Chapter Three

Methodology

This chapter contains information regarding how this research was conducted. This chapter also explains how relevant data was gathered and analyzed to answer the research questions in this study. This chapter comprises of research design, research setting, population and sample, instrument of the research, data collection procedure, and data analysis.

Research Design

To identify the problems that students face in English writing skills, the researcher used quantitative research to get the students' opinion or experiences. Quantitative research can be defined as "research that explains about phenomena according to numerical data which are analyzed by means of mathematically based methods, especially statistics" (Yilmaz, 2013. P. 311). Additionally, Arikunto (2013) said that quantitative research is a research which mostly uses numbers, starting from collecting the data, interpreting the data, and demonstrating the data (p.27). It allowed the researcher to obtain a broad result based on a larger sample that represents the population. So, the form of the data in this research is in numbers. In addition, the researcher used statistical analysis to explore the data. Therefore, this research is categorized as a quantitative research.

Research Setting

This research was conducted in July 2018 at the English language Education Department of a private university in Yogyakarta. There were several

reasons as to why the researcher chose this English language Education Department of a private university in Yogyakarta as place to conduct the data gathering process. The first reason is because this private university's English Language Education Department provides some writing classes for the students from the first semester such as basic writing, academic writing, argumentative writing and writing for career development. The second reason is accessibility. The researcher is a student in the English language Department of this private university. Therefore, the researcher knows about the environment, the students, and the lectures. So, the researcher had an easier time getting permission and distributing the data.

Population and sample

Population. Population is the entire research subject (Arikunto, 2013, p. 173). Sugiyono (2011) also mentioned that population is the generalization that consists of object or subject that has quality and particular characteristics determined by researcher to be studied (2011, p.117). In addition, Nawawi (2007, p.150) explained that population consists of human, objects, animal, plant, symptoms, test scores, and event as sources of data that have specific characteristics in a research (as cited in Prasetyo 2013, p.7). In this research, the populations were the active students of English Language Education Department at a private university in Yogyakarta from batch 2015. In this batch there were 152 students, but there are 118 active students. So, the total population of this study consists of those 118 active students.

The reason the researcher chose students of ELED batch 2015 as the population is because they have been learning academic writing for six semesters. Another reason is because the researcher assumed that they might encounter many problems in writing skills. Further, the students also have found the best solutions and strategies to handle their problems in writing.

Sample. Sample is a representative of the total population (Arikunto, 2013, p. 174). In this study, the researcher used convenience sampling technique. According to Cohen, Manion and Morisson (2011):

"Convenience sampling sometimes called the accidental or opportunity sampling where the researcher choosing the nearest individuals to serve as respondent and continuing that process until the required sample size has been obtained or those who happen to be available and accessible at the time" (p.155-156).

The reason of the researcher chose convenience sampling in this study was because the researcher could choose the nearest students in bach 2015 to be the samples, so the researcher got the data quicker.

There were several ways for the researcher to perform convenience sampling. First, the researcher informed close friends or students in batch 2015 that they are about to be given questionnaires. After that, the researcher met and discussed with the close friends about the right time to distribute the questionnaire for batch 2015. Finally, the researchers distributed the questionnaire. The researcher took the sample with a confidence level of 95% and confidence interval

5% (Cohen et.al (2011, p.147). Therefore, there were 91 students from English Language Department that were selected as the sample in this research.

Instrument of the Research

This study used survey as a data collecting method. This is because the researcher gathered the data without further analysis like experiments or action research."Survey is gathering standardized information and processing statistically" (Cohen et.al (2011 p.256). Creswell (2009) also argued that "Survey research provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population (p.137).

In this research, the questionnaires were distributed to identify the problems faced by ELED students in writing skills. According to Sugiyono (2011, p.199), questionnaire is technique of data collection method in form of questions or written statements that should be answer by respondent. Therefore, the researcher used questionnaire to gather numeric data. Sugiyono (2011) also wrote that "questionnaire is an efficient data collection technique for measuring variables to be studied" (p.199). Cohen et.al (2011) stated "The questionnaire is a widely used and useful instrument for collecting survey information, providing structured, often numeric data, being able to be administered without the presence of the researcher, and often being comparatively straightforward to analyze."(p.377).

The questionnaires were constructed in the form of close ended statements, and the answer of the statement uses the Likert scale. The Likert scales that used

in this research are Strongly Agree, Agree, Neutral, Disagree, and Strongly Agree. In this study, the researcher did not used a Neutral option because the participants tend to choose this option. This is supported by Edwards et.al (2011) who wrote "when presented with a neutral response option, people more likely to select this option". In this study, the researcher used four-point Likert scales as drawn in table below:

Description		**Rating Scale**
Likert scale	Strongly Agree	4
	Agree	3
	Disagree	2
	Strongly Disagree	1

Table 3.1 Table of score criteria in questionnaire item

There were 20 questionnaires in this research, and they consisted of two different topics. Eleven questions were designed to answer the first research question. Then, nine questions were designed to answer the second research question. In order to make respondent understand the questions better, the researcher translated the questionnaire into Indonesian language because Indonesian language is the mother tongue of the respondents (see in appendix 1).

Before distributing the questionnaire to the participants, the researcher measured the validity and reliability of questionnaire first.

Validity. Validity is part of the instrument of the research. The researcher used the validity test to verify whether the questionnaire was valid or invalid. According to Cohen et al (2011) "If a piece of the research was invalid then it was

worthless" (p.179). Therefore, checking the validity is very important for effective research. To measure the validity of the questionnaires, the researcher used two ways: expert judgment and items validity test through statistical package for social science (SPSS) program version 24.0.

In the first test validity check for the questionnaires, the researcher used expert judgment. Expert judgment means the researcher asked experts about the questionnaire that would be distributed. Cohen et al (2011) said "to check the relevance of an item in the questionnaire, experts judgment is always required". The expert was a lecturer of English Language Education Department in a private university in Yogyakarta. According to the expert, all of the statements in the questionnaire were valid. After that, the researcher distributed the questionnaires to the participants.

After the researcher got the data, the researcher analyzed the item validity of questionnaire in SPSS program version 24.0. The data was analyzed to identify the *r* value and the researcher compared the *r* value and *r* table. According to Arikunto (2006) "The questionnaire items were said to be valid if the *r* value is higher than *r* table". The criteria of items validity was illustrated as follows:

Table 3.2
The criteria of items validity

r value > *r* table = valid
r value < *r* table = not valid

Source: Arikunto (2006)

The questionnaire for this study consisted of 20 items (Q). The researcher distributed the questionnaire to 91 respondents (n). Based on the product moment *r* table distribution with the significance level 0.05 for n = 91 the *r* table is 0,206 (appendix 2). It means the *r* value for each questionnaire items should be higher than 0,206 to make the items valid. After the data was processed, the researcher found that 19 items in the questionnaires were valid and 1 of them was not valid. Consequently, the researcher eliminated the item that was not valid, namely Q15 from the data. The researcher only used the valid items for the next analysis. The result of item validity test can be seen in table 3.3 below:

Table 3.3
Validity of Pearson product moment

No	Items	*r* value	*r* table	Description
1	Q1	0.567	0.206	Valid
2	Q2	0.481	0.206	Valid
3	Q3	0.602	0.206	Valid
4	Q4	0.539	0.206	Valid
5	Q5	0.526	0.206	Valid
6	Q6	0.390	0.206	Valid
7	Q7	0.412	0.206	Valid
8	Q8	0.355	0.206	Valid
9	Q9	0.683	0.206	Valid
10	Q10	0.463	0.206	Valid
11	Q11	0.617	0.206	Valid
12	Q12	0.269	0.206	Valid
13	Q13	0.286	0.206	Valid
14	Q16	0.615	0.206	Valid
15	Q15	0.128	0.206	Not Valid
16	Q16	0.292	0.206	Valid
17	Q17	0.392	0.206	Valid
18	Q18	0.391	0.206	Valid
19	Q19	0.370	0.206	Valid
20	Q20	0.305	0.206	Valid

Reliability. The researcher also tested the reliability of the questionnaire. According to Creswell (2012) “reliability means the score of instrument are stable and consistence”. Some criteria were based on the grade of the score performed by Cronbach’s Alpha technique in SPSS program 24.0 versions. Furthermore, Cohen et al (2011) stated to check the reliability with the Alpha co-efficient, and the following guideline which can be used is presented below:

Table 3.4
Category of instrument’ reliability

Cronbach’s alpha	**Internal Consistency**
>0.90	Very highly reliable
0.80-0.90	Highly reliable
0.70-0.79	Reliable
0.60-0.69	Marginally/minimally reliable
<0.60	Unacceptably low reliability

From the data that have been calculated through SPSS program, the researcher found that the Cronbach Alpha of 20 items is 0.782. It can be said that the instrument was reliable to be used for the research. The reliability score is shown in the table below:

Table 3.5

Reliability Statistics

Cronbach's Alpha	N of Items
.782	20

Data Collection Procedure

In this study, the researcher used questionnaires to collect the data. The questionnaire has been developed based on the theory of literature review. After making the questionnaire, the researcher asked to the expert for their judgment and using SPSS program to measure the validity of the questionnaires.

Furthermore, the researcher used social media to distribute the questionnaires to the participants. The questionnaires were made using Google Form and can be viewed through the link: https://bit.ly/2FiODQV. The researcher used WhatsApp mobile application to share the questionnaire to students of English language education in batch 2015 at a private university in Yogyakarta. The researcher joined the WhatsApp of batch 2015 students then shared the link. Besides, the researcher also shared the link using personal chat to the respondents. Regarding the reasons why the application was employed: First, the participants are familiar with this application, so the research did not need to give any training on how to use the application. Second, all of the participants have the application in their mobile phones and had no difficulties accessing the internet, so there was no connectivity problem when the researcher distributed the questionnaire. The participants answered the questionnaire test one by one based on instruction in the form. It took three days for the researcher to gather the data from the respondents.

Data Analysis

The researcher used Statistical Package for Social Science (SPSS) software version 24.0 to analyze the data. According to Landau & Everitt (2004)

SPSS is a package of programs for manipulating, analyzing, and presenting of the data (p.11). Greasley (2007) stated that SPSS is the most widely used software for the statistical analysis of quantitative data (p.4). It is also the reason why the researcher used SPSS to analyze the data. The result was analyzed used descriptive statistical analysis. Descriptive statistics is a statistics method that is used to analyze the data in ways that describe the data that has been collected (Sugiyono, 2011, p.207).

In addition, the data gathered were analyzed through four steps. First, after the researcher got the data from the questionnaire, then the researcher inputs data into SPSS 24.0 in order to cross-check and avoid mistakes that might influence the result of the data. It consisted of two parts: The problems in learning English writing skills (11 items) and strategies in learning English writing skills (9 items). Secondly, the researcher examined the items' validity and reliability to see whether or not the data would be qualified for quantity analysis. The results of alpha coefficient (α) or Cronbach Alpha were used to check the internal consistency of each item. Thirdly, all of the reliable data were analyzed into frequency statistic. The result of frequency statistic is attached in appendix 3. Lastly, the analysis of data in this research involved the mean value of each items which were classified based on the categories of frequency the respondents' responses. The categories of the frequency were made by using the formula of Supranto (2000).

$$C = \frac{Xn - X1}{K}$$

Note: C = the range prediction (class width, class size, class length)

K = the number of class

Xn = the maximum score of variable

X1 = the minimum score of variable

So, the level categories of difficulties English writing skills and strategies to improve English writing of this research was presented in table 3.6 below.

Table 3.6

The level categories

Interval	**Categories**
1.00 – 2.00	Low
2.01 – 3.01	Moderate
3.1 – 4.00	High