

CHAPTER I

INTRODUCTION

A. Background of Research

The intent of this study is to examine the students' speaking skill by using Quantum Teaching Model at the eighth-grade students at SMP PGRI 10 Bandung. Based on the pre-observation when doing teaching practice in research site, nearly 30 of the 40 students still can not speak and pronounce English well. There are several factors that contributed the student cannot speak English well. First, the lack of students' interest in learning. This factor is influenced by English teachers who are unfriendly and give less motivation to teach their students. Second, the lack of learning facilities, because in each classroom there are none of the learning equipment to assist students to learn English. Third, the use of the method is still less variation. This condition makes the students saturated and boring to learn. The effect is the students' interest to learn English decreasing and influent to the students' results of speaking skill.

In line with this Gudu (2015) says, there are several factors that influence learning of speaking skills for instance use of mother tongue outside and inside classroom environment, low status of English in a country, learners' negative attitude towards English language, use of mother tongue by teachers to explain difficult concept, use of teacher-centered methodology and passiveness of learners in classroom. These factors influence successful speaking skills lessons.

Talley and Hui-ling (as cited in Gudu, 2015) observe that curriculum for teaching speaking skill should endeavor to expose learners to authentic, practical settings for speaking English and encourage active learner involvement in the lesson. Tuan and Mai (as cited in Gudu, 2015) pinpoint the factors that affect students' speaking performance such as motivation, confidence, anxiety, time, planning, the amount of support, standard performance, listening skills and feedback during speaking activities.

Thus, the students need learning strategy or model which can improve the students' results, especially in speaking skill. One of learning model to make it possible and make the students learn optimally is Quantum Teaching model. It is a learning model which focuses on the process and the students. The interaction between teachers, students, and learning process have a great effect on the students' effectiveness and enthusiasm in learning. This is in line with the opinion of DePorter, Reardon, & Nourie (2005) that the interaction between teachers and students, students and students are the process that converts energy into light which causes the learning process fun and interesting for students. The energy here means a model, learning facilities and infrastructure which led to a conducive situation of learning to develop students' selves. That interaction can explore students speaking.

Quantum teaching is the method of teaching that make new ways of learning process easier through the art element guiding and directed achievement for all kinds of subject learning and all kinds of skill. This method

was introduced by Bobby DePorter, Mark Reardon, and Sarah Nouri in 1992. According to (Bobbi DePorter et al., 2005), the quantum teaching key is "bring them into our world and take our world into their world" with some principles that we called as TANDUR (*Tumbuhkan, Alami, Namai, Demonstrasikan Ulangi and Rayakan*) Growing, Experiencing, Labelling, Demonstrating, Repeating and Celebrating.

Koeswandi (2014) had conducted the research in their journal about the development an English Instructional Model of Reading Comprehension (RC) using Quantum Teaching Model (QTM) for Junior High School. All teachers agreed that using QTM in teaching RC can influent the students' reading achievement. The extent to which their need to the model is described as follows: 65% teachers perceive it is important; meanwhile, the rest of them (35%) perceive it is very important. It means that QTM is needed by the teacher as their model to teach.

Nurhayati (2015) conducted the research in her thesis entitled The Effectiveness of Quantum Teaching Toward Students' Speaking Achievement. The research question of this research is to find out whether the difference coefficient as a significant coefficient or not teaching speaking through Quantum Teaching Model. This research used quantitative research approach uses a quasi-experimental design to find the causal relation and use non-equivalent (pre-test and post-test) control group design. The results of data analysis showed that: the mean score of pre-test experiment was 55.69, the

mean score of the post-test experiment was 74.76, the mean score of pre-test control was 54.21, and the mean score of post-test control was 64.21. It means the students who are taught by Quantum Teaching Model got the high score in speaking achievement.

Meanwhile, this research is different from other research in some areas. The writer tries to implement the strategy with different designs and methods of the research. This research uses a dialog of conversation about asking for invitation as a pre-test and make their own conversation as a post-test. This research uses quasi-experimental where participants are not selected randomly. Besides, the populations and samples are taken in different quantity. Therefore, the aim of this research is to know how the use of Quantum Teaching in teaching speaking to improve students' speaking skills. Therefore, this research entitled "THE USE OF QUANTUM TEACHING MODEL IN IMPROVING STUDENTS' SPEAKING RESULTS" (A Quasi-Experimental Study at 8th Grade Students of Bandung).

B. Research Questions

The research focuses on the three following questions such as:

1. What is the result of students' speaking skill by using QTM at the eighth-grade students of SMP PGRI 10 Bandung?
2. What is the result of students' speaking skill without using QTM at the eighth-grade students of SMP PGRI 10 Bandung?
3. How is the significant of QTM to improve students' speaking skill at eighth-grade students of SMP PGRI 10 Bandung?

C. Research Objectives

Based on the research questions above; thus, the purposes of research are:

1. To find the result of students' speaking by using QTM at the eighth-grade students of SMP PGRI 10 Bandung.
2. To find the result of students' speaking without using QTM at the eighth-grade students of SMP PGRI 10 Bandung.
3. To find the significance of QTM in improving speaking skill at the eighth-grade students of SMP PGRI 10 Bandung.

D. Significances of Research

The research attempts to give valuable solutions for teachers, students, and the readers about how to improve speaking skill.

1. Theoretical Significance

Theoretically, it hopes can give some contributions of knowledge to know that Quantum Teaching is the important thing in developing students' speaking results.

2. Empirical Significance

Empirically, the result of this research is expected to be beneficial for:

- a. Teachers

This research is expected to give the teacher a contribution, especially in English teacher of SMP PGRI 10 Bandung, in enriching their knowledge about the importance and the use of Quantum Teaching in learning English process (speaking).

b. Students

This research is expected to give the students knowledge, especially for the eighth-grade students of SMP PGRI 10 Bandung to increasing their speaking results.

c. Future Researchers

This research is expected to give the future researcher a contribution for further study to do scientific researcher students writing skill, especially for English Education Department, Tarbiya Faculty of Sunan Gunung Djati Bandung State Islamic University.

E. Hypothesis

According to Arikunto (2010), an alternative hypothesis is that the answer allegations made by the researchers for the problems posed in the research. The answer alleges a temporary truth; the truth will be tested with data collected through research. With that position, it may turn out to be the truth, but also can be uprooted as truth. This research has two variables; Quantum Teaching model as variable X and student's speaking skill as variable Y. In connection with a problem is about using Quantum Teaching model to Increase Students' speaking results 8th Grade of SMP PGRI 10 Bandung. The hypothesis in this research is:

- a. H_0 accepted if $t_{\text{count}} < t_{\text{table}}$: it means that there is no significant difference of students' speaking result taught by using Quantum Teaching Model and by using conventional technique.

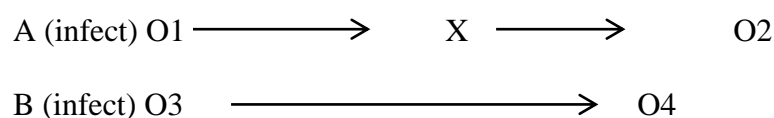
- b. H_a accepted if $t_{\text{count}} > t_{\text{table}}$: it means that there is a significant difference of students' speaking result taught by using Quantum Teaching Model and by using conventional technique.

F. Research Methodology

This research is a quantitative approach research. It is aimed to explain how one variable affects another. In this case how Quantum Teaching Model affects students' speaking results. The major characteristics of quantitative research among other things are investigating a research problem by explaining a relation among variables, collecting numeric data from a large number of people using instruments with fixed questions and responses, and analyzing data, comparing groups, or relating variables using statistical analysis (Creswell, 2012). Thus, the several steps are taken by the writer to accomplish this quantitative research:

1. Research Design

This research uses quantitative research method which means to test objective theories with the way of examining the relationship among variables. These variables can be measured which are typically on instruments, so that numbered data can be analyzed using statistical procedures (Creswell, 2012). The writers' specific focus is quasi-experimental study type which means the writer uses experimental and control classes but does not randomly assign participants to groups. The school selects the class to be a participants of this research. According to Sugiyono (2009), the formula of quasi-experimental design is illustrated as follows:



Note:

A= Non-randomized experimental group

B= Non-randomized control group

X= Treatment

O1, O3= Pre-test

O2, O4= Post-test

2. Research Site

The research is conducted at the 8th Grade of SMP PGRI 10 Bandung. The location of this school in Jl. A.H Nasution Gg. Sukup Lama no. 15 Ujungberung, Bandung. This school is chosen by the writer because of following reasons: The location of subject is near so that it is reachable to access the data sources; The subjects are known by the writer so that it is assumed to communicate with them effectively, and the writer choose the eighth for the research because there is material about speaking result in that level according to curriculum.

3. Research Participants

a. Population

The word 'population' is used to describe the target group, and while this may be the national population as a whole, it may also be a smaller group such as lone parents, or business members of a Chambers of Commerce in a particular location (MacDonald & Headlam, 1986). The population of this research is the 8th grade student of SMP PGRI 10 Bandung. There are 198 students of seven classes and each class consist of 40-45 students.

b. Sample

The sample is the section of the wider population that will be engaged in the survey (Macdonald, Headlam, & Centre for Local Economic Strategies, 2008).

A sample is a subgroup of the target population that the researcher plans to study

for generalizing about the target population (Creswell, 2012). So, the sample is the selected elements from the population. The writer will take two classes, all, as the sample. One class is 40 students for experimental class (C) and 40 students for control class (D).

c. Sampling Technique

The writer uses a non-random group to decide where the experiment group is and where the control group is based on the decision from the school. The writer selects the participants from SMP PGRI 10 Bandung and takes 2 classes for experimental and control class that are class C as an experimental class which consists of 40 students and class D as a control class which consists of 40 students.

G. Research Procedure

In this research, the researcher uses Quantum Teaching to improve students' speaking results. The research procedure is presented as below:

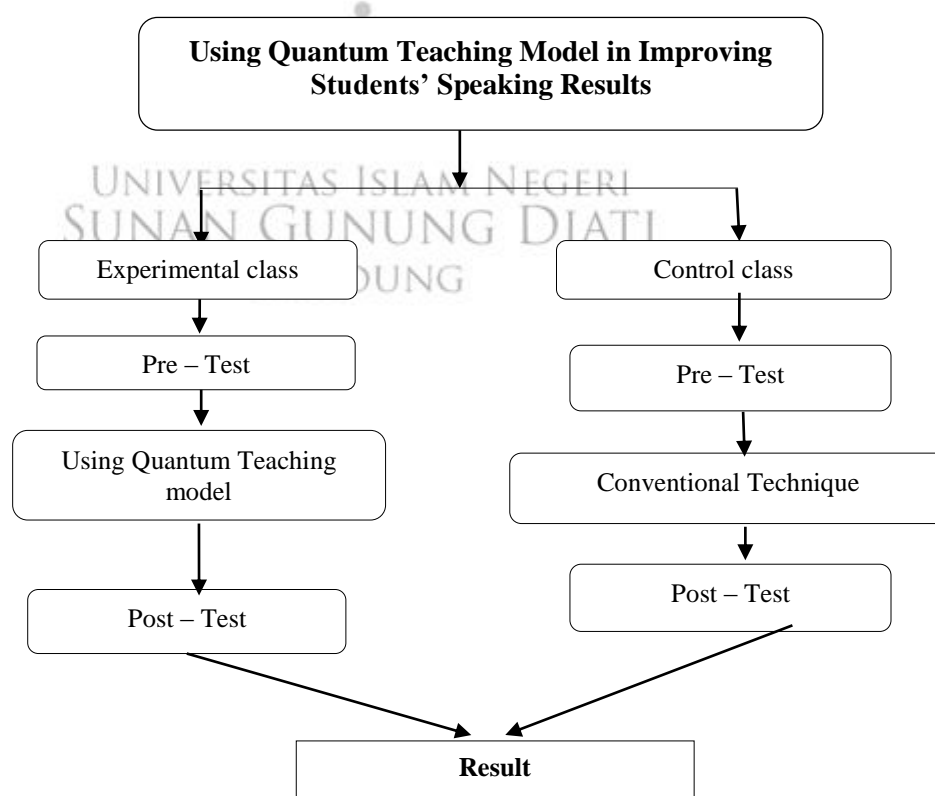


Figure 1.1. Research Procedure

1. Validity of test

Validity relates to the truthfulness of the data. The data is said to be valid if it measures accurately what it is intended to measure. The criteria of data validity for the research are suggested by some experts (Ovalina, 2010). It explained that before the instruments tested to the object of observation, it should be a measure that the instrument is measure through tested it to the other object. There are three types of validity were described in table 1.1 (Heale et al, 2015).

Table 1.1
Types of Validity

Type of Validity	Description
Content Validity	The extent to which a research instrument accurately measures all aspects of a construct.
Construct Validity	The extent to which a research instrument (or tool) measures the intended construct.
Criterion Validity	The extent to which research instruments that measure the same variables.

Table 1.2

Correlation Coefficient Criterion of Validity Instrument

Correlation Coefficient	Correlation	Validity Interpretation
$0.90 \leq r_{xy} \leq 1.00$	Very High	Very Accurate/Very Good
$0.70 \leq r_{xy} \leq 0.90$	High	Accurate/Good
$0.40 \leq r_{xy} \leq 0.70$	Medium	Fair Accurate/Fair Good
$0.20 \leq r_{xy} \leq 0.40$	Low	Not Accurate/Bad

$r_{xy} \leq 0.20$	Very Low	Very not Accurate/Very Bad
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2. Pre-test

The writer uses the instrument to collect the data of this research with several kinds of instrument, pre-test, treatment, and post-test. Creswell (2012) states a pre-test is presented to gain the information of students' knowledge or characteristics before using the variable whereas the post-test is designed to gain their improvement or change of knowledge after using the variable. The test is provided as their speaking skills.

This is the first measure of the condition students at eight Grade of SMP PGRI 10 Bandung in understanding English knowledge and their skill in speaking skill.

3. Treatments

The treatments in this research are conducted in three times meetings each class. The first treatment is an introduction with Quantum Teaching version. The second treatment, giving the materials about expression by using TANDUR (principal of Quantum Teaching). The last treatment, exercising with Quantum Teaching version.

4. Post-test

Post-test as a result after students have been given the treatment of teaching-learning process. The implementation of post-test is conducted in the class. This test is used to know the influence of the experiment being conducted toward an experimental group and to know how far students are able to speak English well by using Quantum Teaching model and without using Quantum Teaching model, and which one is better.

H. Data Analysis

This research uses the pre-test and post-test to analyze the effect of Quantum Teaching to improve students' speaking results with using QTM and without using QTM. The process of analyzing data is conducted after all research data is collected which involve several statistical processes, as below:

- a. Determining the range of data (R), by using the formula:

$$R = (\text{Highest score} - \text{Lowest score})$$

(Sudjana, 2005)

- b. Determining the class interval (K), by using the formula:

$$K = 1 + 3.3 \times \log n$$

(Sudjana, 2005)

- c. Determining the length of class (P), by using the formula:

$$P = \frac{R}{K}$$

(Sudjana, 2005)

- d. Determining mean, by using the formula:

$$\bar{x} = \frac{\sum f_i x_i}{\sum f_i}$$

(Sudjana, 2005)

- e. Making the table of distribution frequency:

Table 1.2. Distribution of Frequency

Score	f_i	x_i	$f_i x_i$	$x_i - \bar{x}$	$(x_i - \bar{x})^2$	$f_i(x_i - \bar{x})^2$
1	2	3	4	5	6	7

- f. Determining the derivation standard, by using the formula:

$$S^2 = \frac{n \sum f_i x_i^2 - (\sum f_i x_i)^2}{n(n-1)}$$

(Sudjana, 2005)

- g. Arranging the distribution of observation and expectation frequency use the table as follows :

Table 1.3. Arranging the Distribution and Explanation Frequency

Score	(oi)	Class limit	Z _{count}	Z _{table}	L ₁	E ₁	x ²
1	2	3	4	5	6	7	8

- h. Determining Chi-square (χ^2), by using formula :

$$\chi^2 = \sum \frac{(oi - E)^2}{Ei}$$

(Sudjana, 2005)

- i. Determining the degree freedom, by using formula :

$$Df = K - 3$$

(Sudjana, 2005)

- j. Determining Chi-square table on significance 5% or ($\alpha = 0.05$)

$$\chi^2_{\text{table}} = (1 - \alpha)(df)$$

- k. Interpreting the normality distribution by the criteria as follows :

$$H_0 : \chi^2_{\text{count}} < \chi^2_{\text{table}} \text{ (Normal)}$$

$$H_1 : \chi^2_{\text{count}} > \chi^2_{\text{table}} \text{ (Abnormal)}$$

- l. Testing the homogeneity of two variances by conducting the following steps:

- 1) Determining score F by using the formula :

$$F = \frac{s_{11}^2}{s_2^2}$$

(Sudjana, 2005)

- 2) Determining the degree of freedom :

$$DF_1 = n_1 - 1$$

$$DF_2 = n_2 - 1$$

(Sudjana, 2005)

- 3) Determining score of F from the table with the value of significance of 5 % or ($\alpha = 0.05$)
- 4) Determining homogeneity of data with criteria :

If $F_{\text{count}} < F_{\text{table}}$, it means the two variances are homogeneity

If $F_{\text{count}} > F_{\text{table}}$, it means the two variances are not homogeneity

- 5) Testing the differences between two interrelated averages score, by using t-Test formula :

- a. Testing the differences between two interrelated averages of pre-test score by using formula :

$$t = \frac{x_1 - x_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

where,

$$S^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$$

(Sudjana, 2005)

- b. Looking t_{table} with the level of significant 5 % using interpolation

$$T_{\text{table}} = t(\alpha) (db)$$

- c. Determining the Hypothesis

If $F_{\text{count}} \leq F_{\text{table}}$, it means there is no significance

If $F_{\text{count}} > F_{\text{table}}$, it means there is significance

- m. Determining N-Gain

Determining the use of QTM in improving students' speaking skills after treatment

by testing the N-gain, comparing pretest and posttest score using the formula:

$$\text{N-Gain} = \frac{\text{Post-test Mean Score} - \text{Pre-test Mean Score}}{\text{Maximum Score} - \text{Pre-test Mean Score}}, \text{ with category :}$$

Table 6
N-Gain Interpretation

Score	Interpretation
$g > 0.7$	High
$0.3 \leq g \leq 0.7$	Average
$g < 0.3$	Low

