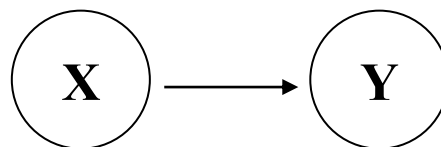


CHAPTER III

METHOD AND PROCEDURE

3.1. Research Design

In conducting this study, correlation research was used in term of explanatory and predictions research design to find out correlation between classroom climate and the students' academic achievement, and whether student's classroom climate influences the students' academic achievement of the EFLU undergraduates students of UIN Raden Fatah Palembang. The procedures were, first; I identified the classroom climate by using questionnaire. Second, the students' academic achievement was obtained. The next step I analyzed the correlation between variables through SPSS version 23 based on the results of the questionnaire, and I found the influence between the two variable(s). Last, explanation and interpretation of the results was discussed. The model of the relationship between two variables can be described as follows:



X : Classroom Climate

Y : Academic Achievement

3.2. Research Variables

They are dependent, independent, and moderator, variable. According to Fraenkel and Wallen (2012), "A common and useful way to think about variables is to classify them as independent or dependent"(p. 80). The independent variable is a stimulus variable or input, it is that factor which is measured, manipulated, or

selected by me to determine its relationship to an observed phenomenon. In addition, Gary (2005) correlational research involves the calculation of correlation coefficient which is assess of the extent to which variables vary in the same way. Meanwhile, the dependent variable is response variable or output, it is that factor which is observed phenomena. Meanwhile, the dependent variable is response variable or output, it is that factor which is observed and measured to determine the effect of the independent variables. In this research, the students' classroom climate is the independent variable and symbolized by X, and the student's academic achievement is the dependent variable and symbolized by Y.

3.3. Operational Definition

In order to avoid ambiguity and misunderstanding of this research, it necessary to define operationally the terms used in this research as follows:

Correlation is a statistical test to determine the tendency or pattern of two (or more) variables or two sets of data to vary consistently. In this research, there are two variables that will be correlated which are students' perceptions of classroom climate and their English academic achievement.

Classroom climate is the place that students spend most of their time during the study process. Akubue (2001) defined the classroom as a base for all types of activities. It holds students together and offers them the opportunities of achieving the purpose of education. Mucherah, Finch, Smith, and Stahl (2014) state that "Classroom climate is a key influence on students motivation and consequently, achievement. In this study, the classroom climate of Undergraduate EFL Students of UIN Reden Fatah was investigated by using consistence from Fraser (1989).

Academic achievement in English subject which is achieved by the students. The students' academic achievement will be determined by having documentation of their GPA.

3.4. Subject of the Study

3.4.1 Population

Population is a group of individuals who have the same characteristics (Creswell, 2005, p. 142). According to Fraenkel, Wallen, and Hyun (2012, p. 91), population is the group of interest to me, the group to whom I would like to generalize the results of the study. Punch and Oancea (2014, p. 302) state that population is the total target group who would, in the ideal world, be the subject of the research, and about whom I am trying to say something. While, Best and Kahn (1993) state that "a population is any group of individuals that have one or more characteristics in common that are of interest to the researcher" (p. 13). The population of this research was all of the students of English Education Study Program in academic year 2017/2018.

Table 2. Distribution of Population

No	Semester	Number of Students
1	I	115
2	III	134
3	V	113
4	VII	102
Total		464

Note, English Education Study Program of State Islamic University of Raden Fatah Palembang

3.4.2 Sample

The sample of this study was taken by using purposive sampling method. Purposive sampling method (judgmental sampling) is used in both qualitative and quantitative research (Johnson & Cristensen, 2012, p. 235). According to Creswell (2005), “The sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population” (p. 142). Punch and Oancea (2014) state that “sample is the actual group who are included in the study, and from whom the data are collected” (p. 302). While, Best and Kahn (1993) state that “a sample is a small proportion of a population selected for observation and analysis” (p. 13).

To determine the sample, I used purposive sampling because I have some purposes. In this study, the student’s classroom climate and their academic writing achievement are correlated. Therefore, in order to know the students’ academic achievement, a group of students who have already taken all of subject in English courses from the population were considered as the sample.

First, most of the seventh semester students have already finished all of the lectures in the class and they are currently working with their thesis. It is quite difficult for me to collect the data from them. Next, the students of the first semester did not become the sample because they have not had GPA score yet.

Therefore, the students of the fifth semester were the participants in this research because they have GPA score and they have taken almost all of the subject and based on preliminary study, I found that some students had difficulties in learning English that affected their achievement in classroom. In addition, I

also found that English was not only material in classroom, but also as language among students outside of classroom. Unfortunately, some of the students were indicated having problems for achieve the achievement that decided by the school. Thus, the samples of this research were all of the active students in the fifth semester. The distribution of the sample is as follows;

Table 3. Distribution of Sample

Number	Class	Number of Students
1	PBI A	29
2	PBI B	30
3	PBI C	24
4	PBI D	30
	Total	103

Note. English Education Study Program of State Islamic University of Raden Fatah Palembang

3.5. Data Collection

In this research, I used an instrument to collect the data; questionnaire.

3.5.1. Questionnaire

Questionnaire is a form used in a survey design that participants in a study complete and return to the researcher (Creswell, 2012, p. 382). The participant chooses answers to questions and supplies basic personal or demographic information.

3.5.1.1. Classroom Climate Questionnaire

In this study, I used ready-made questionnaire named Constructivism Learning Environment Survey (CLES), a questionnaire adapted by Taylor and Fraser (1991). The questionnaire consists of 30 items. These 30 items are divided into five groups of statements. The five groups are shown in the table 5 below.

Table 5.Specification of Constructivism Learning Environment Survey (CLES)

Questionnaire

Scale	Items	Number of Item
Personal Relevance (Pr)	1,2,3,4,5,6	6
Uncertainty of Science (Us)	7,8,9,10,11,12	6
Critical Voice (Cv)	13,14,15,16,17,18	6
Shared Control (Sc)	19,20,21,22,23,24	6
Students Negotiation (Sn)	25,26,27,28,29,30	6
Total		30

Note. Taylor & Fraser, 1991

3.5.1.2. Academic Documentation

According to Hartono (2008) “documentation is defined as the data were obtained by collecting the written achieves such as books, documents, journals, and so on” (p. 128). In this research, the data of the students’ achievement was collected by having their GPA was obtained by the administration staff or website at www.radenfatah.ac.id

3.6. Validity and Reliability

Before administering the instruments, I checked their validity and reliability. Based on Johnson and Christensen (2012), validity and reliability were the two most essential psychometric properties to consider in using a test or assessment procedure. In this research the questionnaire and the academic achievement will be administrated.

3.6.1. Validity Test

One of the characteristics of a good study has that the test should be valid. Creswell (2012) defines that “validity was the degree to which all of the evidence points to the intended interpretation of test scores for the proposed purpose” (p. 159). In this case, I used a readymade questionnaire named Constructivist Learning Environment Survey (CLES) has been validated by Fraser and Ledbetter (2003). The questionnaire consists of 30 items. These 30 items were divided into five group of statements. There were Personal Relevance (PR), Uncertainly of Science (US), Critical Voice, Shared Control (SC), and Student Negotiation (SN), since the test is standardized and readymade. Therefore, it does need to be tried out.

3.6.2. Reliability Test

Reliability means that scores from an instrument were stable and consistent. Fraenkel, Wallen, and Hyun (2012) refers to the consistency of the scores obtained how consistent they were for each individual from one administration of an instrument to another and from one set of items to another items. In this research. Reliability means that scores from an instrument were stable and consistent. Fraenkel, Wallen, and Hyun (2012) refers to the consistency of the scores obtained how consistent they were for each individual from one administration of an instrument to another and from one set of items to another items. Johnson and Christensen (2012) add “when used to check reliability of scores, the coefficient should be more than .70, preferably higher. Therefore, the questionnaire was reliable if the coefficient is .70 or higher. The reliability of the classroom climate questionnaire has been checked by creator. Fraser used Test-

retest reliability technique which was brought out by using SPSS to find out the internal consistency reliability of the questionnaire. Cronbach alpha coefficient of 0.83 was obtained, it was reliable.

3.7. Instrument Analysis

3.7.1 Analysis of Classroom Climate Questionnaire

The data from questionnaire was analyzed, the minimum score of each statement was 1 and maximum score of each statement is 5. The lowest total score of each CLES scale was 5 and the highest total score was 30 while the lowest total score of all the five scales is 30 and the highest is 150. Then, to determine the students' classroom climate, I observed the mostly checked item "almost always" Colum. For instance, a student checks three 'almost always' in student personal relevance items, it shows that the students' perception of classroom climate is the personal relevance one. However, there was a possibility for one student to have more than one specific perceptions if the highest score in one perceptions the same as the other scales of perceptions. The results were then classified for analyzing the frequency and percentage of each perception of classroom climate.

3.7.2. Analysis of Academic Achievement

The students' academic achievement was determined and then I categorized it. There were 5 categories which based on the range of their GPA.

Table 6. Grade Point Average Category

No.	Score Range	Category
1	4.00	Summa Cumlaude
2	3.51 – 3.99	Cumlaude

3	3.01 – 3.50	Very Good
4	2.51 – 3.00	Good
5	2.00 – 2.50	Enough

Note. English Education Study Program of State Islamic University of Raden Fatah Palembang

In the distributions of frequency data on the students' academic achievement scores, frequency, percentage was achieved. All of data were presented in the form of table as the result of research findings. The next analysis is in descriptive statistics, number of sample, the score of minimal, maximal, mean, range, mean score, modes, median and standard deviation was achieved from students' academic achievement accumulation.

3.8. Data Analysis

After all the result of the instrument reveals, I analyzed the data, the steps were:

3.8.1. Data Description of Frequency Data

The distribution of frequency data, the score from classroom climate questionnaire and the academic achievement analyzed. SPSS Statistics 23 version program used to get the result of frequency data.

3.8.2. Descriptive Statistics

In descriptive statistics, number of sample the score of minimum; the score of maximum, mean, and standard deviation are obtained. Descriptive statistics have got from the scores of questionnaire and test. Then, SPSS Statistics Program

was used to get the result of descriptive analysis.

3.8.3. Pre-requisite Analysis

As the matter of fact, it essential to do pre-requisite test since the study was in the notion of parametric statistics, correlation and regression. Thus, before analyzing the data, I tried to find out whether the data distribution from each variable were normal and linear or not between two variables.

3.8.3.1. Normality Test

Normality test used to determine whether sample data draw from a normally distributed population or not. The purpose of normality test to know the date each variable (classroom climate and academic achievement) normal or not. It conducted due to many parametric statistical methods, including Pearson correlation test and regression test. Therefore, I applied Kolmogorov-Smirnov test by using SPSS 23. The data were reconsidered normally if the p-value is greater than 0.05 ($p > 0.05$).

3.8.3.2. Linearity Test

The linearity test was conducted in order to recognize whether the data between the variables are linear or not. Test for linearity by using SPSS 23 was conducted in order to recognize whether the data of the variables are linear or not. Therefore, if the p-value (linearity) is less than 0.05 ($p\text{-value} < 0.05$), the data correlation was linearly. Then, after the researcher conduct those tests. If the data were found normal and linear, the further analysis was able to be administered.

3.8.4. Hypothesis Analysis

3.8.4.1. Measuring the Correlation between Classroom Climate and Academic Achievement

In measuring the correlation between classroom climate and academic achievement, Pearson-Product Moment Correlation Coefficient was applied by using SPSS 23th version statistics. If P-output is lower than 0.05%, H_1 was accepted and H_0 was rejected. If-output is higher than 0.05 H_1 was rejected and H_0 was accepted.

3.8.4.2. Measuring the Significance Influence between Classroom

Climate and Academic Achievement

In measuring the significance influence between classroom climate and academic achievement was applied by using regression analysis was used. If R-square is equal .05 ($R^2 = .05$) it means that there was a significant influence between classroom climate and students' academic achievement. While, if R-square is not equal .05 ($R^2 \neq .05$) it means that there was no significant influence between classroom climate and students' academic achievement.