Chapter Three

Research Methodology

This chapter deals with discussion of the methods used to investigate the teachers' challenges on the use of Multiple Choice Questions on the students' assessment in one private high-school in Yogyakarta. This chapter is divided into six parts that consist of research design, research setting, research participant, data collection technique, data collection procedure, and data analysis. This chapter also provides some references that support the research methodology.

Research Design

The researcher conducted this study by adopting qualitative research. Creswell (2012) stated that the reason to choose qualitative research is the researcher can explore the problem so that the researcher can get a deep understanding. Qualitative research was suitable to be applied in this study because it helped the researcher to explore the teachers' guideline and challenges in designing MCQs. In addition, by adopting qualitative research, the researcher could get deeper understanding about the teachers' guideline and challenges in designing MCQs. Creswell (2012) added that one of the qualitative research's characteristics is to collect the information based on the statements of a small number of participants so that the participants' views are attained. By using qualitative research, the researcher could attain a deeper understanding about the participants' opinions from a small number of participants.

Research Setting and Participants

In this part, the researcher explains the setting and the participants in this research. The first part is about research setting which discusses the time and

place this study was conducted. The second part is about research participants which talks about the people who got involved in this research. The explanations are presented below:

Research setting. This research was conducted in one private high-shool in Yogyakarta. There were three reasons of selecting this private high-shool in Yogyakarta as the place to carry out the research. The first reason was this private high-shool provided English as one of their subjects. It is appropriate with the purpose of this study which is to investigate the teachers' guidelines and challenges in designing MCQs for the English assessment. The second reason was the English teachers in this private high-school in Yogyakarta used MCQs to assess their students. Finally, this private high-school was very accessible, because the place was in the same city as the researcher's.

Research participants. The researcher selected the English teachers in one private high-school in Yogyakarta to become the participants in this research. The researcher had four criteria in selecting the participants. First, the participants must be English teachers. Second, they had experiences in using MCQs for their students in English assessment. Third, they had experiences in designing MCQs for the English assessment. The teachers in this private high-school in Yogyakarta had enough experience in designing MCQs. In addition, the English teachers in this private high-school in Yogyakarta were the researcher's supervising teacher in the internship program. It eased the researcher to contact the participants. There were two English teachers who became the participants for this research. To preserve the identities of the participants, the researcher used various names of flowers as pseudonyms, namely Rose and Jasmine. It is to keep safe the participants' confidentiality.

Data Collection Method

To collect the data, the researcher used the interview technique. This research used a standardized open-ended interview in designing interview guideline. Cohen et al. (2011) stated that standardized open-ended interview is organized with a sequence that the researcher should follow. The researcher selected this type of interview, because this type was very organized. It eased the researcher in conducting the interview. This type also allowed the participants to explain their responses more detail, because there was no limitation for the participants to answer the questions. For the structure, the researcher used open-ended items to gain the data, because this structure allowed the researcher to probe more information in order to get more detail data, and the participants could clarify the information given to the researcher. It referred to the advantages of open-ended questions. Cohen et al. (2011) added that open-ended questions are flexible. They allow the interviewer to probe so that the interviewer may go to more in-depth questions if he or she chooses. Open-ended questions could also erase any misunderstanding about the information from the participants. If the participants explain the information clearly, the researcher will obtain a deeper understanding of the answer. The researcher used indirect questions. The researcher selected this type because the participants could give more detail explanation about their answers. The participants also gave their responses based on what they feel. Cohen et al. (2011) stated that the result of indirect approach can be more honest and have more open responses.

This research used unstructured response. The researcher selected this type of response mode because there was no limitation for the participant to answer the interview questions. Cohen et al. (2011) mentioned that unstructured response

allows the participants to explain or answer the interview question without limitation.

Data Collection Procedure

      In this research, the researcher used interview. Before the researcher interviewed the participants, the researcher needed to decide the type of interview, the construction of an interview schedule, question format, and a response mode that the researcher wished the participants provided. The researcher constructed the interview guideline by creating questions that were related to the research questions. For the first research question, the researcher made the questions about the frequency in using MCQs, the sources used in designing MCQs, the reasons of using sources, the effective time in designing MCQs, the reasons in selecting the times, the guidelines in designing MCQs, and the reasons of using the guidelines. These questions were used to investigate the teacher's guidelines in designing MCQs. For the second research question, the researcher made the questions such as the challenges in applying the guidelines in designing MCQs, the reasons why they become challenges in designing MCQs, the strategies to solve these challenges, the way the challenges can improve the quality in designing MCQs, and the strategies to improve abilities related with the challenges. The second research questions were used to investigate the teacher's challenges in applying the teacher's guidelines in designing MCQs.

      To design the interview guideline, the researcher read the literature review to design the questions. Then, to develop the questions, the researcher designed some questions focused on the answer of the first and second research questions as explained above. To get a deep information from participants, the researcher used variation of the questions, such as what, why, when, and how. According to

DiCicco-Bloom and Crabtree (2006), by using the term of what, why, when, where, and how, it can help the interviewees to build up their answer based on their perceptions. It allowed the researcher to obtain deep information. After designing the interview guideline, the researcher contacted the teachers in one private high-school in Yogyakarta to ask whether they were available or not to become the participants in this research. After the teachers agreed to be the participants in this study, the researcher asked about the time and place to conduct the interview. After that the researcher did the interview in the time and place which had been agreed.

Then, the researcher interviewed the participants one by one to collect the participants' expressions, feelings and thoughts. In conducting the interview, the researcher asked and talked the questions that were prepared based on the interview guideline by using Indonesian language. By using Indonesian language, the participants answered the questions easily. The researcher chose to use Indonesian language because Indonesian language is both the researcher and the participants' first language. During the interview, the researcher recorded the interview using mobile phone. In addition, the researcher also did note taking to write some important points and something needing clarification from the participants. The duration of the interview was about twenty up to thirty minutes for each participant.

After collecting the data, the researcher analysed the data. In this step, the researcher transcribed the results of the interview, performed member checking to measure the validity of the data, and did coding.

Data Analysis

After interviewing all of the participants, the next step was analyzing the data. The first step in analyzing the data was transcribing the data or transform the spoken to written data. Transcribing the data is an important stage in an interview. According to Cohen et al. (2011), transcribing is the most important step in interview, in order to avoid losing the data, distortion, and reduction of the originality of the data. In the process of transcribing the data recording, the researcher wrote the original statements of the participants. The researcher transcribed the recording without giving the researcher's argument. The researcher asked the same questions based on the interview guideline for all participants. To ensure the data validity, the researcher checked the validity by doing member checking. Cohen et al. (2011) stated that member checking is the confirmation process by participants who involved in the study by giving one or more questions about their response. In doing member checking, the researcher asked whether the researcher's interpretation about the participants' response was appropriate or not with the participants' means. The researcher conducted the member checking process after the researcher found the conclusion. Member checking was conducted in one private high-school in Yogyakarta where the participants taught. After the researcher conducted member checking, the researcher obtained additional information from the participants related to this research.

To analyse the data, the researcher gave a simple label to identify the same information. This process was called coding. According to Cohen et al. (2011), coding is the translation proses of question interview and the responses or the information of the participants into specific categories. The researcher gave a code

or label to the piece of information. In analysing the data, the researcher used open coding, analytical coding, axial coding, and selective coding. In open coding, the researcher gave a label to the information. Strauss and Corbin stated that open coding is a simple label or name that is attached by the researcher to piece of the text to describe and categorize them (as cited in Cohen et al, 2011, p. 561)

Then, the researcher did analytical coding. The researcher gave a descriptive code to give more explanation. The researcher gave the theme for the data. According to Cohen et al. (2011), analytical coding is more detailed than a descriptive code. In the axial coding, the researcher put the category label from the open coding that has similar meaning. Cohen et al. (2011) added that an axial coding is category label ascribed to a group of open coding that have similar in meaning. The last coding was selective coding. In selective coding, the researcher identified the main category of the text. In this coding procedure, the researcher re-analysed the group of main heading from the open and analytical coding. According to Cohen et al. (2011), selective coding is when the researcher classifies the important categories of the text data and integrate them into the new theory.