

CHAPTER III

RESEARCH METHOD

In this chapter, the researcher presents some points related to this research method, variable of the research, place and time of the research, population, sample, sampling, techniques of collecting data, validity and reliability of the test, and data analysis technique.

A. Research Design

The research design was explained as the way of preparing to complete the research and achieve the research's goal. In this research the researcher wanted to know the correlation between student's frequency in watching English movie and student's ability to pronounce word stress. So, the research design that employed in this research was correlational research. The researcher applied quantitative research in this research. The Quantitative research was defined as the explanation of phenomena by collecting numerical data that was analyzed using mathematically based on statistical methods. Sugiono (2008:260) stated that the purpose of this method is to investigate whether the raising of variable dependent can be influenced by rising of variable independent.

According to (Creswell, 2014) quantitative research is an approach for testing objective theories by examining the relationship among variables. The correlational research was a quantitative method design to show the

relationship between two or more variables without any attempt to influence them. The correlation design was used to measure the degree of relation among variables by using statistical correlation analysis procedure. The degree of relation among the variables was shown in a number which indicated whether the variables were related or one can predict another.

In this research, the researcher used two variables. This research presented the correlation between the English student's frequency in watching movie with their ability to pronounce word stress.

The possible result of a correlation study was decided into three which were a positive correlation, a negative correlation, and no correlation. (Nunen, 1992: 39) The correlation coefficient was a measure of correlation strength and can range from -1.00 to +1.00. Perfect positive correlation would result in a score of +1. Perfect negative correlation would result in -1. Positive correlation was signaled by the decreasing of both variables at the same time. A correlation coefficient close to +1.00 indicated a strong positive correlation. In addition, negative correlation was signaled by the improving the amount of one variable and the decreasing the other variable. A correlation coefficient close to -1.00 indicated a strong negative correlation. Meanwhile, no correlation was showed that is no relationship between the two variables. A correlation coefficient of 0 indicated no correlation.

B. Variable of Research

In this research, the researcher studied the correlation of predicted variable (X) and criteria variable (Y). These two variables were the English student's frequency in watching English movie as the variable (X) and the English student's ability to pronounce word stress as the variable (Y).

C. Population, Sample, and Sampling

1. Population

The researcher needed to determine the population before the sample was collected. Sugiono (2010:117) suggested that population is geographic generalization which consist of object or subject that has quality and certain of characteristic that set by the researcher to be learned and make conclusion. In this research, the researcher chose all student's at second semester of English department at IAIN Tulungagung in academic year 2020/2021. The researcher chose second semester students of English Department as research subjects because of the transition of their mindset as English college students in the first year about their awareness of all aspects including language skills and language components. Another reason why the researcher chose the second semester student of English Department was because they have not get course about phonology that discuss about word stress yet. So, the researcher could know whether the frequency in watching English movie has a correlation whit their ability to pronounce word stress or nor even

though they have not get the theoretical knowledge about word stress yet.

The number of the population was 222 students.

Table 3.1 Population of the Research

No.	Class	Number of Students
1	TBI 2 A	46
2	TBI 2 B	48
3	TBI 2 C	44
4	TBI 2 D	42
5	TBI 2 E	42
Total		222

2. Sample

According to Kenneth and Bruce (2011:163) sample is a small sub group taken from the large population. The sample selection was important when the researcher conducted a research study. Sample was defined as a part of population that would be analyzed in the research. Based on Sugiono (2010:118), he defined that sample is part of number and characteristics which is possessed by the population. A sample must be represented the population.

Before doing the research, the researcher needed to determine the total of the sample. Because the population was huge in number, the researcher took only some from the population. As Arikunto (2002) said, if the total of the subject is more than 100 respondents, it is better to take about 10%-15%, 20%-25%, or more. Because of the total of the

population were more than 100 respondents, the researcher took 15% of the total population that was 33 students.

Table 3.2 The sample of the Research

No.	Class	Number of Students
1	TBI 2 A	7
2	TBI 2 B	7
3	TBI 2 C	7
4	TBI 2 D	6
5	TBI 2 E	6
Total		33

3. Sampling

Gay (1987: 101) stated that sampling is a process of selecting a number of individuals for study in such a way that individual represent the larger group from which they are selected. In this research, the researcher decided to apply simple random sampling technique. According to Kerlinger (2006:188), simple random sampling is a method to determine the sample which each individuals of the population has a same opportunity to be a participant. In addition, Sugiyono (2001:57) said that simple random sampling is done randomly without any category in the population.

D. Instrument of the Study

The instrument has important role in the research. Arikunto (2006:126) said, the tool that researcher used to collect the data was known as instrument. The successful of the research was determined by instrument that used, because the answer of research questions and the hypothesis of the research gained through instrument itself. The researcher used questionnaires and test as the techniques to collect the data for this research. The questionnaires were applied to get the data of the student's frequency in watching English movie, while the test was applied to get the data of student's ability to pronounce word stress.

E. Method of Data Collection

1. Distributing Questionnaire

Questionnaire was used to get the data of the English student's frequency in watching English movie. Researchers applied questionnaires so the respondents able obtain information that represent their thoughts, feelings, attitudes, beliefs, perceptions, personality, and behavioral. Hence, in this study, to obtain the data of the student's frequency in watching English movie the questionnaire was employed. The form of questionnaire was multiple choices. The respondents were asked to choose one of those options that they though close matched with their situation and condition. The questionnaire has one indicator that is frequency with 10 items and each item has five options which are always,

often, sometimes, seldom, and never (*Appendix 1*). The questionnaire was distributed by using Google form. The researcher shared the link of Google form to the respondents by using Whatsapp (*Appendix 2*). After distributing the questionnaire, the researcher employed Likert Scale to measure the score. After got the score, the researcher classified the student's frequency in watching English movie based on the score they got.

Table 3.3 The measurement scale questionnaire

Frequency	Options				
	Always	Often	Sometimes	Seldom	Never
Positive	5	4	3	2	1
Negative	1	2	3	4	5

Table 3.4 The Classification Score of questionnaire

No.	Level	Explanation
1	43-50	Very High
2	35-42	High
3	27-34	Fair
4	19-26	Low
5	10-18	Very low

2. Administering Pronunciation Test

The test was used for measuring the student's ability in pronounce word stress. In this research, the pronunciation test was conducted after the researcher got data of students' frequency in watching English movie. The way how to conduct the test was by asking students one by one to

pronounce word in isolation that was consists of 50 words. The researcher developed the isolation words based on the number of syllable in the words and the grammatical category such as noun, verb, adjective, and so on. The 50 isolation words consist of 25 words with 2 syllables, 15 words with 3 syllables, 10 words with 4 syllables with random grammatical category (*Appendix 4*). After got the score of questionnaire, the students were asked to pronounce the words by recording their pronunciation. The researcher used Whatsapp as the media for the students to send the recording of pronunciation test. The researcher texted the students one by one and asked the students to send their pronunciation test. The students were allowed send their pronunciation test as recording or voice note. After all the respondents did the test, then the researcher checked it carefully. Each word had 1 point if the students could pronounce it correctly and 0 point if the students pronounced it incorrectly. So, if the students could pronounce all the words correctly, they would get 50 point.

Table 3.5 The Classification Score of Pronunciation test

No.	Level	Explanation
1	41-50	Excellent
2	31-40	Good
3	21-30	Average
4	11-20	Poor
5	0-10	Very poor

F. Validity and Reliability Testing

Before accumulating the data, the researcher needed to test the validity and the reliability of the instruments this research. This instrument testing aimed to determine the feasibility level of the instrument to collect the required data. In test the instrument, the researcher used expert judgment for deciding whether the instrument was valid or invalid and used SPSS 25.00 to know whether the instrument was reliable or not reliable

1. Validity

The researcher used expert judgment to know whether the instrument of this research was valid or not. Expert judgment was used to evaluate the appropriateness of the instruments. In this case, after determining the aspects of the instruments which would measure based on the certain theory, the researcher consulted the instrument with expert. This consultation was done with supervisor to know the strength of each item. The judgment from the supervisor was used as input to perfect the instruments, so that it was feasible to be used as an instrument in accumulating the data.

2. Reliability

Reliability test aimed to know the consistency of the instrument, so the result of the instrument could be believed as a tool of measurement. In testing reliability of the instruments, the researcher also used SPSS 25.

- a. If $\alpha_{cornbach} > r_{table}$ at the level of significance of 5% it indicates that the instrument is not reliable.

- b. If $\alpha_{Cronbach} > r_{table}$ at the level of significance of 5% it indicates that the instrument is reliable.

Table 3.6 Reliability Statistics

Cronbach's Alpha	N of Items
0.750	10

According to the reliability calculation of questionnaire by using SPSS 25, the result as follow:

From the table of reliability above, it could be seen that the $\alpha_{Cronbach}$ is 0,750. Furthermore, the r_{table} of this study is 0,344 It could be conclude that $\alpha_{Cronbach} > r_{table}$ at the level significant 5% (0,750 > 0,344) that indicated the questionnaire was reliable.

G. Method of Data Analysis

After accumulating and the data and testing the validity and the reliability of the instrument, then the researcher analyzed the data to know the correlation between student's frequency in watching English movie and their ability to pronounce word stress. The researcher used product moment correlation to examine whether there was or no correlation between two variables. In analyzing and calculating the data, the researcher used SPSS 25.

The steps in analyzing data are:

1. Normality testing

Normality testing was done with the aim to assure whether the data are normal distribution or not. The researcher applied SPSS 25. Test by the value of significance (α) = 0.050. The possible decisions in normality testing are as follows:

- 1) If the significance value > 0.050 , it indicates that the distribution of data is normal.
- 2) If the significance value < 0.050 , it indicates that the distribution of data is not normal.

2. Linearity testing

Linearity testing was conducted to know whether both variables predictor variables (X) with the criteria variable (Y) show the linear relationship or not. The linearity testing was done, the researcher applied T test through SPSS 25 with the value of significance (α) = 0.050. The possible decisions in normality testing are as follows:

- 3) If the significance value > 0.050 , it indicates that the distribution of data is linear.
- 4) If the significance value < 0.050 , it indicates that the distribution of data is not linear.

3. Correlation Coefficient

After doing normality testing and linearity testing, to search out the correlation between two variables the researcher applied product moment correlation. The researcher used SPSS 25.00 in calculating and analyzing the data. The formula of product moment correlation is:

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

Where :

r_{xy} = Total correlation coefficient

$\sum X$ = Total of Questionnaire score

$\sum Y$ = Total of Pronunciation Test score

$\sum XY$ = the total of multiplication of Questionnaire and Pronunciation test score

The degree of the correlation was called correlation coefficient or (r). The range of correlation coefficient is from $-1 \leq r \leq +1$. The correlation was called strong if the value of r is close to 1. The value of r was positive was shown when the correlation was positive that indicated if the value of variable x and y increases at the same time. Meanwhile, the value of r was shown negative whether correlation was negative that indicated if the value of one variable increases and the value of another variable decrease. To interpret the correlation score, the researcher used the interpretation of correlation by (Arikunto,2010).

Table 3.7 The Correlation Interpretation

R Value	Interpretation
0.800 - 1.00	Very strong
0.600 - 0.799	Strong
0.400 - 0.599	Medium
0.200 - 0.399	Low
0.00 - 0.199	Very low (no correlation)

In order to know the significance between two variables, the formula of the significance test is:

$$t \text{ value} = \frac{r \sqrt{n-2}}{\sqrt{1-r^2}}$$

which:

r = value of correlation coefficient

n = number of variables

In testing the significance of variable, t value would be compared to t table that would be found by calculating degree of freedom. The formula as follow:

$$df = N - nr$$

which:

df = Degree of Freedom

N = Number of respondent

nr = Number of variables

The criteria as follow:

- a. If $t_{value} > t_{table}$: H_a is accepted and H_0 is rejected. It indicates that there is significant correlation between English student's frequency in watching English movie and their ability to pronounce word stress.
- b. If $t_{value} < t_{table}$: H_a is rejected and H_0 is accepted. It indicates that there is no significant correlation between English student's frequency in watching English movie and their ability to pronounce word stress.

H. Hypothesis Testing

The hypothesis of the study can be classified into two:

- a. Null Hypothesis (H_0): There is no correlation between English student's frequency in watching English movie and students' ability to pronounce word stress.
- b. Alternative Hypothesis (H_a): There is correlation between English student's frequency in watching English movie and students' ability to pronounce word stress.

To test the hypothesis, the researcher compared the correlation coefficient (r_{xy}) with Product Moment table (r_{table}). The criteria of the hypothesis as follows:

1. If $r_{xy} > r_{table}$, H_a is accepted and H_0 is rejected that indicates that there is a correlation between two variables.
2. If $r_{xy} < r_{table}$, H_0 is accepted and H_a is rejected that indicates that there is no a correlation between two variables.