CHAPTER III

METHODOLOGY

This research is an attempt to seek answers to a number of phenomenon or aspects relating to where teachers asked questions and how students responded to them. The research into teachers' questions and students' responses in the EFL classroom includes details of the research design, research validity, the participants, the research setting, techniques of gathering data, and technique of analyzing data respectively.

3.1. Research Design

This research applied a qualitative research design. The reason for using qualitative design is that this design is an appropriate way to explore daily behavior, in this case the behavior of teacher and students in classroom. In qualitative research, the researcher tries to understand participants' experiences with the central focus of the study in natural setting that refers to the ordinary, everyday worlds of participants (Heigham and Croker, 2009).

There are several methods in qualitative research such as ethnography, phenomenology, grounded theory and case study (Alwasilah, 2008). This research ended when the researcher found the saturated data in the data collecting process (Sugiyono, 2009). The transferability of its findings would be limited to the context of the present study.

This research used descriptive case study style because the researcher presents a detailed, contextualized picture of a particular case or phenomenon to

gain a deeper understanding of a case or phenomenon with procedural descriptive data viewed as part of a whole (Hood, 2009; Bogdan and Taylor, 1975). This statement similar to that of Creswell who stated that:

> Case study in which the researcher explores a single entity or phenomenon ("the case") bounded by time and activity a program, event, process, institution, or social group and collects detailed information by using a variety of data collection procedures during a sustained period of time (1994, 12).

The research about teachers' questions and students' responses in the EFL classroom was a case study because the researcher presented a description on teacher questioning that is used during the process of teaching and learning English in classroom setting. For this purpose the researcher applied a case study which is part of descriptive method to find information from a research object that is bounded by time.

3.2 Establishment of Trustworthiness

The researcher used some techniques suggested by Rallis and Rossman (2009) included:' prolonged engagement, triangulation, and participant validation' to ensure validity in this research. Prolonged engagement or 'being there' was used because of the accessibility of the researcher to the research field. The researcher was present and spent time with the participants over a five year period in the setting so that the researcher was able to make a detailed research of the target phenomenon.

Triangulation was used for constructing validity (Alwasilah, 2000) and to get data validity from variety data collection (multiple sources of data). This

study used interviews, observations and video recording. The triangulation carried out based on interviews with teachers and students and also classroom observation to catch all questioning- answering activities. This study was validated by presenting detailed descriptions on the process and the setting based on the field notes during the observation.

This study also took another step to ensure validity of procedure in the form of participant validation. Participant validation was conducted as member checking. The researcher made the participant check in transcribing and interpreting the video recorded data. The participants were asked to make sure that the transcription was valid based on the recorded data and whether they identified questions in the transcription as questions or not so that the researcher and the participants had the same perception in determining the utterances as questions or not.

This study used these techniques to enable the researcher to maintain the quality of data gathering and subsequent analysis. The researcher used these techniques according to situation and condition in field research so that the researcher could explore daily behavior and students in classroom, and understand participants' experiences with the central focus of the study in natural setting.

3.3. Research Setting and Participants

This study was conducted in a Public Senior High School located in Bandung. The reason for choosing this school was the accessibility of the researcher into this school. There were two groups as the focus of observation.

The first group was XI Natural Science which consisted of nine classes. The second group was XI Social Science which consisted of two classes. These two groups (Social and Natural Science) were at the first semester of academic year 2011/2012 and the teaching-learning was conducted in morning shift from 6.30 am to 01.30 pm. The students received English lessons twice a week.

This research involved two English teachers, both female, to get the data of teacher questioning. The fact that these two participants were the colleagues of the researcher enabled the researcher to maintain and utilize this close relationship. Both participants are certified teachers. Those two teachers were coded as teacher A and teacher B. They had been teaching English for more than ten years and had broad experience in teaching English.

Teacher A has been teaching in the research field for about more than 15 years. She graduated from a local university majoring in English after attaining a Diploma degree (D3) in the same university and passed the teacher certification in 2009 with a good grade. During the research process she was class teacher for class XI Natural Science 6. She applied teaching and learning method based on her experiences and combined it well with the latest curriculum.

Teacher B got a Diploma (D2) in 1982 from a local university that led on to her becoming a Junior High School teacher. She has S1 degree from two local state universities majoring in Communication in 1991 and English Education in 2000 and she has a Management Magister degree from a private university in Bandung. She has been teaching English in research location since 2009. During the research process she was class teacher for class XII Natural Science 7. She

passed the teacher certification in 2008 with a good grade because of her teaching achievement in another Senior High School. With her strong education background, she has been able to apply a variety of techniques to the teaching and learning process.

Meanwhile, students who participated in this research were involved 90 students divided into two groups of students. The first group was Class XI Natural Science which consisted of nine classrooms. The students were selected into this classes based on their existing group. They were selected based on their rank when they were in the last semester of the first year. They showed the best achievement in most subjects because the input came from the highest ranked students in the school. In this regard they had been classified as gifted students as they were from the high achiever group of students.

The second group was class XI Social Science which consisted of two classrooms. Some of them had other activities outside school and were busy in doing activities in sports, art, etc. so that they were sometimes absent from the class to take part in matches or competitions etc. This situation made them lower achievers by comparison to the other class.

The data also collected when the students were in the second year of Senior High School in the academic 2011-2012. These two class groups showed some interesting characteristics especially during observation to collect the data about teachers' questions and students' responses to the teacher questions.

3.4 Data Collecting Techniques

This study used multiple procedures to collect data including; observation, interviews and video recording to gather data on problems or issues and to answer research questions. The researcher used observation for several reasons, they were that; teachers and students follow familiar routines and activities in school, observation was used to triangulate or provide additional evidence for the research study and because the practice of language teaching, teachers and researcher always requires making sense of a complex situation (Cowie, 2009:168). This research used in-depth interview to reveal some information to answer research questions.

3.4.1 Observation

Observation was used as a major technique among data collecting techniques. This study used observation to make detailed examination of what types of questions were applied by the teachers, and what were the responses that have been given by the students to the teachers' question, and observed what were the questioning strategies that have been applied by the teachers when their questions were not understood by the students in the natural setting of the ordinary, daily activities at school. This study used observation to make detailed examination of participants' behavior in the natural setting of the ordinary, everyday world of participants (Heigham and Croker, 2009: 166).

The researcher used himself as the research instrument to capture the data that were used to answer the research questions. To investigate teachers' questions and students' responses and some specific details, the researcher

watched and made detailed notes details from the back during EFL classroom activities.

In this research, the researcher observed the participants in their classroom. The researcher played the role of non-participant observer because the researcher was in the classroom to collect data only and not to take part in any classroom activities. The observation were collected from the natural classroom situation as possible, and watched from the back of the classroom so as not to interfere in any classroom activities. The field notes were made by the investigation on the questions that were used by the teacher, the responses from the students to the teachers' questions and some details that were useful to answer research questions.

The researcher engaged himself in detailed description about the language learning activities occurring in the classroom. Detailed description refers to the rich, vivid descriptions and interpretations that researchers create as they collect data or the writing about a research setting needs to be as detailed and rich as possible so that readers can feel like they are there with the researcher (Geertz cited in Heigham and Croker, 2009).

The observations focused on the research questions as the observation guidelines which were to find out the type of questions that were used by the teachers in EFL classroom activities, the responses that were presented by the students to the teachers' questions and the questioning strategies that were applied by the teachers where their questions were not understood by the students. This method was employed to avoid misperception and or misunderstanding from the

teachers who were being investigated by their colleague. According to Heigham and Croker (2009: 169) being observed can stir up visceral responses in many teachers especially where being observed by a colleague.

This study conducted 24 observations, 12 observations were made on each group (Natural Science and Social Science classes). During the observation, all participants taught different topics. In class XI Natural Science class, the teacher taught Genre Narrative at first, while in class XI Social class the teacher taught Genre Analytical Exposition. Before observing each class, the teacher introduced the researcher to the students and then the observer took place in the back of the class. During the observations, the researcher made field notes of all the classroom activities and used the researcher himself as the research instruments to make description from the research activity during the classroom activities.

3.4.2 Interview

This research used interviews only to gain specific information about teachers' understanding of what types of questions that were used in their classrooms. Interviews were used to support the data gained from observation and video-recording techniques. Interview was used through verbal interaction between interviewer and respondent directly (Sevilla, 1992). Similar to Nasution (1982) that interview is classified as verbal communication to collect information.

This research used opened and closed interviews. The interview was developed naturally where the subjects know and realize about being interviewed,

while closed interview has been done when researcher asked some questions and the subject did not know or realize about the interview (Moleong, 2004; Heigham and Croker, 2009).

The opened interview was used in the classroom or teachers' room after observation or video-recording techniques to discuss about the situation in the classroom. The researcher asked some questions to the participants to support the data from observation and video-recording about the information that could not be revealed from those techniques. The participants knew and realized being interviewed so that this process can be classified as the open interview technique.

The closed interview technique was used to collect the data from students about the reason of their responses to the teachers' questions. The closed interview is used when the students were asked in informal situation, and they did not realize that they were being interviewed by the researcher because the researcher asked the questions several days after observation and video-recording techniques. The interviewed was done in the middle of daily conversation.

3.4.3 Video Recording

The data collection most were taken from observation in natural classroom situation as possible where the researcher watched from the back of the classroom and made the field notes about the questions that were used by the teacher, the responses from the students to the teachers' questions and some details that were useful to answer research questions.

To support the data collection, this study conducted the video recording to catch all the teaching and learning process in the classroom so that the researcher can collect the data from the specific activities. Video recording was also used to interpret some objectives features that the researcher was not being influence of the classroom activities circumstance.

The researcher sat and watched in the back of the class while the data from video recording were taken by one of the students. Video recording was not used in entire research process. The study conducted four (4) video recording techniques because of the limited source of systems during research collecting data. Video recording was used only when the participants applied questioning in the classroom. Video recording was off when the participants involved in writing and drama or role play activities. Along the collecting data the researcher concerns with the relationship among colleagues. The researcher always tries to keep good relationship because sometimes being observed can stir up visceral responses in many teachers, especially observed by a colleague (Cowie, 2009).

3.5 Data Analyzing Techniques

This research collected the data from video-recorded, observation, and interview techniques. The data from video-recorded and observation were categorized and analyzed, while the information from interview was used to support the data from video-recording and observation techniques. There were some steps in analyzing data from field notes and video recording.

From field notes observations, the researcher made description of each observation based on the observation guidelines during the observation. The result of the description will be used to provide more detail context when classifying types of questions and interpreting the meaning of certain utterances.

First, the researcher counted the frequency of teacher questions that were applied by the teachers in their classrooms based on the framework of Brown (2001) questions categories. The categories are Knowledge question, Comprehension questions, Application questions, Inference questions, Analysis questions, Synthesis questions, and Evaluating questions. The next step was arranging the hierarchy of teachers' questions based on the frequency of questions, into the table of teachers' questions frequency to find out which questions mostly used by the teachers in their classrooms.

After arranging the hierarchy of questions, the next step was analyzed the response from the students. The students' responses can be categorized verbal communication as spoken communication, including the use of words and intonation to convey meaning, while the nonverbal communication including the use of gesture, facial expression, eye contact, and conversational distance.

The last step was categorizing the questioning strategies that were used by the teachers when their questions were not understood by the students. The researcher analyzed the field notes to find out which teacher questions could elicit student responses and which ones should be applied the questioning strategies such as rephrasing, simplification, repetition, and decomposition.

From video-recording data, the researcher made transcription and gave several codes to indicate specific features of the transcription. The researcher applied codes T for teacher, S for one student, Ss for many students, "*" For pausing, "…." for no response, and for non- verbal responses.

The researcher made classification of the utterances into two categories, teacher questions category and student responses category. After all the utterances have been categorized, then the researcher classified all the teacher questions based the taxonomy of question which adapted from the framework of Brown (2001). The researcher analyzed the transcription to find out which teacher questions could elicit student responses and which ones could get inappropriate responses.

The next step was categorizing the questioning strategies from the transcriptions of video-recording. The transcription were coded which questioning strategies that were used by the teachers when their questions were not understood by the students. The researcher analyzed the transcriptions to find out which teacher questions could elicit student responses and which ones should be applied the questioning strategies such as rephrasing, simplification, repetition, and decomposition.

The next step was analyzed the response from the students. The students' responses can be categorized as communication feedback. The feedback from the students can be verbal and nonverbal communication (Suherdi, 2009, Brown, 1994, and Levine, 1993). In teaching and learning process in the classroom, students give variety responses by answer questions verbally or just

silent but they give responses by using their body language such as nodding or shaking their head, facial expression, eye contact, and conversational distance. Some students' responses can be expressed by laughter or use the native language (Brown, 1994).

The last step was the researcher made the participant check in transcribing and interpreting the video recorded data. The participants were asked to make sure that the transcription was valid based on the recorded data and whether they identified questions in the transcription as questions or not so that the researcher and the participants had the same perception in determining the utterances as questions or not.

This research methodology can be figured out from the research framework that was starting from determining the research background, formulate the problem into research questions which were showed up because of the lack of theories and realities, determining the collecting and analyzing data techniques, presenting the research findings and elaborating with the theories.

This research was design to explore daily behavior of teacher and students in classroom and presented in details bounded by time. This study was validated by presenting detailed descriptions on the process and the setting based on the field notes during the observation, and also took another step to ensure validity of procedure in the form of participant validation to enable the researcher to maintain the quality of data gathering and subsequent analysis according to situation and condition in field research.