

CHAPTER III

RESEARCH METHODOLOGY

A. Reserch Design

This research applies a qualitative approach in this study, According to Creswell (2014), qualitative research is an approach used to explore and comprehend issues experienced by individuals. The process involves formulating research questions, applying specific procedures, and interpreting the meaning behind the data collected. In essence, qualitative research seeks to explore and understand information about people or the challenges they face through scientific analysis, with the goal of uncovering deeper meaning. Qualitative research aims to describe data by developing a deep understanding and providing a detailed, narrative-based report.

The design of this research used a case study, According to Robert K. Yin (2014), case study is a type of research used to explore a current, real-life problem in depth and within its natural setting. It is particularly useful when the boundaries between the issue being studied and its surrounding context are unclear or closely connected.

From the explanation above, it can be concluded that a qualitative case study approach is highly suitable for this research. This research aims to understand more deeply how the Minangkabau language influences the way teachers deliver English in real-life situations. The qualitative case study method allow researchers to observe directly in the field and collect data through interviews, observations, and related documents. This approach allows for a

comprehensive understanding of teachers' experiences, including the cultural factors and language habits that influence their pronunciation. Therefore, this method is highly appropriate for providing an in-depth and contextual explanation of this issue.

B. Participant

The participants in this study are three English teachers at SMP Negeri 2 Solok, identified using the participant codes YS, RA, and TI. All three participants are English teachers whose first language is Minangkabau. They were selected because they have been exposed to Minangkabau phonology since childhood and continue to use Minangkabau in their daily communication. As speakers of Minangkabau, they possess linguistic and phonological patterns that may influence the way they produce English sounds, particularly vowels and diphthongs.

In qualitative research, participants are selected because they can provide rich and relevant information related to the phenomenon being investigated. Therefore, the three English teachers, identified as YS, RA, and TI, are considered appropriate participants for this study because they regularly use English in formal educational settings while also using Minangkabau in their daily lives. Their pronunciation patterns can provide valuable information about how first-language phonology may be reflected in English speech production. Since this research focuses on first-language phonological interference, the participants are expected to represent speakers who have continuous interaction with both the Minangkabau and English sound systems.

Through their spoken English, the researcher can identify pronunciation patterns that may indicate interference from Minangkabau, particularly in the production of English vowels and diphthongs.

Participant Selection Technique this study employs purposive sampling as the participant selection technique. According to Creswell (2018), purposive sampling is a technique in which participants are intentionally selected because they possess specific characteristics that are relevant to the research objectives.

The researcher selected participants based on their Minangkabau phonological background and their experience in teaching English. The selection was not intended to represent all English teachers in Solok City statistically; rather, it was intended to obtain in-depth information from individuals who are most likely to demonstrate the phenomenon under investigation.

By selecting participants who have strong exposure to both Minangkabau and English, the researcher expects to gain a deeper understanding of how Minangkabau phonology influences English pronunciation. This approach is consistent with the qualitative case study design, which emphasizes detailed exploration and interpretation of a particular linguistic phenomenon within its natural context.

C. Data Collecting Technique

In this study, the data were collected by using two techniques, namely voice recording (audio recording) as the primary data collection technique and documentation as the supporting technique. In addition, the data obtained were

validated by expert validators in the field of English vowels and diphthongs before they were analysed further. Audio recording was selected because it allows the researcher to capture spoken language in its original and natural form, which is essential for analyzing pronunciation and phonological features. According to Creswell (2012), audio recordings enable researchers to preserve participants' exact utterances, including pronunciation, stress, intonation, and other vocal nuances, which can later be transcribed and analyzed in detail. This technique provides rich qualitative data that are highly relevant to studies focusing on spoken language.

The second technique used in this study was documentation. According to Sugiyono (2017), documentation is a technique of collecting data by examining records, written materials, images, or other documents that are relevant to the focus of the research. In this study, documentation was used to support and to strengthen the data obtained from the voice recordings, so that the researcher did not depend on a single source of data only.

The documents collected in this study consisted of: (1) the audio files of the teachers' speech recorded during the English teaching and learning process; (2) the verbatim transcripts of the recordings together with the phonetic transcription of the English vowels and diphthongs produced by the teachers; (3) the list of English words containing vowels and diphthongs that appeared in the teachers' speech, completed with their standard pronunciation based on the International Phonetic Alphabet (IPA); (4) the validation sheets signed by the expert validators; and (5) the photographs taken during the recording process in

the classroom. The complete documents are presented in the appendices of this study.

Documentation also functioned as physical evidence that this research was actually conducted in the field. Through these documents, the researcher was able to re-examine the data at any time during the analysis, to compare the written transcripts with the original recordings, and to make sure that the pronunciation data reported in this study were authentic. Therefore, documentation served both as a supporting source of data and as a means of maintaining the credibility of the research data.

Since this study deals with phonetic data, the identification of English vowels and diphthongs requires accurate listening and transcription. For this reason, the researcher involved expert validators to validate the data before the data were analysed further. Creswell and Creswell (2018) state that asking an expert to examine the accuracy of qualitative data is one of the strategies used to increase the validity and the credibility of research findings.

The validator in this study was an expert in the field of English phonetics and phonology, particularly in the area of English vowels and diphthongs. The validator was Nofel Nofiadri, a lecturer focusing on Linguistics at Universitas Islam Negeri Imam Bonjol Padang. He was selected as the validator because of his academic background in English phonology and his experience in teaching English pronunciation. Therefore, he was considered competent to examine and validate the phonetic transcriptions produced by the researcher.

The validation was carried out through the following procedure. First, the researcher submitted the audio recordings, the verbatim transcripts, and the researcher's phonetic transcription of the words containing English vowels and diphthongs to the validators. Second, the validators listened to the recordings and checked whether the phonetic symbols used by the researcher truly represented the sounds produced by the teachers. Third, the validators gave corrections, comments, and suggestions on the transcription, especially on the classification of the sounds into vowels and diphthongs, and on the identification of the sound substitution that occurred. Fourth, the researcher revised the transcription based on the corrections given by the validators, and the revised transcription was then used as the final data of this study.

Overall, the combination of voice recording, documentation, and expert validation provided comprehensive, detailed, and reliable data for understanding how Minangkabau as the teachers' first language influences their English pronunciation. This method aligns well with the qualitative case study approach adopted in the research, as it facilitates in-depth exploration of spoken language phenomena in a real educational setting.

D. Data Analysis

The data analysis in this study was conducted qualitatively to identify and analyze the phonological interference of Minangkabau as the teachers' first language (L1) in their English pronunciation. The data analyzed were obtained from audio recordings of the teachers' spontaneous English speech during the

teaching and learning process. The analysis focused particularly on English vowels and diphthongs produced by the teachers.

The data analysis was conducted through several steps. First, the researcher listened to the audio recordings repeatedly to become familiar with the teachers' spoken English and to identify words containing English vowels and diphthongs. The relevant utterances were then transcribed verbatim to ensure that the spoken data were accurately represented in written form. The audio recordings were used as the main reference throughout the analysis so that the researcher could check the pronunciation directly from the original speech data.

Second, the researcher identified the English words containing vowels and diphthongs that showed differences from standard English pronunciation. Each identified word was examined by comparing the teachers' actual pronunciation with the standard English pronunciation represented using the International Phonetic Alphabet (IPA). This comparison was used to determine whether a sound had been substituted, simplified, or reduced in the teachers' pronunciation.

Third, the researcher classified the identified pronunciation differences based on the type of phonological interference. The analysis focused on vowel substitution, vowel simplification, long-vowel reduction, and diphthong reduction. The researcher also examined the relationship between the English target sounds and the Minangkabau sounds used by the teachers. This step was conducted to explain how differences between the English and Minangkabau

phonological systems may contribute to the pronunciation patterns found in the data.

Fourth, the phonetic transcriptions produced by the researcher were checked through expert validation. The validator listened to the audio recordings and examined the phonetic transcriptions to determine whether the symbols accurately represented the sounds produced by the teachers. Corrections and suggestions provided by the validator were used to revise the transcriptions. The revised transcriptions were then used as the final data for analysis.

Fifth, the validated data were organized into tables containing the English word, standard English pronunciation, teachers' pronunciation, and the identified type of interference. The researcher then interpreted the patterns to explain how Minangkabau as the teachers' L1 influenced their production of English vowels and diphthongs.

Finally, the researcher interpreted the overall findings by relating the identified pronunciation patterns to the theories of first language interference and English phonology discussed in Chapter II. The interpretation focused on explaining how unfamiliar English sounds were replaced, simplified, or modified according to sound patterns that were more familiar to the teachers through their Minangkabau L1.