

Chapter Three

Methodology

This chapter discussed the methodology that the researcher used in this study. Firstly, the researcher elaborated the design of this study. Secondly, the researcher gave detail about population and sample. Thirdly, the researcher explained how the data were collected. Finally, the researcher showed how he analyzed the research data.

Research Design

The researcher chose a quantitative research for this study. Creswell (2012) noted that quantitative research is employed to examine problems through an explanation of trends. Since this research question of the study tried to measure pre-service teachers' self-efficacy level in undertaking teaching practicum, collecting numerical data from quantitative research from a large number of people using an instrument could answer the research question. This study used survey design under quantitative research. According to Creswell (2012) survey design is a procedure of quantitative research that investigators manage a survey to a sample or to the entire population of people to describe "attitudes, opinions, behaviors, or characteristics of the population" (p. 376). Thus, survey design was considered as a suitable research design because this research investigated the respondents' opinions on a certain issue which was self-efficacy level of pre-service teachers in joining teaching practicum.

Research Setting

This study was conducted at the English Education Department (EED) of Universitas Muhammadiyah Yogyakarta (UMY). The department held an

internship program which required the students to teach at school. This department facilitated the students to enroll an internship program from the first to sixth semester while the department from the other universities because pre-service teachers experienced in teaching practicum was valuable information for this research. The researcher conducted the research in February-March 2017 since the pre-service teachers' batch 2014 and 2015 in joining teaching practicum.

Population and Sample of the Research

Population includes all subjects being studied while samples are subjects from population which are taken as representative of the whole population. In this study, the researcher has decided the research population and samples to be used.

Population of the research. Arikunto (2006) noted that "population is the total subject of research" (p. 130). This study was undertaken at the English Education Department (EED) of Universitas Muhammadiyah Yogyakarta (UMY). The populations of this research had criteria that they were students batch 2014 and 2015 at EED in UMY and the populations were joining teaching practicum in the even semester academic year of 2016/2017.

The researcher believed that the students of batch 2014 and 2015 were appropriate research respondents because they were joining the teaching practicum at the time of data collection in even semester at junior high schools and senior high schools. To obtain the total number of students of batch 2014 and 2015, the researcher sent a permission letter to the administration office of the EED of UMY. It is showed that the number of students of batch 2014 was 153 students divided into 4 classes, while the number of students of batch 2015 was

124 students divided into 4 classes. The population was those who enrolled in the teaching practicum at the time the data collection that was 246 students.

Sample. Sample is “smaller group or subset of the whole population” (Cohen, Manion, & Morrison, 2011, p. 143). According to Arikunto (2006), sample is “partially or representative of the population studied” (p. 131). To determine the sample, the researcher used formula from Notoadmojo (2010) written as follows:

$$n = \frac{N}{(1 + N \cdot d^2)}$$

Which:

n = Large sample

N = Large population

D = Level of confidence/accuracy desired (0,05)

$$n = \frac{N}{(1 + N \cdot d^2)}$$

$$n = \frac{246}{(1 + 246 \cdot (0.05)^2)}$$

$$n = \frac{246}{(1 + 246 \times 0.0025)}$$

$$n = \frac{246}{(1 + 0.615)}$$

$$n = \frac{246}{1.615}$$

$$n = 152.32$$

$$n = 152$$

The total sample was used in this study is 152 students of batch 2014 and 2015. Since this study was a small-scale research, the researcher used cluster

random sampling based on classes to determine the sampling of batch 2014 and batch 2015. Cohen, Manion and Morrison (2011) defined cluster random sampling as gathering a simple random sample from a cluster sample of population. Based on the results of cluster random sampling, there were class A, B, and D of batch 2014 and there were class A, B and C of batch 2015 participating in this research. The respondents were joining teaching practicum or joined teaching practicum in the even semester in 2017.

Instrument of the study

An instrument is a tool used to measure an observed natural and social phenomenon (Sugiono, 2015). This study used questionnaire as the research instrument as Creswell (2012) stated that in the survey design the data of quantitative research can be gathered using questionnaires. According to Oppenheim (1992), a questionnaire is basically a 'tool' for gathering and recording information of an exacting topic of concern. Therefore, the researcher chose the closed-ended question of the study. Sugiono (2010) mentioned that closed-ended questions enable research respondents to give short answers or to choose one of the alternative answers for each provided question.

The statements of the questionnaire were made by the researcher based on some references that indicated level of self-efficacy. The statements were adopted from (Kitching, Cassidy, Eachus, & Hogg, 2011), (Gavora, 2010), Clayton (2011), (Gavora, 2011), (Pandergast, Garvis, & Keogh, 2011), (Gurvitch & Metcler, 2009, p. 438), (Bandura, 1977), (Bandura, 1994), (Dinther, Dochy & Segerc, 2011), (Strecher, DeVellis, Becker & Rosenstock, 1986). The statements used the Indonesian language to ease the respondents to understand the questions

and to avoid the bias. There were two sections in the questionnaire. The first section was demographic information that the respondents are required to write their name and student number. The second section consisted of 20 statements about level of self-efficacy in teaching. Besides, the researcher gave information to the respondents how to complete the questionnaire in the beginning before they filled the questionnaire, and he also thanked to the participants for spending their time completing the questionnaire.

The type answer of the question used Likert scale. “Likert scale used to measure attitudes, opinions, and perceptions of a person or a group of social phenomenon”(Sugiyono, 2013, p.107). The researcher used only 1-4 scales in this instrument without neutral is to avoid the neutral answer for the respondents. On the other hand, the researcher did not use neutral since it decreases bias from the respondents.

Table 1 <i>Scoring of Rating Scale Models</i>	
Alternative answer	Score
Strongly Disagree (SD)	1
Disagree (D)	2
Agree (A)	3
Strongly Agree (SA)	4

Validity and Reliability

Validity. Before the questionnaires were distributed, the researcher must test the validity and reliability. “Validity is a vital key to effective research”(Cohen, et al., 2011, p. 179). There are several ways to test the validity

and reliability in the questionnaire. In this study, the researcher used expert judgment to test validity of the questionnaire. Cooke and Goossens (2008) stated that expert judgment is “sought when substantial scientific uncertainty impacts on a decision process” (p. 2). The experts were two lecturers at EED of UMY. The lecturers looked into each statement and gave feedback. The feedback is written in *table 2*.

Moreover, the researcher invited five students EED of UMY to check the readability of the questionnaire. The first student did not understand the words “*sulit untuk diajar*” on the first statement. The second student told that she was confused about the word “*mengkritik*” on the statement number eight. She suggested that the word “*mengkritik*” (criticize) had to be more specific. She also did not understand the statement of number nine. Responding to statement number 12, she said that the words “*permasalahan dalam belajar*” were too general. She added a word “*siswa*” after the word “*mengajar*” on the statement number 13. She also said that the word “*hambatan*” on statement number 16 was too general and she suggested adding words “*kendala dalam mengajar*” Besides, the third student was confused words “*untuk berhasil*” on the first statement. He also said that the word “*mengkritik*” on the statement number eight was too general. He thought that the word “*juga*” on the statement number 10 should be deleted. He also told that statement number 19 should be corrected. The fourth student also did not understand words “*untuk berhasil*” on the first statement, “*potensi mereka*” on the statement number 14. He recommended that the word “*hambatan*” on the statement number 16 should be more specific and it had better to be changed into “*hambatan dalam mengajar*” or “*kesulitan dalam mengajar*”.

He suggested revising statement number 17, and he also did not understand statement number 19. The last student mentioned that she said that the words “*sulit untuk diajar*” on the first statement were too general. She suggested adding words “*dalam mengajar didalam kelas*” on the statement number 5. She was also confused with a word “*mengkritik*” on the statement number 8. She said that the word “*mendukung*” on the statement number 9 was too general, and she suggested that the research gave more explanation of “*dukungan psikologis*” on the statement number 10. She also recommended that statement number 19 should be changed into “*anggapan saya bahwa kegagalan adalah suatu hal yang sementara dalam mengajar membuat saya tertantang untuk memperbaiki cara mengajar saya dikemudian hari*”.

Table 2 <i>Feedback from the Lecturers</i>	
Lecturer 1	Lecturer 2
6. She added words “ <i>dengan baik</i> ”	1. She added words “ <i>untuk diajar</i> ”.
10. She was afraid with the word “ <i>emosional</i> ” so that she suggest to the researcher to do piloting to his friends and see how his friends define the word “ <i>emosional</i> ”.	3. The statement did not show the specific skill and it influences positive effect or negative effect.
12. She said that that statement is too formal and she suggested to change the it into “ <i>Saya menyediakan waktu lebih banyak untuk murid-murid yang memiliki permasalahan dalam belajar.</i> ”	6. She added words “ <i>dengan baik</i> ”

15. She said that less stressed and depressed does not mean “happy”.	8. She added words “ <i>untuk apa?</i> ”.
16. She said that enduring/staying power is different from “ <i>dapat menghadapi</i> ”.	20. She simplified a phrase since she was afraid that the participants will get confused to understand the words “.”
18. She suggested that words “ <i>dalam keberhasilan</i> ” is better to be changed into “ <i>untuk berhasil</i> ”.	
20. She suggested that the word “ <i>menjaga</i> ” is changed into “ <i>mempertahankan</i> ”.	

Reliability. Cohen, Manion and Morrison (2011) found, “reliability is essentially a synonym for dependability, consistency and replicability over time, over instruments and over groups of respondents” (p.199). The researcher used reliability to indicate the instruments reliable. Reliability was used to measure the extent of instruments were reliable in research. To find out the reliability, the researcher looked at the value of Cronbach’s Alpha to determine category of reliability. Cohen, Manion and Morrison (2011) found that there are five level of reliability indicators were as follow:

Table 3 <i>Category of Reliability</i>	
Cronbach’s Alpha	Category
>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 reliability
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In this research, there are 20 items of questionnaires that would be distributed into six classes of EED batch 2014 and 2015. The reliability of 20 items is reported the table as follows.

No	Statement	Cronbach's Alpha If Item deleted
1.	Saya merasa tertantang untuk berhasil dalam mengajar ketika menghadapi kelas yang sulit untuk diajar (ramai).	.867
2.	Saya yakin dengan kemampuan mengajar saya.	.858
3.	Pengetahuan bahasa inggris saya berpengaruh pada keberhasilan mengajar saya.	.860
4.	Kemampuan mengajar saya mempengaruhi keberhasilan mengajar saya.	.860
5.	Saya dapat menggunakan pengetahuan mengajar saya dengan baik dalam mengajar di kelas.	.861
6.	Saya dapat mengkondisikan kelas saya dengan baik.	.864
7.	Saya sering menggunakan metode baru dalam mengajar didalam kelas.	.860
8.	Saya jarang mengkritik kekurangan siswa saya.	.872

9.	Saya selalu mendukung siswa saya dalam hal pelajaran didalam kelas.	.860
10.	Saya juga memberi dukungan psikologis (motivasi) kepada siswa saya.	.859
11.	Saya selalu antusias dalam mengajar.	.859
12.	Saya menyediakan waktu lebih banyak untuk murid-murid yang memiliki permasalahan dalam belajar.	.861
13.	Saya sabar dalam mengajar di dalam kelas.	.859
14.	Saya selalu berusaha untuk membantu siswa mencapai potensi mereka.	.861
15.	Saya tidak merasa tertekan saat mengajar didalam kelas.	.866
16.	Saya terus berjuang dalam menghadapi hambatan yang sulit dalam mengajar.	.861
17.	Saya dapat meningkatkan motivasi siswa dengan kemampuan mengajar saya.	.859
18.	Keadaan yang sulit menjadi pendorong saya untuk berhasil dalam mengajar.	.861
19.	Saya menganggap sebuah kegagalan dalam mengajar suatu yang sementara, dan itu adalah tantangan untuk memperbaiki cara mengajar di kemudian hari.	.857
20.	Saya tetap fokus untuk mencapai keberhasilan dalam mengajar.	.852

The reliability of the questionnaire is 0.867 which means that the instruments highly reliable and it is acceptable to be used. If “Alpha Item Deleted” is higher than Cronbach Alpha, the researcher may wish to delete the item in order to increase the Cronbach Alpha. In this questionnaire there was a

higher Alpha (0.872) in item eight. However, the Cronbach Alpha indicated highly reliable then the researcher did not delete the item.

Table 5 <i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.867	20

Data Collection Method

Data collection method is an important part of research before the researcher analyzes the data. To collect the data, the researcher used survey by distributing questionnaires to 152 students of batch 2014 and 2015. The researcher self-administered the questionnaire in the presence of the researcher. Self-administered questionnaire is the technique of administering the questionnaire where the researchers distribute the questionnaire by themselves (Cohen, Manion & Morrison, 2011). This way of administering of the questionnaire help the researcher distribute the questionnaire directly. It also helped the researcher to make sure all the questionnaire answered completely by the respondents. At the time, the researcher checked the questionnaire after receiving the questionnaire from the respondents.

The researcher had some steps to distribute the questionnaire. Firstly, the researcher asked permission to distribute the questionnaire at classes. Secondly, he explained to the respondents the researcher's purpose of the questionnaire distribution. Thirdly, he distributed the questionnaires to the respondents. Fourthly, he explained how to fill the questionnaire that there are four alternative answers, namely strongly agree, agree, disagree and strongly disagree. He gave

10-15 minutes for the respondents to fill the questionnaire. The data collection was taken for three weeks.

Data Analysis

After the researcher got the data, he analyzed the data by using SPSS (Statistic Packet for Social Studies) Version 17. The purpose of this study was to find out the self-efficacy level of pre-service teachers in performing the teaching practicum. To answer the research question, the researcher used descriptive statistics. To analyze level of self-efficacy, he observed the mean of the research results of each item and he described them. The researched used scale low, average and high self-efficacy level. He also presented the frequency of questionnaire items to know the responses to the scales.

In addition, to know the level self-efficacy of pre-service teachers divided the mean value into three categories. The first category is high which was ranged from 3.01- 4.00. The second category is high which was ranged from 2.01-3.00. The last category is low which was ranged from 1.00-2.00. The categories of pre-service teachers' level of self-efficacy of this research were presented in the following table.

Table 6 <i>Categories of Self-Efficacy Level</i>	
Mean Value	Category
3.01-4.00	High

2.01-3.00	Average
1.00-2.00	Low
*Source: Alimi (2013)	