

CHAPTER III

METHODOLOGY

This chapter presents the methodology used in this study that comprises research design and method, research setting, research participants, data collections, and data analysis. This chapter is ended with conclusion.

3.1 Research Design and Method

The study employed a qualitative design since the characteristics of the present study coincided with the qualitative design said by Holliday (2005, p. 5), Cohen et al (2007, p. 461), and Silverman (2005, p. 10). First, this study was intended to interpret the phenomena as supported by Holliday (2005, p. 5) who argued that the mystery of people and realities of research setting can only be revealed superficially by interpreting which attempt to make sense. Second, the study worked with a small number of cases (Silverman, 2005, p. 9) and the obtained data in this study were elaborated and written in a descriptive narrative (Cohen *et al*, 2007, p. 461). Third, this study utilized interview to get closer and to provide a deeper understanding of the object phenomena (Silverman (2005, p. 10).

Meanwhile, the method used in this study was a case study. The present study exemplifies the characteristics of a case study as explained by Cohen et al (2007, p. 253). First, the study concerns a rich description of case investigated in this study. Second, a chronological narrative of case events is provided in this study. Third, this study attempts to portray the richness of a case in a writing report (*ibid*).

3.2 Research Setting

The research was carried out at the English Department of a private university in Ciamis -West Java, Indonesia. It is the only department in this private university whose graduates are prepared to become English teachers.

There were several reasons why this research site, at tertiary level, was chosen. First, the researcher has been familiar with the institution where the

research was carried out. It showed that the researcher's accessibility to the institution provides the ultimate chance for researchers to demonstrate their skill of serious investigators and show their own ethical position with respect to their intended research (Cohen et al, 2007, p. 55). Moreover, Emilia (2005, p. 73) claimed that the familiarity between the researcher and the situation led to a more natural conduct of research, that it avoided any students' unnatural behavior performances; despite their awareness of the study and the fact that the class was set up for the purpose of research.

Second, the researcher decided it on the basis of relevance (Van Lier, 1988, p. 11; Cohen et al, 2007, p. 55). The relevance was also on the basis of framework which needed the English as Foreign Language (EFL). The availability of EFL in this institution provided the researcher the development of students' language, in particular, writing a type of argumentative genre: exposition text. This genre was required to be taught in this level since much of academic writing had to be presented in argumentative essay (Chaffee et al, 2002, p. 39; Fahim & Hastroodi, 2012). Since argumentative genre needed higher order thinking or critical thinking ability, the students were expected to think more conceptually, to write more analytically, and to read more critically (Chaffee et al, 2002, p. 4).

The last reason was that the inclusion of critical thinking in writing, at tertiary level, will create a new generation with adequate "critical consciousness" (Shor, 1993, p. 31). Since the world always keeps changing, the impact of this study to the institution, in particular, critical thinking in general, is hoped that students were prepared to be surviving in the future. This was relevant to the current 21st century skill and the modern work environment which needs critical thinking ability (Alwasilah, 2004, p. 165; Hirose, 1992, p.1; Suherdi, 2012, p. 18).

3.3 Research Participants

Participants of the research were six semester eight students of English Department of Education in a private university of Ciamis, who had accomplished the subject of writing (Writing I to IV). They were between 21-22 years of age.

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Participants of the research were chosen because of accessibility as Van Lier (1988).

Participants of the study were determined purposively in the research. It was done by choosing certain individuals who were considered giving the adequate data as suggested by Sugiyono (2005, p. 54). Further, six students were chosen based on their GPA (IPK/ *Indeks Prestasi Kumulatif*) rather than gender: two students were from low achiever (GPA<3), two students were from mid achiever (GPA 3-3.5), and two students were from high achievers (GPA> 3.5). This was employed because critical thinking was supported by the intelligence which was in line with what was said by Wade & Tavis (2007, p. xxix).

3.4 Data Collections

The study utilized several techniques in collecting the data, among others, text document of students' exposition texts and interviews. Writing prompt was provided to collect students' exposition texts. Regarding interview, a set of questionnaires was employed to obtain the data. They will be illustrated separately in the following sections.

3.4.1 Text Document of Students' Exposition Texts

Text document of students' exposition texts were analyzed to find out elements of critical thinking demonstrated by students in writing exposition text. It was conducted by asking the students to write an exposition text. In this case, the students were given a chance to choose one of the topics given by researcher (the topic of Internet and Corrupts were preferable) based on controversial issues because they were effective to trigger student's critical thinking as claimed by Chaffee *et al* (2002). The chosen topic on writing prompt was rather similar to Flores (2007), Fahim & Hashtroodi (2012, p. 635), Jantrasakul (2012, p. 30), and Samanhudi (2011) as can be seen below.

Write an exposition text which consists of 3-4 paragraphs (750 words) on a controversial issue with any topic of your choice below. Topics are as follows:

- 1. Corrupts (Corrupts should be given the death penalty)*

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2. *Global Warming (Automobiles should be limited for reducing global warming)*
3. *Internet (Parents should control the use of internet by teenagers)*
4. *Cell phones (Cell phones should be banned in school).*

The topics above were “traditionally controversial in nature” (Samanhudi, 2011; Fahim & Hastroodi, 2012). They pertained to “highly capable of arousing controversy and no answers can be held 100% correct or 100 % wrong for these types of disputatious issues.” (<http://www.publishyourarticles.net/knowledge-hub/essay/135-most-controversial-essay-topics.html>). Although these issues were supposed to be in question form (see Chapter II, Section 2.2), they have already been given in a positive statement to simplify the process of writing and to assist the students when developing the ideas.

Furthermore, there were three reasons why these topics were chosen. First, corruption case was a public issue in Indonesia nowadays so that it always becomes a hot topic in every information media of Indonesia. Second, global warming has become a big concern for all people in the world since it has contributed to the damage of the earth. Third, internet and cell-phones were considered as means of communication for all people in the world which may provide danger or benefits for mankind. Overall, the topics mentioned above were adopted for they were considered controversial. Before writing process, the students were informed to compose the written exposition text in 60 minutes without any interference and direction.

Subsequently, the students’ essays were documented as proposed by many experts such as Cohen et al (2007), McMilan & Schumacher (2001), Sugiyono (2005), and Wallace (2001). These six essays were selected and collected based on the number of selected respondents (see 3.4 Research Participants). Evidently, in order to answer the first research question; to find out the elements of critical thinking demonstrated by students, these exposition texts were then analyzed by utilizing the elements of critical thinking proposed by experts: Chaffee et al (2002), Ennis, (1996), and Reichenbach (2001). This analysis was believed to be a mean to foster students’ critical thinking.

3.4.2 Interview

In this study, a semi-structured interview was utilized in order to get a comprehensive answer from participants (Emilia, 2005; Kvale, 1996, p. 5). It was used for two reasons: (1) it allowed the sequence of themes and suggested questions to be covered; and (2) in order to evaluate the answer and the story conveyed, it was permitted that an openness to changes of sequence and forms of questions at the same time (Kvale, 1996, p. 124).

The questions were leading questions which should link to the central theme of the research and were guided by theory (Cohen et al, 2007; Kvale, 1996, p. 158). The reason was that the leading questions were aimed at verifying the interviewer's interpretation and enhancing the reliability of the interviewee's answer (see the questions of interview in Appendix 6). In addition, interview questions were tried out first to make sure that the questions were not ambiguous (Emilia, 2011, p. 10; Kvale 1996).

Subsequently, questions asked in individual interview lasted about 10- 15 minutes or less than one hour as exemplified by Kvale (1996, p. 136). For this reason, the questions in the interview consisted of seven questions (see Appendix 6). Another reason was that it was in line with Gleshne & Peshkin (Alwasilah, 2011, p. 157) who argued that less than one hour interview would suffice. In conjunction to confirm that the information linked to what was meant by interviewee and to give the chance for interviewee to say "*I didn't mean that*" (Kvale, 1996, p. 189), the transcription of interview was given back to the interviewees.

In order to make the interview interaction and questions were available for public scrutiny (Kvale, 1996, p. 24), the interview was recorded and transcribed which resulted in a written text. Kvale said further that the written text was a material for interpreting of meaning (1996, p. 27).

3.4.3 Triangulation

After collecting and analyzing the data, triangulation was used to test validity and to maintain the reliability as proposed by Alwasilah (2000), Cohen et al (2007),

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Maxwell (1996, 93), and Sugiono (2005). In this case, triangulation of the research used two resources of data: students' document texts and interview as proposed by Cohen et al (2007) and Maxwell (1996). With regards to interview, the transcriptions were written more verbatim to ascertain the validity (Kvale, 1996, p. 163) and were checked three times to maintain reliability (p. 166). In addition, transcriptions were given back to the students in order to match between what was said and what was written, and to give opportunity for the students to say "I did not mean it" (Kvale, 1996, p. 189).

3.5 Data Analysis

In this study, the data analysis was conducted before the research took place (secondary data) as stated by Heaton (2004) such as the previous research data. The previous research data was utilized because the present study had to be carried out based on the preceding research. Meanwhile, students' writing samples and interview data were preceded through systematic series of analysis which were based on the purpose of the study; so that it fulfilled the conformity of the purpose (Cohen et al, 2007, p. 461). Accordingly, the intended systematic series of analysis included "coding and categorizing until theory emerged that explains the phenomena being studied".

As previously mentioned in Section 3.5, the data collections of this study consisted of text document and interview. Therefore, the following section will present the analysis of students' exposition texts and interviews. The former, it was analyzed by using critical thinking theory. The latter, it was analyzed through transcribing, categorizing and coding, condensing, and interpreting (Kvale, 1996; Miles & Huberman as cited in Cohen et al, 2007, p. 470; Sugiono, 2005, p. 91; Alwasilah, 2000, p. 113).

3.5.1 Analyzing Students' Exposition Texts

Students' exposition texts were displayed into table to be analyzed as suggested by Maxwell (1996, p. 79), Miles & Huberman (1994), and Silverman (2005, p. 178). The analysis of students' essays could reveal the ability of students' critical

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thinking (Fraenkel & Wallen, 2007, p. 483). In this study, the analyses of students' argumentative essays were divided into three steps: categorizing, coding, identifying and evaluating (judging) the elements of critical thinking reflected in students' argumentative essays, and evaluating their critical thinking standards and dispositions as claimed by Chaffee et al (2002) and Ennis (1996). These essays were categorized and coded into low, middle, and high achievement. It was conducted to understand the participants' categories (Alwasilah, 2000, p. 113), as well as the representation of their performances on critical thinking capacity.

Subsequently, the obtained data which were the representation of three levels of achievement: low achiever (Rani), mid achiever (Sofi), and high achiever (Rihana), were analyzed. The data were then evaluated by using the theory of argumentative essay and exposition text as stated in Chapter II, Section 2.10 Argumentative Essay and Section 2.11 Exposition Text. It might be that the data was an expected result because the students have produced proper exposition texts, i.e. the texts conformed to its generic structure.

By utilizing the theory of critical thinking as proposed by many experts (see Chapter II, Literature Review), the assessment was conducted. It was valuable for identifying the elements of critical thinking reflected in students' exposition texts written by low, mid, and high achiever students (see Chapter IV, Section 4.1.1, Section 4.1.2, and Section 4.1.3). The next step was judging those elements of critical thinking by using the critical thinking theory adapted from Reichenbach (2001), Ennis (1996), and Chaffee et al (2002) to judge its relevance, strengths and weaknesses. The reason was that these elements of critical thinking were common in almost all good writing, especially, exposition text as a type of argumentative essay.

The other step was judging the pattern of deductive reasoning and a few of the most common informal fallacies in all texts collected in this study. Although there were other criteria for evaluating arguments, it was decided to focus on these because of their simplicity, transferability among other disciplines, and use in constructing arguments. Moreover, "most students have little trouble with these"

(Hatcher, 1999, p. 173) that arrives at illogical or unsound argument (Zifana et al, 2014, p. 175).

With regards to elements of critical thinking, students were also able to offer these elements in their writing. Based on three major elements of exposition text (*thesis element, arguments, and restatement of thesis element*), they produced elements of critical thinking in their texts (see Table 4.1, 4.2, and 4.3). Others elements were also included in these three elements of exposition texts such as evidence, reason and conclusion. Moreover, the various statements of the texts produced by students indicated element of critical thinking which were also essential. These statements were students' opinions or assertions to express their beliefs about the world (Reichenbach, 2001, p. 38). It could be that they were able to reflect their critical thinking capacity despite the fact that their arguments were not sound. This implied that students' critical thinking standards and dispositions are still underdeveloped.

As aforementioned in chapter II that the elements of critical thinking should be supported by critical thinking standards (Chaffee et al, 2002, p. 469; Emilia, 2005, p. 25; Paul & Elder 2007, p. 21). They comprised *clarity, logical and relevance, accuracy, and precision* (see Chapter II, Section 2.3 Critical Thinking Standards). Based on the students' texts, the elements of critical thinking which were not supported by critical thinking standards emerged. These led to a dangerous argument or fallacies that were also demonstrated by students.

Consequently, their argumentative essays were far from a sound argument as previously mentioned. This unexpected result arose from illogical reasoning. This type of false reasoning (pseudo reasoning) was often called fallacies: arguments that were not sound because the reasoning had various errors (Chaffee et al, 2002, p. 504; see also Chapter II, Section 2.5 Fallacies). This term of fallacy was to be one of the aspects of critical thinking assessment. The purpose was to find out the types of fallacy demonstrated in students' exposition texts, among other things, equivocation and amphiboly, and fallacy of deductive reasoning. These were also to be the focus of critical thinking assessment: identifying and judging the logical reasoning.

Evidently, students' texts were analyzed and put in rubrics. To follow Samanhudi (2010), these texts were given some corrections, without changing the ideas of the text, which were given in the bracket. This was done to make it easy to be understood. The first document text was written by low achiever, namely, Rani; the second document text was written by mid achiever, namely, Sofi; and the third document text was written by high achiever, namely, Rihana. The name of students was written under pseudonym.

The explanation above shows that although there are other criteria for evaluating critical thinking, it was decided to focus on issue, thesis, argument, reason, evidence, opinion, pattern of deductive and inductive reasoning, and fallacies (see Chapter II, Literature Review). The critical thinking standards must also be applied in evaluating these elements of critical thinking. The reason was to develop intellectual traits, in particular, confidence in reason (Paul & Elder, 2007, p. 17). However, students' critical thinking standards that were reflected in their arguments still need improvement.

Students' critical thinking dispositions were also evaluated. According to Ennis (1996, p. xviii), dispositions in writing referred to being clear about what is written, thought, and said (see Chapter II, Section 2.4 Critical Thinking Disposition). Of course, it had to link with the argumentative essay theory (see Chapter II, Section 2.10 Argumentative Essay). Therefore, to follow Emilia (2005, p. 85), the texts were then evaluated in terms of the schematic structure, organization and purpose, and how well each element performed its function in the text. Although it did not link significantly between the students' interviews and their exposition texts in term of critical thinking dispositions, the students have demonstrated their critical thinking dispositions in their exposition texts.

Students' critical thinking dispositions were indicated by their intention to act and think in certain way at the right time with the right activity (Alwasilah, 2004, p. 165; Ennis, 1996, p. 9; Reichenbach, 2001, p. 14; Ritchart & Perkins, 2005, p. 785; see Chapter II, Section 2.4 Critical Thinking Dispositions). It indicated that students comprehended the writing prompt which was given by the researcher; then, they wrote an argumentative essay directly with the type of

exposition text in a proper fashion. In addition, they were also disposed to state a position, and to offer evidence, reason, and conclusion (Reichenbach, 2001; Ennis, 1996, p. 9, Paul & Elder, 2007, and Ritchart & Perkins, 2005, p. 785). Among those dispositions mentioned above, it was unfortunate that they were not disposed to be well-informed (Reichenbach, 2001; Ennis, 1996, p. 9, Paul & Elder, 2007, and Ritchart & Perkins, 2005, p. 785). The reasons were that the texts still lack sound argument and the frequent use of fallacies occurred. It indicated that they required improvement in learning and producing a sound argument.

As previous mentioned, the text was interpreted and displayed as a whole text that can be seen in Table 4.1, Table 4.2, and Table 4.3. The next section will elaborate how interview data was analyzed.

3.5.2 Analyzing Interview Data

As a second data collection of this study, the recorded interviews were then analyzed in several steps: transcribing, categorizing and coding, condensing, and interpreting (Kvale, 1996).

First, the recorded interview was transcribed to render an incomplete account of meanings which were expressed in the lived interview situation (Kvale, 1996, p. 50). During transcribing, names of participants were written under pseudonym as aforementioned. This was done to guarantee the objectivity of the researcher in analyzing the further data (Kvale, 1996). Then, transcriptions were sent back to the participants so that the transcriptions were the same as what were said by the participants.

Second, the transcriptions were categorized and coded into the theme of the research or central themes and based on the formulated research question. This categorization was based on the existed theory or built inductively (Alwasilah, 2000); that was the critical thinking theory and argumentative theory. Coding was also conducted consistently for the equal phenomenon in order to define what the data were about (Alwasilah, 2000; Charmaz, 2006, p. 43 in Liamputtong, 2009, p. 278; Kvale, 1996). After they were categorized and coded, the next step was condensation (Kvale, 1996; Miles & Huberman, 1984; Parlet & Hamilton,

1976, as cited in Cohen et al, 2007, p. 462). An extended process of clarification and condensation might be necessary to arrive at the meanings intended by the interviewee (Kvale, 1996, p. 50).

Third, interpretation was employed to re-contextualize the statement within broader frames of references that might be provided by the entire interview or by theory (Kvale, 1996, p. 193). In addition, it was to compare with the background of the study (see Chapter I, Section 1.1 Background of the Study).

Fourth, the result of interview analysis through transcribing, categorizing and coding, condensing, and interpreting was written and displayed individually (see Appendix 7, Appendix 8, Appendix 9, and Appendix 10). This result of interview analysis became the primary data of this study. The further step was to present and discuss this result of interview data that will be elaborated in the forthcoming Chapter IV, Data Presentation and Discussion.

3.6 Conclusion

This chapter has explained the aspects of methodology which were fully implemented through justified methods. Those aspects of methodology embraced research design, research setting, research participants, data collections, and data analysis. The forthcoming chapter consists of findings which were resulted from texts document of students' exposition texts and interviews.