

CHAPTER 3

RESEARCH PROCEDURES

3.1 Method of the Research

The research method employed in this study is a descriptive case study. According to Anderson (1993), case studies focus on how and why an event happens so that contextual conditions and disparities between expected and observed outcomes can be investigated. Moreover, Yin (2018) stated that the purpose of a descriptive case study is to offer an actual explanation of a phenomenon (or “case”). This research design was chosen because it is suitable for providing a comprehensive and contextualized picture of a particular phenomenon. Therefore, this approach is an appropriate method for researcher to study the phenomenon in more depth, resulting in a comprehensive analysis of students' attitudes towards using Duolingo to learn English vocabulary.

3.2 Setting and Participants

This study was carried out in the department of English language education at a university in Tasikmalaya, West Java, Indonesia. This place is selected because the researcher learns at the university. In addition, the researcher also found out about the phenomenon of using the Duolingo application through (informal preliminary interviews, on November 3, 2023) with several students who have used the application. This research was carried out virtually via Zoom Meeting because Zoom Meeting allows for greater flexibility in scheduling and eliminates geographical restrictions.

The participants are three students from English education in the eighth semester who have used Duolingo. The reason why choosing students from English education is because the researcher believes that in this major they learn application technology such as Duolingo in learning vocabulary at Technology Enhancement Language Learning (TELL) courses so this research was conducted to students in the English education department. The age of participants is 22 years old, and the gender is female. They are students who have taken the

Technology Enhancement Language Learning (TELL) course where this application has been studied in this course. They were recruited with several considerations, such as (1) they have taken the TELL course, (2) they have used the Duolingo application, (3) they use the Duolingo application to learn vocabulary outside of class, (4) they are willing to participate in this study, (5) they have complete data needed in this study (to answer the problem formulation of this study). In selecting participants and making agreements with participants, the researcher provides consent forms to participants as their agreement to participate in this study.

3.3 Technique of Collecting the Data

The researcher used a semi-structured interview to collect the data. Semi-structured interviews are a useful technique for gathering data when the researcher wishes to: (1) get qualitative, open-ended data; (2) investigate participant thoughts, feelings, and beliefs regarding a certain subject; and (3) get deeply into personal and occasionally sensitive topics (DeJonckheere & Vaughn, 2019). According to Adhabi and Anozie (2017), semi-structured interviews are a data collection strategy where the researcher creates interview questions and the researcher is free to develop these questions during the interview. Hence interviewers create a list of questions in advance, but they are free to ask additional questions that come as the interview progresses.

Adams (2015) stated that conducting semi-structured interviews involves five steps:

1. Selecting participants and arranging interviews

This step relates to the things that need to be addressed in conducting the study. The interview was conducted with three participants. In addition, the researcher contacted them to set up an interview time.

2. Drafting questions and the interview guide

The researcher gave the interview questions to the participants based on students' attitudes. The researcher used a conceptual framework based on the three components of attitudes from the framework of Haddock and Zanna (1999), which are the affective domain, the cognitive domain, and the

behavioral domain. Hence, these three components are the indicators of the interview questions. The researcher adopted the interview protocol framework from Castillo-Montoya (2016). The interview protocol framework consists of four stages: (1) ensuring that interview questions are aligned with the research questions; (2) establishing a question-based dialog; (3) getting feedback on the interview protocol, and (4) testing the interview protocol.

The first step is planning: the researcher needs to create an interview protocol and a set of suitable interview questions to provide to participants along with the concern form. Further, interview guidelines were sent in advance online by discussing several topics related to the students' attitudes to Duolingo-assisted English vocabulary learning.

3. Starting the interview

In this step, the first thing is asking permission for this interview to be recorded. In this method, the researcher used a Zoom meeting recorder to record the conversations that occurred. Each participant was interviewed with an estimation of time between 30-40 minutes per session.

4. Polishing interview techniques

The data collection technique is carried out virtually via Zoom Meeting because Zoom Meeting allows for greater flexibility in scheduling and eliminates geographical restrictions.

5. Analyzing and reporting a semi-structured interview

In this step, the researcher checks the recorded data to ensure it is accurate. Additionally, the data was translated and transcribed. After that, thematic analysis was used to examine it.

3.4 Techniques of Analyzing the Data

This research is about the attitudes of the use of Duolingo in assisting English vocabulary learning using thematic analysis. As stated by Braun and Clarke (2006), thematic analysis is the process of identifying, analyzing, and presenting patterns or themes from data. It provides comprehensive detailed descriptions and minimal organization of the data set. This method is selected because it can examine the themes of that are the students' attitudes to

Duolingo-assisted English vocabulary learning that arise from the result of interview data. According to Braun and Clarke (2006), there are six technical stages in conducting data analysis using thematic analysis:

3.4.1 Familiarizing the Data

This procedure entails reviewing and rereading the data, transcribing the data, and taking notes on the interview transcript. To uncover patterns or themes that emerged in the data, the researcher carefully goes over the data in this initial step, going over the transcripts of the interviews one more and maybe even watching or listening to the interview again.

3.4.2 Generating Initial Codes (Coding)

To respond to the research's questions, this second phase included locating every relevant information point within the entire data collection. The data that was recognized as codes relevant to the goal of the study was colored by the researcher to highlight the codes.

Table 3. 1 Generating Initial Codes

Responses	Codes
<i>P3: Menurut saya penggunaan Duolingo dalam pembelajaran kosakata bahasa Inggris itu sangat membantu yah karena terdapat fitur-fitur yang sangat menarik ya di dalam Duolingo itu. Jadi, kita itu mudah untuk mempelajari kosakatanya gitu</i>	Duolingo helps students learn vocabulary
<i>P3: Karena ya Duolingo itu aplikasi yang tidak rumit gitu loh. Jadi dilihat-lihat dibandingkan dengan aplikasi yang lain, fitur-fiturnya tuh sangat mudah untuk dipahami oleh saya gitu yang agak gptek teknologi. Terus juga saya searching-searching kan di TikTok, di Google juga gitu. Mana yang cocok buat saya dan yang cocok emang ini Duolingo gitu karena itu dia fitur-fitur</i>	Duolingo helps students

<p>yang tersedianya itu sangat mempermudah saya untuk belajar kosakata.</p>	<p>learn vocabulary</p>
<p>P3: Kosakata yang saya ingat ya saya belajar itu tentang kosakata sehari-hari ya, misalnya ada tentang buah-buahan, ada Apple, Orange, yang kayak gitu. Terus apa sih nama-nama keluarga, kayak mother, gitu. Terus juga ada tentang kata kerja misalnya teh duduk, sit down, kayak gitu-gitu lah.</p>	<p>Duolingo helps students learn vocabulary</p>
<p>P3: Kualitas dan keakuratan kosakata yang ada di Duolingo, menurut saya itu udah bagus ya karena itu dia tadi di dalam Duolingo ini kosakata yang tersedia itu sangat mudah untuk dipelajari. Seperti itu. Kalau dinilai sih 9 karena emang sebagus itu menurut aku ya daripada aplikasi yang lain. Soalnya aku pahami di Duolingo.</p>	<p>Duolingo a qualified and accurate vocabulary-learning</p>
<p>P3: Pertama kali nyobain Duolingo jujur aku deg-degan. Nggak tahu kenapa pokoknya tiba-tiba deg-degan aja. Berasa mau di tes gitu loh. Soalnya kita kan langsung main ya setelah baca-baca di fitur ulasan kayak gitu. Nah tapi setelah nyoba dan ya pokoknya saya merasa sangat amat happy karena itu dia fitur yang tersedia sangat menarik terus sangat mudah juga untuk dipelajari. Jadi saya sangat happy gitu saat belajar kosakata melalui aplikasi Duolingo.</p>	<p>Students interest and enjoyment in learning English vocabulary through Duolingo</p>
<p>P3: Oke, euu pas awal-awal saya biasanya menggunakan waktu luang yah. Biasanya di hari weekend sih karena kan di hari-hari biasanya</p>	<p>Student self-time management in learning vocabulary through</p>

<p><i>banyak tugas gitu. Jadi saya menjadwalkannya di hari weekend. Ya tahu sendirilah weekend biasanya kan santai-santai gitu ya. Nah, selain untuk digunakan bersantai gitu, saya juga ingin belajar gitu. Nah biasanya gitu di waktu weekend gitu.</i></p>	<p>Duolingo</p>
---	------------------------

Note. As shown in Table 3.1, the researcher highlighted responses that were interpreted as important data using different colors and provided codes. After that, the researcher counted the codes in total and presented them in a table, as shown in Table 3.2 below.

Table 3. 2 Codes and Its frequency

Codes	Total	Codes	Total
Duolingo helps students learn vocabulary	13	Student self-time management in learning vocabulary through Duolingo	7
Duolingo a qualified and accurate vocabulary-learning	4	Students' utilization of game features in Duolingo	7
Students interest and enjoyment in learning English vocabulary through Duolingo	14		
Student intention to continue learning vocabulary through Duolingo	3		

3.4.3 Searching for Themes

In this phase, the researcher chooses a transcript of the data and uses research questions that integrate codes into overarching themes that appropriately describe the data to determine something notable or interesting about the data. From the data that had previously been categorized and highlighted in the second stage, the researcher was able to identify the themes.

Table 3. 3 Searching for Themes

Categories	Codes	Themes
Cognitive	<ol style="list-style-type: none"> 1. Duolingo helps students' vocabulary learning 2. Duolingo as a qualified and accurate vocabulary learning 	Duolingo as a qualified and accurate platform in assisting vocabulary learning
Affective	<ol style="list-style-type: none"> 1. Students' interest and enjoyment in learning English vocabulary through Duolingo 	Duolingo as an interesting and fun vocabulary learning platform
Behavioral	<ol style="list-style-type: none"> 1. Students' intention to continue learning 2. Students' time management 3. Utilization of game feature 	Duolingo in keeping students' intention to continue learning vocabularies

3.4.4 Reviewing Themes

In the fourth phase, the researcher developed or modified the themes that have been identified in the previous step. The researcher reviewed the following themes to ensure which are the most appropriate ones, it includes by add or delete the information that is not needed. The researcher reexamined the themes that identified the students' attitudes to Duolingo-assisted English vocabulary learning to ensure the placement of the theme has been grouped into the appropriate theme.

3.4.5 Defining and Naming Themes

In the fifth phase, each theme has precise definitions and names created for it. To examine the data about the students' attitudes toward learning English vocabulary with the help of Duolingo, the researcher defines the nature of each theme and their link to one another.

Table 3. 4 Defining and Naming Themes

Themes	Definition
Duolingo as a qualified and accurate platform in assisting vocabulary learning	Students believe that Duolingo helps in learning vocabulary because of the qualified and accurate vocabulary learning.
Duolingo as an enjoyable vocabulary learning platform	Students' emotional feelings towards Duolingo in learning English vocabulary

