

CHAPTER III

RESEARCH METHOD

This chapter presents the research methodology used in this research. It comprises research design, subject of the research (population, sampling, and sample), research instrument, validity and reliability testing, technique of data collection, and technique of data analysis.

A. Research Design

Research design is commonly defined as the way how the researcher gets the valid data of the research. In this research, the researcher uses quantitative approach and the design employed is correlational research. According to Ary (2010:22) quantitative research uses objective measurement to gather numeric data that are used to answer questions or test predetermined hypotheses. It generally requires a well-controlled setting. In addition, Creswell (2012:619) correlational research are quantitative designs in which investigators use a correlation statistical technique to describe and measure the degree of association between two or more variables or sets of scores.

In this research, the researcher wants to know whether the correlations between two variables were really existed or not. Thus, the correlational research design was the most appropriate research design to answer whether or not sixth semester students' grammar mastery has correlation to the ability in translating English text into Indonesian.

B. Variable

As stated by Ary (2010:37) variable is a construct or a characteristic that can take on different values or scores. In this research, the variables are grammar mastery and translation ability. Both grammar mastery and translation ability are belongs to independent variable.

C. Subject of the Research

1. Population

As stated by Ary (2010:148) the larger group about which the generalization is made is called a population. Population defined as all members of any well-defined class of people, events or object. In this research, the population was the whole sixth semester of English department students at IAIN Tulungagung in academic year 2016/2017 that consist of five classes. There are 175 students and the researcher decides to include all of them in the population. The table below showed the number of sixth semester English department students at IAIN Tulungagung in academic year 2016/2017. The table below showed the number of English department students at IAIN Tulungagung in academic year 2016/2017.

Table 3.1 Population

No.	Class	Male	Female	Total
1	A	9	27	36
2	B	4	32	36
3	C	10	28	38
4	D	10	23	33
5	E	12	20	32
Population				175

2. Sampling

Sampling was a process that used to select a sample. Sampling is a process of selecting a number of the students who will be represent from the large group (Ary, 2010:155). Sampling was very important way to obtain a group of a subject who will be representative of the larger population or will provide specific information. In other words, sampling was the technique how the researcher chooses the sample.

In this research, the researcher used simple random sampling. As stated by Ary et al (2010:150) simple random sampling is a sampling technique in which all members of the population have an equal and independent chance to be selected as a sample. The researcher used simple random sampling because the whole students have a chance to be taken as the sample. To determine the subjects as the sample, firstly the researcher created a lottery numbering 1-175. This lottery was inserted into the bowl then shake thoroughly. After that, the researcher took a paper and wrote down what the number was stamp on the paper. This activity continue until get 40 number because the total subject of this study was 40 students.

3. Sample

Sample is a part of population in which will to be analyzed. A sample must be representative to a population. In this research, the researcher has several hundred subjects in the population. The researcher did not involve all of them because the number of population was more than one hundred. As stated by Arikunto (2006:134) if the subject in population <100 is better to

take it all, the research about the population research. But, if the population is big number, the researcher can take between 10-15% or 20-25% or more. Thus, the researcher took 23% sample from the population. The total of sample was 40 students coming from sixth semester English department at IAIN Tulungagung in academic year 2016/2017.

D. Research Instrument

Research instrument is defined as the tools to measure something that we observe in order to obtain the data and answer the research problems (Sugiyono: 2011). The instrument of this research was test. As stated by Ary et al (2010:201) test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned. In this research, the researcher had two kinds of tests namely grammar test and translation test. Furthermore, it would explain more detailed as follows:

1. Grammar test

In this research, the test developed from *blueprint* that covered six aspects. The first was *construct or definition*, it dealing with the theory about grammar which is the researcher used from an expert. The second was *dimension*. It covered some important point taken from the definition, in other words it was the limitation of the test. The third was *sub-dimension*, it was more detailed than *dimension*. In *sub-dimension* the researcher broken down the *dimension* into some point in which more detailed. The fourth was *indicators*. It indicated the level in which the students must achieve. The fifth was *sub-indicator*. As like in *sub-*

dimension, here the researcher broken down the *indicator* became more detail. The last aspect was *question*. After the *indicator* and *sub-indicator* clearly stated, the questions can be arrange. **(appendix 1)**

The test arranged was English grammar mastery test consisting 40 items **(appendix 2)**. This test was multiple choices. The assessment of this test is to consider the correct answer. If each item correctly answered, students will obtain a score of 100.

2. Translation test

In this research, the researcher used single paragraph of English text that must be translate into Indonesian. This test was developed from *blueprint*. As like in the grammar test, it was arrange based on six aspects, started from taking the *definition* from an expert, decide *the dimension*, *sub-dimension*, *indicators*, *sub-indicator*, then making *task* of the test. **(appendix 4)**

In addition, the translation test rated by two raters using same scoring guide which adopted from Claudia, Angelelli & Jacobson (2009:40-41). The scoring guide was covered four aspects. The first aspect was *source text meaning*, it reflected how the student conveying the meaning into the target text. The second was *style and cohesion* dealing with the students' translation style is coherent and follow the target language genre. Third was *situational appropriateness*, it reflected the students' ability to employ the functional aspect of target text in their translation. The last was *grammar and mechanics* covered how the

students employed sentence structure, spelling and punctuation. The scoring rubric consisted of four aspects ranged from 4 to 1 point for each.

(appendix 5)

E. Validity Testing

Validity means the instrument could measure what to measure in a research. As stated by Lodico et al (2006:87-88) validity focuses on ensuring that what the instrument “claims” to measure is truly what is measuring.

1. Grammar Test

In grammar test, the researcher used construct validity. Construct validity is the capacity for measuring certain specific characteristic in accordance with a theory of language behavior and learning. In this research, grammar test is tested to measure students’ grammar mastery in using the correct rules of English by changing the form of words correctly and joining them into sentence. This test was valid in term of construct validity. Here, the grammar test developed based on the theory of Baker (1992:83) in which “grammar is set of rules which determine the way in which units such as words and phrases can be combined in a language”. In this case, the researcher gave the dimensions in tenses, part of speech, phrases, and sentences. Thus, a test is said to have construct validity if it can be demonstrated that it measures just the ability which supposed to measure.

2. Translation Test

In translation test, the researcher also used construct validity. In this research, translation test is tested to measure students' ability in translating an English text into Indonesian. This test developed based on the theory of Catford that stated translation is the replacement of textual material in one language (SL) by equivalent textual material in another language. Then, the researcher gave the dimension in textual material and equivalent. So, the translation test was said to be valid because it was measure which supposed to measure.

F. Reliability Testing

Reliability is consistent and dependable. According to Lodico et al (2006:87) reliability refers to the consistency of scores, that is, an instruments' ability to produce "approximately" the same score for an individual over repeated testing or across different rater. It means that, reliability of instrument was needed to make sure that the instrument could be consistent if used in other time.

After the scores had been collected, they were processed by using SPSS 16.0 to know whether or not the instruments used is reliable. As stated by Nugroho (in Sujianto, 2009:97), reliability could be achieved when the Cronbach Alpha value reaches more than 0.60. In addition, Ridwan (2004:118) the criteria of reliability instrument can be divided into 5 classes as follows:

1. If the cronbach alpha score 0.00 – 0.20 : less reliable
2. If the cronbach alpha score 0.21 – 0.40 : rather reliable
3. If the cronbach alpha score 0.41 – 0.60 : enough reliable
4. If the cronbach alpha score 0.61 – 0.80 : reliable
5. If the cronbach alpha score 0.81 – 1.00 : very reliable

In this research, there were two analysis of reliability coefficient presented here; grammar reliability coefficient and translation reliability coefficient.

1. Grammar Try Out Test

In this research, before administering the real test, the researcher made test to be tried out to 20 students. It aimed to know the extent of reliability of item test. Here, the researcher conduct the first try out which is grammar try out test on March 3rd 2017. Every student has 40 minutes in finishing the test. The test contained of 40 multiple choices.

One of the ways to achieve the reliability in a test was applied rater reliability. In grammar test, the researcher used intra-rater reliability. Means that one scorer do the scoring twice. After the first scoring finished, it tabulated. Then, continuing the second scoring with checking the first scoring.

Table 3.2 Reliability Statistic of Grammar Mastery Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.707	40

Based on the table above, it showed the reliability of Cronbach's Alpha was 0.707. It means that the instrument of grammar test was reliable.

2. Translation Test

After the students finishing grammar try out test, the researcher continuing with translation try out test. In this research, translation try out test was about social text in which a single paragraph about Capital Punishment (**appendix 6**). This try out test was held on March 4th 2017. The students have 40 minutes in translating the text.

In translation test, the researcher used inter-rater reliability. Means that there were two scorers do the scoring. In this case, the first rater was the researcher itself and the second rater was an English student of eight semester which taking translation subject in four until six semester. Both the raters do the scoring separately, by using the same scoring rubric. After the score from both scorers gotten, it analyzed by SPSS 16.0. The reliability coefficient of the translation test could be seen as follow.

Table 3.3 Reliability Statistic of Translation Ability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.859	2

The Cronbach Alphas value was 0.859. It means that the instrument of translation ability was very reliable.

G. Techniques of Data Collection

Data collection was the technique used by the researcher to obtain the data. Data collection is all of process to collect the data in the research (Fraenkel and Wallen, 2009:293). This data collecting took place in IAIN Tulungagung especially for sixth semester English department students. The data was collected by:

a. Grammar Test

Grammar test is aimed to measure the students' grammar mastery. This test was held in five classes.

Table 3.4 Grammar Test Administered

Grammar Test	
Class	Held on
A	March, 13 th 2017
B	March, 16 th 2017
C	March, 20 th 2017
D	March, 23 rd 2017
E	March, 27 th 2017

From the table above, the grammar test was conducted on March 13th 2017 until March 27th 2017. Here, as like in try out test, the students had 40 minutes in finishing the test. There were 40 items of multiple choices. The score per item was 2.5 for correct answer and 0 for wrong answer. If each item correctly answered, students will obtain a score of 100.

b. Translation Test

After the students had grammar test, at the following days the researcher gave them translation test. Translation test is aimed to measure the students' ability in translation especially English-Indonesian translation.

Table 3.5 Translation Test Administered

Translation Test	
Class	Held on
A	March, 17 th 2017
B	March, 18 th 2017
C	March, 24 th 2017
D	March, 25 th 2017
E	March, 31 st 2017

Based on the table above, this test was held on March 17th 2017 until 31st 2017. In this case, the students have 40 minute in finishing the test. There was an English paragraph about Capital Punishment that must be translated into Indonesian. The students did not allowed to open the dictionary, electric or even manually.

H. Technique of Data Analysis

The researcher used statistical method as a technique to analyze the data, because the purpose of this research was to measure the correlation between students' grammar mastery and translation ability. A research which used statistical technique definitely uses quantitative analysis. As this research, all the data were obtain from the result of test in the form of number. The numerical data was obtained from the students' grammar score and translation score.

Here, the researcher used SPSS 16.0 program to analyze the data. This resulted the interpretation coefficient correlation value of how strong/high or weak the correlation between the variables as follows (Sugiyono, 2014:257).

1. If the coefficient correlation value 0.00 – 0.199 :very low
2. If the coefficient correlation value 0.20 – 0.399 : low
3. If the coefficient correlation value 0.40 – 0.599 : enough
4. If the coefficient correlation value 0.60 – 0.799 : high/strong
5. If the coefficient correlation value 0.80 – 1.00 : very high/stong

Thus, the researcher would take a conclusion based on the result showed by SPSS 16.0 program whether the hypothesis was rejected or accepted. If the correlation coefficient obtain is smaller than or equal with value of table, H_a is rejected. It means that there is no correlation between sixth semester students' grammar mastery and translation ability of English department at IAIN Tulungagung in academic year 2016/2017. While, if the correlation coefficient obtain is greater than value of table, H_a is accepted and

H_0 is rejected. It means that there is correlation between sixth semester students' grammar mastery and translation ability of English department students at IAIN Tulungagung in academic year 2016/2017.