CHAPTER III METHODOLOGY

Conducting a research in analyzing interpersonal meaning of teacher talk in the stages of scientific approach needs several considerations in selecting the research methodology. The selection of research methodology is the important thing since it can influence the procedure of the research. Therefore, in deciding the research methodology, it should be related to the research objectives of the study. To be specific, this chapter consists of the discussion of research design, research site and participant, the data collection and the data analysis.

3.1 Research Design

Several important things should be considered in conducting the research. One of them is to decide the research design of a study. The important thing to consider in selecting the research design is that it should fit the objectives of the research. The first research objective in the present study is to describe how speech function is realized in teacher talk and the second one is to describe how mood typicality is chosen to realize the speech function. Therefore, the present study uses the qualitative research following the case study.

The first objective of the present study is to describe how speech function is realized in teacher talk. The second one is to describe how mood typicality is chosen to realize the speech function. Therefore, it is meant to gain the description of teaching and learning practice in the particular classroom conducted by a particular teacher. The current study uses a natural setting, which means that all of the participants do what they usually and normally do in their place. Based on those characteristics, this study can be categorized as qualitative research because the research focus is on the participants including how participants experience and interact with phenomena in particular time and context (Heigham & Croker, 2009). Therefore, it is clear that the objectives of the present study fit the research design. To be more specific, the present study also used the case study. It is the empirical study to examine the current phenomenon based on the contextual setting (Yin, 2003). The reason why this study is categorized as case study is because it is the first time for the school chosen to implement the 2013 curriculum following the stages of scientific approach. The class of the tenth grade in the school is the only class which follows the stages of scientific approach in the teaching-learning activities. Therefore, case study is appropriate to this research because the current research describes the unique phenomenon or case in a particular educational setting.

3.2 Research Site and Participants

The second consideration in conducting this research is to decide the research site and participants. Deciding the research site should be based on the justification so that it is possible to conduct the research in the place chosen. Choosing the participants in this study also needs the rationale and justification related to the research problems. Thus, this section discusses the research site and participants in the present study.

3.2.1 Research Site

The research was conducted in one senior high school in Majalengka. The school was chosen based on the consideration of the case that it is the first time for the school to implement the 2013 curriculum following the stages of scientific approach. There are three senior high schools in the centre part of Majalengka and this school is the only school that started the implementation of 2013 curriculum in the academic year 2017-2018. The other two schools have implemented the 2013 curriculum in 2014. Thus, this school was chosen as the site to conduct this study.

3.2.2 Participants

The participant in this study was one male EFL teacher. Purposive sampling is chosen as the consideration to decide the participants. The researcher deliberately chose the participants to understand the phenomenon related to the research problems (Creswell, 2008). The teacher is the representative of the school as the target teacher in 2013 curriculum training. Thus, it is expected that the teacher is capable to implement the teaching-learning activities through the stages of scientific approach in the classroom. The classes that use the scientific approach in the teaching-learning activities are the tenth and eleventh grades only. Therefore, the participants were the teachers who teach in these classes. However, there was only one teacher who was capable to be the participant in this study. Besides, using only one participant can gain the detailed results and focus on single individual to investigate the effectiveness of an intervention.

3.3 Data Collection

As the focus of the study is on the teacher talk, the data source is the talk produced by teacher in leading the teaching-learning activities through the stages of scientific approach. Thus, the appropriate method for collecting the data was observation. Through observation, the participants' behavior can be examined in a natural setting. Moreover, observation can also help researcher see the new aspects of the context that have not been fully described (Heigham & Croker, 2009). The class that was observed is an EFL classroom that uses English in the teaching-learning process. The observation was conducted in the form of audio-video transcription and the field notes.

3.3.1 Audio-video Recording and Transcription

The observation was conducted four times based on the "*Materi Pokok*" in the lesson plan used by the teacher. It was done to gain the talk realized by teacher in the teaching-learning activities. The four session of observation is divided into two different topics. In the first until the third session, the topic discussed is the analytical exposition text. The last session discussed the topic about passive voice. The teacher and student talk were recorded in four meetings since the time allotment for the analytical exposition *materi pokok* was in three class sessions, and one class session for the *materi pokok* of passive voice. The different topic discussed is a mean to see the variety of classroom dynamics with different topics.

Audio-video recording helps the researcher to observe the teaching-learning activities easily. It is useful because it can be played several times and the other experts can also hear and see the phenomena that are observed by the researcher (Fraenkel & Wallen, 2012). The use of audio-video recording provides the verbal behavior and the specific speakers who are involved in the interaction. Therefore, collecting the data through audio-video recording gives the researcher easier way to collect, save, and analyze the data. The recorder was put in the back side of the classroom so that the teacher and students' activities can be recorded clearly. The reason to put the camera in the back side is because the naturalness of teacher talk can be observed. If the camera was taken in movement, it makes the teacher realizes that she/he is being recorded which can also influence the data of the teacher talk. However, the camera was moved just in case the teacher went around the classroom to check the students' progress in doing their tasks.

In the first session, the teacher taught analytical exposition text. This session was the session when students got the new topic. The teacher implemented the whole stages of scientific approach in the first session. However, the students were not really ready of the new topic and it can be seen from the passive students' involvement. In the second session, the teacher split the stage of questioning stage in the middle of the communicating stage. The teacher did this in order to make students more active in classroom activity. The third session is the last session for the topic analytical exposition text. In this session, there were no questioning stage and the students were asked to produce the text in a group. The last session covers the topic about passive voice. This students seemed more active in this classroom session since the teacher gave the topic in the more communicative way.

After observing and documenting the teaching and learning process which focuses on the teacher talk, the classroom talk which has been recorded were transcribed. The oral language that is obtained should be transcribed to gain the detailed descriptions of the data (Heigham & Croker, 2009). Audio-video transcription allows the researcher to analyze the data based on the research problems. The transcription was divided into four parts based on the length of the observation which was in four meetings. The audio-video transcription was first done by writing down the classroom talk realized by teacher and students to see the interaction among them. The data transcriptions were analyzed based on the theory of Systemic Functional Linguistics, particularly the analysis of interpersonal meaning.

3.3.2 Field Notes

While observing what was going on in the classroom, the researcher made the field notes. Using field notes is useful to mark the important things that happen in the place of the research. In conducting observation, the researcher needs to note all the things that occur in the classroom by making the field notes (Heigham & Croker, 2009). Field notes allow the researcher to gain the deep understanding of how teacher leads the teaching-learning activities in the classroom through the stages of scientific approach. In this study, the field note was used to support the primary data, i.e. the audio-video recording and to record the important occurrences in the teaching-learning activities. Therefore, it is clear that field notes can add some necessary information related to the research problems.

3.4 Data Analysis

The data gained from observation was transcribed and analyzed using the analysis of mood system under the theory of SFL. The analysis consists of initiating speech functions (statement, question, offer, and command), responding speech functions (supporting: acknowledgement, answer, acceptance, and compliance; confronting: contradiction, disclaimer, rejection, and refusal). It also involves the analysis of mood types (declarative, interrogative, and imperative) and mood typicality whether it is typical or non-typical. It is used to find out the realization of teacher talk in the classroom discourse.

The data were categorized by following the research questions. The research questions are to describe how speech function is realized by the teacher and to describe the mood typicality chosen by the teacher. Thus, the analysis begins with analyzing the speech function of teacher and student talk in the interaction. The speech function analysis is divided into two categorizes; they are initiating and responding speech function. This analysis was done to see the dominant speech functions produced by teacher. Then, the data were categorized into mood types and typicality. After that, the speech functions produced by teacher are categorized into the stages of scientific approach. It was done to find the realization of teacher talk in the five stages of scientific approach. The result is displayed in the form of tables and diagrams to make it clear. The next step is analyzing and interpreting the meanings behind the result of speech function, mood types, and mood typicality analysis. The examples of spoken language between the teacher and the students are displayed as textual evidence of analyzing and interpreting meaning of mood types chosen.