**CHAPTER III**

**RESEARCH METHOD**

1. **Research Design**

The design of the research was conducted in experimental research. According to Hadi in Purba (2016:42), experimental design is one of the precise methods to examine the cause and effect because of the fact, instruction toward a group and experiment sample. In this research, there were two groups, namely experimental group and control group. The experimental group was a group which was taught by using audio-visual method with TED Talks Video on YouTube as the medium. Meanwhile, control group was a group which was taught without using audio-visual method. The detail showed in the tables below:

 **Table 3.1:**

**Research design**

|  |  |  |  |
| --- | --- | --- | --- |
| **Group** | **Pre-test** | **Treatment** | **Post-Test** |
| Experiment (E) | Y1 | Audio-Visual Method with TED Talks Video as the medium | Y2 |
| Control (C) | Y1 | Conventional method | Y2 |

Notes :

E : Experimental Class

C : Control Class

Y1 : Pre-Test

Y2 : Post-test

1. **Population and Sample**

**3.2.1 Population**

The population of this research was taken from the first year students of MAS Al Washliyah 21 Firdaus at Academic Year 2019/2020. This research conducted in two parallel classes which consist of 30 students in each class. So, the total of the population were 60 students. Arikunto (2010:173) stated if population was less than 100, it was better to take all the population as the subject of the research. But if the population was more than 100, it allowed the researcher take only 10-20%, or 25-30% to be investigated as the sample of population.

**3.2.2 Sample**

According to Arikunto (2010:174) sample is partially or representative of the population studied. As for becoming sample of this research was 60 students of the first year students MAS Al Washliyah 21 Firdaus which consisted of two classes, 30 students in class X-1 who join experimental group and 30 students as a control group in class X-2.

* 1. **Research Procedure**

The procedures of this research were collected as follows:

1. Preparation. The researcher asked them some questions (pre-test).
2. Presentation. The researcher presented the videos by sending them the video, then they described or list about the topic.
3. Practice. The students practiced based on the topic and the questions (post-test).
4. Evaluation. The students were evaluated by the researcher based on the explanation and reasons about the topic that might be discussed
	1. **Research Variable**

A variable is a concept that stands for variation within a class of objects. It can be classified in several ways. In this research, the researcher classified variables as independent and dependent variable.

1. Independent variable. It was variable which influence other variable. In this research, independent variable was audio-visual method.
2. Dependent variable. It was the response or the criterion variable that was presumed to be influenced by the independence treatment conditions and any other. The dependent context in this research was students’ speaking ability.
	1. **Instrument and Technique of Collecting Data**
		1. **Instrument of Collecting Data**

In the research, the researcher used the test method as an instrument of collecting data. The researcher used orally test after showing TED Talks Video to the students as the instrument in this research. The researcher asked several questions that related to the video.

**3.5.2 Technique of Collecting Data**

In this research, the data were collecting by using test. Test is a measure of the knowledge, skill, feel, intelligence or attitude of an individual or group. In this research, the test was in the form of pre-test, treatment and post-test.

* + - 1. **Pre-test**

Pre-test was given before the treatments. According to Hakim (2016:46), pre-test was conducted in order to seek out the initial scores, or capability of students who have similar level of speaking competence. It was given to both experimental and control group. The purpose was to know the student’ ability in learning speaking before taught using audio-visual method. The result of students’ work was be checked and scored. The aspects of speaking which were scored were pronunciation, grammar, vocabulary, fluency and comprehension.

* + - 1. **Treatment**

After conducting the pretest, the researcher gave the treatments to the students in experimental group.

* + - 1. **Post-test**

According to Hakim (2016:46), post-test was conducted in the end to both classes after the experimental group received several beforehand. The purpose of this test was to measure students’ ability in speaking after taught using audio-visual method. The result of the post-test was compared with the result of the pre-test. The same as pre-test, the result of post-test were checked and compared with the result of pre-test. From the post-test, the researcher got the data that were used to measure the students’ progress that taught by using audio-visual method.

* + - 1. **Recording**

The students sent the record in the form of voice-note of students’ pre-test and post-test answers during online class and the researcher recorded students’ speaking ability during pre-test and post-test by using phone-recorder as recording tool during offline class.

* 1. **Technique of Analyzing Data**

In order to find out the students’ speaking ability, the researcher used analytical scale which was categorized by some categories and the researcher followed these scoring criteria for each category. The analytical score had five items and each item was scored 5. So, the maximum score is 20. Then it multiplied with 5, so the final maximum score were 100.

The analytical score can be seen on the table bellows:

**Table 3.2**

**The scoring aspects of the test**

|  |  |  |
| --- | --- | --- |
| **Aspects** | **Score** | **Qualifications** |
| **Pronunciation** | 5 | If speech is fluent and effortless as that of native speaker. |
| 4 | Denote that if it is always intelligible though one is conscious of a definite accent. |
| 3 | Refers to pronunciation problem necessitate concentrated listening and occasionally lead to misunderstanding. |
| 2 | Indicate that it is very hard to understand because of pronunciation problem most frequently asked to report. |
| 1 | Shows that pronunciation problem so serve as to make conversation unintelligible. |

|  |  |  |
| --- | --- | --- |
|  **Aspects** | **Score** | **Qualifications** |
| **Grammar** | 5 | Make few (if any) noticeable errors of grammar or word order. |
| 4 | Occasionally makes grammatical and/ or word order errors which do not, however, obscure meaning. |
| 3 | Refers to that speed and fluency are rather strongly affected by language problem. |
| 2 | Means that a student usually doubt and often forces into silence by language problem. |
| 1 | Means that speech is so halting and fragmentary as to make conversation virtually impossible. |
|  |  |  |
| **Aspects** | **Score** | **Qualifications** |
| **Vocabulary** | 5 | The use of vocabulary and idiom virtually that is of nativespeaker. |
| 4 | Indicates that sometimes a student uses inappropriate terms and or rephrase ides because inadequate vocabulary. |
| 3 | Refers to using frequently the wrong word, conversationsomewhat limited because of inadequate vocabulary. |
| 2 | Denotes that misutilizing of word and very limitedvocabulary make conversation quite difficult. |
| 1 | Means that vocabulary limitation so extreme as to makeconversation virtually impossible. |
|  |  |  |
| **Aspects** | **Score** | **Qualifications** |
| **Fluency** | 5 | If the speech is fluent and effortless as that native speaker. |
| 4 | Refers to speed of speech seems rather strongly affected by language problem. |
| 3 | Make frequents errors of grammar and word order, which obscure meaning. |
| 2 | Grammar and word order make comprehension difficult must often rephrase sentence and/or restrict him to basicpattern. |
| 1 | Errors in grammar and word order to severe as to make |

|  |  |  |
| --- | --- | --- |
| **Aspects** | **Score** | **Qualifications** |
| **Comprehension** | 5 | Appear to understand everything without difficulty. |
| 4 | Understand nearly everything at normal speed althoughoccasionally repetition maybe necessary. |
| 3 | Understand most of what is said at lowers that normal speed with repetition. |
| 2 | Has great difficult following what is said. |
| 1 | Cannot be said to understand even simple conversation inEnglish. |

The score of each aspect was multiplied by four, so the maximum score is 100. Here is the identification of the score of the students speaking:

If a student gets 5, so 5x4 = 20

If a student gets 4, so 4x4 = 16

If a student gets 3, so 3x4 = 12

If a student gets 2, so 2x4 = 8

If a student gets 1, so 1x4 = 4

To analyze the result of pre-test and post-test, the researcher analyzed the data by using statistical analysis. It used to know the result of pre-test and post-test. Then, the researcher calculated the individual score by using formula (Arikunto : 2006):

∑=$\frac{X}{N}$ x 100

Where:

∑ = Standard Score

X = Total Score

N = Maximum Score

100 = Constant Score

 After obtaining the standard score, the researcher counted the mean score of the class. To find out the mean score, the researcher added all scores and divided the sum by the number of scores. In order to compute this, the researcher used the formula that proposed by Arikunto (2006:306) as follows:

M = $\frac{∑X}{n}$

Where:

 M = average Score

 ∑x = the Sum of the Scores

 N = the Number of Students

 After computing the average score, the researcher used standard deviation formula to measure the students’ score as follows :

 SD = $\sqrt{\frac{∑D^{2-\frac{(∑D)^{2}}{n}}}{N-1}}$

 Where:

SD = Standard deviation

D = differences between pre-test and post-test

N = number of students

After computing the standard score, the researcher computed the mean score and standard deviation in order to know the significant improvement in the result of pre-test and post-test using t-test formula as follows:

t = $\frac{Md}{\sqrt{\frac{∑D^{2- \frac{(∑D)^{2}}{N}}}{N(N-1)}}}$

Where :

 t = the value of t-count

 Md = the mean deviation of pre-test and post-test difference (posttest

 pretest)

 ∑d2 = difference score pre-test and post-test

 N = the number of the students

 1 = Constant number