

## **Chapter Three**

### **Methodology**

This chapter discusses the methodology used by the research. First, research design discusses the data approach followed with the reason why the researcher used it. Second, research setting and research participant discussed the place and the participants of this research. Third, data collection method and data collection procedure explained about the way how the researcher gathered the data. Last, data analysis explained how the researcher analyzing the data in this research.

### **Research Design**

This research used qualitative approach as the research design. Creswell (2012) stated that qualitative approach in research explored an information based on participant's point of view. Meanwhile, the result of gathering the data were in the form of words from participants point of view (Creswell, 2012). Accordingly, this research used qualitative as the research design since the researcher wanted to get in-depth an information for the phenomenon based on participants' experiences.

The researcher used case study as the research design because the researcher conducted the research based on the phenomena as well as it is accordance with the definition of case study. Yin stated that case study investigated the phenomenon that have not clearly evident while it related with social life (as cited in Merriam, 1998). It also supported with Merriam (1998)

argued that case study was a phenomenon that has deep description based on social life. Hence, the comprehensive data were achieved.

Case study used by the researcher because case study was bounded by time and place. Creswell (2012) wrote about bounded system that in case study was specific not general so that the researcher could dig thick description about the problem. Additionally, case study had multiple data collection in collecting the data. Multiple data collection that the researcher used were interview from the students and the English teacher also from speaking grade of the students. Further, in case study there was no limitation of gathering the data either interview or observations or other type of data collection and data analysis (Creswell, 2012).

In this research, the researcher dug deep explanation about the condition of speaking class and the students' in Mechanical Engineering Department. Other things were the researcher discussed about the time and place when she conducted the speaking class. Moreover, the researcher asked the students based on the experience they have passed through in English classroom. Further, the researcher gave specific information about the problem happened.

### **Research Setting**

This research was conducted in Mechanical Engineering Department in Engineering Faculty at one of Private University in Yogyakarta. In this department, the goal of English subject was English for Specific Purposes (ESP). The implementation of ESP in this department was the English teacher taught about terms of Mechanical Engineering Department in English. Additionally, the

purpose was to make the students became familiar with those terms using English. However, the department did not want to know whether the students capable enough to speak or not. Further, the students of Mechanical Engineering Department had some challenges in speaking in English.

The researcher had some reasons why she took this place. First, in Mechanical Engineering Department, English has been taught in semester 3 and semester 4. In semester 3, the students had learnt about reading skills and listening skills. Meanwhile, in semester 4 the students had learnt about writing skills and presentation. There was no speaking class specifically in Mechanical Engineering Department. Speaking was done in the classroom to make the learning process becomes interactive. Moreover, speaking was done as assignment in the form of classroom presentation. Thus, the students lack of practice in speaking in English and it became challenging for the students.

In Mechanical Engineering Department, the English teacher had made the scoring rubric into several parts to asses students' speaking performance. There were three categories such as organization, content and presentation. The worth of every category was different. The total of those categories was 100 and the English teacher divide it with 5 to make it in the form of percentage. In the end, the highest score for presentation was 20%. Further, the way how the teacher gives a grade is by seeing students' fluency in delivering a presentation.

Secondly, the researcher had experienced teaching English for around one year in one of program held by the organization from Mechanical Engineering

Department. The name of the program was English Study Club (ESC). This program held to solve students' problem in English language learning especially in speaking in English. This program held once in two weeks with the duration 90 minutes with different material for every meeting. The materials taught by the researcher were about grammar, TOEFL and speaking skills. By doing so, it helped the researcher to conduct this research. The reason was because the researcher had known the performance of Mechanical Engineering Department students' when speaking in English. Further, the researcher also can enrich the explanation when gathering the data.

### **Research Participants**

This research used qualitative research approach which it means that this research used non-probability samples. This kind of samples only represents itself from wider population (Cohen, Manion & Morrison., 2011). Purposive sampling used by the researcher to investigate the problems in this research. Purposive sampling was one type of sampling which take the sample based on researcher's opinion in order to look for the participants' based on the characteristics (Cohen., et. al., 2011).

There were three participants in this research. There were two Mechanical Engineering Department students and one English teacher as the participants. The name had been changed in term of pseudonym names such as Olaf, Elsa and Anna. Olaf and Elsa were Mechanical Engineering Department students who were selected based on the criteria and based on researcher's knowledge when teaching in English Study Club (ESC). Meanwhile, Anna was the English teacher in

Mechanical Engineering Department who had experienced in teaching English for two years in that department in batch 2016 and 2017. Further, Anna's statement was being the additional data to enrich this research.

There were three criteria in selecting the students to participate in this research. First, the participants should be from Mechanical Engineering Department of that University. This criteria has been chosen in order to achieve the limitation of the research. By doing so, the researcher can be focused in one case. Second, the participants have been enrolled English class and have been passed the class. The reason was because the participants have experienced in joining an English classroom and can be easily to be interviewed. Third, the participants should articulate. This could help the researcher to gain a lot of informations from the participants'. Therefore, the researcher could get the comprehensive data from the participants and ease the researcher to explore the cause of why the problem occurred in the real context.

As what mentioned above, the participant was not only the students but also the teacher. However, the researcher has one criteria in selecting the teacher to be the participants in this research. The teacher should be an English teacher in Mechanical Engineering Department of that University. Additionally, the English teacher was asked about the students performance in speaking in English and speaking grade of the students. Therefore, the researcher knew from two points of view which were the English teacher and the students.

### **Data Collection Technique**

In gathering the data, the researcher used multiple data collection technique. First, the researcher used an interview as the data collection technique. Interview is an activity where two people discussed an issue regarding to the research data (Cohen et al., 2011). Besides, the researcher took interview because the researcher wanted to get in-depth data about the topic and seek the information why EFL students' were challenging to speak English.

The researcher used one out of four type of interview which was standardized open-ended interviews. This type of interview had the sequences of what the interviewer has to do. This was also in line with (Patton, 1980) implemented that standardized open-ended interview "... data are complete for each person on the topics addressed in the interview" (as cited in Cohen et al., 2011, p. 413). Further, the researcher used open-ended items as the construction of schedule. Using open-ended items in interview had some advantages such as it more flexible, reducing the misunderstanding between the participants and the researcher also it allow the researcher to ask deeper related to the topic (Cohen et. al., 2011).

The researcher used indirect for the format of questions because it avoid the participants to limit their answer in interview. It suggested by Tuckman (as cited in Cohen et al., 2011, p. 417) stated that "... the indirect approach is more likely to produce frank and open responses". Second, the researcher used speaking grade of Mechanical Engineering Department students. It used to compare between students' performance in speaking in English and students' grade in

speaking. Further, the researcher did the confirmation to the participants so that the cause of the problem could be found.

Next, the researcher interviewed the English teacher in Mechanical Engineering Department. The researcher asked the teacher about the participants' performance in speaking in English. The condition and the challenges of the students' also asked further in the interview. Therefore, the researcher gained the data not only from the students' but also from the English teacher.

### **Data Collection Procedure**

In this research, there were some steps done by the researcher. First, the researcher made her own interview guideline related to the topic of the research. Second, the researcher made the criterias to get the participants in this research. Third, the researcher contacted the participants based on the criteria through *WhatssApp*. The next step was the researcher asked participant's agreement whether they agreed or not to be the participants in this research. All the participants agreed to be interviewed and the researcher asked the participants' availability. The researcher made an appointment to the participants about time and place for interview.

In interview, the researcher used Bahasa Indonesia because it was the first language of participants'. Besides, using Bahasa Indonesia avoided misperception between the researcher and participants. Then, the researcher used cellphone for recording the result of the interview. The interview conducted 25 minutes for each

participants. The purpose was to get in-depth data and the researcher could achieve the validity of the research.

In this research, the researcher also did follow up interview to two participants; Olaf and Elsa. The follow up interview questioned about the strategies that they implemented directly if they faced the challenges in speaking in English. The purpose of follow-up interview was to make the findings of this research became more specific. Further, the follow-up interview conducted 25 minutes for each participants.

### **Data Analysis**

After conducting the data collection, the next step was analyzed the data from the participants. Those were transcribing, member checking, coding and content analysis.

**Transcribing.** Transcribe was the first step after doing the interview. Transcribe showed the data of interview from oral into written language (Cohen. et. al., 2011). The researcher wrote down what she heard from the recording into words. To keep the privacy of the data, the researcher used pseudonym.

**Member checking.** The next step was member checking that aimed to check the validity of the research. In this step, the participants could check the data whether the data had completed or not. Also, the participants allowed to give some clarifications about the data and could add more informations on it.

In member checking, the researcher gave the interview transcript to the participants through email. Based on the result of member checking, the interview



transcript was approved by all participants that means there was no revision from any participants.

**Coding.** The researcher used coding as the label which contains of an information related to the topic (Cohen et. al., 2011). Cohen et. al. (2011) wrote four steps of coding such as open coding, analytic coding, axial coding, and selective coding (p. 561-562).

**Open coding.** In this step, the researcher gave a label to the data. This was supported by Strauss and Corbin (as cited in Cohen. et. al., 2011) who indicated that open coding was generated and defined as the category or phenomenon based on the data. Cohen et. al. (2011) also stated that after the code had grouped into some categories, then it was given title or name based on the researchers' criteria. Further, the researcher made a coloumn for translated statements, themes, category and the explanations about time and place the researcher conducted the interview.

**Analytic coding.** In this step, the code became more interpretive after it had given title or name. Cohen. et. al. (2011) revealed that analytic coding was not only descriptive code but it gave more explanations of meaning toward the code. In this step, the researcher found the participants' statements in interview transcript that related research questions. The researcher also gave a code in participants' statements for example P1.1.1 in this research. P1 means participant 1, 1 means the first research question and the next 1 was the number for

participants' statements that answered research questions. Therefore, in this step the researcher could get the topic of each code.

***Axial coding.*** In this step, the data were connected each other. This had accordance with (Cohen. et. al., 2011) who argued that axial coding connected between category one and another also subgroup one and another that related to the phenomena. In short, the researcher put participants' statements which had same meaning into one category.

***Selective coding.*** In this part, the researcher integrated the categories into a data (Cohen. et. al., 2011). In this step, the researcher also made a conclusion from the code into descriptive explanation to become finding of the research.

**Content Analysis.** This was the last part of data analysis where the researcher had to summarize and made it into a report (Cohen. et. al., 2011). It also supported Krippendorp (as cited in Cohen. et. al., 2011) that content analysis was the technique where the data changed into meaningful matter and became valid information.