

Chapter Three

Research Methodology

This chapter discusses the methodology used by the researcher in this study. Besides, this chapter explores how to conduct and collect the research data. There are six sections of the methodology namely research design, research setting, research participant, data collection method, data collection procedure, data analysis and trustworthiness. Several theories are also included in this chapter to support the methodology in this study.

Research Design

This study aimed to find out the students' perceptions on the implementation of Project based learning in Material Design course at English Education Department of a private university in Yogyakarta. The participants explained their experience when the teacher implement Project based learning in Material Design course. To achieve the aims, the researcher used qualitative research design. Qualitative research design is suitable for this study. According to Creswell (2012), a qualitative research is to address a research problem in which you do not know the variables and need to explore (p.16). As this study is used to explore the students' perception of the implementation of Project based learning in Material Design, qualitative research design will answer the research question correctly. Based on the research statements, this study needed to explore students' experience about the implementation of Project based learning in Material Design class. Project based learning was one of teaching method used in Material Design. The researcher wanted to explore students' experience through

students' perception about the implementation of Project based learning which they got in material design. Therefore, qualitative research method was suitable for this research because the researcher need to learn more about the study from participants through the exploration.

To describe the students' perception on the implementation of Project based learning in Material Design, this study adopted descriptive qualitative research. Descriptive qualitative research presents the finding by describing in detail towards the phenomenon based on participants (Creswell, 2012). For the reason in choosing this qualitative research, the researcher wanted to find detail information about students' perception on the implementation of project based learning in Material Design. Besides, the researcher wanted to know the benefits of the implementation of Project based learning in Material Design course and students' difficulties when teacher implemented the Project based learning in their learning process. In addition, based on the purpose of the research, it was suitable to use descriptive qualitative research because the researcher wanted to find out the detail information from participants about the experience on the implementation of project based learning in Material Design course. Also, the researcher wanted to find out students' perception on the implementation of Project based learning in Material Design course.

Research Setting

The research was conducted at English Language Education Department (ELED) of a private university in Yogyakarta. There were several reasons to choose the research setting at English education department of a private university in Yogyakarta. Firstly, at a private university of ELED, there was some courses used Project based on learning as a teaching method in teaching and learning process for study. Secondly, the Material

Design course confirmed as one of some courses implemented the Project based learning in teaching and learning process. In Material Design course, the students did many activities which required the project related to the learning in classroom. Material Design course at ELED provides designing teaching material. The students of ELED at a private university in Yogyakarta are expected to design English teaching material.

In Material Design course, the students learn kind of materials for teaching and designing classroom activities. Firstly, the students are taught some example of teaching materials. Then, the students are taught to understand the teaching material design. The students are taught about the understanding the principles of material development. The last, the students are taught how to design kind of materials used in English lesson textbook such as material in listening, reading, writing, and speaking. Therefore, the students can do the consultation in order to make the project run well as expected.

Therefore, it could ease the researcher if conducted the study to have the data from ELED students because the researcher had the access to get the participants. Besides, the lecturer who was asked for help to get the participants was my lecturer. The researcher conducted the research for a month started from October 2018.

Research Participants

The participants for this study were ELED students of a Private University in Yogyakarta batch 2015. In 2015 there are A, B, C, and D classes but in this study, the researcher chose some of students who had good, average, and low grade received after joining the Material Design course. For the reason, the research wanted to know from the students' perception that had good and low score on the implementation of Project based learning in Material Design course. Besides, it was to know the students' perception from low and good score because the researcher wanted to get

comprehensive data so that the researcher got the students' perception in equal. The technique sampling used in this study was purposive sampling. According to Cohen, Manion, and Morrison (2011), in the purposive sampling, the researchers hand-pick the cases to be included in the sample on the basis of their judgment of their typicality or possession of their particular characteristics being taught. Hence, the researcher chose the participants who had been determined based on the purpose of study.

In addition, the researcher chose four participants. For the characteristic of those four participants, firstly, the participants had joined the Material Design course using the Project based learning in teaching and learning process. Secondly, the researcher chose the students who got good and low score in Material Design course. Besides, the researcher chose 1 student who got good score, 1 student who got low score and 2 students who got average score. Good score is A, average score is B and low score is C. As the reason of choosing the students who got good, average and low score, the researcher wanted to have the balance of the students' perception from those participants, so the researcher could get comprehensive data. The researcher obtained the data about their score from the administration office.

Data Collection Method

In this study the researcher used interview as method to collect the data. The type of interview used in this research was standardized open-ended interview. Patton (1980) said "in the characteristic of standardized open-ended interview as the type of interview, the exact wording and sequence of the questions are determined in advance, and the interviewees are asked the same question in the same order" (p.413). That way, the type of interview used in this research could help the researcher to organize the

questions. The researcher conducted the interview to the participants based on the sequence of the questions.

The researcher used open-ended question for schedule construction. According to Kerlinger (1970) as cited in Cohen, Manion, and Morrison (2011), open-ended item defines as the supplying frame of references for the participants' answer but puts the minimum of restraint on the answer. In doing open-ended item, the researcher got depth and rich information from participants. Oppenheim (1992) as cited in Cohen, Manion, and Morrison (2011) stated "the interview has a higher response rate because the researchers become involved and motivated, and it enabled the research for handling the difficult questions through open ended questions" (p. 412). The researcher could manage the answer from participants, so the researcher was able to get the information which was appropriate with the purpose of the study. Then, the information can help to find the results of the study.

Data Collection Procedure

In this study, the research created the instrument based on the purpose and research question of this study. Before the researcher interviewed the participants, the researcher made an interview guideline based on the purpose of study. Besides, the interview guideline helped the researcher to organize the process of interview. The point of the interview guideline was about the students' difficulties faced when teacher implemented the Project based learning in Material Design course and the benefits on the implement of Project based learning in Material Design course.

After had the interview guideline, the researcher contacted the participants for doing the interview by texting or telephoning via WhatsApp. For the effective way to contact and make an appointment with participants, the researcher determined the place

at first. The interview took a place at a private university in Yogyakarta. The specific place took a place at ELED building. Then, the second choice of the place as research setting depended on the participants' request on their available time. Thus, the researcher should adjust the schedule of participants.

The researcher used Indonesia language for doing the interview. Using Indonesia language during the interview, it could ease the participants to answer the interview questions, and they did not have to worry about the language. Besides, they just needed to answer the questions using Indonesia language freely. That way, the researcher could get rich information because the participants could enjoy the interview. In the process of interview, the researcher needed some of tools to support the interview such as mobile phone recorder, pen, and note. Those tools could help researcher in collecting the data and record important points during the interview to get rich and detailed data. In addition, the interview took around 20-30 minutes for one participant in the process of interview.

Data Analysis

After obtaining data from interview, the next step was to analyze the data. There are several compulsory steps after doing interview. First of all was transcribing. Transcribing is the most important step in interviewing. Transcribing has the same sense with transcription. Transcription is contextualized and abstracted from time and place, the dynamic of the situation, live form and the social interaction, and dynamic and fluid dimensions of the sources (Cohen, Manion, & Marrison, 2011). In transcribing data, the researcher changed the results of interview from recording form into the description of text. After transcribing the data, the researcher analyzed the transcript. The researcher disguised the name of participants to be pseudonyms to keep their

identities. According to Allen and Wiles (2016), a pseudonym is unreal name which is often used by researcher or writer to personally keep participants' privacy. Participant one was named P1, participant two was named P2, participant three was named P3, and participant four was named P4.

Finally, the researcher did the coding to identify similar information from participants. According to Kerlinger (1970) as cited in Cohen, Manion, and Morrison (2011), coding has been defined as the translating of question responses and the participants' information to specific categories for purpose analysis. There are some steps of coding including such as open coding, and selective coding. Open coding is giving category of information. According to Strauss and Corbin (1990) as cited in Cohen, Manion, & Morrison (2011) open coding is giving the codes (label) of the text to describe and categories. In this step, the researcher gave a label of data.

In the selective coding, the researcher identified and integrated the categories to be well structured, systematic, and correlated to be core of categories. Besides, the data in selective coding were the most important data related to research questions because data from selective coding were findings. According to Cohen, Manion, and Morrison (2011), selective coding identifies the core categories of text data integrating them to form a theory. In the selective coding the data was divide into two categories that was the benefits of implement PBL in Material Design and the difficulties of using PBL in Material Design. After conducting the coding in data analysis, the researcher reported the data by explaining in the form of paragraphs to answer the research questions in finding and discussion especially in the chapter four.

Trustworthiness

Trustworthiness is important in qualitative research. Trustworthiness or rigor of a study refers to the degree of confidence in data, interpretation, and method used to ensure the quality of a study (Polit & Beck, 2014). The aim of trustworthiness in qualitative inquiry is to support the argument that the inquiry's findings are worth paying attention to (Lincoln & Guba, 1985). In each study, research should establish the protocols and procedures necessary for a study to be considered worthy of consideration by readers (Amankwaa, 2016). Criteria outlined by Lincoln and Cuba (1985) include credibility, dependability, confirmability, transferability.

Credibility of the study, or the confidence in the truth of the study, is the most important criterion (Polit & Beck, 2014). Credibility is how confident the qualitative researcher is in the truth of the research study's findings. Dependability refers to the stability of the data over time and over the conditions of the study (Polit & Beck, 2014). In the dependability, the data archiving should ensure the completeness and accuracy of documents (e.g. interview, observation, etc.) and be clear about the coding schemes and data analysis process. Confirmability is the neutrality or the degree findings are consistent and could be repeated. This is analogous to objectivity in qualitative research (Polit & Beck, 2014). In other words, this means that the findings are based on participants' responses and not any potential bias or personal motivations of the researcher. Transferability is the extent to which findings are useful to persons in other settings, is different from other aspects of research in that readers actually determine how applicable the findings are to their situation (Polit & Beck, 2014). The finding can be transferable to other setting. In order for findings to be transferable, the context must be similar.

Trustworthiness in this study was maintained through credibility. The credibility was done by doing member checking. According to Cohen, Manion and Marrison (2011), the validity data can be achieved by careful auditing trails of evidence or member checking validation, and the member checking is to verify the answers of the participants. Besides, the purpose of member checking is the confirmation about the participants' answers. The member checking done to the participants resulted in that the answer from participant was the same from the interview.