill.

The observer arranged the materials based on the objective of teaching in syllabus for second grade students of senior high school, the formulated of test by the concept of speaking skill, so the test is valid.

3.6.2 Reliability of the Instrument

In this research, in order to find reliability of the data, inter-rater reliability was used. It means there would be two ratters to judge students' speaking performance. The first ratter is the observer herself and the second ratter is the English teacher of the sample. Both of them discussed the speaking criteria in order to obtain reliable result of the test.

Inter-rater reliability of the tests examined by using statistical measurement:

$$R = 1 - \frac{6 \cdot \sum d^2}{N(N-1)}$$

Notes:

- R : Reliability of the test
 N : Number of students
 d^1 : The difference between R1 and R2
 d^2 : The Square of d^1
 $1 - 6$: Constant number

(Shohamy, 1985: 213)

The standard of reliability

- | | |
|----------------------------|---------------------------|
| A. a very low reliability | ranges from 0.00 to 0.19 |
| B. a low reliability | ranges from 0.20 to 0.39 |
| C. an average reliability | ranges from 0.40 to 0.59 |
| D. a high reliability | ranges from 0.60 to 0.79 |
| E. a very high reliability | ranges from 0.80 to 0.100 |

(Slameto, 1998 in Susan, 2001)

3.7 Scoring Data

Three aspects that was evaluated: pronunciation, fluency, and comprehension.

Aspects of speaking	Rating scales	Description
Pronunciation	31-35	Speech is fluent and effortless as that native speaker.
	26-30	Always intelligible though one is conscious of a definite accent.
	21-25	Pronunciation problems necessitate concentrated listening and Occasionally lead to understanding.
	16-20	Very hard to understand because of pronunciation problem most Frequently be asked to repeat.
	10-15	Pronunciation problem so severe as to make speech unintelligible.
Fluency	31-35	Use of vocabulary and idiom virtually that is of native speaker.
	26-30	Sometimes use inappropriate terms and must rephrase ideas, because of inadequate vocabulary.
	21-25	Frequently use the wrong word, conversation somewhat limited because of inadequate vocabulary.
	16-20	Misuse of words and very limited vocabulary make comprehension quite difficult.
	10-15	Vocabulary limitations so extreme as to make conversation virtually impossible.
Comprehension	27-30	Grammar almost entirely in accurate phrases.
	23-26	Constant errors control of very few major patterns and frequently preventing communication.
	19-22	Frequent errors showing some major patterns uncontrolled and causing occasional irritation and misunderstanding.
	15-18	Few errors, with no patterns of failure.
	10-14	No more than two errors during the dialogue.

Table of Rating Sheet Score

S ^o Code	Pron. (1-35)	Fluent. (1-30)	Compre. (1-35)	Total (1-100)
1				
2				
3				

3.8. Data Analysis

The observer would compute the students' score in order to find out the students' ability in procedure text speaking by using authentic material and non authentic material:

1. Scoring the test and tabulate the result.
2. Finding the mean of test, as follows:

$$m = \frac{\sum d}{N}$$

m : Mean
 $\sum d$: Total score of students
 N : Number of students

3. Drawing conclusion from tabulated result of the test given by comparing the mean of test of authentic material and test of non authentic material.

3.9. Hypothesis Testing

The observer analyzed them in order to find out whether there were increasing in the students' speaking ability or not after the treatment. The observer would use repeated measure T-test to find out the increasing of the treatment effect. The formulation could be seen as follows:

$$t = t \frac{Md}{\sqrt{\frac{\sum x^2 d}{N(N-1)}}} \quad \text{and} \quad \sum x^2 d = \sum d^2 - \left(\frac{\sum d}{N}\right)^2$$

t : Test
 Md : Mean
 xd : Deviation of each subject (d - Md)
 $\sum x^2 d$: Total of quadratic deviation
 N : Subject on sample

(Arikunto, 2010: 349-350)

The criteria are:

H_0 : There is no significant different of the students' procedure speaking achievement after being taught by using authentic material and non authentic material. The criteria is H_0 (null hypothesis) is accepted if alpha level is higher than 0.05 ($\alpha > 0.05$)

H_1 : There is significant different of the students' procedure speaking achievement after being taught by using authentic material and non authentic material. The criteria H_1 is accepted if alpha level is lower than 0.05 ($\alpha < 0.05$).

3.10. The Schedule of the Research

Practically, the observation during finished this research is about 1 month and conducted 4 meetings. The table below shows the schedule of the research.

NO	Date	Activity	Group
1	Tuesday, 10 th February 2015	Test	Experimental (Authentic Material)
2	Thursday, 12 th February 2015	Treatment-Test	Experimental (Authentic Material)
3	Tuesday, 17 th February 2015	Test	Control (Non Authentic Material)
4	Thursday, 19 th February 2015	Treatment- Test	Control (Non Authentic Material)

The first meeting conducted the pretest in order to find out the students' basic ability. The second meeting conducted treatment about 2 types of authentic material. The material of the treatments used authentic printed material such as using instant noodle packaged and authentic listening viewing material (video) based on the links how to make the kite and how to make gado gado, after the treatment the posttest given by the observer. Besides that, in the third the observer conducted the pretest. After that the observer gave the treatment by using non authentic materials based on their curriculum used by using their textbook and handbook, the last conducted posttest to the student. Posttest administrated after treatments to find out what are the aspects of speaking skills are increase by using of authentic material and non authentic material. It could be seen from the average scores of pretest and posttest. These are to find out which one of both material (authentic material and non authentic material) will the most different in students' speaking ability.