CHAPTER III

METHODOLOGY OF THE RESEARCH

This section deals with some important aspects related to the methodology of the study covering research design as a plan of what data to gather in this study, data collection as a research instrument term that used to describe a process of preparing and collecting data in this study, research setting and the participants as a site and members in this study, and data analysis as a process for supporting decision making in this study. Moreover, this study used a qualitative design by employing a case study. Four instruments of data collection techniques, namely: documentation of students' argumentative essay, questionnaire, classroom observation and interview were conducted to collect the data and information to answer the research questions.

3.1 Research Design

Since this study investigated the effectiveness of cooperative learning in argumentative essays, to find the effect of cooperative learning method on the students' argumentative essays, the design that used was largely qualitative and descriptive analysis, by implementing some characteristics of a case study. The case study is chosen for several reasons. Firstly, case study is a bounded system or a defined individual or entity within its real-life context that researcher wishes to explore (Meriam 1988; Yin 2003) cited in Hood (2009: 68). It means, the site in

this study was focused to the classroom interaction and all the content features (like classmates, course content, assignment) that intersect with those individuals.

Secondly, case study research means single and multiple case studies, can include quantitative evidence, relies on multiple sources of evidence and benefits from the prior development of theoretical propositions (Yin,1993, Freebody, 2003, Emilia, 2005 as cited in Mulianda 2009:32). It was focused on the case study, it was about the effectiveness of cooperative learning to develop students' argumentative essays. Then in form of quantitative evidences, it was taken three times both for students' texts from their quizzes and students' texts from their group projects, students' opinions, feelings or experiences that analysed by statistical and added by descriptive analysis from questionnaires.

Then, another characteristic, this study used multiple sources of evidence or multiple data collections (Yin, 1993 and Freebody, 2003, Emilia, 2005:74 cited in Mulianda 2009:32) including classroom observation, questionnaires, interviews and students' text. To describe lecturer's understanding of Cooperative learning, this study used interview as a main instrument to collect the data. Meanwhile, to find out kinds of Cooperative learning the four techniques of data collection were used,too. Moreover to draw a picture of students' problem that encountered in argumentative writing, the data gained from questionnaire, classroom observation, interviews, and the students' argumentative writing (Mulianda, 2009:32-33).

3.2 Research Setting and Participants

The research was conducted at a state university in Serang city, exactly at Jl. Jakarta Km.4, Serang city. Basically, there were some reasons about the place of the research. *First*, this university is located in the same town with the researcher's office where she works. This would not give many problems to the researcher to manage the time in doing the research. *Second*, the researcher is the English lecturer in that faculty. This was expected to promote the feasibility of the study in gaining the data. *Third*, since the researcher has been involved in the English teaching in the research site, the result of the study would give valuable information on the students' responses of Cooperative learning method in writing class especially in producing argumentative essays.

The participants of this study were the students of English department from fourth semester of the university. However, considering time, place, funds, energy and efforts, the present study was used the purposive sampling (Alwasilah, 2007:72). It was also a strategy in which particular settings, persons, or events are selected deliberately in order to provide important information that cannot be gotten as well from other choices (Maxwell, 1996:71). Therefore, one class that consisted of 39 students asked as the participants in this study. All of the students were asked to fill the questionnaires. Then, nine students (male and female students) were chosen as the interviewees, they were divided into three levels, they were: low achievers, average achievers and high achievers. The selection was based on in their level in English competence and writing scores started from the

first until the third semester. For confidentiality, throughout the thesis all of the students' names were written in pseudonyms.

3.3 Data Collection Procedure

As stated in the previous paragraph, this study employed a qualitative research and applied several techniques of collecting data which conducted not only as the conclusion of the study but also ongoing way (Fraenkel & Wallen,1993:383). Moreover, this study used four procedures of collecting data including collection the students' argumentative text, classroom observation, interview, and questionnaires. Each technique was elaborated in the following sections.

3.3.1 Documentation of Students' Argumentative Essay

Documentation, according to Alwasilah (2006:155) as cited in Fiftinova (2010:27) is something which is written or documented without deliberately requested by the researchers. Documents analyzed in this study were students' texts. The students' writing as their assignments during the lessons collected and documented to support the data gathered from the interview and questionnaires. This step conducted to see the effectiveness of Cooperative learning to the students' argumentative essays taken from six argumentative texts. Those texts were taken from upper, middle and upper group from the argumentative writing classroom's projects. Moreover they were used in order to answer the second question from the research question. This is also in line with Killer's claim

(1998:85) that Cooperative learning can increase students' depth of understanding of course content by having them explore it and discuss their understanding with other students. Then, the students' texts were analyzed based on Toulmin's Model as proposed by Saito (2010:20).

The students' texts both from individual and group projects were given between May 23rd, 2011 until July 11th, 2011. The specific time for individual projects were conducted on: Monday/ May 23rd, 2011 : Test I (Individual Test); Monday/ June 20th, 2011: Test II (Individual Test); Monday/ July 11th, 2011: Test III (Individual Test). On the other hand, the schedule for group projects were given on: Monday/ June 6th, 2011 Group Project I (Group Project); Monday/June 13th, 2011: Group Project II (Group Project); Monday/ July 4th, 2011: Group Project III (Group Project).

3.3.2 Questionnaires

Questionnaire is one of the way of getting information which is widely used by many researchers. Questionnaire is used to learn about the distribution of characteristics, attitude or beliefs, Raharjo (2009:35). In line to this study, the purpose of giving questionnaire was because the researcher wanted to know about the students' opinions, feelings or experiences in writing class during the research conducting. It was conducted in order to answer the third question and the fourth from the research questions. The questionnaires was open-ended types, in order to allow greater freedom of response (Oppenheim, 1982; Nunan,1992). They were

consisting of 20 questions and also by putting mark of categories, 1: Strongly

Disagree, 2: Disagree, 3: Uncertain, 4: Agree, 5: Strongly Agree. Moreover, those

questions about students' opinions, feelings or experiences were evaluated by

statistical intrerpreted and also strengthen by descriptive explanation.

3.3.3 Classroom Observation

The observation was needed to get more information directly from the

classroom respondents. Through the process of classroom observation, the

researcher investigated how the students implement the cooperative learning

strategies in doing their argumentative writing projects with their team. Moreover,

the activities observed were students' interaction when they shared their

understanding of the projects given, checking for understanding, discussing

concepts being learned, and connecting present with past learning. For each

activities were structured into group task directions and procedures.

The classroom observation was conducted eighteen times or in two months

started from May 23rd – July 11th , 2011. It was conducted by writing

phenomenons that proved to the first research question, i.e. the chances of

implementing cooperative learning principles in writing class and the second

research questions, i.e. the problems that commonly occurs when the students

make the argumentative writing. This is in line with Frankel&Wallen, (2002:384)

as cited in Abdulmanan, (2008: 31) who propose that certain kinds of research

questions can be answered by observing how people act and how things look.

Then, each observation lasted 80 minutes (2x 40 minutes). In the classroom

observations, the researcher played a role as non-participant observer, to investigate what were done and what were said by participants, the students, during teaching argumentative essays.

To obtain a clear picture of the activities in each classroom observation, video-taping and photos of classroom activity were carried out. Video-taping and photos of classroom activity were helpful for the researcher to describe the class and record her reflection. The used of reflection in this parts means that the researcher wanted to know whether the students' activities in their group followed the principles of cooperative learning's principles. And also, the researcher took recording observation notes during classroom activities after each section and joined it with video-taping and photos. This is in line with Van Lier, (1988:241) as cited in Suzanna (2008: 34) that . the memory of the observation is still fresh.

3.3.4 Interview

Interview is one of the data collection techniques in this research. It was used to obtain specific information or very useful data when we could not gain the data about people's feelings or opinions which are not accessible through observation, as suggests by Maxwell (1996) and Merriam (1998) as cited in Werimona (2010). These could provide additional information that probably missed in observation and could not used to check the accuracy of the observation.

Then, interview with the students were conducted to answer the second and the fourth research questions. The interview was conducted in *Bahasa Indonesia* which were intended to obtain clear understanding what was uttered by the participants. The interviews was conducted individually by using semi-structured interview due to the researcher might be flexible to extant the questions. It was in line with Marriem (1988:73) that the questions of semi structured interview are more flexible worded. Then, the interview was given to the students as the participants in this research one time and conducted after the teaching-learning process ended. The questions that given were about the technique that commonly used by the lecturer in teaching writing, problems that commonly encountered by the students in producing the argumentative writing and also the steps of lecturer in giving the writing materials especially argumentative writing. It was held involving students represented the low, average and high achievers students from individual quizzes and three students represented the low, average and high achievers students from group projects .

3.4 Data Analysis

In this research, data analysis was carried out during and after data collection. It was conducted simultaneously with ongoing activities related to investigating the cooperative learning to develop the students' argumentative essay. In order to gain valid data, the triangulation data was used because of to attempt to get a 'true' fix on a situation by combining different findings in terms

of documentation of students' argumentative text, class room observation, interview and questionnaires.

3.4.1 Documentation of students' text

Students' written texts were collected both from individual texts and group projects. Then they were analyzed to reveal the students' argumentative essays. All students' texts were taken from the individual quizzes and group projects and analyzed by using discourse analysis. In the analysis the of students' argumentative essay, the Toulmin's Model was applied. The Toulmin's Model was used to assess, to teach, and study both debate and argumentative writing. This model was also used to analyse the writing of unskilled writers and they presented the basic argument, too. It is in line with Yeh (1998) in Saito (2010:20). The argument's claim, reasons, and evidence, and to evaluate the effectiveness of them were identified by using The Toulmin's Model, as suggested by Connor (1996)., Yeh (1988) in Saito (2010:20).

3.4.2 Questionnaires

Questionnaires in form of closed-response items was used to identify and classify students' need, preference and the results were used as the guideline in developing the students' argumentative essay. The questionnaires were consist of 20 questions that divided into two parts. First part was about response in learning English and the second part was about cooperative learning. And also in the

questionnaires consist of five categories they were, 1: Strongly Disagree, 2: Disagree, 3: Uncertain, 4: Agree, 5: Strongly Agree The answers of questionnaires in form of closed-response items was analyzed by using statistical analysis. It is intended to identify and classify the effectiveness of cooperative learning to develop students' argumentative writing.

3.4.3 Classroom observations

The analysis of data from the observation conducted was also carried during the data collection. One of the considerations was in order to answer the first and the second question from research questions. Having finished conducting the research, the video recording of the lessons were watched for many times and analysed. It was intended to get deeper information and clearer picture to answer the first and the second research questions. With reference to the first research question, observation was done by taking notes of the effectiveness of cooperative learning to develop students' argumentative writing. Moreover, all notes about to find out the students progress in argumentative writing through observations were interpreted.

In line with the first and the second research question, the data from the observation was analyzed by following several steps. *First*, all of the notes concerning the teaching and learning activities in developing students' argumentative writing were transcribed. *Second*, the transcribed data categorized based on the themes. *Third*, the categorize data were interpreted to answer the

research questions. Additionally, the activities to see the investigation of effectiveness of cooperative learning to develop students' argumentative writing was summarizing. Finally, the data were interpreted based on the principles of cooperative learning.

3.4.4 Interview

Interview with the students as the participants was conducted in this research. This is intended in order to identify kinds of cooperative learning to develop students' argumentative essay. Interviewing the students was conducted at the end of teaching learning process. This was done in order to know the students progress and the activities that potentially led to investigation of cooperative learning to develop students' argumentative writing.

The results of interview were categorized and transcribed into each theme. The results of these interviews was interpreted and described to support the findings for the second research question. Moreover, the validity of data from interview was obtained through member checking. The researcher transcribed the interviews result and it was shown to the participants to check whether the transcriptions match with what they mean. This was intended to clarify the results of interview and minimized bias and avoid misinterpretation to respondent when being interview. Moreover, interview were particularly useful for getting the story behind a participant's experiences. Since the interviewer can purse in-depth information around the topics.

3.5 Concluding Remark

A discussion of methodology has been present in the previous section including the research question, research design, research site and participants, data collection, and data analyses. Concerning the research questions, elicited data through four kinds of instruments: interview, observation, questionnaire and students' texts were analysed. The data collected were analyzed and validated through triangulation process to answer the research questions. Finally, the data as the findings of this study were interpreted. Then, based on the findings of this study, conclusions, proposed suggestions and recommendation for the further study were given.