

## **CHAPTER 3**

### **RESEARCH PROCEDURES**

This chapter provided the methodology utilized to conduct the study. This chapter outlines seven parts of the research procedure, namely research method, research focus, setting and participant, data collection technique, data analysis technique, research steps, place and time of research. More details are described below.

#### **A. Method of the Research**

In this research, the researcher used a descriptive case study, which is suitable for exploring and portraying real-life phenomena in depth and within their actual contexts. According to Yin (2018), a descriptive case study aims to systematically describe a phenomenon in its real-world context. This methodology was selected as it is particularly effective for developing a comprehensive, in-depth understanding of what is to be studied. This methodology was considered appropriate since the ToPhonetics application provides open access for independent learning without teacher mediation. While the app does not offer personalized feedback in real time, it does support autonomous practice, phonetic transcription modelling, and flexible access aspects that are essential for pronunciation development, especially for EFL students in higher education settings. Thus, the researcher aimed to highlight the real-world utility of the ToPhonetics app by analyzing how students engaged with its features and how these engagements contributed to improving their pronunciation in line with the principles of Mobile Assisted Language Learning (MALL).

#### **B. Focus of the Research**

The primary objective of this study was to examine the efficacy of the ToPhonetics app in assisting students with accurate word pronunciation. The study examined how the ToPhonetics app's functionalities, such as phonetic transcription and audio playback, assist EFL students in articulating words more

distinctly. This study's description was derived from interviews with students selected intentionally due to specific characteristics, including their prior utilization of the ToPhonetics app for word pronunciation.

### **C. Setting and Participants**

The research was conducted in February 2025. It involved 3 students majoring in the English Education Department at a university in Tasikmalaya, West Java, Indonesia. The participants were purposely selected based on specific criteria: they had prior experience using the ToPhonetics application during the Advanced English Pronunciation course, and they voluntarily agreed to participate in this research. The participants had familiarity with using technology to support their pronunciation learning and could provide sufficient information to answer the research questions.

The research venue was selected for pragmatic considerations, including the accessibility for participants and the researcher's familiarity with the institution. The university is renowned for its strong focus on training educators, particularly in preparing prospective English instructors to instruct English as a foreign language (EFL). The English Education Department emphasizes linguistic competencies and pedagogical techniques. It provides courses such as Phonetics, Phonology, and Advanced English Pronunciation, which imparted valuable context to the ToPhonetics app.

Regarding ethical considerations, the participants were given a clear explanation about the purpose, procedures, and confidentiality of the study. They were asked to read and sign an informed consent form as formal agreement to participate. The participants' names were anonymized and replaced with Viola, John, and Marie. The participants also retained the right to withdraw from the study at any time. In addition, the schedules for the interviews were arranged in advance based on mutual agreement with the participants.

## **D. Data Collection**

The study were conducted semi-structured interviews to collect data on students' perceptions of the ToPhonetics app in enhancing their English pronunciation. The semi-structured interview method incorporated both organized and open-ended inquiries. This allowed participants to elaborate on their thoughts while maintaining a clear study emphasis (Adams, 2015). We used this way to gain a deeper insight into the participants' experiences, challenges, and perceived advantages while utilizing the app.

The interviews were conducted in Bahasa Indonesia, the participants' native language, to facilitate communication and mitigate language hurdles. Each interview session, conducted with the participants' consent, was recorded and lasted between 14 to 25 minutes. Prior to the interviews, the researcher informed each participant about the study's purpose, the interview process, privacy regulations, and obtained their consent to participate.

## **E. Data Analysis**

The data were analyzed by using Braun and Clarke's thematic analysis (2006), a method that enables researchers to systematically identify, analyze, and interpret patterns or themes within qualitative. This tool analysis includes six steps that assisted the researcher in examining the data as follows:

### **1. Familiarizing the data**

During this phase, the researcher became deeply engaged with the data to understand the participants' experiences using the ToPhonetics application for improving English pronunciation. This process began by listening to the audio recordings of the interview multiple times. Following this, the researcher transcribed the audio recordings into written text, ensuring that all spoken words were accurately captured. After transcription, the researcher read through the transcripts several times to become thoroughly familiar with the content. This repeated reading helped in identifying initial patterns and themes relevant to the study.

### **2. Generating Initial Codes**

During this phase, the researcher initiated the organization of the data by assigning highlighters that aligned with the objectives of the study. The researcher used a coloring technique to facilitate the systematic grouping of the data into initial codes.

**Table 2. Generating Initial Codes**

Extracts	Initial codes
Dengan mengaksesnya melalui situs web, maka juga dapat diakses di mana saja dan kapan saja selama telepon pintar terhubung dengan internet.	Flexible access to learning resources
Jadi, seminggu sekali saya suka mengakses aplikasi tersebut karena kursus tersebut mengharuskan saya mengucapkan 1 atau 2 kata kosa kata dengan pengucapan yang benar.	Flexible use aligned with course needs

The researcher identified 16 initial codes, each representing different aspects highlighted in the participants' interview transcriptions. These codes encapsulated various themes and patterns observed in the data. Here is the list of initial codes and their frequency.

**Table 3. Calculating initial codes**

NO.	Initial Codes	Total
1.	Understanding ToPhonetics	3
2.	Friend's or lecturer's recommendation	3
3.	Audio pronunciation with accent options	2
4.	Flexible use aligned with course needs	2
5.	Dependency on internet	2
6.	Phonetic detail awareness	10
7.	Enhancement of fluency	2
8.	Effectiveness of exercises	4
9.	Retention of learned skills	3
10.	Independence in learning	4
11.	Self-monitoring of progress	4
12.	Flexible access to learning resources	2
13.	Exposure to native pronunciation	4
14.	Positive learning outcome	4
15.	Limitation of application	2
16.	Need for additional resources	1

### **3. Searching for themes**

The highlighted keywords in the interview data reflected students' ability to access and use the ToPhonetics app according to their own preferences, schedules, and learning context. Specifically, codes such as flexible access to learning resources and flexible use aligned with course needs were consistently mentioned across participants' responses. These codes demonstrated how the app supported students in managing their pronunciation practice independently of classroom settings or time restrictions. Based on the data analysis, the two initial themes developed are 'Learning Pronunciation Beyond the Classroom' and 'Managing Flexible Study Routines'.

### **4. Reviewing themes**

At this stage, the process from the previous phase was repeated, but only focusing on re-reading the keywords, phrases and highlighted quotes to check how well the codes matched and related to each other. After the review, it was found that the two initial themes above, namely learning pronunciation beyond the classroom and managing flexible study routines, have interrelated and overlapping scopes of meaning.

Both initial themes described students' flexible use of the ToPhonetics application to support their pronunciation learning outside of traditional classroom contexts and formal time structures. Therefore, the two initial themes were combined into one main theme.

### **5. Defining and Naming Themes**

Based on the above analysis and referring to the predetermined codes, the following conclusions were obtained:

- a. The flexibility of the ToPhonetics app in terms of time and location allowed students to integrate pronunciation practice into their personal learning schedules more effectively, without being restricted by classroom settings.

- b. Students demonstrated the ability to independently manage their learning activities using the app, including accessing resources when needed and aligning usage with course-related goals.

Therefore, the two initial themes were combined and renamed as ‘Accessibility and Flexibility in Using ToPhonetics’.

## 6. Producing the Report

It was the final phase in the thematic analysis process. After the researcher identified the central theme, a detailed report of the research findings was produced. The complete data analysis procedures for the other theme are provided in the enclosures.

## F. Research Steps

Step	Description
1	Identifying the problem.
2	Examine current research and locate sources from journals or publications that are relevant to the research topic.
3	Choose a topic for the research.
4	Continue compiling a research proposal, starting with the study’s background, literature review, and research methodology.
5	Examine the research proposal in front of the supervisors and examiners.
6	Collect the data using a semi-structured interview with participants.
7	Transcribe the interview’s outcome.
8	Analyze the data using the thematic analysis of Braun and Clarke (2006).
9	Create a report on the thesis.
10	Examine the thesis in front of the supervisors and examiners.

## G. Time and Place of the Research

This research conducted at a universities in Tasikmalaya, West Java, Indonesia. Meanwhile, the time of this research conducted in the period from August, 2024.

**Table 4. Research Timeline**

Activities	Month													
	Agt 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Agt 2025	Sep 2025
Research Proposal Writing														
Research Proposal Examination														
Data Collection														
Data Analysis														