CHAPTER III
METHODOLOGY

This chapter describes the research method employed to achieve the formulated objectives of the study. The description covers four main parts, including the description of the research design, the site and participants, the data collection techniques, and the data analysis techniques.

3.1 Research Design

This study is purposely designed to answer the formulated research questions; 1) What are the digital native and the digital immigrant teachers' beliefs regarding the integration of ICT into EFL classroom?; 2) How do the digital native and digital immigrant teachers implement ICT-based activities in EFL classroom?; and 3) As perceived by the teachers, how do the digital native and digital immigrant teachers' beliefs affect their classroom technology practices? Hence, the study applies a qualitative case study design as it allows the researcher to study a specific case, in this case the digital native and digital immigrant teachers' belief about ICT integration and their practices in EFL classroom, with some boundaries making the study unique (Gillham, 2000; Hamied, 2017). The boundaries set in this study are *the context* and *the participant.* In terms of *context*, this study is conducted in a private university in Kuningan Regency, West Java. Meanwhile, in terms of *participant,* this study selects two English lecturers from two different generations, namely digital native and digital immigrant.

3.2 Research Context and Participants

This present case study is conducted in a private university in Kuningan Regency, West Java. This site is chosen as the researcher found that this university is in an effort to integrate ICT into all educational matters, including academic administration as well as into classroom instructions. Recently, the university is intensively holding trainings on *e-class*, a system used by the university to carry out online teaching and learning process, for all lecturers. In this case, the two selected lecturers are the ones who have followed trainings in university level and they were

asked to deliver it to the lecturers in their department. A brief profile of the two teachers involved in this study is summed up in Table 3.1.

Table 3.1 *Profiles of the Participants*

Detail Information	**Teacher A**	**Teacher B**
	Digital Immigrant	**Digital Native**
Born	1981	1987
Education	Master of English Education	Master of English Education
Teaching Experience	15 years	10 years
Technological Training Experience	Uniku Technological Training on E-Class	Uniku Technological Training on E-Class

Moreover, by having a preliminary interview, and enriched by the result of the observations, it was known that the two lecturers were coming from two different generations, namely digital immigrant and digital native. This categorization is based on the dominant characteristics of digital immigrant and digital native as described by Bennett, Maton, and Kervin (2008), Hartman, Moskal, and Dziuban (2005), Labbas and Shaban (2013), Oblinger and Oblinger (2005), and Prensky (2001a). The characteristics of the participants in relation to the digital immigrant or digital native generations are presented in Table 3.2.

Table 3.2 *Characteristics of the Participants*

Characteristics	**Teacher A**	**Teacher B**
	Digital Immigrant	**Digital Native**
Technology Experiences	CDs	MP3
Processing Information	Print out document and read it	Read document in digital forms
Belief about Students	Students are not multi-tasking	Students are multi-tasking
Focus in Teaching	Tend to focus on knowledge	Tend to focus on action
Teaching Environment (Atmosphere)	Serious (tend to be passive)	Playful (tend to be active)

Table 3.2 presents the characteristics of digital immigrant and digital native which are used as the basis in separating the teachers into two different generations. First, in terms of technology experiences, Teacher A experienced using CDs when she was a child and Teacher B experienced using MP3. Second, regarding the way of processing information, Teacher A prefers to print out document and read it, while Teacher B is accustomed to read document in digital forms. Third, Teacher A believes that their students are not multi-tasking, while Teacher B believes that their students are multi-tasking. Fourth, as reflected in classroom activities, Teacher A focuses on students' knowledge, while Teacher B focuses on action. Last, with regard to teaching environment (atmosphere), the teaching and learning process carried out by Teacher A tends to be serious/passive, while Teacher B is more playful/active. Thus, by referring to these characteristics of digital immigrant and digital native, it can be identified that Teacher A belongs to digital immigrant and Teacher B belongs to digital native technology generations.

3.3 Data Collection

The data in this case study are collected through two data collection techniques, including observation and interview. First, observation is conducted to probe and analyze the digital native and digital immigrant teachers' beliefs about the integration of ICT into EFL classroom as well as their general practices of ICT-based activities in EFL classroom. A semi-structured observation is selected as the agenda is planned, but the data obtained are far less pre-determined (Cohen, Manion, & Morrison, 2000). In conducting the observation, an adapted observation sheet developed by Kurniawati, Maolida, and Anjaniputra (2018) is used to limit the data gathered. The observation focuses on identifying the learning activities done as well as the use of technology by the teachers. In order to clearly capture the practices of ICT-based activities in the EFL classroom, the observation is conducted three times to the two English teachers. The observation sheet used in this study is attached in Appendix 1.

Then, semi-structured interviews are conducted to the digital native and digital immigrant teachers to collect data regarding their beliefs about ICT integration and their technology use. Besides, some additional questions are

addressed to identify how their beliefs affect their classroom technology practices. A semi-structured interview is used as it allows the researcher to follow a line of inquiry as well as to ask for clarification or even add follow up questions to elaborate the original responses given by the interviewees towards the predetermined questions (Griffee, 2012; Punch, 2001). Thus, a list of questions has been prepared in advance following the theme being investigated. Here, the interview questions consisting of nine questions are adapted from Chamorro and Rey (2013). The interview conducted to the digital native teacher is audio-recorded and then immediately transcribed. In conducting the interviews, both the interviewer and the interviewee use English in delivering their thought and ideas. Briefly, the procedure of data collection is presented in Diagram 3.1.

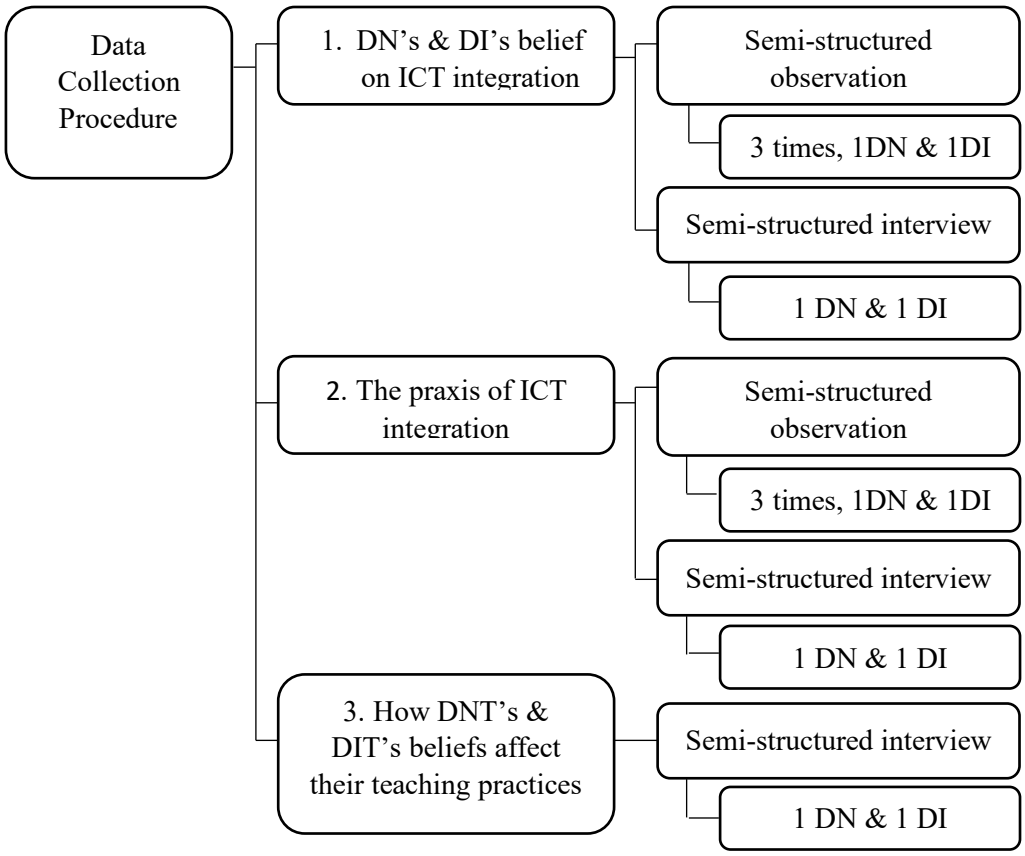

Diagram 3.1 *The Procedure of Data Collection*

Diagram 3.1 depicts the procedure of data collection in this present study. First, to identify digital immigrant and digital native beliefs about the integration of ICT into EFL classroom as well as the praxis of ICT integration in the classroom, this study used semi-structured observation which was held three times and

enriched by semi-structured interviews to both digital immigrant and digital native teachers. Then, to describe how digital immigrant and digital native teachers' beliefs about the integration of ICT into the classroom affect their classroom technology practices, this study utilized semi-structured interviews to both digital immigrant and digital native teachers.

3.4 Data Analysis

One of the aims of observation is to investigate the digital native and digital immigrant teachers' beliefs about the integration of ICT into EFL classroom as reflected in their practices, the observation data is then analyzed following the types of teachers' pedagogical beliefs proposed by Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur, and Sendurur (2012) consisting of three categories, namely: 1) technology as a tool to deliver content and reinforce skills, 2) technology as a tool to complement or enrich the curriculum, and 3) technology as a tool to transform teaching and learning. In addition, observation is also used to identify the teachers' classroom technology practices. Thus, to describe the level of teachers' technology practices, this study utilizes ACOT framework developed in the Apple Classrooms of Tomorrow Project that ran from 1985 to 1995 and has been widely used to describe the integration of technology into classroom instruction (ACOT, 1996; Brooks-Young, 2007). ACOT consists of five developmental stages, namely Entry, Adoption, Adaptation, Appropriation, and Invention (ACOT, 1996). In addition, the concept of transmissive and constructivist beliefs by Kember and Gow (1994) is also used to categorize teachers' pedagogical beliefs about the integration of ICT into classroom.

Technically, the data obtained from the observation are analyzed through the following steps: 1) reading the observation sheet filled in the classroom; 2) identifying the collected data; 3) interpreting the collected data related to teachers' beliefs about ICT integration as well as their technology practices by referring to the theories used; and 4) drawing conclusion from the analysis and giving suggestions (Creswell, 2009).

Then, the interview data are analyzed following the steps proposed by Griffee (2012) and Creswell (2009) which involve: 1) listening to the recording and

transcribing the interview sessions; 2) reading and analyzing the transcription; 3) coding the interview and writing a summary of the coded data; 4) interpreting the data; and 5) drawing conclusion from the data analysis and giving suggestions. In this sense, the coding or the label category is decided based on the collected data, but it follows the framework of how beliefs affect teachers' technology practices. The classified data are then used for further discussion.