

## **CHAPTER III**

### **RESEARCH METHOD**

#### **A. Research Design**

This study is a quasi experimental research. Its main characteristic lies on the possibility of making control of all relevant variables. By using this method, the differences of students' listening comprehension as a result of different materials used can be described.

This research method is used because the objective of the study is to describe the effect of the implementation of the authentic and non-authentic audiovisual materials on the students' listening comprehension in the teaching and learning of listening in the place setting – compared to that of which audio materials is used. This is in line with what experimental research is which is aimed at, that is, finding whether or not there is any effect of something which is treated to the research subjects.

Since it was a quasi experimental research, there were two kinds of group used as the research subjects. The first one was the experiment classes (consist of two classes) – the class in which treatment was implemented – and the second one was the control class – the natural class, the class where no treatment was applied and where the teaching and learning process runs as it does as usual.

This quasi-experimental research uses the pretest-posttest, nonequivalent control group design adapted from Wiersma & Jurs (2009: 169). The paradigm is as shown in the following table.

**Table 1. The Pretest-Posttest, Nonequivalent Control Group Design**

Group	Pretest	Treatment	Posttest
Experiment 1	O <sub>1</sub>	X <sub>1</sub>	O <sub>2</sub>
Experiment 2	O <sub>3</sub>	X <sub>2</sub>	O <sub>4</sub>
Control	O <sub>5</sub>	-	O <sub>6</sub>

Notes:

O<sub>1</sub> = the pretest of the experimental group 1 (EG1)

O<sub>2</sub> = the posttest of the experimental group 1 (EG1)

O<sub>3</sub> = the pretest of the experimental group 2 (EG2)

O<sub>4</sub> = the posttest of the experimental group 2 (EG2)

O<sub>5</sub> = the pretest of the control group (CG)

O<sub>6</sub> = the posttest of the control group (CG)

X<sub>1</sub> = the treatments using authentic audio materials

X<sub>2</sub> = the treatments using authentic audiovisual materials

There were some steps of research procedure which were taken in the research place setting:

1. Preparation. In this step, a syllabus, lesson plans, learning materials, media, pretest and posttest instruments were prepared. Meetings with the English teachers to plan and organize the instructions during the research were also done in this step.
2. Pretest. The pretests were administered to the three groups. They were taken on May 22 (experiment 1 group), 23 (control group), and 24

(experiment 2 group), 2019. The result of each pretest was used as preliminary data.

3. Treatment. Instructions by using authentic and inauthentic audiovisual materials were implemented to the experiment groups. Instructions by using the ordinary audio materials were implemented to the control group. Each group completed 6 meetings, starting from May 25, 2019 to July 1, 2019. Every meeting lasted for 100 minutes.
4. Posttest. The posttests were also administered to the three groups after the 6 meetings of treatment, taken on July 1 (control group and experiment 2 group) and 2 (experiment 1 group), 2019. The result of this posttest was used as the primary data of the research.
5. Data analysis of the pretest and posttest. The data gained from the research pre and post treatment was carefully analyzed using SPSS 17 to answer the research questions. The results of data analysis processing were then interpreted and discussed by involving theories proposed by experts and research results reported by scholars in the same field of study.
6. Report writing. The overall parts and stages of the research were presented in written as a report.

## **B. Research Time and Place Setting**

This research was conducted in the second semester of the academic year of 2018/2019 (May to July 2019). It took place in the intermediate listening-

speaking classes of the English Education Department of Ahmad Dahlan University Yogyakarta.

### C. Research Population and Sample

The population of the research involved all students enrolling in the second semester of the academic year of 2018/2019 who were taking intermediate listening and speaking course. In deciding the sample of the research, the researcher applied random sampling and took three classes, two classes as the experiment groups (class B and H) and the other one (class A) as the control group.

**Table 2. The Samples of the Research**

Group	Experimental Group		Control Group	Total
	(1) Authentic Audiovisual	(2) Inauthentic Audiovisual	Ordinary Audio	
Class	H	B	A	61
Sample	22	20	19	

### D. Research Variables

#### 1. Independent Variables

There were two independent variables in this research, namely authentic audiovisual material and inauthentic audiovisual material.

#### 2. Dependent Variable

The dependent variable in this study was the students' listening comprehension.

## E. Data Collection Techniques and Instruments

The technique of the data collection was using a pretest and posttest. The preliminary data of the research was taken from the result of the pretest. The test was given to both the experiment and control groups. The test was administered to measure the students' listening comprehension pre treatments. Posttest was conducted at the time when all treatments had completed. The result of this test was used to measure the students' listening comprehension post treatments.

**Table 3. The Data Collecting Schedule**

Group \ Test	The Experimental Group (Authentic Audiovisual)	The Experimental Group (Inauthentic Audiovisual)	The Control Group (Ordinary Audio)
Pretest	22 May 2019	24 May 2019	23 May 2019
Posttest	2 July 2019	1 July 2019	1 July 2019

The instrument of data collection was a listening test. This test was used to measure the students' listening comprehension before and after the treatments given. To be able to get clear comparison, the same instrument was used to both the experiment and control groups. The pretest and posttest used the same instrument.

To gain the validity of the instrument there were four steps to follow:

- a. Setting the specification based on the syllabus used in the teaching and learning of English in the center for language;
- b. Compiling test items based on the specification;

- c. Getting the instrument validated by an expert and colleagues; and
- d. Revising the instrument based on the expert and colleagues' notes.

**Table 4. The Table of the Try Out Instrument Specifications on the Listening Comprehension**

<b>Standard Competence</b>	<b>Basic Competence</b>	<b>Indicators</b>	<b>Item Numbers</b>
Understanding conversations and talks in the form of recording.	Listening for main idea, listening for details, listening and making inferences	1. Identifying main idea and information about inventors and their inventions.	24, 25, 26, 27, 28, 29, 30
		2. Identifying main idea and information about things invented.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23
		3. Identifying main idea and information about space and universe.	31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50

#### **F. Validity and Reliability of the Instrument**

Try out was conducted before the real test was done. This was in order to certify that the instrument had fulfilled the level of validity and reliability. It was given to the English Education Department students enrolling in the second semester of Yogyakarta Technology University on May 21, 2019. There were 28 students participating in the try out.

## 1. Validity of the Instrument

A measurement device is valid if it measures what it is supposed to measure (Furlong, Lovelace & Lovelace, 2000: 66). The instruments were tested for the validity by using content and construct validity. It was done through several steps: (a) Arrange the test items based on the blueprint made for the English course syllabus; (b) Consult an expert; (c) Test the instruments; and (d) Analyze the result by using ITEMAN version 3.00 to find out the validity of the test items.

## 2. Reliability of the Instrument

“If a measurement device or procedure consistently assigns the same score to individuals or objects with equal values, the device is considered reliable.” (Furlong, Lovelace & Lovelace, 2000: 66). To assess the reliability, this study had examined the items’ internal consistency. And to check the instrument’s reliability, this study used ITEMAN version 3.00. The results of the instrument’s reliability test are shown as follow.

**Table 5. ITEMAN Scale Statistics of the Reliability Coefficient**

N of Items	50
N of Examinees	28
Mean	30.643
Variance	34.372
Skew	0.571
Kurtosis	-0.443
Minimum	22.000
Maximum	44.000
Median	30.000
Alpha	0.753
SEM	2.914
Mean P	0.613
.Mean Biserial	0.281
Mean Item-Tot	0.394

**Table 6. ITEMAN Scale Statistics of the Reliability Coefficient**

N of Items	50
N of Examinees	23
Mean	34.739
Variance	31.236
Skew	0.091
Kurtosis	-0.882
Minimum	25.000
Maximum	45.000
Median	36.000
Alpha	0.753
SEM	2.778
Mean P	0.695
.Mean Biserial	0.396
Mean Item-Tot	0.282

An instrument is considered reliable if the reliability coefficient is higher than 0.70 as said by George and Mallery (2003) in Gliem & Gliem (2003: 87) who provided the following rules of thumb for the reliability coefficient: “\_ > .9 – Excellent, \_ > .8 – good, \_ .7 – acceptable, \_ .6 – questionable, \_ .5 – poor, and \_ < .5 – unacceptable. Therefore, referring to the scale summary statistics in the table above, the alpha reliability coefficient of both authentic and inauthentic material tests were 0.753. It was therefore certain that these tests were reliable to gather the data needed in the research since the alpha coefficient was higher than 0.70 ( $0.753 > 0.70$ ).

### **G. Data Analysis Procedure**

The objectives of this research were to describe the effectiveness of the use of authentic and inauthentic audiovisual material in the English listening classes. It was important to be noticed that all computations in this research



were computerized and the researcher merely interpreted the findings. Descriptive and inferential statistics using SPSS 17 were applied to analyze the data obtained.

Descriptive statistics were used to provide answers to the research questions about the most effective material used for the listening class.. It was aimed at knowing the increase of listening comprehension score of the students after the treatments were given.

Meanwhile, inferential analysis included test of normality – using Kolmogorov-Smirnov test, and test of Homogeneity – using Levene test, as pre-hypothesis tests. After the normality and homogeneity tests were taken, the data was then analyzed by using Kruskal-Wallis to do the hypothesis test. Further discussion about these tests are provided in chapter IV.