

CHAPTER III

METHODOLOGY

This chapter deals with some important aspects related to the methodology and procedures in conducting the research. The research methodology consists of the research design, setting, participants, the role of the researcher, population and sample, data collection and data analysis technique.

3.1. Research Design

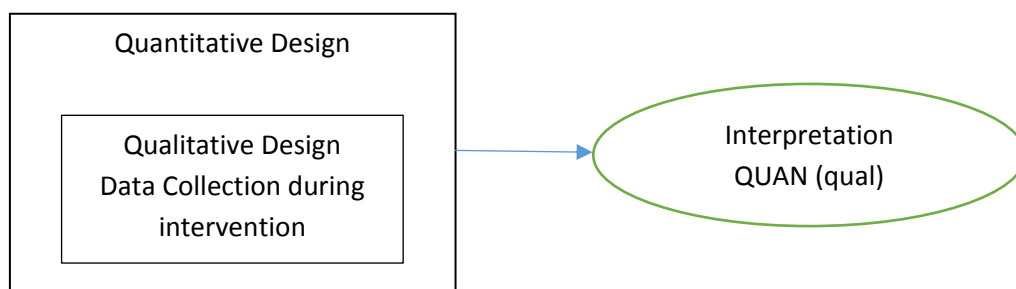
To answer the two research questions, this study applied a mixed method design. Mixed method is a procedure for collecting, analyzing both quantitative and qualitative data in a single study in order to understand a research problem more completely (Cresswell, 2012; Malik & Hamied, 2014). In this study, mixed method was used to investigate the effectiveness of Teaching Proficiency through Reading and Storytelling (TPRS) method in teaching speaking skills; to investigate how TPRS was implemented in teaching speaking skills; and to investigate the students' attitude towards the implementation of TPRS in increasing their speaking skills. Therefore, the findings of a quantitative data of this research pursued by a qualitative data to build on the synergy and strength more fully than use either quantitative or qualitative alone (Gay, et al., 2009). Henceforth, this study builds on the findings of a quantitative study by following a qualitative phase as the secondary data to interpret the quantitative phase as the primary data.

This mixed method study applied an embedded design. An embedded design is one of the mixed method types that used to collect the data quantitatively and qualitatively in the same time in order to support the primary data with the secondary data (Creswell, 2012; Malik & Hamied, 2014). Creswell (2012) claims that the supportive data can be either qualitative or quantitative, and yet somehow, most researcher tend to use adding a qualitative data into a quantitative design.

The embedded design combines the advantages of both quantitative data that effective the outcomes of the experimental study and qualitative data that effective on how individuals or group are experiencing the process. In addition, Malik & Hamied (2014) propose the embedded design is useful when the researcher has to embed the qualitative component within the quantitative design in the case of experimental or correlational design.

It can be conclude that this study was used an embedded-mixed method design that embed the qualitative phase within the experimental quantitative design. As shown in the figure 3.1, the design of this study has adopted the embedded design from Creswell (2012, p.541).

Figure 3.1. The Embedded Design



Based on the figure 3.1, a qualitative design plays within a quantitative design. It means that the quantitate data becomes a primary data in this study. Meanwhile, the qualitative data plays as a secondary data adding within a quantitative design which it is pursued the primary data. When the quantitative design was used to investigate the effectiveness of TPRS in teaching speaking skills and the students' attitude after the implementation of this method, the qualitative design was used to examine how TPRS was implemented in teaching and learning process and how did the students face the treatment condition in the intervention. Thus, this study is implemented the quantitative-experimental design as the constituent part.

In collecting the quantitative data, this study applied an experimental research. Experimental research is used to measure the influence of a particular variable applied and to test the hypothesis of cause-and-effect relationship (Fraenkel & Wallen, 2008). This study used one of the experimental designs named a Quasi-experimental. Actually, a quasi-experimental is similar to a true-experimental. However, a quasi-experimental and a true-experimental have a different procedure in random and non-random assignment. A quasi-experimental design does not include the use of random assignment (Fraenkel & Wallen, 2008; Creswell, 2012). A quasi-experimental is an expansion from true-experiment, which emphasis the nature of human language behavior (Hatch & Farhady, 1982). Porte (2002) agrees that a quasi-experimental design is appropriate in educational study, which the classes, are have already been assigned. In educational study, it is quite hard to avoid the natural setting of the classroom for example. Since the participant of this study came from two classes were already part of the group based pre-existing characteristics, this experimental study has applied quasi experimental design.

This quasi-experimental research used none-equivalent before-after design. None-equivalent design is one of the designs in a quasi-experimental. None-equivalent design is used for several reasons in this study: first, there were two groups (experimental and control) in this study; second, both experimental and control group were given the pre-test and post-test; (3) TPRS treatment was only given to the experimental group; (4) the participant was not chosen randomly.

The quasi-experimental with none-equivalent before-after design was applied to compare the effect of the independent variable: Teaching Proficiency through Reading and Storytelling (TPRS); to dependent variable: speaking skills. To accomplish the research questions, this study had two groups: experimental and control group. The experimental group was given TPRS treatment, meanwhile the control group was given non-TPRS treatment. Both experimental and control group were administered speaking pre-test and post-test. This speaking tests were administered before and after the treatment in these two groups.

To explore how TPRS was implemented in increasing students' speaking skills, a descriptive qualitative research was used in order to get a comprehensive summarization of specific events that experienced by individuals or groups during the implementation of the treatments (Res, 2012). He says that the data collection of the qualitative descriptive focuses on determining the nature of specific events through interview, observation, examines of record, reports, photograph, and document. The qualitative data were taken from classroom observation field-notes during the treatment both in experimental and control group.

3.2. Research Site and Participants

This study took place in one of private senior high schools in Bandung, West Java. This school was chosen because of three reasons. First, this school was accessible, feasible, and suitable for conducting this study in terms of time, mobility, and skills (McMillan and Schumacher, 2001). Second, the researcher had a good access to the school since the researcher was one of the teachers in the site. It made the researcher had already known the students' problem, background, and the students' previous achievement. Third, the head master of this school supported his staff to do a research in that school in order to measure the students' achievement.

The participant of this study were two classes of the first grade students in this school. Since this study had used the quasi-experimental that needed two groups, the participant were divided into an experimental and a control group. The experimental group consisted 24 students and the control consisted 23 students. To ensure these two groups were in the same ability level, the normality and homogeneity test were calculated. Based on the data analysis findings, these two groups were in the same ability level. This evidence had full filled one of the requirement of quantitative analysis (Hatch & Lazzaraton, 1991). The detail of the data analysis could be seen in the chapter four.

3.3. The Role of the Researcher

Since this study had applied an experimental design to investigate the effectiveness of TPRS method in teaching speaking skills, the researcher acted as a teacher who treated this method to the experimental students. The control group was given a non-TPRS and also was treated by the researcher. In other words, the researcher was fully engaged and got close to the participants of this study. It is called participant observer when the researcher plays as a genuine participant in the research setting (Gay, et al., 2009). They divide participant observer into three categories: an active participant observer; an active observer; and a passive observer.

An active participant observer refers to the researchers who play as the teacher to observe their own teaching practice. An active observer refers to the researchers who observe and play as the teacher's aide the teaching practice. When the researchers have no responsibility in the teaching practice and they focus only to collect the data, it is called a passive observer.

Based on the category mentioned above, the researcher acted as the active participant observer. The researcher played not only as the teacher but also as the researcher. Both experimental and control group were treated by the same teacher then were observed by the same researcher. The researcher used the observation filed notes and video recorder in order to observe his own teaching both in the experimental and the control group.

As it was mentioned in the previous discussion, the experimental group were given TPRS treatment and the control group were given non-TPRS treatment. The contrast of TPRS treatment with non-TPRS treatment is in the theory of language acquisition and language learning. The researcher implemented the elements of language acquisition in the experimental group and the elements of language learning in the control group. The elements of language acquisition and language learning is discussed in chapter four 4.1.2.

3.4. Population and Sample

The population of this study was the first graders in one senior high schools in Bandung. The school has three classes for the first grade. The reason for choosing the first graders was because the researcher had been taught English in for the first graders in that school site. The researcher teach two of three classes. It means that the researcher had known how the students' condition is and what English content that should be mastered by the first grader of senior high school. Two classes of first graders, which was divided in to two groups: experimental and control group had participated as the sample of this study. The two classes played as the sample of the study. These two classes were chosen because the researcher did not have another chance to be selected. The researcher only taught these two classes in that senior high school.

3.5. Data Resources

This study was aimed to investigate the effectiveness of using TPRS method in teaching speaking skills and the students' attitude to the implementation of this method in the classroom. Since this study had employed the mixed method design, the data resources appeared from quantitative and qualitative data resources. The quantitative data were taken from students' speaking scores and students' questionnaire. Meanwhile, the qualitative data were taken from teacher's classroom observation field-notes.

These data resources had accomplished the two research questions of this study. The data analysis from students speaking pre-test and post-test had answered the effectiveness of the use of TPRS method in teaching students' speaking skills. Meanwhile, the data analysis from the students' questionnaire had answered the students' attitude to the implementation of this method. Moreover, the data analysis from teacher's classroom observation field-notes had supported the evidence from students' speaking score by capturing the students' experience and classroom condition during the process of treatment.

3.6. Data Collection

As it is mentioned in the previous discussion, this study used both quantitative and qualitative data to accomplish the two research questions. In collecting quantitative and qualitative data, some research procedural of data collection had arranged in this study. First, the pre-test was given to both experimental and control group before the treatment. Second, giving the treatment. The experimental group was treated by TPRS method, meanwhile control group was treated by non-TPRS method. Third, classroom observation field-notes was used to get the data during the treatment. Fourth, both experimental and control group were given the post-test in order to find out whether both groups got different result after the treatment or not. Fifth, students' questionnaire was administered to the experimental group in order to get their attitude towards the implementation of TPRS method in the classroom. The time line of research procedure in collecting data is described on the following table.

Table 3.1. The Description of Research Procedure in Collecting Data

No	Experimental Group	Control Group	Time Allocation
1	Pre-test		2x45
2	TPRS treatment	Non-TPRS treatment	14x45
3	Post-test		2x45
4	Questionnaire	-	

3.6.1. Quantitative Data

3.6.1.1. Pre-test and Post-test

The first quantitative data was taken from students' speaking score. These speaking scores were got from two speaking tests: pre-test and post-test. Both experimental and control group were given the speaking pre-test and post-test. The pre-test was given before the treatment and the post-test was given after the treatment. The speaking pre-test was used to ensure whether the experimental and

control group were in the same ability level or not. The speaking post-test was used to measure whether there was a significant difference between the pre-test and post-test score or not.

The students were asked to get a spoken monologue recount both in the speaking pre-test and post-test. Their performances were recorded by video recorder in order to make the researcher and the rater were easy in giving scores. The students' speaking scores were taken from three raters. The first rater was researcher's colleague who teaches English in of the in Subang, West Java. The second rater was one of the English teachers in the research site. The third was the researcher himself who played as the teacher that applied the treatment program in this study.

3.6.1.2. Questionnaire

The second quantitative data were taken from questionnaire. The questionnaire was employed after all the teaching and learning treatments had finished. Since the TPRS method had applied only to the experimental group, this questionnaire was only given to this group. The questionnaire was aimed to answer the second research question of this study. Malik, R.S. & Hamied, F.A (2014) state that questionnaire helps the researcher to get and collect large data in relatively for a short time. The questionnaire is administered in the form of Likert scale that measured the extent to which a person agree or disagree with the questions. The score scale is 1 to 4. The scale 1-point is for "strongly disagree", 2-point is for "disagree", 3-point is for "agree", and 4-point is for "strongly agree" (Dornyei, 2002; Creswell, 2008).

3.6.2. Qualitative Data

3.6.2.1. Observation

This study was used a classroom observation field-notes to investigate how TPRS method was implemented in teaching speaking skill. Classroom observation was aimed to catch what was said and done by both teacher and students during the teaching and learning process (Silverman, 2005). The data

from classroom observation were in the form of researcher's field notes during the implementation of treatments both in experimental and control group. This field-notes helped the researcher in capturing the students' feeling, the students' condition, and the students' response during the implementation of the treatments.

3.7. Data Analysis

After getting the data, the researcher analyzed and discussed the research findings. The data analysis was divided into analyzing the quantitative data and qualitative data. The description of how the research instruments were analyzed is presented as follows:

3.7.1. Quantitative Data

3.7.1.1. Analysis of Speaking Test in Pre-test and Post-test

The data from students' speaking pre-test and post-test were analyzed quantitatively. The test was aimed to measure the effectiveness of TPRS in improving students' speaking skills. The analysis of speaking test in this study was analyzed by four components of speaking skill suggested by Hadley (2001). Those components included accuracy, fluency, vocabulary, and pronunciation that will be described as follows:

a. Accuracy

- 5 : show exceptional control of required grammar concepts and correctness in variety of context.
- 4 : Make some grammar mistakes that do not affect meaning.
- 3 : Make some serious that often give unintended meaning, although generally adequate.
- 2 : Meaning generally obscured by grammar mistakes: very poor control of a wide range of concepts.
- 1 : Meaning completely obscured by grammar mistakes: totally inadequate control.

b. Fluency

- 5 : normal "thoughtful" delay in formulation of thought into speech; language flows; extended discourse.
- 4 : take longer than necessary to organize thought; says more than required.

- 3 : speech somewhat disjointed because of pause; language very halting.
- 2 : painful pauses make speech hard to follow; say less than required.
- 1 : speech totally disjointed; long pauses interrupt flow of thought and meaning.

c. Vocabulary

- 5 : very conversant with vocabulary required by given context; excellent control and resourcefulness.
- 4 : vocabulary mistake generally do not affect meaning (wrong gender, wrong preposition, etc.); attempts at resourcefulness.
- 3 : adequate, although more serious mistakes give unintended meaning (wrong preposition, incorrect word choice, mangled word, etc.)
- 2 : meaning frequently obscured by minimal/inadequate master of vocabulary.
- 1 : meaning totally obscured, inadequate vocabulary

d. Pronunciation

- 5 : correct pronunciation and intonation, very mistakes, almost native-like.
- 4 : some mispronunciation, meaning still clear.
- 3 : Pronounce foreign accent requiring extra-sympathetic listening; comprehensible.
- 2 : meaning frequently; obscured by poor pronunciation minimally comprehensible.
- 1 : no effort at all and sound often incomprehensible.

Based on Hadley's scoring guideline above, it is determined that the highest score could be 20 and the lowest score could be 4. However, the real score was analyzed by using SPSS version 16. After getting the pre-test score from experimental and control group, some procedurals to fulfill the requirement of quantitative analysis were conducted (Hatch & Lazzaraton, 1991). The first step was stating the hypothesis of normality test, homogeneity test, and t-test. The hypothesis of these test could be seen in the chapter four. The second step was

computing the normality and homogeneity test. The normality and homogeneity test were aimed to ensure whether the data findings from experimental and control group were normal and homogeny. When the data findings indicate normal and homogeny, the t-test of pre-test could be computed. Hatch & Farhady (1982) define t-test as the tool to compare the means of different groups.

The procedural in analyzing the speaking the post-test score was similar to the procedural in analyzing the pre-test score. At post-test scores, t-test could claim whether both experimental and control group were still in the same ability or not. The result of t-test in the post-test could answer the effectiveness of TPRS method and non-TPRS method treatment in teaching speaking skills. The null hypothesis (H_0) of this t-test was there no significant different effect in the use of Teaching Proficiency through Reading and Storytelling (TPRS) in the experimental group on the students' speaking skills. The hypothesis was tested to claim whether H_0 is accepted or rejected.

To claim whether the hypothesis is rejected or accepted, Hatch & Farhady (1982) purpose some criteria. H_0 is accepted when the probability is higher than 0.05. Meanwhile, H_0 is rejected if the probability is under 0.05. The criteria to determine normality of distribution test is as follows:

If the probability > 0.05 , H_0 is accepted

If the probability < 0.05 H_0 is rejected

The third step in analyzing the speaking score was computing pre-test and post-test score of the experimental group. This computation was used the paired sample t-test to determine whether or not there was a significant difference between the pre-test and post-test score in the experimental group. The hypothesis of this test could also be seen in the chapter four.

3.7.1.2. Analysis of Questionnaire

The questionnaire was aiming for answering the students' attitude on the implementation of the TPRS method in the experimental group. This

questionnaire provided the students' attitude on the behavioral, cognitive and affective aspects. The questionnaire consisted of ten statements including three statements for affective aspects, four statements for behavioral aspects, and three aspect for cognitive aspects. The scores were in the form of Likert scale that measured the extent to which a person agree or disagree with the statements.

The results of the questionnaire computed manually by computing the range between the highest score and the lowest score and classifying the score into four interval classes. The class interval consisted strongly positive, positive, negative, and strongly negative. After computing the questionnaire scores for each aspect, the integration of these three aspects was computed. The computation was similar to the computation in each aspect. The score of the integration of the three attitude aspects was indicated the students' attitude towards the implementation of TPRS method in teaching speaking skill in the classroom.

3.7.2. Qualitative Data

3.7.2.1. Analysis of Observation

This study used a classroom observation field-notes and recorded a video tape to observe the implementation of TPRS in teaching speaking skills. This field notes and video recording help the researcher to record the events, activities, teacher and students' activities during the implementation of TPRS (Creswell, 2012). To investigate the implementation of TPRS in teaching speaking skills, this study had followed the three iterative steps, there are: reading the transcripts both written and tapes, describing the data, classify the data by categorizing, grouping and coding them into themes (Gay et al., 2009). This qualitative data will support and interpret the quantitative data in terms of the effectiveness of TPRS in teaching speaking skills at one of senior high schools in Bandung.

3.7. Concluding Remarks

This chapter has revealed the research methodology of this study. This research methodology contains the research design, research questions, research site and participant, population and sample, and data collection and data analysis

technique. After the research methodology is presented in this chapter, the data findings will be provided in the next chapter. The next chapter discusses the findings and discussions. The data analysis findings accomplish the research questions of this study. Both quantitative and qualitative data analysis is presented in the next chapter.