III. METHODS

In this chapter there is a discussion about research methods which consist of design, population and sample, variables, data collecting technique, research procedure, scoring system, validity and reliability of data, instrument of research, data analysis and hypothesis testing. These topics are explained as follows.

3.1. Design

In this research, the researcher compared Power Teaching and CTL method increase students’ speaking ability. By comparing these methods, the researcher wanted to find out which one was better in the Power Teaching and CTL method to increase students’ achievement in learning speaking and also what the problems were faced by the students in learning speaking through these methods. The researcher chose two classes in senior high school for conducting the research. Both classes were experimental classes, and were given a pre-test of speaking, and the classes were given a treatment. One class was taught using Power Teaching method and another class using CTL method.
The researcher used quantitative method to analyse the result of the research. Quantitative method was used to analyse the result of students’ speaking achievement. The researcher used two groups pre test and post test designs because the researcher wanted to investigate which one between these two methods had more effective result for students’ achievement in learning speaking.

The research design of two group pre-test and post-test designs is illustrated as follows:

\[
\begin{align*}
G_1 & \quad T_1 \times X \times T_2 \\
G_2 & \quad T_1 \times X_2 \times T_2
\end{align*}
\]

Where,

- \(G_1\) : group or class 1
- \(G_2\) : group or class 2
- \(T_1\) : pre-test for students’ speaking achievement before treatment is given
- \(T_2\) : post-test for students’ speaking achievement after treatment is given
- \(X_1\) : power teaching method
- \(X_2\) : CTL method

(Setiyadi, 2006)

There were two variables in this research i.e. dependent variable and independent variable. The dependent variable is students’ speaking skill. The independent
variable are two methods that were used as treatment in teaching speaking for the student. The data was about the students’ speaking achievement which can be used to identify which one is better between power teaching and CTL method.

3.2. Population and Sample

This research was conducted at SMAN 10 Bandar Lampung, at second semester of the first grade 2014/2015. The population is the first year student of SMAN 10 Bandar Lampung. The samples were eleven grade students. The researcher took 2 classes from 10 classes randomly as the sample. There are 32 students in a class. Their ages range from 14 to 16 years old. The researcher took two classes as the sample, and the researcher teach them by these two methods to see students’ response or students’ participation in speaking class. The researcher compared between two methods to know the better method in speaking class between Power Teaching and CTL. This research focused on the improvement of students’ speaking skill.

3.3. Variables

This research consists of the following variables:

a. Students’ speaking ability as dependent variable (Y)

b. Power Teaching as independent variable (X1)

c. CTL method as independent variable (X2)
3.4. Data Collecting Techniques

In collecting the data, the researcher used two techniques as follows:

1) Pre-test

The researcher administered pre-test before treatment, which lasted 90 minutes. It was aimed at knowing the students’ speaking ability before being given the treatment using Power Teaching method and CTL method. This test was given to both classes. In pre-test the researcher provided some topics to the students and gave five minutes before the students made a monologue based on the topic and their knowledge. So, they must speak individually. The material for pre-test or post-test were taken from their own student book. The form of the test was subjective test, because there was no exact answer. The aspects of speaking evaluated in this test were pronunciation, fluency, vocabulary, comprehension, and grammar. The pre-test was similar to the post-test.

2) Post-test

The researcher gave the post-test to the students after the treatment. It aimed to investigate the effect of Power Teaching and CTL method on speaking ability after applying Power Teaching and CTL method. The procedure, the type, and the duration were similar to the pre-test.

3.5. Research Procedures

The procedure of this research is as follows:
a. Deciding the problem
b. Preparing data collecting instruments
c. Providing and conducting pre-test in both classes
d. Arranging the teaching materials
e. Presenting the materials using Power Teaching Method in the experimental class and CTL method in the experimental class 2.
f. Observing the teaching learning process in the classroom
g. Making some notes about all of the important points
h. Administering the post-test in both classes, in order to know the students’ speaking achievement after giving the treatment
i. Analysing the data
j. Making the report as the result of the observation and interview analysis

3.6. Scoring System

In evaluating the students’ speaking score, the researcher listened to students’ record and used the oral English rating sheet proposed by Harris (1974:84). Based on the oral rating sheet there are five aspects to be tasted by two raters, which are pronunciation, fluency, vocabulary, comprehension, and grammar.

The score of speaking skill based on the five elements has percentage as follows:

a. Pronunciation ............................20%

b. Vocabulary ..............................20%

c. Fluency .................................20%

d. Comprehension .........................20%

e. Grammar ................................20%
Total percentage ..................................100%

3.7. Validity and Reliability

Validity is an extent to which an instrument really measures the objective to be measured and suitable with the criteria (Hatch and Farhady, 1982:250). Actually, there are five types of validity but researcher only wants to describe two of those types of validity, there are content validity and construct validity. Content validity is intended to see whether the test is good reflection of what have been taught. Construct validity focuses on the kind of the test that is used to measure the ability (Hatch and Farhady, 1982:250). In this research, researcher administered a speaking test and the technique scoring students’ speaking is based on four aspects; pronunciation, grammar, fluency, and vocabulary.

Reliability of the test is consistency which a test yields the same result in measuring whatever it does measure. So, a test cannot measure anything well unless it measures consistently (Haris, 1974:14). Reliability of the speaking test is examined by using statistical measurement proposed by Shohamy (1988; 213) in Hayanti (2010: 39)

The statistical formula is:

\[ R = \frac{1 - 6 \sum d^2}{N(n^2 - 1)} \]

Notes:

R: Reliability
N: Number of the students

d: The difference of the rank correlation

1-6: Constant number

After finding the coefficient between raters, researcher then analyzes the criteria. There are five criteria according to Hatch and Farhady (1982:247). They are:

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 1.00

Reliability of Posttest in Power Teaching Class

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

\[
R = 1 - \frac{6(735.9)}{36(1296-1)}
\]

\[
R = 1 - \frac{4415.4}{46620}
\]

R= 1− 0.094

R= 0.906 (very high reliability)
Reliability of Posttest in Power Teaching Class

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

\[ R = 1 - \frac{6.790}{36(1296-1)} \]

\[ R = 1 - \frac{4740}{46620} \]

\[ R = 1 - 0.10 \]

\[ R = 0.90 \text{ (very high reliability)} \]

3.8. Instrument of the Research

In this research, the researcher used some instruments for conducting her research. The instrument was the test of speaking ability of students’ to speak orally in the class. The instrument of this research was explained as follows:

1) Pretest and Posttest

The researcher administered pretest before treatment. It aimed to know the students’ speaking skill before being given the treatment using Power Teaching and CTL. In administering the pretest, the researcher asked students to introduce themselves in front of the class. The students mentioned and explained what they like or what they dislike. They were speak individually in front of the class. Before they started to discuss, teacher had asked them to record their discussion using their phones and researcher recorded the oral test by using video recorder to
make sure the test goes well. The aspects of speaking which were scored were pronunciation, grammar, vocabulary, fluency, and comprehension.

The researcher administered post test after the treatment. It is aimed to see the significant difference of the students’ speaking skill after they are taught by using Power Teaching ang CTL in their speaking class. The form of the test was subjective test. The aspects of speaking which were scored were pronunciation, grammar, vocabulary, fluency, and comprehension. The process of posttest was similar to the pre test. During administering the test, researcher recorded the activity by using recorder in students’ smart phone.

2) Recording

The researcher recorded students’ speaking skill during pretest and posttest by using phone-recorder as recording tool. The researcher used recorder in this research because the researcher only focus on the five aspects of speaking, namely pronunciation, grammar, vocabulary, fluency, and comprehension. So, the researcher did not concern on the students’ expressions. Therefore, the recorder is enough to use in this research.

3) Task of Speaking

Although dialogues and conversations are the most obvious and most often used speaking activities in language classrooms, a teacher can select activities from a variety of tasks. Brown (1994) lists six possible task categories:

1. Imitative

Drills in which the learner simply repeats a phrase or structure (e.g., "Excuse me." or "Can you help me?") for clarity and accuracy;
2. Intensive

Drills or repetitions focusing on specific phonological or grammatical points, such as minimal pairs or repetition of a series of imperative sentences;

3. Responsive

Short replies to teacher or learner questions or comments, such as a series of answers to yes/no questions;

4. Transactional

Dialogues conducted for the purpose of information exchange, such as information-gathering interviews, role plays, or debates;

5. Interpersonal

Dialogues to establish or maintain social relationships, such as personal interviews or casual conversation role plays; and

6. Extensive

Extended monologues such as short speeches, oral reports, or oral summaries. These tasks are not sequential. Each can be used independently or they can be integrated with one another, depending on learners' needs. For example, if learners are not using appropriate sentence intonations when participating in a transactional activity that focuses on the skill of politely interrupting to make a point, the teacher might decide to follow up with a brief imitative lesson targeting this feature.
Speaking assessments can take many forms, from oral sections of standardized tests such as the Basic English Skills Test (BEST) or the English as a Second Language Oral Assessment (ESLOA) to authentic assessments such as progress checklists, analysis of taped speech samples, or anecdotal records of speech in classroom interactions. Assessment instruments should reflect instruction and be incorporated from the beginning stages of lesson planning (O'Malley & Pierce, 1996). For example, if a lesson focuses on producing and recognizing signals for turn-taking in a group discussion, the assessment tool might be a checklist to be completed by the teacher or learners in the course of the learners' participation in the discussion. Finally, criteria should be clearly defined and understandable to both the teacher and the learners.

3.9. Analysis of the data

The researcher needs to explain how to score the students by making an equation of scoring the four aspects of the test before analysis the data. The score of each aspect is multiplied by 20. So, the final score will be 100.

Example: A student who gets 20 in vocabulary, 17 in grammar, 17 in fluency, 15 in pronunciation, and 17 in understanding. So, the total score would be 84. It is also necessary to find out whether the data taken by the researcher are random and normally distributed.
3.10. Hypothesis Testing

After getting the mean score of pretest and the postest, researcher analyzed the data by using repeated measures T-test of Statistical Package for Social Science (SPSS) windows version 17. The hypotheses are as follows:

The hypothesis is formulated as follows:

H\(_0\) : There is no significant differences between the students’ speaking achievement between the students who are taught through Power Teaching method and CTL method.

H\(_1\) : There is a significant differences between the students’ speaking achievement between the students who are taught through Power Teaching method and CTL method.

If \(P < 0.05\) \(H_1\) is accepted

If \(P > 0.05\) \(H_0\) is not accepted

The researcher used the level of significance 0.05 in which the hypothesis is accepted if sign <p. It means that the probability of error in the hypothesis is only 5\%. 