Chapter Three

Research Methodology

This chapter presents the research methodology used by the researcher. In the research design, the researcher explained the design and the reason for deciding the design. For the research setting, the researcher explained the setting in this study. For the research participants, the researcher showed the sampling that the researcher uses and also the categories that came up with the chosen of the participants. Then, the researcher explained the data collection. The data collection consisted of data collection technique, data collection instruments, and data collection procedures. In the data collection procedure, the researcher presented the ways in which the researcher collected the data. Finally, in the data analysis, the researcher described the procedure in analyzing the data.

Research Design

The aim of this research was to find out the teachers' perception on the use of ICT for hearing impaired students at one of the special schools in Kulon Progo, Yogyakarta. The researcher applied qualitative research method in gathering the data. This research used qualitative method because the aim of this research is the individual perception and believe that the participants had experienced before. As stated by Creswell (2012), qualitative research method is the best method that the researcher can use to solve the problem through exploring participants' point of view. Qualitative research method would be fit to be used when the researcher wanted to know the opinion and perception. Using qualitative method acquired the data richer because participants can show their meanings well, and they can

show their opinions as well. It is in line with the expert said, qualitative works with all the meanings, motives, and beliefs from the participants to get the more information, (Maxwell, 2013). By using a qualitative research method, the research question of this research will be answered. Therefore, a qualitative research method is fit to this research.

The descriptive qualitative research design was fit for this research. The researcher explored the real phenomena happened in one of the special schools in Kulon Progo focusing on the hearing-impaired teachers' opinion. The descriptive qualitative works focused on who, what, why, and where the phenomenon happened, (Kim, H., Sefcik, J. S., & Bradway, C, 2016). Moreover, descriptive qualitative has an aim to explain the phenomena regarding how and why that can happen (Nassaji, 2015). Therefore, descriptive qualitative is appropriate to be conducted in this research because this research concerned about the real phenomenon that focused on the reason why, who, and where the phenomenon took place.

Research Setting

This research was conducted at one of special school in Kulon Progo, Yogyakarta in the elementary level. The researcher had some views about why that special school becomes the place that the researcher used for gathering the data. First, that special school is one of the best special schools at Kulon Progo, almost all the special needs' students come there. That special school also has an A for accreditation. It can be explained that the school itself is the favorite one for the special needs' students. Second, that special school has already got a lot of

achievement, the students also won some competitions and both students and teachers are interested to be researched. Third, that special school provides the facilities to implement ICT for their teaching and learning process. The other reasons are based on the researcher experience, that special school already has a high facility in technology, especially in ICT program. From that views and reasons above, the researcher believe that this special school is catchy when to gather the data. Also, the researcher knew the environment of that special school at Yogyakarta, so it made the researcher felt easy to get the data. That is the explanation of the setting of place that the researcher used to gather the data.

The researcher gathered the data at October 2019 and needed 20-30 minutes for each participant. Also, this setting of time needed a lot of steps to finish well. In this part, the researcher divides into several section of time, which using interview to collect the data.

Research Participants

In this research, the participants are the teachers teaching at one of the special schools in Kulon Progo, Yogyakarta. This research used purposive sampling because the participants have the same certain characteristic. It is in line with the opinion from Cohen, Manion, and Morrison (2011) who stated that purposive sampling is choosing neatly the cases that will be researched in which to be included in the sample of the researcher's believe as the same typicality. Purposive sampling also focuses on the specific topic that will be found. It is proven by Teddlie and Yu (2007) who stated that purposive sampling is deal in

for several kinds of research including to focus on the specific topic, focus in unique issue or cases and also gathering the data from the resources.

The researcher made some categories to ensure that all participants are qualified to participate in this research. First, the participants should have an experience of teaching hearing impaired students using ICT for at least approximately for three years. It means that the participants are already experienced with teaching ICT for hearing impaired students. Second, the teachers have to use ICT for teaching hearing impaired students. Besides, to maintain the anonymity of participants and to make it easier for researcher and readers later, the researcher used pseudonym as labels to distinguish the names of the teachers.

There were three participants in this research. They are the teachers who teach hearing impaired students. The name had been changed into pseudonym namely Alfa, Bella and Caca. These three teachers have been a teacher for hearing impaired students for more than 5 years. They have been teaching hearing impaired students using ICT in their teaching and learning process. These three teachers teach hearing impaired students with ICT at the elementary level. Alfa as the first participant said that he has been a teacher for hearing impaired students ever since he first became a teacher. At first, he doesn't use ICT to teach, but because students had many questions about a material that had to be explained through pictures, he used the ICT to teach and it was more than 5 years using ICT for teaching and learning process. For Bella, she he has been using ICT since she taught hearing impaired students. However, she told the researcher if she asked to choose, she prefers to use traditional teaching and learning process rather than

using ICT. It is because ICT is unable to replace the physical touch from a teacher to student. This participant has been teaching hearing impaired students for 6 years. The last participant namely Caca has been the teacher who teach hearing impaired students for more than 15 years. At first, she taught visual impaired for 6 years and finally taught hearing impaired students. For Caca, teaching using ICT greatly facilitates her, therefore she always uses ICT when teaching.

Data Collection Technique

In this research, the researcher used in-depth interview to gather the data. The researcher used in-depth interview to answer both research questions, which are the benefits and the challenges faced by the teachers in the use of ICT for hearing impaired students. The explanation about why the researcher used in-depth interview is described below.

The researcher used interview because interview is investigating an issue for a depth way, deepening understanding, and explaining statistical data. Cohen (2011) stated that interviews can be used as the main object of gathering information that has a close relationship to the research purposes. The purpose of the interview is to gather the deeper data from the participants including their feel, perspectives, and experiences, (Cohen, Manion and Morrison, 2011). Moreover, according to Cohen and Morrison (2011), who stated that the interview is a flexible tool for the researcher to collect the data information, enabling verbal and non-verbal, spoken and be heard. Other than that, they also said that interview empower the participants to discuss their interpretations, express their feeling, express their regards situation from their point of view. That is why interview is

an appropriate technique to conduct this research and to answer the research questions. The researcher used an organized question in the implementation of ICT for special needs students with hearing impaired. The researcher used indirect form because the researcher will identify the participants' opinions about the topic.

In addition, this research used the standardized open-ended interviews to be the types of the interview. The researcher used that type because it has a strength, which are the participants would answer the questions in line, so the researcher would be easy to get the information and not out of topic. It is also proven by Cohen, Manion and Morrison (2011) that stated the participants will answer the same question, the data are complete, and the researcher has been facilitated by the structured questions. The other strengths are, it can increase comparability of responses. Data are complete for each person on the topic addressed in the interview. The other obvious reason was, with this type, it has already prepared with interview guideline, and the questions is structured.

In addition, the form of interview guideline is the construction of the schedules. The researcher used open ended question. The researcher used that because the participant would be free to answer, they can express their feeling, etc. It is in line with Cohen & Marrison (2011) who stated that open-ended question would make the data richer because the researcher can use the follow-up questions to the participants to confirm or to get the wide data. For the question format, the research used indirect question. The reason why the researcher used indirect question was because it made the participants' answer is full of responses. It is proven by Tuckman (as cited in Cohen, et al., (2011) which said that use

indirect question would be more likely to produce frank and open responses from the participants. The next is response mode. The researcher used unstructured responses to conduct this research. The researcher used it because the participants would be freely to answer the questions that given by the researcher. Other than that, based on Cohen and Marrison (2011) said that unstructured mode allowed the participants to answer the question in whatever she/he chooses. The participants also have freedom to give their own perspectives as fully as they choose. Interview questions focused on the benefits and the challenges by implementing ICT to teach in special needs students with hearing impaired as perceived by the teachers.

Data Collection Instruments

This part of this research explained the instrument that the researcher used to collect the data. The data collection instrument used interview guideline, audio recorders, pen or pencil, and note/paper. The reason why the researcher uses the interview guideline was because it can get more the data detail and the deeper views by the participants. All the questions focused on the implementation of ICT for special needs students with hearing impaired, belongs to the benefits and the challenges faced by the teachers.

Data Collection Procedures

This research used an interview to collect the data. The interview would be applied to answer all the research questions which are the benefits and the challenges in the use of ICT for hearing impaired students. The steps about how the interview, the explanation described below.

After having an interview guideline, this research had several steps to collect the data. First, having a permission. Having a permission divided into several parts. Firstly, the researcher got the letter from department to go to the state of special school at Yogyakarta, assigned by the head of the department and the head of education office. After that, the researcher went to the state of special school at Yogyakarta, have a permission of the principal, and the permission of the teachers while submitting the proposal and letter. After the permission already completed, the researcher did the interview session. However, before the researcher did the interview session, the researcher contacted the participants to decide where and when the interview session will be conducted. The researcher and the participants had a specific date and time to meet for talking about the interview. After the researcher and the teachers had an agreement to do the interview, the researcher did the interview session.

The interview session conducted in the end of October 2019. The researcher interviewed the teachers for around 20-30 minutes each participant. The researcher used Bahasa to avoid misunderstanding between the researcher and the participants because both the participants and the researcher speak Bahasa. During the interview, the researcher recorded the question and the answer given by the participants. Afterwards, during the interview session, the researcher gave the follow up question if needed to ensure complete and rich data.

Data Analysis

In this section, the researcher collected all the data from the interview. After that, the researcher analyzed the research data. The first step to do was transcribing. Transcribing also can be described as the first step in doing the data analysis in qualitative research. Bailey (2008) in his research found that transcribing is an interpretive act rather than simply technical procedure, and the close observation. In this research, the researcher used the verbatim transcribing that all the spoken of the participants are written all in all. All the conversation written as real as possible. In this research, the researcher used a pseudonym to keep the demographic information of the participants still safe.

The second step was member checking. Member checking is a measure done to validate the trustworthiness among the interview session. As stated by Birt, Scott, Cavers, Campbell, and Walter (2016) member checking can differ across studies; therefore, researchers can make different claims to the validity of their interpretation. The other expert also stated that member checking is validate, verify, or assess the trustworthiness of qualitative results (Doyle, 2007). The mechanism of member checking was giving the transcribing data to the participants itself. At that time, the researcher asked to the participants whether the all the conversation is match or not. For Alfa, he said that the words are clear and there is no need to be changed. For Bella, she asked the researcher to change a little bit about the abbreviation that she used while interview. She also reminded the researcher to not forget the meaning that has been conveyed, so that the readers will not misinterpret with the words. For Caca, she said that the transcript

was good and no need to be repaired. After all the member checking were ready enough, the researcher continued to the next step.

The next step was coding. Coding is giving the codes to the participants to determine the one participant to another. The definition of coding, Weber (as cited in Cohen, Manion and Morrison, 2011) defined coding as a process which many words of texts are classified into much fewer categories. Coding itself has three steps to do with. For the first is open coding. Open coding is making a new label and then breaking down into several data to be the smaller one. After the researcher found the result of open coding, the researcher analyzed the coding. In analyzing the coding, the researcher categorized the result of open coding into tables made by the researcher. The last step of coding was selective coding. In the selective coding, the researcher categorized the finding based on analytic coding into descriptive form. Then, the researcher compiled it into one sentence to make a theme of finding. Selective coding identifies the core categories of text data, integrating them from a theory (Cohen, et al., 2011). Lastly, the researcher reported the result, made the conclusion and recommendation of the study.