CHAPTER III

RESEARCH DESIGN

This chapter explains the methodology of the study, and it covers the research design, participants and data collection techniques, instrument, and data analysis techniques

3.1. Research Design

This research uses quantitative research or numeric description of trends, attitudes, or opinion of a population by studying a sample of that population, and according to Creswell (2014), quantitative research approach is to test the theory of objective by examining the relationships between variables. This research method is specific for correlation research. According to Cresswell (2006) correlation researches is one part of the ex-post facto research because researchers generally do not manipulate the existing variable and directly search for the existence of the relationship and the level of relationship variable which is reflected in the correlation coefficient. The researcher uses correlation research because researcher wants to know the correlation of two variables.

The correlation of two variables can be known from the correlation coefficient. There are three results in correlation research; they are positive

correlation, no correlation and no relationship. Nunan (1991) state that result of positive correlation research is +1.00, for negative correlation the result is -1.00and for no correlation result is 0. To investigative the correlation between student's anxiety and speaking performance, the researcher will use questionnaire as the instrument to survey on students' anxiety and result of students speaking performance in public speaking class. The two variables in this research are students' anxiety and students speaking performance. Variable of students anxiety become the independent variable (X), and variable of students speaking performance become the dependent variable(Y).

3.2. Population and Sample

3.2.1. Population

A population is a group of individuals who have the same characteristics (Creswell, 2012). The participants of this research are students of Public Speaking class in English Language Education Department Islamic University of Indonesia. This research was designed to know the correlation of student's anxiety to their speaking performance, also designed to find the language learning strategies used by students of Public Speaking class. The total members of participant in this research were 101 students. Public Speaking class is one of the subjects at English Language Education Program in Islamic University of Indonesia. The subject Public Speaking class was used as the population of this study because this was speaking class. This

subject is the basic of learning to speak which is learning to speak for speaking performance. The participant of this research was at English education department in Islamic University of Indonesia. Population is the overall subject of study (Arikunto, 2006). Public Speaking classes have one meeting in a week, the time for meeting in a week around 100 minutes. The population of this study is consists of 101 students from Public Speaking students, the class of Public Speaking divided into four classes (Public Speaking A, Public Speaking B, Public Speaking C, and Public Speaking D) which is about the student's language learning for speaking performance The researcher had several reasons why use Public Speaking class as a participant.

The researcher chose Public Speaking class:

1. Public Speaking is the first class that focuses to learn about speaking skill in English Language Department in Islamic University of Indonesia.

2. The researcher chooses students Public Speaking of English Language Department in Islamic University of Indonesia, because the students already have experience speaking performance in class public speaking.

3. The students' Public Speaking need to more active in speech. So this class is appropriate with this research.

3.2.2. Sample

Sample is a part of population which has same characteristics (Arikunto, 2006). According to her books if the population is more than 100, all population can be sampled but if the population is over 100, the researcher can take 10% up to 15% or

20% up to 25% or more from all population as a sample (Arikunto, 2006). The population of this research more than 100 participants, so the researcher use more than 50% population sampling. It takes more than 50% from total population as a sample because the population is more than 100. Acquired total of the respondents are 101 students. This is table for sampling of respondent based on Public Speaking class. This research is random sampling. Random sampling is a technique of taking a subject in which each of the subjects has same chance to be the sample of the research (Arikunto, 2006). In this research, the data of students' anxiety was collected by distributing 77 questionnaires, actually the total of students' public speaking is 101 but some students off from public speaking class, and some students were absent the class. The questionnaires were distributed directly by attending the place of respondents in Department of English Education Islamic University of Indonesia. There are four classes in public speaking subject and in this research the researcher use public speaking class A and public speaking class D as the sample in this research. In this research the researchers use public speaking class A and B as the sample in this research.

Table 1. Population and Sample:

No	Class	Population	Sample
1.	Public Speaking A	30	23
2.	Public Speaking B	40	28
3.	Public Speaking C	15	
4.	Public Speaking D	16	
	Total Population	101	51

3.3. Data Collecting Technique

In this research there are two variables, there are independent and dependent variable. Independent variable is a variable that affect the dependent variable, and dependent variable is a variable that is effected. In this research students' anxiety is the independents variable and students speaking performance is the dependent variable.

3.3.1. Research Instrument

Research instrument is a tool for measuring, observing, or documenting the quantitative data (Creswell, 2014). Instrument is a mean used by the researcher to collect data. Instruments are tools or facilities used by the researchers to collect data to make easier and good results, complete and systematic so more easily processed (Arikunto, 2006). In this passage researcher explains about the instrument that used to collect the data to find the results of the research. The instrument of this research is FLCAS. The FLCAS is the most widely used scale for measuring foreign language anxiety and has been translated into many languages and used to measure learners' foreign language anxiety in various countries all over the world. The questionnaire takes from foreign language classroom anxiety (Horwitz, Horwitz, & Cope, 1986) this questionnaire made in 1986, published by: Blackwell Publishing on behalf of the National Federation of Modern Language Teachers Associations. The questionnaire of foreign language classroom anxiety there are 33 questions and he code of

questionnaire chooses are SA: strongly agree, A: agree, N: neither agree disagree, D: disagree, SD: strongly disagree. The researcher takes all items of questioner as instrument, and there 3 type of anxiety in the questionnaire and the researcher used the entire item. The questionnaire use likert's scale which ranged from 1 to 5.

Table 2. The items of questionnaires are design to survey:

Component of Anxiety	Questionnaire Number
Communication Apprehension	1, 4, 9, 14, 15, 18, 24, 27, 29, 30, 32
Test Anxiety	3, 5, 6, 8, 10, 11, 12, 16, 17, 20, 21, 25, 26, 28
Fear of Negative Evaluation	2, 7, 13, 19, 23, 31, 33

The second instrument is rubric of student's Public Speaking. The rubric is from the lectures of public speaking class. The components of the rubric are fluency, pronunciation and accent, vocabulary, grammar, and details. The detail components of fluency are smooth and fluid speech, speech is relatively smooth, and speech is slow, hesitant and strained except for short memorized phrase. The detail components of pronunciation and accent are pronunciation is excellent, pronunciation is good, pronunciation is okay, and pronunciation is lacking and hard to understand. The detail components of vocabulary are excellent control of language features, good language control, adequate language control, and weak language control. The detail components of grammar are accuracy and variety of grammatical structures, some error in grammatical structures, and frequent grammatical error even in simple structures; meaning is obscured. The last is the details components in public speaking rubric there are excellent level of description, good level of description, adequate

description, and description lacks some critical details that make it difficult for the listener to understand, and description is so lack in that the listener cannot understand.

3.3.2. Validity of the Instrument

Before gaining the data through questionnaires, researcher checked the validity and reliability of the questionnaire. Validity is one of the strengths of research and is based on determining whether the findings are accurate (Creswell, 2012). Validity is defined as the extent to which a concept is accurately measured in a quantitative study. Questionnaire that used by a researcher is had checked by (Horwitz, Horwitz, & Cope, 1986) and it has good validity, and this questionnaire is already used by many researcher in anxiety research. The second instrument is rubric of speaking performance, this rubric has been checked by the researcher with SPSS and has good validity, the validity result of the rubric is 0.80.

3.3.3. Reliability of the Instrument

According to Creswell (2012) reliability refers to the consistency and stability of the score from one administration of an instrument to another. Reliability refers to a sense an instrument have a good enough to be used as instrument in collecting data (Arikunto, 2010). The first instrument is questionnaire and according to (Horwitz, Horwitz, & Cope, 1986) for the reliability of questionnaire is 0.83. Reliability shows

a measure of consistency in measuring the phenomenon. The second instrument is rubric of speaking performance, the rubric has been check on SPSS and the result of reliability is 1.00.

3.4. Data Analysis Technique

According to Sugiyono (2012) activity in data analysis refers to a grouping of data based on variables and types of respondents tabulate data based on variable all respondents, presenting the data of each of the variables examined, do the calculations to answer formulation problems, and perform calculations to test the hypotheses that have been proposed. However, before testing the hypothesis, the researchers analyze all the data collected and examine the data to measure the normality as the prerequisite test. In this sub chapter show and explain about specific measurement to answer the research question or to prop the hypothesis.

3.4.1. Questionnaire FLCAS and Speaking Performance Result

The purpose of this research is to measure the correlation of students' anxiety and speaking performance in public speaking class. The data were analyzed using statistical analysis. The questionnaire gave to the students who took of Public Speaking class via a link. The questionnaire is intended to measure the level of students' anxiety who taking public speaking class. Public speaking class had 14 meeting in 1 semester and the questionnaire given to public speaking students. After

finished handing out questionnaires, researcher checked again the questionnaire, after checking the questionnaire and input the data to Microsoft Excel a researcher knew the result of questionnaire. After that researcher asked the speaking performance result of students' public speaking to the lectures, after researcher god all the data collected then researcher began to test the hypothesis. However, before testing the hypothesis, the researchers analyzed all the data collected and examined the data to measure the normality as the prerequisite test. Researcher found the questioner about anxiety, and checks the questioner one by one to made sure the questioner is relevant with the research and make sure it was easy to understand the meaning. The questionnaire used is likert's scale which ranged from 1 to 5. The data were calculated with the range of score started from 33 to 165. The second instrument is speaking performance result of Public Speaking students. Researcher will ask the result of speaking skill task of Public Speaking students to the lectures who teach Public Speaking subject. The researchers change the result of students speaking performance into interval class scale.

The Likert's scoring scale table to measure students' anxiety level using FLCAS is shown below:

Table 3. Likerts' scoring table Adopted from Horwitz et al. (1986)

SCORING				
Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1	2	3	4	5

Based on (Sudjana, 2002) the formulation to determine the length of the interval class, as follow:

$$p = \frac{range}{class\ of\ interval}$$

p   = interval

Range   = highest score − lowest score

Class of interval = 5

3.4.2. Correlation Students Anxiety and Speaking Performance (FLCAS Score and Speaking Performance Result)

The researcher used Microsoft Excel to summarize the instrument scores of student's public speaking. To interpret the correlation score, the researcher used the interpretation of correlation based on (Arikunto, 2010). The detailed information about the interpretation can be seen as follow:

Table 4. Interpretation correlation

Correlation Value (r)	Interpretation
0,800-1,00	High correlation
0,600-0,800	Enough
0,400-0,600	Moderate
0,200-0,400	Low
0,000-0,200	Very low correlation

To correlate students' anxiety and speaking performance researcher input the data into SPSS 23.0 the statistical analysis descriptive statistical procedures and correlation procedure to correlation between students' anxiety and speaking performance. The type of analysis in this research is Product Moment Correlation to analyze the correlation between students' anxiety (X) and speaking performance (Y).

3.4.3. Hypothesis test

The hypothesis testing was used in this research because the researcher should check whether there is or no correlation between students anxiety and speaking performance. The researcher used a survey method through correlation technique and researcher analyzed the data using Product Moment Correlation to know the result. Product Moment Correlation is one of technique usually used to find the significant correlation between two variables (Sugiyono, 2012).

3.4.4. Steps of Data Analysis Technique

The steps of data analysis in this research are the first researcher reviewing the literature of foreign language anxiety, speaking skill, and speaking performance. The second researchers choose the questionnaire from (Horwitz, Horwitz, & Cope, 1986) as instrument, and translate the questionnaire from English to Indonesia. The researcher check one by one item of questionnaire to make sure that all was easy to

understand the meaning. The researcher distributed 33 items of questionnaire to public speaking students, and then researcher ask the middle test result of public speaking students to the lectures. The next step researcher used Microsoft Excel to analyze the data from questionnaire and middle test result into statistical package or SPSS.

The last step in this chapter is analyst data of this research. The purpose of this analysis is to see whether there is significance correlation between anxiety and speaking performance. The other purpose is to find out the result of this research, than the researcher analyzed the by using Person's Product Moment Correlation.

The steps of analyzing data to test the hypothesis first and second are as follows; to test the hypothesis that there is a positive correlation between students anxiety and speaking performance students, researchers using the formula correlation Pearson product moment. Pearson r is a measure of relationship between two variables of the interval or ratio, and can have a value between -1 and 1. This is a simple way to assess the relationship between the two variables; do they share the variance (covary), if it is positive or negative relationship, and the degree to which they are correlated.

The formula is as follows:

Pearson Product Moment description

1. Hypothesis testing (Critical value approach)

$$r_o = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum_x 2 - (\sum X)^2\}\{N \sum_Y 2 - (\sum Y)^2\}}}$$

$r_{o=}$ Correlation coefficient between X and Y

$\sum XY$ = Sum of cross products of deviation scores of X and Y

$\sum X$ = Total score of X

$\sum Y$ = Total score of Y

N   = Number of respondents

X   = Score Anxiety

Y   = Public Speaking score

Criteria

: If > means, there is correlation and Hα is accepted, Ho is rejected

: If < means, there is no correlation and Hα is rejected, Ho is accepted

To find r_t use formula degree of free (df) = N-2

Ho: There is no correlation between anxiety and speaking performance

Ha: There is correlation between anxiety and speaking performance

2. Hypothesis testing (Probability (P) value approach)

Set the significance level a (at the significance level$a$: 0.05). Compare p-value to x.

Criteria

: If p-value less than (equal to) a (P-value *(sig.)* $\leq a(0.05)$) reject the null hypothesis I favor to the alternative hypothesis.

: If p-value greaten a (P-value *(sig.)* $\geq a(0.05)$) do not reject the null hypothesis

Ho: There is no correlation between anxiety and speaking performance

Ha: There is correlation between anxiety and speaking performance

Data Transfer from Nominal to Interval Scale

Table 5. Data Transfer from Nominal to Interval Scale

Nominal	Class interval
40 – 50	1
51 – 60	2
61 – 70	3
71 – 80	4
81 – 90	5