

CHAPTER III

RESEARCH METHODOLOGY

The third chapter of this thesis presents the research methodology of the study. The research methodology covers research design, research site and participants, data collection technique, and data analysis. Each of the sub-themes is briefly explained to give clear statement of the research.

3.1 Research Design

This study was intended to find out ESP students' digital literacy practices and the factors affecting the practices. Therefore, a qualitative case study design was adopted to attain the objectives of this study. The current study utilized qualitative approach as it was conducted through intense contact with the field to collect holistic overview and the context of the study (Miles & Huberman, 1994). To be specific, the current study was a case study design since it attempted to provide an in-depth description and bounded system analysis (Merriam, 2009). Moreover, case study was considered as an appropriate research design for this study because its objective is to investigate a phenomenon to retain the holistic and meaningful characteristics of real-life events (Yin, 2003). In addition, the current study was conducted to a group of ESP students in higher education level which was in line with Hamied's suggestion (2017) to carry out case study on a person, a group, an episode, a process, a community, a society, or other unit of social life. Furthermore, the data of this study were collected from several instruments, namely questionnaire, interview, and observation which were aligned with Punch (2009) who stated that one characteristic of case study is the data are collected through multiple data collection methods.

The research questions proposed indicating that the appropriate design for this study was case study. The first research question was "how do ESP students practice digital literacy in classroom setting?" and the second research question was "what are the factors affecting ESP

students' digital literacy practices in classroom setting?". Both questions were intended to explore the digital literacy practices done by students. Hamied (2017) stated that case study is appropriate to answer descriptive questions, such as "what" question or explanatory question such as "how" question since it provided bold description or deep explanations. Moreover, Yin (2003) explained that "how" questions are explanatory and lead to case study design and "what" question could be considered as an exploratory study and uses any research strategy. In conclusion, this study employed case study design with questionnaire, interview, and observations as data collection.

3.2 Research Site and Participants

The research site and participants of the study were purposefully selected as the study employed case study design. Purposeful selection was used in case study to select individuals and site to study the central phenomenon (Creswell, 2012). A private university in Malang was chosen as the site of the research since it matched the objective of the study. The study focused on ESP (English for Specific Purposes) context in higher education level. Therefore, the study was conducted in a private university in Malang as it provided students with ESP subject. Moreover, the ESP course in the current university held several characteristics which differs it from other universities. First, the course was included as a compulsory subject for freshmen which should be taken for two semesters for four credits. Second, the ESP subject in the current university uses ESP course book designed by experts for every department. The materials and the content of the book were specific to the students' major to make students read English materials as references. Third, there was a graduation and certificate indicating that the students already pass the course and it was used as one of the requirements to graduate from the university. The English certificate is considered equal to Diploma 1 (D1) of English that can be used as an additional requirement for applying job.

The participants of the study were three classes of freshmen majoring in Communication Science taking ESP course. These three classes were chosen as the classes were considered to achieve better than other classes in ESP course and they were also included as three top classes compared to others. There were 184 students participated in the study. They were chosen since

the data of the preliminary study indicated that most of the tasks given to the students majoring in Communication Science utilized digital literacy. Some tasks given by the lecturers include several components of digital literacy proposed by Hague and Payton (2010), namely functional skills, e-safety, effective communication, ability to find and select information, collaboration, cultural and social understanding, critical thinking, and creativity.

3.3 Data Collection Techniques

To investigate digital literacy practices in ESP classroom, the researcher proposes three data collection techniques: questionnaire, interview, and observation since Hamied (2017) suggested that a case study could use several data sources such as direct observation, interviews, archival records, documents, participant observations, and physical artifacts. The study was intended to be carried out in a month but it is tentative due to the condition of the field. The detail explanation of the instruments of the study is presented below.

3.3.1 Questionnaire

Students questionnaire is the primary data collection technique which is to acquire information of their digital literacy practices. The questionnaire was used to identify the students' digital literacy practices towards the use of digital media in the classroom. The questionnaire consisted of questions adapted from Son (2015) and Hague and Payton (2010). The questionnaire (See Appendix 1, p.25) used Likert scale consisting of several options of frequency. In addition, there were several open-ended questions asking students' reason in doing the practices. The close-ended questions and open ended questions were useful items in questionnaire since close-ended questions provide information to strengthen the theories and the concepts while the open-ended questions allowed the researcher to explore the reasons behind the close-ended responses and to recognize the ideas beyond the close-ended responses (Creswell, 2012). Moreover, the questionnaire consisted of twelve questions on students' digital literacy practices. The questionnaire was delivered to students in the first meeting after the students given an explanation about digital literacy.

3.3.2 Observation

Equally important with the questionnaire, the researcher conducted an observation as the data multi-method in data collection by employing observation checklist (See Appendix 3, p.29). The observation was used to provide some knowledge of the school learning context to have specific incidents, behaviors, and others which can be used as reference to interview points, (Merriam, 2009). The researcher observed the students' digital literacy practices within the classroom context. There were eight components of digital literacy that must be observed according to Hague and Payton (2010). They were students' functional skills, e-safety, effective communication, ability to find and select information, collaboration, cultural and social understanding, critical thinking, and creativity. According to Merriam (2009), the elements that should be noted in the observation are: the physical setting, the participants, activities and interactions, conversation, subtle factors, and the researcher behavior towards the activities. The observation will be in accordance with the school programs schedules. Thus, the researcher took one month field-note observation to have clear understanding on the students' digital literacy practices.

3.3.3 Interview

Interview was carried out to delve deeper data of ESP students' digital literacy practices. The interview is conducted to acquire information about the perception, idea, opinion, and experience (Hinds, 2002). There were ten students voluntarily involved in the interview. The interview was semi-structured interview in which researcher had guided questions (See Appendix 2, p. 28) to keep the interview in line. Semi-structured or guided interview was one way to gain information from individual or participant which involved general sets of questions (Lichtman, 2006). The topic of the interview was adapted From Hague and Payton (2010) that comprised eight components of digital literacy namely functional skills, e-safety, effective communication, ability to find and select information, collaboration, cultural and social understanding, critical thinking, and creativity. However, some additional follow-up questions were proposed depending on the respondents' responses. Approximately, the researcher took twenty minutes interview with each participant. The interview was conducted in Indonesian. Furthermore, to keep the detailed conversation during the interview, the researcher recorded the

interview using voice recorder. Thus, there was no missing important information from the interview process.

3.4 Procedure

The study was carried out in several weeks excluding the instrumentation designing since the instruments were formulated after the preliminary study. The researcher followed some procedures in conducting the study. First, a permission letter was sent to the Language Center of the university. After obtaining the permission from the university, the researcher confirmed the participants' consent to involve in the study and their available time. Third, the questionnaire was delivered to the participants in the first meeting. Fourth, the classroom observation was carried out in four meetings to obtain observation data. Fifth, the researcher did an interview with several participants. After all the data were collected, the researcher verified the result of the interview and questionnaire to the participants. Seventh, an analysis of the data was done. Last, the researcher validated the findings of the study. The study is estimated to be accomplished in six weeks starting from February 2020. The timeline of the study is presented in Table 3.1.

Table 3.1 Timeline of The Study

No.	Agenda	Time
1.	Establishing rapport with the participants	Week 2 of July, 2020
2.	Acquiring permission from the university, confirming the participants' consent, having coordination with the respondents, and selecting the most appropriate time to conduct the observation.	Week 2 of October, 2020
3.	Delivering the questionnaire to the participants	Week 4 of October, 2020
4.	Observing the classroom	Week 1 of November, 2020

5.	Conducting the interview to the students	Week 1 of December, 2020
6.	Triangulating the result of the interview	Week 3 of December, 2020
7.	Analyzing and validating the data	Week 4 of December, 2020
8.	Consulting and revision on data analysis	Week 2 of January, 2021

3.5 Data Analysis

There were three data collection techniques employed in this study namely questionnaire, interview, and observation. The data attained from the instruments are analysed by using the steps of data analysis procedures proposed by Creswell (2012), namely exploring and coding the data, describing and developing themes from the data, representing and reporting findings, interpreting the findings, and validating findings. The data analysis was aimed at answering the two research questions proposed in the study.

The data from the questionnaire indicating ESP students' digital literacy practices were coded, described, represented, interpreted, and validated based on the framework of digital literacy practices by Son (2015) and Hague and Payton (2010) and the result of previous related studies.

The interview the data were coded, described, represented, and interpreted based on digital literacy framework proposed by Hague and Payton (2010).

The last data collection technique, observation, focuses on students' digital literacy practices in classroom setting. The data showed the students' practices around digital literacy. The observation was recorded and an observation checklist was employed to enrich the data. The data from the observation were coded, categorized, represented, and interpreted based on the framework of digital literacy by Hague and Payton (2010). Moreover, the observation data was validated by using the data from questionnaire and interview.