

## **CHAPTER III**

### **RESEARCH METHOD**

#### **A. Research Design**

This research used correlational research method as its research method in order to obtain the result of how the relation between two variables. According to (Creswell, 2012), correlational research method is used to obtain the result of relationship between two variables or more. It provides the relationship of variables by using test as the instrument, to see whether the variables influence each other or not. To know this, correlational statistical test used to identify and measure the relationship of variables. Furthermore, correlational statistical test also include other tests that have to be done to know other statistical result such as normality test and linearity test.

#### **B. Research Setting**

The research setting took place in English Department of Antasari State Islamic University, Banjarmasin (UIN Antasari Banjarmasin). It is located in Jl. A. Yani No.Km. 4.5, RW.5, Kebun Bunga, Kec. Banjarmasin Timur, Kota Banjarmasin, Kalimantan Selatan. It has three classes for 2020 class. They are in their sixth semester when this research taken.

It has been chosen as research setting because the students of 2020 have been passed grammar class series from the first semester until the sixth semester and familiar to the use of Grammarly to check and revise their writing work. In

addition, this research taken from March to May 2023 to collect the data and during May 2023, the data was also able to be proceeded.

### **C. Participants**

The participants are taken from 10 students from class of 2019 of English Department who have not graduated yet when this research conducted and 51 students from class of 2020 of English Department. The criteria as participants are those students who have been passed grammar class series that are grammar I, grammar II, grammar III, and grammar IV and familiar to the use of Grammarly to check and revise their writing work. It is expected that they have good proficiency of grammar since they have passed those grammar class series in advance.

### **D. Population and Sample**

#### **1. Population**

Population is group of people that have same characteristics. In the term of research, it is group of people that suitable with the criteria to be researched (Creswell, 2012). The population of this research is English Department students from class of 2019 who have not graduated when this research conducted and class of 2020.

#### **2. Sample**

According to (Creswell, 2012), sample is the sub-group of population that used as generalize tool of population. It has been studied along with the criteria of study needs, and also called as representative of population.

There are several sample techniques that exist as the guideline in research. However, in this research, purposive sampling used as the sample technique due to the explanation of (Arikunto, 2006) that stated if the population is exist less than 100, all of them could be used as the sample. More than 100 people as the population could be taken only between 10% until 15% or 20% until 25% depends on the researcher's consideration. Because of the number of students which are less than 100 students and other considerations that have to be taken, all of population is counted as the sample of this research which is 61 respondents.

#### **E. Research Instruments**

Questionnaire and test will be used in this research to prove the correlation between the variables. Questionnaire is form used to gain data from the participants consist of statement or question (Creswell, 2012). While test is defined as method to measure ability or knowledge in a structural way that has been prepared in advance. The purpose is to know how far the skill and performance will be proven by the students (Brown, 2007).

The questionnaire itself consists of Grammarly use and the frequency of using Grammarly by the participants. It will use ratio-scale or Likert scale to be exact in order to know the frequency of Grammarly use by the students. Likert scale is a ratio-scale of hypothesis statement of respondents' attitude includes the degree of the statements. In this Likert scale, there are five statements of degree. They are strongly disagree, disagree, neutral, agree, and strongly agree (Sugiyono, 2013).

Furthermore, test that are used in this research is aimed to know the correlation students' answer of questionnaire regarding their Grammarly use with the grammar mastery. The test itself is taken from TOEFL test as the students, who in this term are English Department students, are familiar enough with the grammar mastery section to prove their grammar ability. In detail, the test was taken from structure and written expression section of TOEFL test by Longman.

In order to obtain the data from the respondents, questionnaire and test are taken in this research.

#### 1. Questionnaire

In this research, questionnaire has taken to get the data about Grammarly use among English Department students. Questionnaire itself is a set of questions that sent to the purposed respondents who fits with the research criteria and they should answer it on their opinion (Kothari, 2006). The questionnaire used Likert scale which is a set of degree of agreement and disagreement about some attitude, event, or object (Taherdoost, 2019). This questionnaire is closed answer type and the respondents could answer it as their wishes by choosing the available degrees. In this research, it used 5 degrees of Likert scale such as strongly disagree, disagree, neutral, agree, and strongly agree. The degree of agreement and disagreement or Likert scale could be seen on the table 3.1 below.

Table 3.1

*Score of Questionnaire of Grammarly Use*

<b>Alternative Answers</b>	<b>Score</b>
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

Moreover, the questionnaire that has been given also has indicators to determine the content of questionnaire is. Indicator in questionnaire is to determine the representative of content or question regarding the variable in the questionnaire (Schouten, 2009). In this questionnaire about Grammarly use, the indicators could be seen on the table 3.2 below.

Table 3.2

*Indicators of Questionnaire of Grammarly Use*

<b>Main Indicator</b>	<b>Sub-Indicator</b>	<b>Number</b>
Grammarly Use	Grammarly in writing process	1, 2, 3, 9, 13
	Grammarly reason to use	4, 5, 6, 7, 8
	Preference in using Grammarly	10, 11, 12
	Students grammar issues	14, 15
	Grammarly use frequency	16, 17

From the table 3.2 above, it could be seen that each of sub-indicator for the statement has their own distribution that represented by the number of statements as mentioned above.

## 2. Test

Test is a structured method to measure the ability, knowledge, or performance of student with a set of questions that has been validated (Brown, 2003) . In this research, the test is used for grammar mastery variable and to measure the performance of grammar mastery of English Department students. The test is taken from structure and written expression section of TOEFL PBT by Longman. The test is taken from TOEFL PBT because students of English Department have been taken the TOEFL test annually and have passed the grammar class series. As it is taken annually, students are familiar with the form of test. To measure the scores as the result of students' grammar mastery, there is classification score according to (Arikunto, 2013) that could be seen on the table 3.3 below.

Table 3.3

*Classification Score*

No.	Scores	Classification
1.	80-100	Very good
2.	66-79	Good
3.	56-65	Fair
4.	40-55	Poor

5.	Less than 39	Very poor
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By seeing the test result later according to the classification score such as the table above, it could be known the performance of grammar mastery of English Department students briefly with look at the score.

## F. Data Analysis

As the research method is quantitative research with focus on correlational research, the data analysis is have several tests that have be done in order to get the final result which is correlational test. In general, correlational research is used Pearson Correlation Product Moment or Pearson test that analyzed in SPSS. In this research, the researcher analyzes the data using SPSS 22 version for Windows.

There are three steps of instrument analysis in order to obtain the data from questionnaire analysis, test analysis, and correlation analysis steps. For each of instruments, the validity test and reliability test are done to check the validity and reliability of data.

The validity test is done with Pearson Product Moment Correlation in SPSS with the formula as followed below, where 0,254 is the r table:

- If the  $r_{xy}$  value  $> 0,254$ , the instrument is valid
- If the  $r_{xy}$  value  $< 0,254$ , the instrument is invalid

It could be seen by seeing the significance value, with the formula below:

- If the significance value is  $> 0.05$ , the instrument is valid
- If the significance value is  $< 0.05$ , the instrument is invalid

The reliability test is done with Cornbach Alpha analysis with the standard score is 0.60 and the criteria as followed below:

- More than 0.90 is considered as very high reliability
- 0.70 to 0.90 is considered as high reliability
- 0.50 to 0.70 is considered as quite high reliability
- Low than 0.50 is considered as low reliability

The next analysis is the correlation analysis with normality test, linearity test, and correlation test. Normality test could be done through Kolmogorov-Smirnov test with  $> 0.05$  is the significant value. Linearity test could be done through linear regression analysis with  $> 0.05$  is the significant value. The last step of data analysis is correlation test with Pearson Correlation Product Moment. The correlation of variables could be classified in several interpretations which could be seen on table 3.4.

Table 3.4 <i>Correlqtion Classifications</i>	
<b>Correlation Coefficients ( r )</b>	<b>Interpretation</b>
0.00 – 0.20	Very low correlation
0.21 – 0.40	Low correlation
0.41 – 0.70	Moderate correlation
0.71 – 0.90	High correlation
0.91 – 1.00	Very high correlation

has 3 results that could be interpreted according to the result of data analysis.



1. No correlation, that indicates no correlation or relationship between the variables with 0 coefficient.
2. Positive correlation, that indicates if there is correlation with the improvisation between the variables with +1.00 as the strongest positive correlation.
3. Negative correlation, that indicates if there is no correlation with the consequence if a variable increases, another variable decreases. It is signed with minus sign in front of test result (-).