PRONUNCIATION PROBLEMS ENCOUNTERED BY MOZAMBICAN EFL TEACHER TRAINEES IN HIGHER EDUCATION

 Joaquim Vicente Vinte [(a)1] Carlos Quenesse Mataruca [(b)]

[(a)] Lecturer, Faculty of Education, Licungo University, Quelimane, Mozambique; E-mail: jvinte@unilicungo.ac.mz
[(b)] Professor, Faculty of Language, Communication Sciences, and Arts, Pedagogical University, Maputo, Mozambique; E-mail: cmataruca@gmail.com

ARTICLE INFO

ABSTRACT

English pronunciation poses significant challenges to many EFL Mozambican students, yet it remains a critical aspect of effective communication. For teacher trainees, in particular, it is essential to enhance their pronunciation skills during their academic training to ensure they are well-prepared for their teaching careers. This study examines the phonological challenges faced by Mozambican teacher trainees whose first language (L1) is Echuwabo. It aims to explore the influence of Echuwabo phonology on their English pronunciation and identify specific difficulties encountered. The research employs a mixed-methods approach for data collection and analysis. Data were gathered from 14 EFL teacher trainees through observations, semi-structured interviews, and audio recordings. The analysis was conducted with the assistance of MS Word and Excel to identify major themes and quantify the frequency of observed phonological issues. The results indicate that while previous EFL studies have widely noted the absence of the voiced (inter)dental fricative phoneme /ð/ in many languages, Echuwabo includes this phoneme, making it less problematic for learners compared to other sounds. Conversely, significant difficulties were observed with the voiceless (inter)dental fricative phoneme /θ/, which is not present in the Echuwabo language. This gap leads to frequent pronunciation errors among the trainees. The challenges identified were categorized into three phonological processes: elision, substitution, and insertion. The findings suggest that Echuwabo phonological structure impact English pronunciation of the participating Mozambican teacher trainees. However, other factors need to be further explored in order to explain some of the identified problems which had less to do with L1.

INTRODUCTION

The acquisition of English language pronunciation has been a prominent area of research focus. Given the global prevalence of English and the increasing number of English learners across diverse nations, pronunciation challenges persist for many English as a Foreign Language (EFL) students striving to utilize the language for effective communication. Therefore, numerous researchers have investigated pronunciation challenges affecting English language students (Almusharraf, 2024; Chitulu & Njemanje, 2015; Ercan & Kunt, 2019). In particular, their analyses have often centred around the influence of the first language (L1) on spoken English. For example, Hassan (2014) conducted a study on phonological problems encountered by Sudanese EFL students, while Bian (2013) explored the impact of Chinese stress on English pronunciation teaching and learning. Similarly, Mompean (1997) investigated the English pronunciation challenges faced by Brazilian students. His participants were Portuguese native speakers.

Previous research in Mozambique explored the impact of Portuguese on the pronunciation of English (Mambico, 2024). Other scholars have looked at the phonological challenges Mozambican English language students face but their studies did not focus on a specific language group (Gonçalves, 2019; Momade 2021). For instance, Momade's findings highlight that it is the "ignorance of teaching pronunciation in the classroom and a lack of motivation" (p. 31) that contribute to Mozambican students phonological problems. Although these studies contribute valuable information, they fall short of offering a comprehensive understanding of the specific difficulties EFL teacher trainees whose L1 is Echuwabo face in

Mozambique. Therefore, this study aims to fill this gap by conducting an analysis of the phonological aspects inherent in both English and Echuwabo languages. The primary objective is to discern the extent of their dissimilarity and, subsequently, to present the implications of the similarities and differences on the pronunciation skills of Echuwabo EFL students. To achieve this, the study seeks to address the following two research questions: (i) What pronunciation challenges do Mozambican EFL teacher trainees whose L1 is Echuwabo face? (ii) To what extent do the phonological disparities between English and Echuwabo hinder students in pronouncing English accurately?

LITERATURE REVIEW

English is widely regarded as a vital medium of communication in numerous countries, making it an indispensable tool across diverse cultural and national contexts (Jahara & Abdelrady, 2021). Mozambique is no exception to this global phenomenon, as English plays a crucial role in communication within the country. In fact, due to interaction needs among individuals of various nationalities, a considerable number of Mozambicans find it crucial to learn, and employ English in their daily correspondence. The Mozambican linguistic diversity, which includes not only local languages, but also Portuguese (the official language), and other foreign languages, highlights the importance of English as a key component in the linguistic competencies of Mozambican citizens.

However, the process of learning and adopting English as an additional language remains challenging. Pronunciation, in particular, emerges as a notable aspect (Jihad & Damayanti, 2024) influenced by individuals' linguistic background. Taking into account that Mozambique is characterised by a rich linguistic diversity, Quelimane citizens demonstrate such differences by using Echuwabo and many other languages including English. Different languages coexist in this city. This multilingual characteristic not only adds levels of complexity to the foreign language learning process, but also contributes to the unique linguistic identity of English spoken in this regional context. Therefore, the following sections start with a basic description of English and Echuwabo consonants aiming at contrasting their phonology. The phonological processes within pronunciation in language studies are also presented.

Contrasting English and Echuwabo consonant phonemes

In the study of sounds of language/s, it is possible to distinguish consonants from vowels. For this study, only consonants are explained. Consonants are those sounds that are pronounced with some sort of obstruction or constriction to the flow of air (Trask & Stockwell, 2007; Roach, 2009; Yule, 2010). In this work, whenever the word consonant is used, it will be in the phonological sense described previously, that of sounds. Our emphasis on sounds and not letters comes from the fact that many sounds do not correspond exactly to the letters, that is, there is no one-to-one correspondence between the sounds and letters of English. For example, the sound /f/ represented by the letter 'f' in 'fit' is represented by 'ph' in 'phonology'; 'ff' in 'office'; and 'gh' in 'enough.

Contrastive Analysis

In the field of language studies, researchers frequently employ the Contrastive Analysis Hypothesis (CAH) to analyze linguistic phenomena. This hypothesis facilitates the comparison of languages for various purposes. As Bian (2013) notes, CAH aims to predict "the likelihood of linguistic transfer in second language acquisition based on the similarities as well as differences between various aspects of L1 and L2" (p. 200). Drawing on this theoretical framework, we conducted a comparative analysis of phonemes from the Echuwabo language, as presented by Ngunga and Faquir (2012), and English phonemes, as detailed by Roach (2009, p. 52). Our findings reveal that the representation of Echuwabo phonemes in Ngunga and Faquir's work largely aligns with the English phonemes described by Roach, with a few exceptions. For instance, the voiced interdental fricative /dh/ in Echuwabo corresponds to /ð/ in English, while the nasal velar /ng'/ aligns with the English sound /ŋ/. Furthermore, we observed that some Echuwabo phonemes are not represented using the International Phonetic Alphabet (IPA) symbols, as employed by Roach.

The Echuwabo and English consonant phonemes show that in terms of sounds, Echuwabo has retroflex phonemes, which do not occur in English (*cf.* Roach, 2009; Ngunga & Faquir, 2012). In this study, the sounds found in English that are not present in the phonology of Echuwabo are of our interest. Based on the data in such sources, we can highlight the following patterns:

    i. The English voiceless (inter)dental fricative /θ/ does not exist in Echuwabo. However, both languages share its voiced counterpart, the interdental fricative /ð/ that is represented in Echuwabo as /dh/. Notably, while the sound /ð/ often poses challenges for learners of English as a Foreign Language (EFL), speakers of Echuwabo naturally use it, as evidenced in words such as *modha* (meaning "one"), which is similar to the English /ð/ found in words like '*mother'*.

    ii. For the palato-alveolar and palatal sounds, we noticed that the English /tʃ/ corresponds to /c/ in Echuwabo, and /ʃ/, /ʒ/, and /dʒ/ sounds found in English can be found in the words '*ixanu*' – Friday, '*ojwa*' – to burn oneself, and '*oja*' – to eat, respectively.

In conclusion, the Echuwabo language does not include the voiceless interdental fricative /θ/, as found in the English word *three*, within its phonological inventory. Applying the principles of contrastive analysis, we predict that EFL teacher trainees whose first language (L1) is Echuwabo may substitute the /θ/ sound with an alternative sound. This finding contrasts with observations in many other languages, where the commonly confused English sound is /ð/, which is absent in those languages.

Phonological processes in English Pronunciation
Deletion
In phonology, deletion refers to the removal of sounds from a word or sentence, particularly when a sound that would typically be pronounced in a deliberate or careful utterance is omitted. This phenomenon is also known as elision or omission (Hebert, 2002; Trask & Stockwell, 2007; Yule, 2010). Gimson (1989) asserts that "sounds may be elided in rapid, colloquial speech, especially in or in the vicinity of word boundaries" (p. 300). In this article, the term *deletion* is used to describe the process of omitting a sound (phoneme) in a word, where the sound would otherwise be pronounced in certain phonological contexts. For the sake of clarity, the terms *deletion* and *elision* will be used interchangeably throughout this discussion.

Insertion
Another phonological process observed in language users is insertion, also referred to as *addition* or *epenthesis* in various literature. For instance, Fromkin et al. (2014) define epenthesis as "the process of inserting a consonant or vowel" (p. 247). Merkel-Piccini (2001) further explains that insertion occurs when a sound is added either within a word or between consonants. As highlighted by these scholars, insertion plays a significant role in instances where the addition of a sound— such as a plural or past tense morpheme—helps distinguish one word from another. For example, the insertion of the vowel sound /ɪ/ before the plural morpheme /z/ in *dishes*, and before the past tense morpheme /d/ in *added*, is crucial for English speakers to clearly differentiate between words.

Substitution
EFL learners often replace sounds in the target language when they face difficulties in pronouncing certain words. This process is known as substitution. Merkel-Piccini (2004) defines substitution as the alteration or replacement of one sound or group of sounds with another from a different sound class. Typically, the replaced sounds are those that are more challenging for the speaker to articulate.
    Bowen (1999) and Merkel-Piccini (2004) identified different types of substitution. In this article, we concentrate on four of the ones they described.
    a) *Stopping* – is the substitution of a stop consonant for a fricative. For example, "pit" for "peach" /t/ replacing /tʃ/; "sail" is pronounced "tail" /t/ for /s/; "knife" is pronounced "knipe"
    b) *Fronting* (velar and palatal) – substitution of sounds in the front of the mouth, usually alveolars, for velar or palatal sounds. For example, "kea" is pronounced "tea" /t/ for /k/; "get" is pronounced "date" /d/ for /g/.
    c) *Affrication* - when a non-affricate is replaced with an affricate. For example, "Sheep" is pronounced "cheap" /tʃ/ substituting /ʃ/;
    d) *Deaffrication* - is the substitution of an affricate sound with a fricative. For example, "chips" is pronounced "ships" /ʃ/ replacing /tʃ/.

    To become effective communicators, language learners are expected to refine their English pronunciation by applying phonological processes appropriately and avoiding them in contexts where they may hinder communication. In some cases, understanding EFL learners becomes challenging when they persist in using processes such as omission or substitution in unsuitable contexts. Merkel-Piccini (2001) argues that phonological processes in language learners should typically cease by the age of seven for those acquiring the language from early childhood. However, he acknowledges that certain processes, such as *stopping* and *cluster reduction*, may persist. When these issues continue to affect learners, targeted practice activities focusing on the problematic sounds are necessary to address them effectively.

MATERIALS AND METHODS

Research Design
To identify the predominant pronunciation challenges faced by Echuwabo speakers when speaking English, this study adopted a mixed-methods approach (Fetters et al., 2019; Schoonenboom, 2023). To ensure the investigation was grounded in authentic contexts and provided insights into real-world scenarios, the researcher initially employed qualitative methods, primarily through observations. This approach allowed for the capture of pronunciation problems as they naturally occurred. In addition, text recordings were used to gather specialized phonological data, which facilitated a focused examination of specific words, enabling the study to assess the frequency and nature of pronunciation challenges faced by Echuwabo speakers. The qualitative data were then transformed into quantitative data for further analysis. Similarly, during the interview phase, both qualitative and quantitative methods were integrated to provide a comprehensive understanding of participants' experiences with EFL pronunciation. This methodology allowed for the collection of both rich, contextual data and quantifiable insights. By employing mixed methods, the study aimed to triangulate findings, offering a more robust representation of the difficulties encountered by Echuwabo speakers in the process of English language acquisition.

Research Setting
This study was conducted at a public university in Quelimane, Mozambique. Given the presence of several universities in the city, the research was carried out at one institution, referred to in this study as *Kafilili University*. The selection of this university was based on the availability of EFL students and a significant number of English speakers, including lecturers, students, and some staff members.

Sampling
Sampling refers to the intentional selection of subjects for a study, involving the process of identifying and selecting some

people from a larger research population to represent the broader research group (Blaxter et al., 2006; Bhardwaj, 2019). The selection of a sample is a critical step, requiring the use of appropriate techniques to ensure the validity of the insights gathered and, in the case of quantitative studies, the ability to generalize the findings to the broader population under investigation (Denscombe, 2003). In the present study, a purposive sampling strategy was employed to select participants. Initially, we identified students who spoke Echuwabo from the 1st to 4th year. With the assistance of a student, we randomly asked two students to choose one paper from a set numbered 1 to 4. The selected students were from the first and fourth years. Consequently, we worked with students from these two academic years. Within each of these classes, we then purposively selected students who spoke Echuwabo (Chauvet, 2015). In total, 28 students whose first language (L1) was Echuwabo were identified. Using random sampling, 14 participants were chosen from the two groups, with 7 from each class. The primary criterion for inclusion in the study was the ability to speak Echuwabo. This sampling strategy was deemed appropriate for understanding the phenomenon under investigation.

After selecting the participants, we obtained their oral consent to participate in the study. This step was preceded by a detailed explanation of the project and the guarantee that their names would not be revealed at any stage of the study, allowing anonymity of the participants. Additionally, we informed them that they would be free to quit the study at any time if they changed their mind throughout the study. In such cases, their data would not be included in the final analysis.

Data Collection Techniques
This study used three different data collection techniques, namely observation, interview, and audio recording. The use of these different techniques is known as triangulation. Bell and Waters (2018) explain that the essence lies in observing a particular phenomenon from various points of view, which are based on the data collected from two or more techniques. This enables the ability to validate or question the results obtained through one technique by comparing them with those derived from another.

Before data collection, at the time Researcher 1 was doing his MA, taking into account the internal procedures adopted at The Pedagogical University, Maputo – in ELT Department, and in order to meet the ethical procedures, the project was presented to three ELT Professors within the courses they taught and they all approved it. After this stage, the Faculty issued a credential in order to collect data in a public university, in Zambézia province. All participants were informed about the research purposes and following local practices, they provided oral consent.

Observation
When conducting language research, scholars defend the need to be involved in the field through observations. The language researchers must analyse by moving from observed facts to broader generalizations and then testing these generalizations through further observations (Kreidler, 2014). In this study, observations played a significant role in identifying and determining the phonological segments which needed attention. Therefore, researcher 1 went to field and worked with the participants in their classrooms observing what was occurring with primary focus on the pronunciation aspects. This procedure follows what Bell and Waters (2018) believe when talking about observation. These scholars claim that the participant observer is able to remember actions and speech, and to interact with people in their own environment.

Since one of the objectives of the study was to find the most mispronounced words in English, observation was used in the first phase of data collection with English language teacher trainees whose first language is Echuwabo. Although the classes had speakers of different L1, our special attention was to those previously selected, based on their L1 - Echuwabo. Therefore, the researcher paid attention to their pronunciation in four weeks, allowing us to obtain natural data. In total, fourteen lessons were observed. The time each participant spent speaking was about 6 minutes each. This was because during these four weeks, the students were presenting the topics given by their lecturer, thus, while our participants were presenting their topics, we paid special attention to them.

Interview
In addition to observation, we also used semi-structured interviews for data collection. As we stated previously, in total, 14 participants attended the interviews. The interview method in research consists of asking questions or engaging in discussions (Blaxter et al., 2006) with previously selected participants in order to explore their experience, perceptions, attitudes, knowledge, behaviours, actions, or difficulties of the phenomenon under investigation. Ruslin et al. (2022) explain that in the semi-structured interview, the interviewer is prepared to be flexible in terms of the order in which the topics are considered and perhaps more significantly to let the interviewee develop ideas and speak more widely on the issues raised by the researcher. Drawing on Labov's (2006) approach to data collection, we adapted the interview guiding questions from his study on the social stratification of language to gather sociolinguistic information about our participants' backgrounds, including the contexts in which they use English, Echuwabo, or other languages, as well as their overall experiences with learning English. However, due to word count limitations, some of this information, which is detailed in the original dissertation, has been excluded from this article.

Audio Recordings
As part of the data collection tools, we included a text and a list of words for participants to read aloud. Audio recordings were employed to capture participants' pronunciation (Amoniyan et al., 2022). Creswell and Plano Clark (2018) emphasize that when interviews are used in research, recording participants is essential to ensure a backup of information for the analysis process. Indeed, audio recordings are increasingly utilised in many EFL studies (Lam & Thi, 2022). For this study, participants were informed in advance that their readings would be recorded solely for academic purposes. Initially, recordings were used during interviews to collect sociolinguistic data from participants. Following this, teacher trainees

were asked to read a text adapted by the researcher and a list of minimal pairs which were organised or included following the analysis of data we collected from the observation stage. In general, the recording process averaged nine minutes per participant.

Data Analysis Procedures

Different types of data were collected for this study, with the analysis of observation data beginning with the transcription of commonly mispronounced words identified in the classroom. One of the techniques employed in the analysis of observation data was *selection*. Using this technique, researchers identified interesting, significant, unusual, or representative phonological issues to illustrate key arguments (Blaxter et al., 2006; Proudfoot, 2023). In contrast, data collected through interviews and audio recordings were analyzed using both qualitative and quantitative approaches. For the semi-structured interviews, qualitative analysis was applied to provide a general description of the data, starting with transcription based on participants' responses. This analysis involved organizing the data into thematic categories (Proudfoot, 2023), such as elision and substitution.

Furthermore, the audio recordings of the text and the word list were analyzed descriptively by listening to the recordings and manually transcribing the mispronounced words (Jahara & Abdelrady, 2021). The identified mispronunciations were then categorized into three themes: elision, substitution, and insertion. Regarding the procedures, Researcher 1 repeatedly listened to the recordings to phonetically transcribe the mispronounced words. Subsequently, Researcher 2 reviewed the transcriptions to validate them against the original recordings. After validation, the transcriptions were inputted into a computer to facilitate further analysis. This process enabled the calculation of frequencies, which were then presented in tables and figure created using MS Word and Excel.

RESULTS

Data from Observation

As we stated in the last section, the initial data for this study was collected through classroom observations. This technique allowed us to identify general pronunciation issues in the speech of Mozambican EFL teacher trainees whose first language (L1) was Echuwabo. The primary goal of this stage was to determine the phonological segments that would be incorporated into the reading text for further analysis.

In general, the analysis revealed that participants experienced difficulties with the pronunciation of certain consonant and vowel sounds. However, as this study focused specifically on consonants, we examined words where consonant mispronunciations occurred. Based on the observed data, the findings were organized into three distinct categories: omission, substitution, and insertion. These categories are discussed in detail in the following sections.

Phonologically, the analysis revealed that students often omitted certain sounds in their pronunciation. For instance, they failed to pronounce the sound /k/ in words such as *structure* and *accent*. The second phenomenon observed was the substitution of one phoneme for another. A significant number of participants replaced the voiceless dental fricative /θ/ in *think* with the voiceless labiodental fricative /f/, among other substitutions. The third identified process was insertion, where participants added non-existent sounds to words during pronunciation. For example, the consonant /n/ was inserted in *mouth*, and /p/ in *assert*, among other cases. Additionally, there were frequent insertions of vowel and consonant sounds across various words.

The results from the observations informed the organization of the text and word list used in the study. Based on the three phonological aspects identified in the respondents' speech, a text was specifically designed to incorporate the majority of the commonly mispronounced words.

Insights from Interviews and Audio Recordings

This section presents the results, focusing on the segmental pronunciation challenges encountered by the participants. The data are organized into three themes representing the phonological processes identified in the field: elision, substitution, and insertion. The analysis emphasizes the sounds that occurred most frequently, while less prominent occurrences are included in the accompanying tables for reference.

Elision

Under elision, we observed that Echuwabo speakers usually delete phonemes such as, /k, s, θ/. From the data obtained, we found that many participants, in a number of eleven out of fourteen, elided the sound /k/ in the words 'texts, access, express', which were pronounced as /tests/, /əˈses/ and /espres/. The way these speakers pronounced the first two words sounded as if they were reading the words 'tests and assess', while the third word was read totally odd way, that is, they produced a strange or non-existing word. For example, when pronouncing the words 'accept' and 'accepted' deletion of /k/ was discovered. These words sounded as [əsept] and [əseptɪd], instead of /əkˈsept/ and /əkˈseptɪd/.

In addition, other speakers read 'access' as [əseks] which is a strange word taking into account the context in which it was pronounced. We notice something meaningful in the latter case whereby the same /k/ that was elided appeared in a different position within the very same word. Last but not least is the word 'express' which was also pronounced as [spres]. In relation to this latter case, we found that participants elided not only the /k/ sound but also the initial short vowel sound /ɪ/ which is not part of our study. The word 'texts' was sometimes pronounced without two sounds /k/ and /s/ resulting in [test]. Some participants pronounced the singular of this word, that is, 'text', as [tete] eliminating the sounds /k/ and /s/. The very same two sounds were elided in the word 'sixth' that was read as [si:f].

Still about the elision of /k/ and /s/ phoneme, some other words were read without the occurrence of them. For example, in the word 'sixth' /k/ and /s/ were omitted. More than four participants read this word as [si:θ], a pronunciation

that could be confused with the word 'seethe' pronounced as /si:ð/.

When presenting data about /s/ phoneme we can match it with the plural allophones /s, z, ız/ that were not pronounced by about nine participants. They simply omitted them. Starting from the plural phonemes in words 'pigs, materials, steps, points, tests, utterances, circumstances', we noticed that the speakers could not pronounce these words correctly. All plural words were pronounced singular, that is, they omitted the allophone /s/, /z/, and /ız/. The phoneme /z/ was elided in 'pigs, and materials', while the sound /s/ was not heard in the words 'steps, points, tests'. The last plural allophone /ız/ was not pronounced in 'utterances, and circumstances'. The word 'circumstances' which was pronounced as [sɪrkʊnstans] had no plural marker /-ız/.

Furthermore, in the recordings we could hear [tekst] and [teks] for the word 'texts'. We verified that the participants did not include in their pronunciation the plural phone [-s] for the first time, while in the second time they elided not only the /s/ sound but also the preceding sound /t/. The word 'topics' was pronounced without its plural phone [-s], and the possessive phone [-z] in the word people's could not be heard.

Another phoneme that caused difficulty for Echuwabo speakers is the voiceless (inter) dental fricative phoneme /θ/. As a result, more than half of the participants elided it in some words. For instance, the word 'sixth' was pronounced as 'six' [sɪks] instead of /sɪksθ/. In this situation, they elided the sound /θ/ which affected the meaning, since the word he utters is different from the one written and meant in the text. In general, the words 'fifth and sixth' were read as [fɪf] and [sɪks] in the same way by many participants. It is worth noting that under elision, out of the 14 participants, it was only *Ndapota* who did not face this challenge.

Table 1. Elided phonemes

Phoneme	Mispronunciation Examples	Mispronunciation Frequency	Percentage (%)
/k/	Texts, access, accept, express [te_st, ə_ses, ə_sept, _spres].	**40**	40.40
/θ/	Fifth [fɪf_], sixth [sɪks_]	**21**	21.21
/s/	Topics [tɒpɪk_], steps [step_], points [pɔɪnt_]	**16**	16.16
/t/	texts [teks_] Circumstances [sɑ:kums_ensiz]	9	9.09
/z/	Materials [mə'teriəl_], pigs [pɪg_]	7	7.07
/d/	Accepted [ə'sept_]	3	3.03
/f/	Fifth [fi_t]	3	3.03
Total		**99**	100

Substitution

While learning a second language, learners often replace one sound of the target language with another. This section provides the results of our study which reveal the occurrence of substitution of English sounds in the teacher trainees whose L1 is Echuwabo. The data presentation of this phonological process starts with three phonemes /tʃ/, /ð/, and /v/. In the word 'which' the /tʃ/ phoneme was replaced with /f/ while in 'choose and chosen' the phoneme /tʃ/ was substituted with /ʃ/. The result was the production of words such as [wɪf] for 'which', [ʃu:z] for 'choose' and [ʃu:zən] for 'chosen'. Some participants read the words 'which' and 'with' as [wɪf] where they replaced both /tʃ/ and /ð/ in these words with /f/. The same /f/ sound was used in the place of /v/ where the word 'of' was pronounced as if it was 'off' [ɒf]. From these three situations we concluded that the /f/ sound is used by some participants to substitute /tʃ/; /ð/ and /v/. However, in different situation some participants replaced the sound /ð/, in the article 'the', with /t/ sound, pronouncing it as [tu:], a totally different word. The way they pronounced the word 'the', sounded as if they meant one of the three words 'too', 'to' or the number 'two'.

Another replacement occurred with the sounds /θ/. From the data collected, it was found that the participants face serious challenges with the voiceless dental fricative sound /θ/. In almost all the words that this phoneme occurred they replaced it either with /t/ or /s/. As the following examples illustrate, in each of the words 'three, think, thank thought, thick, through, fifth, and sixth' the sound /θ/ was replaced by /t/. As a result they pronounced them as [tri:], [tʰɪŋk], [taŋk], [tɪk], [tʰaʊts], [tru:], [fifti], and [sixti] respectively. In communication, such pronunciation could be perceived as, for example, "tree, *tink*, tank, taught, true, and fifty", thus affecting the comprehension.

Moreover, when reading the words 'third, something', as well as the other reading the word 'think', the same phoneme /θ/ which was replaced in the former examples with /t/ was substituted by /s/. They pronounced them as [sɜ:d], ['sʌmsɪŋ], and [sɪŋk]. Still, other participants substituted this sound differently. They pronounced the first word 'thought' as /ðəʊ/, sounding like the word 'though'. The word 'through' sounded like 'throat' [θrəʊt]. And 'fifth' and 'author' were read as /fɪrt/ and /æktə/. As can be seen from the transcription, it is possible to note that the sound /θ/ which does not occur in Echuwabo is also replaced by /ð/ in the words 'thought' and 'through'.

The same sound /θ/ was also replaced by /d/, /t/ or /f/. To illustrate this we have the words 'through' and 'thick' which were read as [dru:] and [dik]. For these words /θ/ was replaced by /d/. While in the words 'third, three' the /θ/ was substituted with /t/ and resulted in the following pronunciation [tɜ:t], and [tri:]. Finally, the word 'mouth' was read as if it had the phoneme /f/ at the end, instead of /θ/. It sounded [məʊnf]. We should note that in the pronunciation of 'third' the final /d/ sound is replaced by /t/.

The word 'clothe' was several times read correctly with /ð/ and in a few cases as 'cloth' producing the /θ/ sound. When reading the word 'these', very few participants replaced the consonant sound /ð/ with the voiced alveolar stop /d/, and in the same word some replaced the phoneme /z/ with /s/. The word 'these' was articulated as [di:s] instead of /ði:z/ but the number of people with this problem is very reduced compared to the ones who replaced /θ/.

Table 2. Substituted phonemes

Phoneme	Mispronunciation Examples	Mispronunciation Frequency	Percentage (%)
/θ/	Three [**fr**iː]; fourth [**f**ɔːf]; sixth [siː**f**]; through [**d**ruː]; thick [**d**ik]	**138**	64.79
/ʃ/	Should [**s**aʊnd]; shoes [**tʃ**uːz]; shake [**tʃ**ek]	**29**	13.62
/ð/	These [**d**ezə], clothe [klɒ**θ**]	**20**	9.39
/v/	Of [ɒ**f**]	7	3.29
/s/	Sink [tɪ**ŋ**k]	5	2.35
tʃ/	speech [spiː**k**], cheat [**ʃ**iːt],	4	1.88
/t/	Thought [təʊn**z**]	3	1.41
/z/	clothes [klɒt**s**]	3	1.41
/d/	Third [tɜː**t**]	2	0.94
/f/	Laugh [lɑː**g**/ lɑː**v**]	2	0.94
Total		**213**	**100**

Insertion

In the last two sections we concentrated on elision and substitution. In this section, we concentrate on insertion where a non-existing sound in a word is introduced. From the collected data, it was found that in terms of insertion the participants introduce the phonemes **/r/**; **/n/**; **/s/**; and **/j/** in their pronunciation as illustrated in the following paragraphs.

The phoneme **/r/** was inserted by 11 participants out of 14. Almost all participants inserted the /r/ frequently in the words 'disturb' and 'circumstances', as shown in the following transcriptions. Some participating Echuwabo speakers pronounced the words 'disturb' and 'circumstances' as [dɪˈstɑːrb], and [sɪrkunsntəs], others pronounced 'circumstances' as [sɪrkəstɑːnts]. The words 'fifth' and 'assert' were read as [fɪrt] as [əsɜːrt] respectively inserting the /r/ phoneme. The same phoneme was also inserted in the word 'hear' which was read as [irə].

The next sound which was found to be introduced in the words is **/n/**. It was heard in the word 'mouth' pronounced by different speakers as [maʊ**n**θ], [məʊ**n**f], [maʊ**n**t], [mɑː**n**tθ]. The way the word was pronounced could be perceived as meaning 'month' /mʌ**n**tθ/ or mouth /maʊθ/. The insertion of /n/ in the word 'utterance' resulted in [ʌ**n**tərənts]. Also /n/ was inserted in the words 'thought, should' articulated as [təʊ**n**z, saʊ**n**d].

Equally important result is the insertion of /s/ in the words 'thought' and 'fourth' which were pronounced as [tʰaʊt**s**], [tɔːt**s**] and fɔːt**s**]. The word 'sheet' was pronounced as [sɪt**s**]. Looking at the transcription of these words, the insertion of /s/ is visible as the last phoneme of the words which is not found in the orthographic word.

Similarly, the participants inserted the /j/ phoneme in the word 'utterance' and pronounced it as [**j**uːtərən*t*s]. While the word is normally pronounced as /ˈʌtərən*t*s/, the way it was pronounced by the participants could create some problems in normal conversations.

Table 3. Inserted phonemes

Phoneme	Mispronunciation examples	Mispronunciation Frequency	Percentage (%)
/r/	disturb [dɪˈstɑː**r**b]; circumstances [sɪ**r**kunsntəs]	**23**	52.27
/n/	utterance [ʌ**n**tərənts]; thought, should, mouth [təʊ**n**z, saʊ**n**d, and maʊ**n**t]	**7**	15.90
/s/	thought [tɔːt**s**]; fourth [fɔːt**s**].	**4**	9.09
/j/	Utterances [**j**uːtərənts]	4	9.09
/θ/	through [θɔː**θ**]; true [θɔː**θ**]	2	4.54
/k/	Assess [æ**k**.ses]	2	4.54
/g/	through [truː**g**]; sometimes [sʌmtɪn**g**s]	2	4.54
Total		**44**	**100**

In terms of insertion, this table reveals that two phonemes /r/ and /n/ are frequently inserted by the English teacher trainees. The other two, /s/ and /j/, are not frequently observed. Whereas the remaining phonemes can be considered to occur in particular people due to other factors which might need to be studied and discussed in a different paper. The following figure summarises the general major pronunciation problems identified:
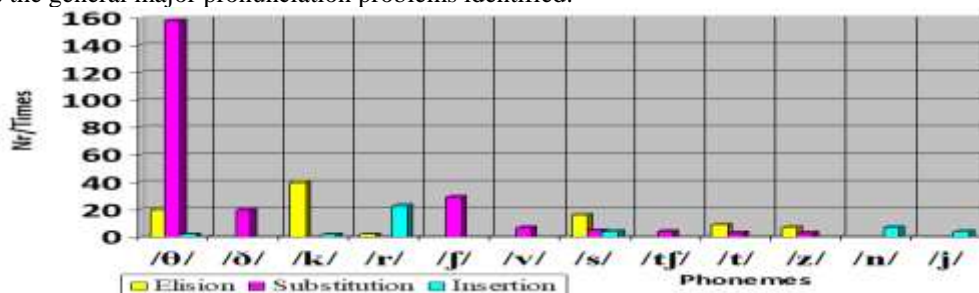

Figure 1. The most mispronounced phonemes

DISCUSSION

Learning a foreign language often involves overcoming various challenges, including the accurate production of sounds in words or sentences. This study revealed that Echuwabo speakers face different difficulties grouped in three different phonological processes: elision, substitution, and insertion. The findings indicate that the participating EFL learners struggle particularly with the voiceless dental fricative phoneme /θ/, which is absent in Echuwabo. According to the Contrastive Analysis Hypothesis (CAH), similarities between the target language and the learners' first language (L1) tend to minimize pronunciation challenges, whereas the absence of specific sounds in the L1 increases the likelihood of difficulties in accurately pronouncing words or sentences (Bian, 2013; Larsen-Freeman & Long, 1991).

The difficulty in producing the /θ/ sound can be attributed to its absence in the participants' first language (L1). This challenge was observed in all the EFL students involved in this study, except for one. To compensate for this gap, participants employed two distinct phonological processes in their attempts to articulate the /θ/ phoneme correctly. They either omitted /θ/ entirely or, more commonly, substituted it with sounds such as /f/, /t/, /s/, or /ð/, which are present in their L1. These findings are consistent with the results of previous studies, including those by Ercan and Kunt (2019).

Our findings revealed several instances of mispronunciation involving the substitution or omission of the /θ/ phoneme. Examples include words like *thought* [**t**ɔːt], *think* [**s**ɪŋk], *three* [**f**riː], and *cloth* [kləʊ**ð**], where substitution of /θ/ occurred, and *fifth* [fif], where elision of the same phoneme was observed. These results align with the principles of the Contrastive Analysis Hypothesis (CAH) as defended by Ellis and other scholars. Drawing on Richards and Schmidt (2002), it can be concluded that the difficulty Echuwabo-speaking learners' face in pronouncing the voiceless dental fricative /θ/ stems from first language (L1) interference. As they explain, interference or negative transfer occurs when the phonological features of the L1 hinder the acquisition of sounds in the second or foreign language. The absence of /θ/ in Echuwabo, therefore, poses a significant challenge to the accurate pronunciation of English by these students.

Moreover, it is crucial to examine how differences in the pronunciation of the voiceless dental fricative /θ/ impact communication. While the context in which words are spoken often provides clues to the interlocutor about the intended meaning, there are instances where mispronunciation may lead to misunderstanding, even within a given context. In some cases, phonological processes, though natural, may not require correction. However, in many situations, incorrect pronunciation can result in confusion. For instance, consider a scenario where the question is "What did you do before coming here?" and the response is "I thought about the importance of English." If the verb "thought" is pronounced as [tɔːt], it could be misheard as "taught" due to the minimal pair relationship between the two words. As a result, the listener may misunderstand the response as "I taught (a lesson) about the importance of English." This example illustrates how incorrect pronunciation can affect intelligibility and cause confusion.

In the contrastive analysis section, we noted that the /ʃ/ sound is present in the Echuwabo vocabulary. However, the results showed that more than half of the participants replaced this voiceless palatal fricative /ʃ/ with the voiced palatal affricate /tʃ/, as seen in words like *shoes* [tʃuːz] and *sheet* [tʃiːt]. This type of substitution, where /tʃ/ is used in place of /ʃ/, is referred to as affrication (Bowen, 1999; Merkel-Piccini, 2001, 2004). Such mispronunciations can negatively impact meaning and comprehension. Interestingly, this issue cannot be attributed to L1 influence, as the /ʃ/ sound exists in both English and Echuwabo. Therefore, it appears that the problem extends beyond L1 interference, suggesting other factors may be contributing to this mispronunciation.

In contrast, when some participants substituted the voiced dental fricative /ð/ with the voiced alveolar plosive /d/ in words such as *this* [dis] and *these* [diːz], the meaning was not affected, primarily due to the context in which these words were pronounced. As Gimson (1989) suggests, the substitution of /ð/ with /d/ is not always problematic, especially when the /d/ sound is aspirated as /dʰ/. It is worth noting that similar studies have reported the non-existence of /ð/ and /θ/ in many languages (Mikuláštíková, 2012; Pal, 2013). However, while this study's results align with previous findings showing that the /θ/ sound, which does not occur in Echuwabo, causes the most confusion, the counterpart /ð/ is present in Echuwabo. The difficulty with /ð/ was therefore less pronounced, as this sound appears in Echuwabo words like '*odhowa*' – go; and '*Vinama dhigwa*' - the animals fell down. This presents an opportunity for teachers to make good use of the presence of the /ð/ sound in Echuwabo when teaching English. By focusing on words with the /ð/ phoneme that are already familiar to students, teachers can avoid extensive drilling and more effectively address the challenges students face with the /θ/ sound.

Our data revealed that the participants elided the voiceless dental fricative /θ/, which occupied the first position in the rank of difficulty phonemes for Echuwabo speakers. Similarly, /k/, /s/, /d/ and /z/ were also elided though in less often cases. Therefore, it can be concluded that Gimson's (1989) preview on the environments in which this phonological process is more likely to occur is confirmed. For instance, we found that many students elided the /k/ phoneme in 'texts', 'access', and 'express'. We also found that the plural marker /s/, /z/ and the past tense /d/ were deleted in words like 'texts, steps, pigs, and accepted'. This takes place when the word is found in a sentence in order to facilitate the 'pace' of the pronunciation.

Unlike Echuwabo, English has words that have more consonant clusters. They are frequently reduced in both second and foreign learning context. The elision of the plural marker or past tense phoneme may be compensated by the context in which the word is found. We cannot affirm that this phenomenon is only the result of L1 as we did with the voiceless (inter)dental phoneme. It is considered as occurring with regularity in formal speech even of the native speakers (Gimson, 1989). The reasons behind it may be related to the target language itself. Speakers tend to reduce the number of consonants in consonant cluster so that they can easily and quickly pronounce the words. However, as we said previously this process should not affect the meaning of the content to be communicated.

Our findings revealed that the phonemes /r/, /n/, /s/ and /j/ were inserted in some words. Different scholars say that in some cases people will insert a sound between consonant clusters as a way of minimizing the problems they encounter with the pronunciation of consonant sounds combination (Lam & Thi, 2022). The phenomenon of insertion as heard in

8

some words like 'utterance' pronounced as [ʌntərənt s] and **[ju:tərənts]**, mouth [maʊ**n**t] and fourth [fɔ:t**s**], clearly affects the meaning of the message to be conveyed. As such, it is necessary to deal with these words in order to get EFL students articulate them correctly.

In relation to /r/, it was found that most of the participants insert this sound in words like 'disturb' [dɪˈstɑ:**r**b], and 'circumstances' [sɪ**r**kunsntəs]. The insertion of this phoneme cannot be directly attributed to the phonological differences between the two languages. Upon examining these words, it is plausible that the issue may be related to spelling conventions. In Echuwabo, the presence of the /r/ sound is evident in words such as '*muri'* and '*miri'*, meaning "tree" and "trees", where the letter 'r' is pronounced, unlike in English, where the pronunciation of 'r' can sometimes be silent, as in the words being analyzed. This suggests that pronunciation challenges cannot be solely explained by a single factor (Jones, 2002; Chitulu & Njemaze, 2015). It can be concluded that both internal and external factors play a role in shaping the pronunciation patterns of foreign language learners.

Summing up, since the participants are being trained to become English teachers, accurate pronunciation is crucial. If these pronunciation problems persist, their students may encounter similar difficulties, not necessarily due to the differences between L1 and L2, but because of the teachers' own pronunciation challenges.

CONCLUSION

This study aimed to examine the pronunciation challenges faced by Echuwabo speakers learning English, with a focus on segmental phonological issues that arise due to the phonological differences between the two languages. The findings reveal that these learners encounter significant difficulty with several English consonant sounds, most notably the voiceless dental fricative /θ/, which does not exist in their L1, Echuwabo. The most pronounced difficulty involved the substitution of /θ/ with other phonemes such as /s/, /t/, /f/, and sometimes /ð/, indicating that the absence of this sound in their L1 contributes substantially to the mispronunciation. In addition, the substitution of the voiceless palatal fricative /ʃ/ with the voiceless palatal affricate /tʃ/ was another major issue, highlighting a phonological process known as affrication.

The analysis revealed three major phonological processes under which pronunciation difficulties were grouped: elision, substitution, and insertion. The /θ/ sound was particularly affected by substitution, while the /k/ sound was often omitted (elision), and the /r/ sound was occasionally inserted where it was not supposed to be. These processes reflect the complexity of L1-L2 phonological interactions, where sounds in English either align or differ significantly from those in Echuwabo, influencing the way learners articulate them.

These challenges suggest that pronunciation difficulties in English for Echuwabo speakers are not solely due to L1 interference but may also be influenced by other factors, such as spelling conventions or a lack of awareness of English phonological rules. The lack of a one-to-one correspondence between spelling and pronunciation in English may add the level of difficulties to the learners' ability to produce certain sounds correctly.

Interestingly, the voiced dental fricative /ð/, often considered a particularly challenging sound for EFL learners, did not present the same level of difficulty for the participants in this study. This finding contrasts with previous researches that have identified /ð/ as a major source of pronunciation problems. The reduced difficulty level with /ð/ could be attributed to the presence of a similar sound in Echuwabo, which facilitated the students' ability to produce it correctly in most cases. This fact highlights the importance of understanding the phonological similarities and differences between languages, which can either ease or exacerbate the learning of specific sounds in Mozambican or other similar EFL contexts.

This paper offers a unique contribution to the understanding of phonological challenges faced by Echuwabo speakers in the context of English language learning. The identification of specific problematic sounds, particularly those not present in the learners' L1, provides valuable insights for EFL lecturers working with this group of students. The study also contributes to the broader field of contrastive analysis by demonstrating how specific language phonological patterns impacts the EFL learners' pronunciation.

In conclusion, this study highlights the importance of understanding the phonological challenges faced by learners with specific L1 backgrounds, particularly when these challenges arise from the absence or difference of certain sounds in their native language. Teachers of English as a Foreign Language should be aware of these phonological differences to adapt their teaching strategies effectively. Given the significant role of pronunciation in communication, these challenges should be addressed early in the language learning process to ensure that learners can produce intelligible and accurate speech.

While the study offers significant insights, it is important to acknowledge its limitations. Mozambique is a linguistically diverse and expansive country. Therefore, future studies should focus on different languages rather than Echuwabo, and be conducted in different locations within the country and focus on different study group since a larger and more diverse sample could provide more generalizable findings. Furthermore, the study concentrated on segmental pronunciation aspect, but other aspects of language acquisition, such as prosody and vocabulary, were not explored. Future research could concentrate on these aspects, and investigate the relationship between segmental and suprasegmental features in the English pronunciation of Echuwabo speakers. Moreover, the study's focus was primarily on identifying and categorizing pronunciation aspects, but it did not explore the cognitive or socio-cultural factors that may influence the pronunciation process. Further studies could explore the role of cognitive processing, motivation, and exposure to English in enhancing pronunciation skills. Additionally, the potential impact of explicit phonological instruction on improving pronunciation could be explored to offer practical recommendations for EFL lecturers or teachers.

REFERENCES

Almusharraf, A. (2024). Pronunciation instruction in the context of world English: Exploring university EFL instructors' perceptions and practices. *Humanities and Social Sciences Communications, 11*, 1-11, Article 847. https://doi.org/10.1057/s41599-024-03365-y

Amoniyan, O. M., Oladipo, A. M., & Ogunka, O. I. (2022). Acoustic correlates of stress assignments of loanwords among Nigerian speakers of English. *American International Journal of Education and Linguistics Research*, *5*(1), 8-20. https://doi.org/10.46545/aijelr.v5i1.275

Bell, J., & Waters, S. (2018). *Doing your research project: A guide for first-time researchers in education, health and social science (*7th ed.). McGraw-Hill Education

Bhardwaj, P. (2019). Types of sampling in research. *Journal of the Practice of Cardiovascular Sciences, 5*(3), 157-163. https://doi.org/10.4103/jpcs.jpcs_62_19

Bian, F. (2013). The influence of Chinese stress on English pronunciation teaching and learning. *English Language Teaching*, *6*(11), 199-211. http://dx.doi.org/10.5539/elt.v6n11p199

Blaxter, L., Hughes, C., & Tight, M. (2006). *How to research* (3rd ed.). Open University Press.

Bowen, C. (1999). *Phonological Processes*. Retrieved from http://www.speech-language-therapy.com/

Chauvet, G. (2015). Coupling methods for multistage sampling. *The Annals of Statistics, 43*(6), 2484-2506. https://doi.org/10.1214/15-AOS1348

Chitulu, O. M., & Njemanje, Q. V. (2015). Poor English among Nigeria ESL students: The ICT solution. *International Journal of Language and Literature*, *3*(1), 169- 179. http://dx.doi.org/10.15640/ijll.V3n1a22 on 28th June 2017

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.

Denscombe, M. (2003). *The good research guide: For small-scale social research projects (*2nd ed.). Open University Press.

Ercan, H., & Kunt, N. (2019). Is it really difficult to produce correct th (/ð / and /θ/) sounds in English for EFL learners? A case study in Northern Cyprus. *Journal of Language and Linguistic Studies, 15*(3), 926-936. Retrieved from https://files.eric.ed.gov/fulltext/EJ1230252.pdf

Fromkin, V., Rodman, R., & Hyams, N. (2014). *An introduction to language* (10th ed.). Wadsworth Cengage Learning.

Gimson, A. C. (1989). *An Introduction to the Pronunciation of English* (4th ed.). Eduard Arnold.

Gonçalves, G. J. (2019). Critical analysis in use of communicative competence to improve teacher trainees' oral ability and teaching of English at the teacher training colleges in Zambézia, Mozambique. *European Journal of Foreign Language Teaching*, *4*(1), 54-64. http://dx.doi.org/10.46827/ejfl.v0i0.2228

Hassan, E. M. (2014). Pronunciation problems: A case study of English language students at Sudan University of Science and Technology. *English Language and Literature Studies, 4*(4), 31-44. http://dx.doi.org/10.5539/ells.v4n4p31

Hebert, J. (2002). PracTESOL: It's not what you say, but how you say it!". In J. C. Richards (Ed.), *Methodology in language teaching: An Anthology of Current Practice* (pp.188-200)*.* Cambridge University Press. Retrieved from http://www.ling.hawaii.edu/faculty/donegan/Papers/2009hypotheses.pdf

Jahara, S. F., & Abdelrady, A. H. (2021). Pronunciation problems encountered by EFL learners: An empirical study. *Arab World English Journal, 12*(4), 194-212. https://dx.doi.org/10.24093/awej/vol12no4.14

Jihad, S., & Damayanti, I. L. (2024). Examining pronunciation patterns of English education students: An analysis of segmental sounds and word stress. *Journal of Education Global*, *1*(2), 115-121. Retrieved from https://penaeducentre.com/index.php/JEdG/article/view/70

Jones, R. H. (2002). Beyond 'listen and repeat': Pronunciation teaching materials and theories of second language acquisition. In J. C. Richards (Ed.), *Methodology in language teaching: An anthology of current practice* (pp. 178-187). Cambridge University Press.

Kreidler, C. W. (2014). *The pronunciation of English: A course book* (2nd ed.). Blackwell Publishing.

Labov, W. (2006). *The social stratification of English in New York city* (2nd ed.). Cambridge University Press.

Lam, T. T. K., & Thi, N. A. (2022). Common mistakes in pronouncing English consonant clusters: A case study of Vietnamese learners. *Can Tho University Journal of Science, 14*(3), 32-39. https://dx.doi.org/*10.22144/ctu.jen.2022.040*

Mambico, O. D. (2024). The phonological interference of Portuguese language in the learners' English language pronunciation: implications for interaction. *European Journal of Literature, Language and Linguistics Studies, 8*(2), 1-21. http://dx.doi.org/10.46827/ejlll.v8i2.534

Merkel-Piccini, R. (2001). *What's news in speech! Phonological processes*. Super Duper Publications. Retrieved from http://www.superduperinc.com/handsout/pdf/23_phonological_processes

Merkel-Piccini, R. (2004). *Phonological Processes*. Super Duper Publications. Retrieved from http://www.superduperinc.com/handsout/pdf/66_phonological_processes

Mikuláštíková, J. (2012). *Teaching pronunciation at secondary level* [Master Dissertation, Filozofická Fakulta]. Univerzita Palackého v Olomouci. Retrieved from https://theses.cz/id/svihrl/Master_Thesis_Teaching_Pronunciation.pdf

Momade, R. A. U. (2021). An examination of incorrect English pronunciation in communication at Mozambique island secondary school in the grade 12th syllabus. *Alkebulan: A Journal of West and East African Studies, 1*(1), 31-44. Retrieved from https://gnosipress.com.ng/index.php/alkebulan/article/view/4/3

Mompean, A. R. (1997). Pronouncing English in Brazil. *English Today*, *13*(1), 28-35. https://doi.org/10.1017/S0266078400009433

Ngunga, A., & Faquir, O. G. (2012). *Padronização da ortografia de línguas moçambicanas: Relatório do III seminário [*Standardization of the orthography of Mozambican languages: III Seminar report*]*. Centro de Estudos Africanos.

Pal, S. (2013). *Mother tongue influence on spoken English* [Conference Session]. International Conference "ICT for Language Learning" (6th ed.), Central Institute for Education, India. Retrieved from https://conference.pixel-online.net/conferences/ICT4LL2013/common/download/Paper_pdf/243-RVS01-FP-Pal-ICT2013.pdf

Proudfoot, K. (2023). Inductive/deductive hybrid thematic analysis in mixed methods research. *Journal of Mixed Methods Research*, *17*(3), 308-326. https://doi.org/10.1177/15586898221126816

Richards, J. C., & Schmidt, R. (2002). *Longman dictionary of language teaching and applied linguistics* (3rd ed.). Pearson Education Limited.

Roach, P. (2009). *English phonetics and phonology: A practical course* (4th ed.). Cambridge University Press.

Ruslin, R., Mashuri, S., Rasak, M. S. A., Alhabsyi, F., & Syam, H. (2022). Semi-structured Interview: A methodological reflection on the development of a qualitative research instrument in educational studies. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, *12*(1), 22-29. Retrieved from https://www.iosrjournals.org/iosr-jrme/papers/Vol-12%20Issue-1/Ser-5/E1201052229.pdf

Schoonenboom, J. (2023). The fundamental difference between qualitative and quantitative data in mixed methods research [60 paragraphs]. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, *24*(1), Article 11. http://dx.doi.org/10.17169/fqs-24.1.3986

Trask, R. L., & StockwelL, P. (2007). *Language and linguistics: The key concepts* (2nd ed.). Taylor & Francis e-Library.

Yule, G. (2010). *The study of language* (4th ed.). Cambridge University Press.

Publisher's Note: ACSE stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.