

CHAPTER III

METHOD OF RESEARCH

In this chapter presents the methodology uses to analyze data. At first explains research design, variable of the research, data source, population and sample, instrument of the research, technique of data collection, data analysis technique, statistical hypothesis.

3.1 Research Design

Starts from the pre-observation in getting data what students used to do in entertaining themselves, 56% students like to watch YouTube, rather than to watch movie, TV shows, and enjoying the other internet sources. From the outcome, the higher presentation would be the main variable in this thesis. The correlation between extensive listening and speaking ability were investigated among international first-grade students at Muhammadiyah 2 Senior High School of Surabaya in the academic year of 2017-2018 which focused on their watching habit through YouTube. Besides, the researcher wants to know is there any relation and how it occurred between student's listening habit and their speaking ability.

To improve the connection between those variables, this chapter applied the data which is focused on the methodology uses to analyze ideas and the facts. Hence, it organized by dividing into several part: the first one is *research design* which describes the method and setting that used by the researcher, second is *variable of the research*, and then the *data source*, the fourth was *population and sample* includes detailed information on how it was selected, the fifth is the *instrument* that covers the tools, after that is the *technique of data collection*, last could be *data analysis technique* involves the information of research was conduct.

To obtain the aim of this research, the data analyzed by quantitative research method. The researcher applied prediction research design as well. Creswell believed correlation design is procedure of quantitative research which investigators measure the degree of association (or relation) between two or more variables using statistical procedure of correlation analysis (2012: 21). Not only that, Creswell said that the basic objective form of correlational research is to explain the association between or among variables (2012: 340). For the design, researcher interested in the extended of extensive listening through YouTube as the first variable that changed or reflected the other variable that is speaking ability.

There are two primary correlation designs, there are explanatory and prediction correlation, Creswell (2012: 340). This research focused in the type of prediction design because it useful to help anticipated or forecast future behavior. Such as watching habit through YouTube, that has been used by students in kind of likelihood. Will it be the right way to achieve information and increase their language skill especially oral skill? Instead to get the result, how the variables affected by each other which the researcher predict before, statistical calculation also conducted to measure valuable result in the numerical term. "A prediction study reported the correlation using connection statistic", Creswell (2012:342). The next ideas and explanation are needed to clarify that the prediction and several calculation.

3.2 Variable of The Research

Creswell also added the purpose of a prediction research design is to identify the related variable that predicted an outcome or criterion (2012:341). Talking about the key of an idea that researcher seeks to collect information in determining purposes, Creswell believed that variable is a characteristic or attribute an organization that researcher can observe and measure (2012:112). The literary variable can be affected by another. Consider of variables in this research. There

are two main variable that researcher used. The first one is students speaking ability as the dependent variable labeled (X). Besides, the second is students' habit in watching YouTube as independent variable with the label of (Y). The differences between those variables are the dependent variable can be affected by independent variable, so students' watching habit is the control variable which can called as determinant or the characteristic which influence and affects dependent variable as an output.

3.3 Data Source

After find the right characteristics and information from several nearest people and internet source for doing research in Muhammadiyah 2 Senior High School of Surabaya which is located at Jl. Pucang Anom No.91 Kertajaya, Gubeng, Surabaya. Researcher submitted a preliminary survey to the vice principal and also curriculum of related school, Mr. Gomes, for getting approval and directed to a several teachers concerned in the research activities. Because of the dependent variable in this research was a vital thing to be required, researcher obtaining Mrs. Nurwana who is an English teacher and facilitator in English Corner activity to gain student's speaking score.

3.4 Population and Sample

Population literary means as a group of individual that have the same characteristics in Creswell (2012:142). The researcher chose first-grade international class as the population which is available in three different classes. Also for the target population itself can be more specific in the form of individual rather than the large one which set by researcher. On the other hand, English Corner is the activity that all students in first-grade international class must join and divided into four different levels based on the speaking placement test. After that, student grouped in several classes by advance, intermediate 1, intermediate 2, and basic

class. The stand of it, students who placed in advance class has higher ability in oral skill for the English Corner activity meant to identify as the target.

Realizing after choosing population, the sample is the part after it. Creswell stated “A sample is a subgroup of the target population that researcher plans to study for generalizing about the target population” (2012:142). The researcher selected an individual as sample from the advance class who are representative. There are about 21 students which can be concluded in the research as probable sampling.

3.5 Instrument of The Research

Before measuring data, there was also needed the instrument in this research. An instrument itself is a tool for observing, measuring, also documenting in order to seeks for data in quantitative research (2012:151). In this thesis the first instrument was speaking score who took by the teacher using rubric that researcher made to makes data not blurry in an idea. At the beginning of scoring process, the researcher has set the rubric to measure the several element in speaking such as fluency, vocabulary, pronunciation, grammar, and volume. The last is student’s listening habit questionnaire. This form of the questionnaire used to get the information about what most did their listen or watch and how long they obtain YouTube video as the source on their free time.

3.6 Technique of Data Collection

In this part of thesis, the researcher would like to discuss how and what condition she conduct in the research especially in the process of data collection. Beside, to answer the research question and purpose, there are 3 data researcher have found to analyze. Before that, there are steps and preparation starts to gathering information, search for location, then determining student, after that obtaining permission from school organization also make a clear purpose to them,

and so the researcher could have a process of collecting data. The data was collected were explain further next.

After getting data from pre-observation, researcher conducts the main instrument in this thesis for support the dependent and independent variable. Therefore, how to access speaking score and the student's listening habit questionnaire, the researcher explains in further discussion.

3.6.1 Scoring Speaking

English Corner is the new extracurricular program launched in 2017-2018 at Muhammadiyah 2 International Senior High School for the first grade only. This program has a purpose in order to increase English language skill especially speaking skill among student international class. English Corner program has been held each Friday afternoon on 2 pm to 3.30 pm. The program itself assume all types of speaking, there are; imitative, interactive, intensive, responsive, also extensive which has been developing various interesting topics.

English Corner class set by 21 to 28 student each for four different level class. There are *Advance class*, *Intermediate 1 class*, *Intermediate 2 class*, and then *Basic class*. Advance class obtains student that has the higher level in English, especially in oral skill. Differ with the Basic one, that class which has less ability in oral skill and need more improvement to obtain the speaking skill. In the middle level, there are Intermediate 1 and Intermediate 2 class, which is has enough ability in acquiring English language skill and obtain an oral skill. At first, all of students have to require placement test to grade their ability specifically speaking comprehension.

In this program, all of activity should be assessed. As well as speaking activity, teacher measured it with speaking rubric. To facilitate this research, the researcher has produced speaking rubric instrument for measure student ability properly. In assessing speaking, Luoma stated there are so many factors influenced someone

can speak a language, to expect the accurate test score, speaking developer need to prepare appropriate purposes (2004:1). Hence, several aspect of assessing speaking skill have researcher set such as, grammar, vocabulary, comprehension, fluency, and pronunciation in *Speaking Rubric* that shows on appendix table 3.2 also in table 3.3 for *Oral Proficiency Scoring* that quoted from Brown (2004).

There are Andrade (2000), Goodrich (1997), Moskal (2003), and Popham (1997) stated that rubric is known as a popular tool used by teachers to communicate expectations for an assignment, providing focused feedback on works in progress and grading final products. Based on Arther (2000) there are four types of rubric scoring, there are holistic, analytic, general, and task specific. Asmus (1999) believed that rubric is a guideline for rating student's performance. Researcher applies analytic rubric scoring for her research because along of several dimension, it provides specific feedback. The scoring that teacher measured consistently across students and grades. Not only that, this type of score can be maintained by the strengths and weaknesses of students' performance as a complicated skill performance. Besides, the teachers can be detailed in gave feedback to the students after their performance.

Related on that rubric, it also includes levels which serve in numerical criterion (1 to 5) of potential achievement which is stated by Brown (2004), for each criterion also mentions by table 3.3. Therefore, the students can release what criterion they need to improve of potential achievement. The score can be measured by the total of level students got before than divide by 5 of potential achievement. However, the score that achieves by students can be categorized. Then the researcher applied for the categories of oral proficiency which stated by Brown (2004) that served in the table 3.4 forward to clearly place the students skill and potentiality. Therefore, the researcher also used SPSS as the appropriate calculation, the last of oral proficiency score that students acquire determined to times with 20 to get the

available number to count, in order to compare with the students' achievement of the questionnaire value.

Table 3.1 Speaking Score Categories.

Level	Description
0	Unable to function in spoken language
0+	Able to satisfy immediate needs using rehearsed utterance
1	Able to satisfy minimum courtesy requirements and maintain very simple face-to-face conversation on familiar topics
1+	Can initiate and maintain predictable face-to-face conversation and satisfy limited social demands
2	Able to satisfy routine social demands and limited work requirements
2+	Able to satisfy routine social demands with language usage that is often, but not always, acceptable and effective
3	Able to speak the language with sufficient structural accuracy and vocabulary to participate effectively on most formal and informal conversation on practical, social, and professional topics
3+	Often able to speak the language to satisfy professional needs in a wide range of sophisticated and demanding task
4	Able to use the language fluently and accurately on all levels normally pertinent to professional needs
4+	Speaking proficiency is regularly superior in all respects, usually equivalent to that of a well-educated, highly articulate native speaker
5	Speaking proficiency is functionally equivalent to that of highly articulate, well-educated native speaker and reflects the cultural standards of the country where the language is spoken

3.6.2 Questionnaire

The second instrument in this research was the questionnaire. Realize for the independent variable in this research was student's habit in watching YouTube. This type of questionnaire was set by paper base besides 20 questions available arrange on it. This questionnaire has to search how often students using YouTube in daily time, what is the function of YouTube, how students acquire English language through it, and then how YouTube affect students increase their speaking skill. All of the questions made by researcher design used *Likert Scale* for made student easy to understand and answer the question based on the reflection and

their experience in the other benefits for researcher was makes it easy connected two variables to find a relationship.

To arrange the questionnaire, validity and reliability were a main important thing to be done. According to Gliem & Gliem (2003) when using a *Likert-type scale*, it is important to calculate and report the *Cronbach alpha coefficients* to obtain internal consistency reliability for every possible scale or subscale. There are four scale including (Always, Often, Rarely, Never) that researcher have made. In the other hand to support the validity of the questionnaire, researcher conduct *pilot test* by Inter 2 class after have a validity calculation from SPSS.21, the questionnaire conducted in Advance class. In the appendix table of 3.5, listening habit questionnaire gives in detailed.

3.7 Data Analysis Technique

From the previous part, there were 3 kinds of data was collected; the pre-observation result, speaking score, and questionnaire result that researcher found. From pre-observation result, the data applied in form of graph and information to see the higher one which is chosen as the independent variable. Since the other data was in numeric form, statistical analysis also need to produce the outcome. Hence, to seek for the relation between variables, is there any correlation or does not, several appropriate statistic calculations such as in SPSS.21 need to apply such this ways.

First, to found there is a significant relationship between student speaking score that both teacher and researcher took. Then, the researcher added *One Sample Kolmogorov Smirnov test* to seek for normal distribution in getting final score. Secondly, researcher added *Cronbatch's alpha test* for pilot questionnaire test which conducted in Intermediate 2 class. Last, in order to rate the relation between speaking score and Questionnaire, correlation test conducted by the researcher in this way:

Formula:

$$r_{xy^2} = \frac{N \sum XY - (\sum X) (\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2] [N \sum Y^2 - (\sum Y)^2]}}$$

Description:

- N = Number of Participants
- X = Students' Speaking Scores
- Y = Students' Listening Habit Questionnaire
- $\sum X$ = The Sum Scores of Speaking
- $\sum Y$ = The Sum Scores of Listening Habit Questionnaire
- $\sum XY$ = The Sum of Multiplied Score between X and Y
- $\sum X^2$ = The Sum of the Squared Scores of Speaking
- $\sum Y^2$ = The Sum of the Squared Scores of Listening Habit Questionnaire

To find the significant relation between speaking score and the result of listening questionnaire, the formula is:

Formula:

$$t_{count} = \frac{r \sqrt{n - 2}}{\sqrt{1 - r^2}}$$

Description

- t_{count} = t value
- n = number of participants
- r = value of correlation coefficient

How to interpret the index scores of “r” correlation, product moment (r_{xy}) probability need to interpret with the theory of Ridwan and Sunarto (2011) that stated in Azizah (2014) explained such as below:

Table 3.2 Pearson Correlation Table.

The score of “r” product moment (r_{xy})	Interpretation
0.00 – 0.19	Very low
0.20 – 0.39	Low
0.40 – 0.69	Medium
0.70 – 0.89	High
0.90 – 1.00	Very High

The table of Pearson correlation that researcher mention above explain about the value that obtained from the score of "r" product moment. Basically, the results have been classified into several types of correlation relationships. As in the table above, there are 5 categories of correlation interpretation (very low, low, medium, high, and very high). The acquisition value of “r” from the calculation of product moment generated will be classified into the correlation relationship.

Correlation interpretation is stated very low when the score of r score 0.00 up to 0.19. “Very low” interpretation indicates the existence of a little correlation even in the calculations still show the relationship between those two variables. While the acquisition value between 0.20 - 0.39, it is classified into a low correlation relationship. Although “Low” interpretation means only view but the relationship between variables is higher than the previous classification of interpretation. The third interpretation is “Medium” with score ranges from 0.40 to 0.69. In this type of “Medium” interpretation, the relationship between the two variables is categorized as moderate or sufficient. For the result, the correlation between those

two variables is not too high but also not too low. In the “High” interpretation scale, the correlation is greater and stronger between the two variables if calculated results of "r" product moment 0.70 to 0.89. The last is a “Very high” correlation interpretation. This type has position in the top of the correlation interpretation with the acquisition of the result “r” product moment count reaches 0.90 to 1.00. However it gives meaning that the power of relationship between those two variables shows the connection that really close each other.

3.8 Statistical Hypothesis

1. H_a is accepted if r_o is same or higher than r_t . It means that there is correlation between extensive listening through YouTube and speaking ability.
2. H_a is rejected if r_o is lower than r_t . It means that there is no correlation between extensive listening through YouTube and speaking ability.