CHAPTER III
METHODOLOGY OF THE RESEARCH

A. Research Methodology

1. Research design

The design of the research is a correlational study, and it was carried out using a quantitative method. Because it examines the relationship between two variables, this study typically falls into the category of correlational research. As stated by Sangadji that correlational research is a type of research with certain characteristic of the problems of the relationship or correlation at least two variables (Sangadji, 2010 : 71). Variable is the object of the research or what is being noticed in a research (Arikunto, 1996 : 99).

In statistical science, the correlation between two variables is known as bivariate correlation, while the correlation between more than two variables is known as multivariate correlation. Since the correlation study searches for whether or not there is a correlation between two variables or more, the correlation between two variables can be a positive correlation and negative correlation (Sudijono, 2006 : 167). A study has a positive correlation when two variables (or more) move in tandem. It means if the X variable decreases, the Y variable also decreases and vice versa. However, a study has a negative correlation when one variable decreases, while the others increase and vice versa

2. Population, Sample, and Sampling

a. Population

According to Sugiyono (2018: 130) population is a generalization area consisting of subjects or objects that have certain quantities and characteristics determined by researchers to be studied and then drawn conclusions. Population is the whole object to be study. The population of this research are collage students in 2nd semester of English

Education Program of IKIP PGRI Pontianak in the Academic Year of 2021/2022 a total of 166 students

b. Sample

A sample is part of the number and characteristics of the population. In this study, the sample is A Afternoon class in 2nd semester Students of English Education Program of IKIP PGRI Pontianak in the Academic Year of 2021/2022 a total of 67 students, which here the researcher was used all of A Afternoon class students for the sample.

c. Sampling

Depending on term of time, ability, and fund, the researcher took sample of the populations which have been decided. Sample, according to Arikunto (1996) is a part of the population that becomes a representative for all population. In this research, the sample of the population is taken through purposive sampling. Purposive sampling according to Sugiyono (2018:138) sampling using several certain considerations in accordance with the desired criteria to be able to determine the number of samples to be studied. That's why the A Afternoon class of the 2nd semester was chosen for the sample of this research.

B. Technique of Data Collection

To collect the data, the researcher was used some technique. The technique that the researcher was used were the Documentation of listening scores from the 2nd semester, it was obtained from the English Education Department's office or lecture and test of speaking. The test that was conducted by the researcher was used oral test. The purpose of the test was to determine how well students in their in speaking performance. In addition, the researcher desired direct feedback on their speaking abilities.

The researcher asked one student to assist in controlling, supervising, and also providing information while working on the test that was given to

the students in order to improve their performance.. This technique was used to reduce the subjectivity of speaking test. Therefore, the scores that was gained are the scores from tests that have been done by students .

To assess students' performance, the researcher asked one of his friends to help his to assess students' performance. This technique was used to reduce the subjectivity of speaking test. Therefore, the scores that will be gained are the scores from two assessors.

C. Tools of Data Collections

The researcher was collected the data by Listening score and Speaking test to the students.

a. Document

Document which was used is the document of listening comprehension scores. The data of listening score were collected through the documentation of English Education Department of IKIP PGRI Pontianak.

b. Speaking Test

To test the speaking, the researcher was used oral test. The students was ask to Advertise things such as goods, services and places . Then the students would get score based on the criteria of speaking assessment are adapted from Harris's speaking rubrics (appendix table 3.1). The components that have to be scored are pronounciation, grammar, vocabulary, fluency, and comprehension

D. Technique of Data Analysis

In analysing the data, the researcher was used correlation product moment which developed by Carl Pearson (1994) because the researcher wants to find out the influence which is related to correlational study. "Correlation product moment is used to show whether there is a correlation or relationship between X variable and Y variable." The symbol of the

correlation product moment is“r”. (Sudijono, 1989 : 27). Data operation technique is below:

1. Finding the number of correlation using formula

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

N = Number of participant

X = Students Listening scores

Y = Students speaking scores

$\sum X$ = The sum scores of listening skill

$\sum Y$ = The sum scores of speaking english

$\sum X^2$ = The sum of the squared scores of listening skill

$\sum Y^2$ = The sum of the squared scores of speaking English

$\sum XY$ = The sum of multiplied score between X and Y

This formula is used in finding index correlation “r” product moment between X variable and Y variable (rxy).

2. To know the significance between two variables, the formula of the significance test is:

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

t_{count} = t value

r = value of correlation coefficient

n = number of participants

To interpret the index scores of “r” correlation, product moment (r_{xy}) usually used the interpretation such as bellow:

Table 3.2 Pearson Correlation

The score of "r" product moment (r_{xy})	**Interpretation**
0.00 – 0.19	There is a correlation between X and Y, but the correlation is very weak or little so it is ignored or it is considered no correlation in this rating.
0.20 – 0.39	There is a correlation between X and Y, but it is weak or little.
0.40 – 0.69	There is a correlation between X and Y. The value is medium.
0.70 – 0.89	There is high correlation between X and
0.90 – 1.00	There is a very high correlation between X and Y.

3. Speaking score

How to assess the speaking test using the criteria model. Students are assessed with criteria 1, 2, 3, 4, 5 based on the assessment guidelines used speaking rubrics scoring adapted from Harris's speaking rubrics.

The following of an assessment guide :

Category score

A = 81 - 100 X = n x 4

B = 61 - 80

C = 41 - 60 X = speaking score

D = 21 - 40 n = score earned

E = 01 - 20

Score guide

5 = perfect 1= questionable

4 = very good

3 = good

2 = not bad

E. Hypotheses

A Hypothesis in the research is a basic assumption of how the result of theresearch will be. It is a prediction of a phenomenon. Moreover, in formulating hypothesis, the researcher has to ensure that the hypothesis is real or based onfact. There are two kinds of hypotheses: (Sangadji, 2010 : 92).

a. Alternative Hypothesis (Ha): There is a correlation between listening comprehension and speaking ability.
b. Null Hypothesis (Ho): There is no correlation between listening comprehension and speaking ability.

If ro is the same as or higher than rt, the Ha is accepted. It means that there is a correlation between listening comprehension and speaking ability.

If ro is lower than rt, the Ha is rejected. It means that there is no correlation between listening comprehension mastery and speaking performance .

F. Research Procedure

1. Research Procedures

a. Planning

In this study prepared to make a research plan. Researcher create instruments to use as data collection tools. Researcher was used one instruments it is documentations

b. Data collecting

In the data collection, researcher was distributed the speaking test to examine the sample. Researcher give time for research samples to do and answer questions. Then, the researcher collected the tests answered by the study sample, and for the listening score the researcher got it from the listening lecturer. After collecting the test, the researcher analyzed it. Finally, researcher compiled a research report based on the results obtained.

c. Data Processing

After the data have been obtain from data sources, Furthermore, the data is processed through the following steps:

a) Data analysis

In this study, the researcher was used correlation product moment which developed by Pearson (1984) because the researcher wants to find out the influence which is related to correlational study to analyze the data. correlation product moment used by the researcher for analyzing the result from the speaking score test and listening score

b) Interpretation

In the interpretation, the researcher made a conclusion based on the data analysis.

d. Data reporting

In reporting the data, the researcher was described the data that has been analyzed and concludes in the form of a more detailed explanation.