

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

This study employed a qualitative descriptive case study design to compare the production of the English dental fricative sounds /θ/ and /ð/ by students with Indonesian and Sundanese accents. A qualitative approach was selected because the study aimed to describe students' pronunciation patterns and identify the factors influencing their pronunciation rather than to measure variables statistically. John W Creswell (2014), explains that qualitative research focuses on understanding how individuals interpret and experience a particular phenomenon within its natural setting.

A case study design was considered appropriate because the research examined a specific group of participants within a particular educational context. Robert K Yin (2014) defines a case study as an empirical inquiry that investigates a contemporary phenomenon in its real-life context, especially when the boundaries between the phenomenon and its context are not clearly evident. In this research, the phenomenon under investigation was the production of the English dental fricative sounds /θ/ and /ð/ by students with different regional accents.

The study focused on comparing two groups of English Education students who spoke Indonesian and Sundanese accents. Rather than seeking statistical generalization, the research aimed to provide a detailed description of their pronunciation patterns, identify similarities and differences in producing the target sounds, and explore the factors contributing to their pronunciation performance. To obtain comprehensive findings, three instruments were employed: a pronunciation task, a questionnaire, and semi-structured interviews. The pronunciation task was used to examine students' production of /θ/ and /ð/, while the questionnaire and interviews were conducted to explore the factors influencing their pronunciation and to support the interpretation of the pronunciation data.

To analyze the qualitative data, this study employed the interactive data analysis model proposed by (Miles et al., 2014). The model consists of three interconnected stages: data condensation, data display, and conclusion drawing and verification. These stages enabled the researcher to analyze the pronunciation task, questionnaire, and interview data systematically before drawing the final conclusions.

B. Location and Time of Research

This research was conducted at the English Education Study Program, Faculty of Teacher Training and Education, Nusantara Islamic University, Bandung, West Java. The study was carried out from May to June 2026.

The research site was selected because the English Education Study Program provides an appropriate setting for investigating English pronunciation among EFL learners. In addition, the program includes students from diverse regional backgrounds, particularly those with Indonesian and Sundanese accents, which is consistent with the focus of this study. This diversity enabled the researcher to compare the production of the English dental fricative sounds /θ/ and /ð/ between the two accent groups.

Data collection was conducted during the research period through three instruments: a pronunciation task, a questionnaire, and semi-structured interviews. These instruments were administered after obtaining permission from the study program and informed consent from all participants. The collected data were then analyzed to identify students' pronunciation patterns and the factors influencing their production of the target sounds.

C. Population and Sample

The population of this study consisted of students from the English Education Study Program at Nusantara Islamic University, Bandung. According to John W Creswell (2014), a population refers to a group of individuals who share common characteristics and are selected as the focus of a study. In this research, the population comprised undergraduate students enrolled in the English Education Study Program.

The participants were selected using purposive sampling. Sugiyono (2022), states that purposive sampling is a technique in which participants are selected based on specific criteria that are relevant to the objectives of the research. This technique was considered appropriate because the study required participants who met particular characteristics related to English pronunciation.

A total of 12 undergraduate students from the English Education Study Program at Nusantara Islamic University participated in this study. The participants were selected based on the predetermined criteria and voluntarily agreed to participate by providing informed consent. All participants met the characteristics required for the study and were considered suitable for investigating the production of the English dental fricative sounds /θ/ and /ð/.

The characteristics of the population under study are enumerated below:

- a) Students enrolled in the **English Education Study Program, FKIP Nusantara Islamic University**;
- b) Students from **semester 2, and semester 4**;
- c) Students who have acquired English pronunciation through speaking or pronunciation-related courses;
- d) Students whose mother tongue is **Indonesian** or **Sundanese**.

D. Research Instrument

To obtain comprehensive data, this study employed three research instruments: a pronunciation task, a questionnaire, and semi-structured interviews. The combination of these instruments enabled the researcher to compare students' pronunciation performance and explore the factors influencing their production of the English dental fricative sounds /θ/ and /ð/. The pronunciation task served as the primary source of pronunciation data, while the questionnaire and interviews were used to support and enrich the findings.

1) Pronunciation Task

The pronunciation task was designed to examine students' production of the English dental fricative sounds /θ/ and /ð/. The task consisted of English words containing the target sounds in initial, medial, and final word

positions. Each participant was asked to read the word list individually while their pronunciation was audio-recorded for further analysis.

The recorded pronunciations were transcribed using the International Phonetic Alphabet (IPA) and compared with the standard pronunciation provided in the Oxford Advanced Learner's Dictionary. The analysis focused on identifying pronunciation accuracy, substitution patterns, and similarities or differences in the production of /θ/ and /ð/ among the participants.

2) Questionnaire

A questionnaire was administered to identify the factors influencing students' production of the English dental fricative sounds /θ/ and /ð/. The questionnaire consisted of **seven statements** using a **five-point Likert scale**, ranging from **Strongly Disagree (1)** to **Strongly Agree (5)**. It was designed to collect information about participants' exposure to English pronunciation, pronunciation practice, self-perceived pronunciation difficulties, and the influence of their habitual accent on producing the target sounds.

The questionnaire was distributed after the pronunciation task to provide supporting information for interpreting the pronunciation data. The responses were analyzed descriptively by examining the frequency and distribution of participants' responses to each statement. The questionnaire findings were then compared with the results of the pronunciation task and semi-structured interviews to identify consistent patterns and factors influencing students' pronunciation performance.

3) Semi – Structured Interview

Semi-structured interviews were conducted to obtain more detailed information about the participants' pronunciation experiences. The interviews explored participants' perceptions of pronunciation difficulties, learning experiences, strategies for improving pronunciation, and the influence of their habitual accent on producing the English dental fricative sounds.

The interviews were conducted individually using open-ended questions, allowing participants to explain their experiences freely while enabling the researcher to ask follow-up questions when necessary. The interview data were used to clarify and strengthen the findings obtained from the pronunciation task and questionnaire.

E. Research Procedures

The research was conducted through several systematic stages to ensure that the data collection process was organized and aligned with the objectives of the study. The procedures consisted of preparation, data collection, and data organization before the analysis stage.

a) Preparation

The study began with identifying the research problem, reviewing relevant literature, and determining the research design. After the research proposal was approved, the researcher prepared the research instruments, including the pronunciation task, questionnaire, and semi-structured interview guide. Before the data collection process, permission to conduct the research was obtained from the English Education Study Program at Nusantara Islamic University.

b) Data Collection

The Data were collected from 12 participants who met the predetermined sampling criteria. Before participating, each participant received an explanation of the research objectives and procedures and voluntarily agreed to participate in the study.

The data collection process was conducted in three stages. First, participants completed the pronunciation task by reading a list of English words containing the dental fricative sounds /θ/ and /ð/. Each participant's pronunciation was recorded to facilitate accurate transcription and analysis.

Second, the participants completed a questionnaire consisting of seven Likert-scale statements. The questionnaire was administered to obtain information regarding their pronunciation practice, exposure to English, perceived pronunciation difficulties, and the influence of their habitual accent.

Finally, semi-structured interviews were conducted with the participants to obtain a deeper understanding of their experiences in producing the target sounds. During the interviews, participants were encouraged to explain the difficulties they encountered, their learning experiences, and the strategies they used to improve their pronunciation. Additional follow-up questions were asked when further clarification was needed.

c) Data Organization

After all data had been collected, the audio recordings from the pronunciation task and interviews were transcribed. The pronunciation data were transcribed using the International Phonetic Alphabet (IPA), while the interview responses were transcribed into written form. Questionnaire responses were organized according to each participant before all data were prepared for the qualitative analysis process.

F. Data Analysis Techniques

The present study employed qualitative descriptive analysis using the interactive model of data analysis proposed by Miles, Huberman, and Saldaña (2014). The selection of this method was predicated on its capacity to facilitate the systematic analysis of pronunciation data and the in-depth interpretation of students' pronunciation patterns. According to Miles, Huberman, and Saldaña (2014), the qualitative analysis process involves three fundamental steps: data condensation, data display, and conclusion drawing/verification. This approach is appropriate because the study focuses on understanding pronunciation phenomena and first-language influence rather than statistical generalization.

The analysis process was conducted through several stages. Initially, the students' pronunciation recordings were transcribed using the International Phonetic Alphabet (IPA). Secondly, the pronunciation results were compared with standard English pronunciation to identify substitution patterns such as /θ/ → /t/, /s/ and /ð/ → /d/, /z/. Thirdly, the findings were classified based on pronunciation patterns, mother tongue background (Indonesian and Sundanese), and pronunciation difficulties. Finally, the researcher interpreted the findings to explain articulatory factors and first-language interference. The following tools

were utilized in this study: audio recordings, International Phonetic Alphabet (IPA) transcription sheets, tabulation tables, and questionnaires.

To ensure the accuracy and trustworthiness of the findings, this study employed data triangulation using multiple instruments, namely pronunciation tasks, recordings, interviews, and questionnaires. The questionnaire was utilized to obtain supporting information regarding students' perceived pronunciation difficulties, mother tongue influence, exposure to English pronunciation, and learning experiences. According to the work of Denzin and Lincoln (2018) posits that triangulation enhances credibility by comparing findings from disparate data sources. To ensure the consistency and validity of the responses to the research questions, the researchers implemented a rigorous methodology. This methodology entailed the repeated listening of audio recordings and the cross-checking of questionnaire responses with interview data.