CHAPTER III

RESEARCH METHOD

In the third chapter, the researcher presents research method used in the study include (1) research design, (2) population and sample or subjects, (3) research instrument, (4) validity and reliability testing, (5) data collecting method, and (6) data analysis .

3.1 Research Design

In this study, the researcher wanted to describe the significant correlation between students' watching VOA (Voice of America) videos (x) and their listening skill (y) at fourth semester's students of English Department in IAIN Tulungagung academic year 2019/2020. In order to get the data, he researcher used correlation research with quantitative approach which emphasized objectivity by using numbers, statistics, structure and control. The variables that the researcher used are students' watching VOA (Voice of America) videos (prediction variable) and their listening skill (criterion variable). Fraenkel and Wallen (1996:309) said that an established relationship between variables is defined by correlation study. Correlation is a bivariate analysis which measures the intensity of the correlation between two variables

3.2 Population and Sample

In this research, the population of the study was all the fourth semester students in the inferential listening classes at the Department of English Education in the study year of 2020/2021. Best (1981:8) describes "population as any set of people with one or more common characteristics that are of interest to the researcher.". There are seven classes (TBI 4 A, TBI 4 B, TBI 4 C, TBI 4 D, TBI 4 E, TBI 4 F, and TBI 4 G) with the total 287 students. It could be seen in the following table:

Table 3.1 Population of fourth semester students of English Department 2019/2020

No	Class	Number of Students
1	TBI 4A	43
2	TBI 4B	40
3	TBI 4C	41
4	TBI 4D	42
5	TBI 4E	45
6	TBI 4F	37
7	TBI 4G	39
	Total	287

"A sample is a small part of the population selected for observation and analysis," Best (1981:8) says. The researcher took scientific vocation, consisting of seven parallel groups, on the basis of this argument. Given the

huge group of students, a sample had to be chosen by the investigator. It would help research quick to perform. The investigator used cluster sampling techniques to determine the sample. In selecting the sample, the researcher did some steps. Firstly, the researcher planned five sheets of paper and wrote each class's term. They were then folded and placed into the bottle, and so the researcher thoroughly shaken the bottle. The researcher threw one of them out from the glass after that was TBI 4A class which has 43 numbers of students.

3.3 Research Instrument

3.3.1   Questionnaire

The researcher needs instruments in collecting the data and there are two instruments that the researcher used in this study. The first one was questionnaire with 5bscale options. This instrument use to collect the data of students watching VOA videos. Schumacher said that questionnaire have many advantages because it was easy to use, do not need a lot of money, and accurate. However, in this study the researcher used closed questionnaire and the statements in the questionnaire were written in English. In this research, the questionnaires consist of 25 questions in the form of multiple choices (Appendix 1).

In the questionnaire, the scale that the researcher used was Likert scale. According to James (2006) it was frequently use and easy to adapt based on the real statements. The scales showed in 5 levels of

agreement never, rarely, sometimes, often, and almost always. The indicators of the questionnaire as follows:

- o Score 1 = Very Low/ Never/ Once a week

- o Score 2 = Low/ Rarely/ 2-3 times a week

- o Score 3 = Fair/ Sometimes/ 4-5 times a week

- o Score 4 = Good/ Often/ 6-7 times a week

- o Score 5 = Very Good/ Almost Always/ More than 7 times a week

According to the indicator, the highest score was 5 and lowest score was 1. Then, the researcher distribute the questionnaire to the students on June, 2th 2020, in which the researcher tested the students to fill the questionnaires in the Google Form.

3.3.2 Document of students' listening test

The second instrument that the researcher used was document of students' listening test. The test used in the study was Longman TOEFL Listening Pre-Test (Appendix 2) with the duration 35 minutes. The test held by the help of course lecturer on June, 3th 2020 via online by using Edmodo. The course lecturer shared the question and the audio to the students and they have to submit the answer after 35 minutes.

3.4 Validity and Reliability Testing

3.4.1 Validity Testing

After the researcher arranged the questionnaire then the researcher did the tryout to 22 English Education students form TBI 4 D class. The researcher was done the tryout in order to know whether the items were valid or invalid, and if there are any invalid items so it should be revised or removed. The validity test was done by using SPSS Statistics 20 program.

Validity Test Stages:

a) Open SPSS Statistics 20 program

b) Tabulate

c) Click Analyze

d) Click correlation

e) Click the bivaritel checkbox

f) Check Pearson

g) Check the flag

h) Click OK

3.4.2 Reliability Testing

The next step that the researcher did after the validity testing was reliability testing. Instruments that have reliability are instruments that really fit the reality.

Reliability Test Stages:

a) Open SPSS Statistics 20 program.

b) Click analyze

c) Then choose scale

d) Click reliability

e) Choose valid items, after validity has been tested

f) Select statistics

g) Click scale if item

h) Click continue

i) Click OK

The reliability test is carried out after testing the validity. In reliability testing, testing items that are declared valid in the validity test. Then the item is tested whether reliable or not. It explains that the validity and reliability test is a test to the validity and reliability of a statement items on the Instrument.

After tabulating and testing the validity. According to Sugiono (2013) validity test here knows which items are valid, and which are invalid. Invalid items here can be removed. The items said to be invalid if r counts are bigger than r tables. r tables here are adjusted to the number of respondents, because researchers here use respondents as many as 22 then the r table is worth 0.4227 (Appendix 3). While the r count is known from the total score obtained after being tested for validity in the SPSS.

Comparison of *r* count and *r* tables:

Table 3.2 The Validity Testing of Questionnaire

No	Items	R count	R tables	Valid	Invalid
1.	1	.665	0.4227	√	-
2.	2	.657	0.4227	√	-
3.	3	.697	0.4227	√	-
4.	4	.549	0.4227	√	-
5.	5	.754	0.4227	√	-
6.	6	.620	0.4227	√	-
7.	7	.602	0.4227	√	-
8.	8	.733	0.4227	√	-
9.	9	.650	0.4227	√	-
10.	10	.683	0.4227	√	-
11.	11	.709	0.4227	√	-
12.	12	.488	0.4227	√	-
13.	13	.457	0.4227	√	-
14.	14	.583	0.4227	√	-
15.	15	.652	0.4227	√	-
16.	17	.612	0.4227	√	-
17.	18	.726	0.4227	√	-
18.	20	.720	0.4227	√	-
19.	21	.579	0.4227	√	-
20.	22	.573	0.4227	√	-
21.	23	.631	0.4227	√	-

22.	24	.669	0.4227	√	-
23.	25	.647	0.4227	√	-
24.	26	.748	0.4227	√	-
25.	27	.601	0.4227	√	-

Based on the comparison of *r* count and *r* tables in the validity test, it found all items of questionnaire are valid.

After conducting the validity test, the next step is to test the reliability of the valid items of questionnaire and the following result are found:

Table 3.3 The Reliability Testing of Questionnaire

Reliability Statistics

Cronbach's Alpha	N of Items
.755	25

According to Wiratna Sujarweni (2014), the questionnaire said to be reliable if the Cronbach alpha value is >0.600. meanwhile, the result of the calculations in SPSS show that Choncranch alpha is 0.755 which means greater than 0.600. so that 25 questions in the questionnaire are valid and reliable. After got the result, the researcher distributed it to the students of TBI 4 A.

3.5 Data Collecting Method

Firstly, the researcher asked the students of TBI 4A to fill the online questionnaire in the Google Form to collect the data of students' watching VOA videos. Then, their responses were calculated (Appendix 4). Second, the researcher did the online test by the help of the lecturer course to collect the data of students' listening skill. The test used was Logman Diagnostic Pre-Test for Listening Comprehension. The data were then calculated (Appendix 5).

3.6 Data Analysis

The researcher used correlational research design which aims to find the relationship between two variables. There are the students' watching VOA video was the predictor variable (x) and the students' listening skill was the criterion variable (y). in this research, the data were get from the document of students' listening test and the result of students questionnaires. Next, the researcher used Bivariate Correlation Analysis by using Spearman Rank SPSS because the data were ordinal which got from the two variables (questionnaire of students' watching VOA video and document of students' listening test) and the data belong to non-parametric statistics. Here, the researcher classify the scale option in the questionnaire into 5 level: 5 = Very Good; 4 = Good ; 3 = Fair ; 2 = Low ; and 1 = Very low

However to calculated the data, the researcher used SPSS 20 program to know the correlation coefficient value (r) of the variables and

the result should be interpreted to see if the value is high, fair, a bit low, low, or very low . The interpretation of the index correlations number according to Arikunto (2010) as follow:

Table 3.4 Interpretation of the Value *r*

according to Arikunto (2010:319)

The value of "r"	Interpretation
Between 0.80 – 1.00	High
Between 0.60 – 0.79	Fair
Between 0.40 – 1.59	A Bit Low
Between 0.20 – 1.39	Low
Between 0.00 – 0.19	Very Low