

CHAPTER III

METHODOLOGY

This chapter presents the methodology outlines that include research site and participants, research design, and data collection techniques. Data collection techniques cover the participant observations, the collections of students email and the use of questionnaires. The methodology is in line with the literature review in chapter two. As it was mentioned, the purpose of this study is to investigate the implementation of blended learning in the students' writing improvement in EFL writing class through ePals.com between high school students in Indonesia and America. The final part of this chapter is the methodology on how the data are analyzed.

1.1 Research Site and Participants

The research took place in a suburban school in Bandung involving 21 year 10 students with different levels of English proficiency. The ages of the participants were between 15 - 16 years-old. Their mother tongue is Bahasa Indonesia. In this school, the students are encouraged to use English for their daily communication. As one of the measures to use English as their way of communication, the students were encouraged to have a contact with English native speakers in a project. In this study the project was designed in their writing class as one of the attempts to practice their communication in written form for their real life learning. The EFL writing class consists of 11 female students and 10 male students. They were all paired randomly by the teachers from both countries for emails exchanges.

Based on Indonesian English language syllabus in curriculum 2004, year 10 students have to be able to write emails. The syllabus stated that “*students should be able to write various texts for daily communication such as email*” and “*expressing the nuance of meaning with the proper rhetorical development in written text such as descriptive, ...*” (curriculum 2004, Competence Standard for English language in high school). To follow the curriculum, the syllabus for year 10 was made by the teacher in the beginning of the academic year. Email writing as language competence has been set with the help of text book as supporting materials. The topic in the text book was about Global warming for the language competence aforementioned (see Appendix 1).

The description of the teaching program will be discussed further in Chapter 4. The syllabus and curriculum are the reasons for selecting the group participants.

1.2 Research Design

This research encompasses the characteristics of a qualitative case study. This case study is concerned with a single case that deals with development of language competence of small group of individuals in the implementation of blended learning (Brown & Rodgers, 2002). The focus of the case study was writing development on a single high school group of year 10 students who worked on ePals.com project (Burns, 1994). By employing case study, this study obtained a thick descriptions (Dornyei, 2007), rich and in-depth insights (McMillan & Schumacher, 2001) of issues involved in the blended learning.

In addition, like other qualitative research, this study is also characterized by the nature of the data that were originated from various sources of data, including participants observation, students text (emails) and questionnaires (Kvale, 1996; Nunan, 1992; Frankel, 2007 & Alwasilah, 2009). The design of most case studies are discovering and presenting the findings about the unrecognized insight in connection with the design of qualitative research (Brown & Rodgers, 2002). Qualitative research is concerned with the subjective interpretation of the findings based on the data collections. Each data collection will be elaborated in the next section.

1.3 Data Collection Techniques

As mentioned above, the study used three data collection techniques (McMillan & Schumacher, 2001) including participants observations, email (text) collections and questionnaires. The participant observations were conducted by the teacher who acted as a participant observer. The observations were conducted in 6 weeks including pre-teaching program, conducting the program and post teaching program. After each observation, a field note was made immediately to maintain a chain of evidence in anecdotal record for validation (Fraenkle & Wallen, 2008). Furthermore, the teachers' emails were also complementary data to support the field notes.

The second data collection technique was email collections (Burns, 1994; Cresswell, 2008). The students' emails were documented as evidence along the teaching programs for 6 weeks.

Students' emails were collected to find out the students writing development in terms of the use of language and organizational features of email (based on ePals rubric). The use of language and organizational features include organization, clarity, word choice and mechanic (see Appendix 2).

The emails were selected based on sampling strategy using intensity sampling (Duff, 2008; Coyna, 1997; Patton, 1990) which means that the students' email texts were selected based on high-achievers (HA), medium-achievers (MA) and low-achievers (LA). The category of the low achievers students was taken from the highest and the lowest score for the high and low-achievers and the average score for the medium-achievers students.

The email analysis covered the analysis of language production and Systemic Functional Grammar (SFG). The first analysis is the language production that employed word count which is considered as part of the supporting analysis on writing improvement (Egbert, 2005; Swine and Lapkin 1995 in Claro, 2008, p. 5). However, the second analysis on SFG employed detail text analysis on transitivity and mood (Eggs, 1994; Eggs and Slade, 2007) which are not as many as the analysis of language production. The second text analysis involves one representative of each category (HA, MA, LA) because the texts were analysed qualitatively to investigate the complexity of process types and interpersonal relation between partners.

The final data collection technique was a set of questionnaires aimed at identifying students' experience during the project activity. The questionnaires were given to both Indonesian and American students to find out their opinions about the teaching program. The teaching program will be discussed in Chapter 4. In this study, the questions were set up to elicit reactions and attitude (Cresswell, 2008) towards the blended learning.

The questionnaires for both research participants were in different forms; open-ended questions for American students and Likert scale questions for Indonesian students. The reason for choosing different types of questions was the focus was different for each group participant. The questions for Indonesian students focused on the writing development and for American students focused on the topic and problems during the teaching program. However, both questionnaires are aimed to find out their opinion and fact about the project. All data aforementioned were

triangulated to enhance the validity of the conclusion and to make sure that all the data tend to come to the same conclusions.

All data analysis will be discussed further in Chapter 4 and 5. Chapter 4 will mainly rely on the field notes and questionnaires because the chapter will discuss the teaching program. Chapter 5 will discuss the development of students' writing ability which mainly relies on the text analysis using the Systemic Functional Grammar. Although each chapter has main data resources, all the types of data in this study are basically required to support the objectives of this study.

1.4 Data Analysis

Data from observation were analysed and referred to the implication of Blended Learning to the lavish description in ways how the class could get the benefit from. All the data collections such as participant observations, students' email collections and questionnaires were analysed. Before all the data were analysed, they were transcribed, collected and organized.

1.4.1 Participant Observations

All the data from observations were transcribed in a condensed version and analysed. In the 6-week teaching program, the researcher, who acted as an observer (McMillan & Schumacher, 2001), wrote the results of participants observations which were called field notes. The field notes consist of descriptive and reflective issues (Fraenkle & Wallen, 2008). This division of filed notes enable the researcher to spot the any required data to support the teaching program overview in Chapter 4 and findings in Chapter 5. Chronological events, reconstruction of the dialogues and depiction of activities were transcribed in descriptive field notes meanwhile reflection of analysis and impressions of the researcher were transcribed in reflective field notes (Patton, 1990; Fraenkle & Wallen, 2008). The field notes then synchronised with the teachers' email because it contained the evidence of new plans for each session, reports from the ongoing activities and comments on the teaching programs.

The descriptive and reflective field notes exhibit the data organization of the participants observations which had to be done on the ongoing process (Fraenkle & Wallen, 2008). As it was mentioned above about the chronological events in descriptive field notes, all the participant

observations were written in chronological order starting from email #1, email # 2, email # 3 and email # 4. All the participants observations were dated based on sessions and topics (see Chapter 2 Section 2.3). All the descriptive data were coordinated with each session on the teaching program overview in Chapter 4. One example of the reflective field notes were as simple as when the American teacher wrote the email without writing the opening remark. He just wrote her name without 'Dear ...' to the researcher. The impression was a question whether the way he wrote an email as an English native speaker was acceptable.

In conclusion, recording descriptive and reflective field notes were ways to analyse the data that gave more information to the teaching program overview in Chapter 4. Most of the teaching program data were mainly derived from participant observation and questionnaires.

1.4.2 Collection of Students' Email

The second data is students' emails which were analysed using Systemic Functional Grammar (SFG) (Halliday, 1994; Eggins, 1994; Kress, 2003; Emilia, 2005; Eggins & Slade, 2007). Email collections were analysed in four steps; categorizing, organizing, coding, analyzing schematic structure and analyzing the linguistic features; the theme, the transitivity and the mood.





Before the analysis, the students' emails were categorised into high, medium and low-achievers. The emails from each group were taken as an intensity sampling (Duff, 2008; Patton, 1990) that represents the three groups aforementioned. This attempt was taken due to the large number of data as Miles & Huberman (1994) suggested that the study should apply data reduction. To illustrate this, the number of emails was technically 21 pairs of emails for four sessions. It means that each pair has eight emails so that the total number of emails is 168 emails. Consequently, the data reduction was needed.

As mention in Section 3.3, the analysis employed word count for language production and SFG analysis. The email collection for SFG analysis consisted of a set of 4 emails representing HA, MA and LA categories. So, the numbers of emails for SFG analysis were 12 emails. However, In language production analysis, the sample of the students text were 9 sets of emails representing the category aforementioned (HA, MA, LA) to provide credible results (MacMillan & Schumacher, 2001, p. 177) in language production. Thus, each category had 4 sets of emails

based on 4-session teachings. The total numbers of email analysis in language production were 72 emails.

The samples of students' emails were organised by pairing the emails after data reduction. The aim of pairing the emails is to identify the interaction between students. The interaction is needed in the mood of SFG analysis. The emails were paired as follows:

Table 3.1 Email Pairing

Email # 1 home		Email # 1 partner	Identifying interaction
Email # 2 home		Email # 2 partner	
Email # 3 home		Email # 3 partner	
Email # 4 home		Email # 4 partner	

Notes:

This table identifies horizontal home and partners email pairing in red arrows and the diagonal home and partners email pairing. The objective of pairing is to see the connection between emails #1 from home (Indonesian) with email # 1 partner (English) and so on. Then, since email #1 from partner will be connected two email # 2 from home (Indonesia) and follows the same pattern. In short, all the emails were connected from the first to the last email.

The next step of email analysis is coding. In this study, the coding of the data are the codes for participants over the selected emails based on the category aforementioned to protect the privacy of the individual and to identify the identity of the data (Fraenkel & Wallen, 2008). The coding for the intensity sampling is presented in Table 3.2. The second purpose of coding is to comply with the *Provalis QDA miner* software when analysing the email text using SFG that will be discussed further in SFG analysis.

Table 3.2 Coding of the email collection

Students	Email #1	Email #2	Email #3	Email #4
High-achievers1	HA1E1INA	HA1E2INA	HA1E3INA	HA1E4INA
PARTNER	NS11E1USA	NS1E2USA	NS1E3USA	NS1E4USA
Mid-achievers1	MA1E1INA	MA1E2INA	MA1E3INA	MA1E4INA
PARTNER	NS15E1 USA	NS15E2USA	NS15E3 USA	NS15E4 USA
Low-achievers1	LA1E1INA	LA1E2INA	LA1E3INA	LA1E4INA
PARTNER	NS21E1USA	NS21E2USA	NS21E3 USA	NS21E4 USA

Notes on data coding:

HA1 – High Achiever student

MA1 – Medium Achiever student

LA1 – Low Achiever student

E – Represents email and the number after E means the order of email (E3 – third email)

INA –Indonesia Student

NS – Native Speaker partner coding

USA – American students

The number following HA, MA, LA and NS is the code based on the name list

All the coded data then were analysed specifically to follow experts in SFG on the schematic structure of email and its linguistic features of the emails. The schematic structure of email was mentioned in Chapter 2 Section 2.6.3. The schematic structure of emails can be seen from the display of selected students email. It can be seen whether or not the students applied the rules of email structure such as greetings, body of the message; opening and closing framers and farewell (Crystal, 2006; Don, 2007). The students' emails were also marked based on the rubrics (see Appendix 2) that focus on the schematic structure e.g., the rubric for the highest mark stated that the “*Paragraphs are detailed and well-developed. Transitions between paragraphs make language flow naturally. Whole email is effectively structured.*” (ePals.com rubrics, http://www.epals.com/projects/info.aspx?DivID=CActivity_Rubric)

The students' texts were analysed using Systemic Functional Grammar (SFG) that presents three linguistic features of the emails as texts; theme system, transitivity and mood (Halliday, 1994; Eggins, 1994). However, the linguistic features for the analysis in this study were transitivity and mood. The theme system was not used due to characteristic of email language which was not like a composition, more like a ideologue. The text analysis using Systemic Functional Grammar (SFG) was assisted by *Provalis QDA miner* software for Transitivity and Mood. This software requires coding for its analysis to be automatically calculated. The codes for transitivity are the process types such as material, mental, verbal, behavioural, relational and existential. The codes for mood were taken from pattern of clause types, mood types and modality such as incomplete clause, declaratives, imperatives, interrogative-wh, interrogative pollar, minor clause, modalities-modalisation, modalities-modulation and adjunct.

At this stage, the second research question i.e., related to the students' responses to teaching program, has been answered by means of the analysis of students' email writing with respect to the teaching and learning activities.

1.4.3 Questionnaires

The students' and teacher's responses were displayed from the questionnaires of all the selected participants. The responses were about their attitude to the teaching program. The model of the response from the participants was adapted from the research about Madrasah students' attitude to school life. (Ali, Kos, Letz, Nugroho, Furqon, Zainul, & Emilia, 2011).

This study analysed the questionnaires to gain more information related to the responses as they were displayed to answer the research question. The questionnaires were given to both participants; Indonesians and Americans who were expected to identify their experience of learning how to write emails in the blended learning. The information from questionnaires was later incorporated to see the connection of their writing development process during the four sessions in blended learning. The questionnaires for Indonesian students were a Likert-scale-type and the open-ended questions for the American. The questionnaires in Likert scale will be further be analysed and interpret in Chapter 4 and 5. The following is the pre-analysis of the questionnaires for Indonesian student:

Table 3.3 Indonesian students' responses on ePals project

Following are several questions about Indonesian students response on the blended learning through the use of Epals.com project						
QUESTIONS	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Response Average
kemampuan menulis terbatas (I am not good at writing)	18.75% (3)	25% 4	31.25% 5	25% 4	0	13.5
Project ePals menambah pengetahuan menulis email (ePals project increased my knowledge on writing email)	37.5% 6	62.5% 10	0	0	0	17.5
Mendapatkan pelajaran baru tentang menulis (I got new knowledge on writing lesson)	43.75% 7	56.25% 9	0	0	0	17.75
Teman baru saya menyenangkan (My new friend on ePals was fun)	31.25% 5	50% 8	18.75% 3	0	0	16.5
Menulis dalam project lebih menyenangkan dibanding tugas menulis biasa di kelas	37.5% 6	31.25% 5	31.25% 5	0	0	16.25

(Writing though project is more fun than writing in a traditional writing classroom)	6	5	5			
Kemampuan menulis saya jadi lebih baik (I think my writing ability has improved)	12.5% 2	87.5% 14	0	0	0	16.5
Mendapatkan ide dari teman sekelas setelah berdiskusi untuk menjawab email (I got the ideas from my classmates after I had a discussion to answer my email)	18.75% 3	68.75% 11	12.5% 2	0	0	16.25
Saya jadi bisa bekerja dan berpikir mandiri dalam project menulis ini (Now I think I can work and think independently after this writing project)	12.5% 2	43.75% 7	43.75% 7	0		14.75
Total participants						16
Skip questionnaires						5

The questionnaires from American students were different. There were five open-ended questions sent through emails upon asking permission from their teacher who gave permission on any ethical issues related. The questionnaires samples with the answers from American students are as follows: (more comprehensive data can be seen in the Appendix 3)

Table 3.4 American Students' Responses on ePals Project

QUESTION 1	How do you feel about ePals project? Please explain
QUESTION 2	Please describe your impression about your experience having an Indonesian partner on the ePals project?
QUESTION 3	What is the benefit of joining this project?
QUESTION 4	Has your global warming knowledge and awareness improved after joining the ePals' Global Warming project?
QUESTION 5	Do you find any problems during our project? Please explain if you have one.

After finishing all the analysis from three types of data, this study organised the result of analysis mainly on the text analysis. All the three types of data (field notes, email and questionnaires) are intertwined to answer the research questions. The result and finding in the field note mostly

contributed to the teaching program that is discussed in Chapter 4. The findings of email analyses are discussed in Chapter 5.

1.5 Conclusion

This chapter has focused on the detail methodology of how the study was conducted that includes the participants, research setting, research design and methods of analysis and software for analysis. How the data are collected and sample of data analysed have also been outlined in this chapter.

