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Phonology article

An Analysis Of Vowel And Consonant Errors In English Speech For EFL Students In Indonesia

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A B S T R A C T

Pronunciation plays a crucial role in ensuring effective communication, yet many Indonesian EFL learners continue to struggle with accurately producing English vowel and consonant sounds. This study explores the segmental pronunciation errors commonly made by university students majoring in English education. Data were collected from 20 participants using a qualitative descriptive approach, including questionnaires and targeted phoneme identification tasks. The findings highlight the need for integrating focused phonetic training, International Phonetic Alphabet (IPA) literacy, and technology-assisted pronunciation practice into English language teaching. By addressing both linguistic and affective factors, educators can help learners overcome pronunciation barriers and develop clearer, more confident spoken English.

INTRODUCTION

Effective communication relies heavily on pronunciation, particularly when learning a foreign language like English. In addition to causing discrepancies in how words are spoken, mispronounced words can also make communication difficult, even when vocabulary and grammar are accurate. Pronouncing certain English sounds, particularly vowels and consonants that are absent from their mother tongue's phonological system, can be challenging for many EFL learners in Indonesia.

According to Sari and Wibowo (2017) examined how mother tongue (L1) interference affects pronunciation errors in EFL learners in Indonesia. They found that pronunciation errors such as the substitution of interdental sounds /θ/ and /ð/ with /t/ and /d/ were strongly influenced by the absence of similar phonemes

in Indonesian. In addition, long vowel and diphthong pronunciation errors also often occurred due to the different phonological patterns of the mother tongue. This study emphasizes the importance of teaching approaches that target phonological awareness and intensive phonetic practice.

Segmentally, the primary factor influencing speech intelligibility is how vowels and consonants are pronounced. EFL students in Indonesia continue to face significant difficulties with interdental sounds (/θ/, /ð/), labiodental sounds (/f/, /v/), velar sounds (/k/, /g/, /ŋ/), and consonant clusters like /spl/ and /kst/, according to research conducted at different educational levels. In a study by Putri and Santoso (2019), it was found that the English language learning curriculum in Indonesian schools tends to emphasize grammar and vocabulary, so that the pronunciation aspect receives less attention. This results in a lack of systematic phonetic practice and limited exposure to native speakers or authentic materials. For instance, because there are no comparable phonemic equivalents in Indonesian, many people substitute /t/ for /θ/ or /ð/ for /d/. Additionally, neutral vowels like /ə/, diphthongs, and long vowels like /i:/ are frequently mispronounced or shortened.

Almost invariably, these mistakes are systematic. One of the main causes of pupils transferring their L1 articulation patterns into English is mother tongue (interlingual) interference. Furthermore, because pupils do not yet fully comprehend the features of English articulation, intralingual factors (such as phonological awareness) make the error pattern much worse. Learning methods that continue to disregard pronunciation worsen this issue. Because grammar and vocabulary are given more weight in traditional curriculum, thorough phonetic exercises—which call for patience, concentration, and specialized methods—are sometimes overlooked. Additionally, pupils are not exposed to many native speakers or authentic materials, which hinders their ability to develop proper phoneme perception.

Since their pronunciation is deemed odd, many students experience feelings of inferiority and fear criticism from a motivational and affective standpoint. Despite the fact that direct speaking practice is one of the best strategies to improve pronunciation, this social pressure frequently prevents them from speaking. According to Hidayat and Lestari (2021) examined the effectiveness of minimal paired practice and direct feedback in improving consonant and vowel pronunciation in high school students in Indonesia. The results showed that this combination of exercises significantly improved pronunciation errors, especially on difficult sounds such as /f/, /v/, and consonant clusters. In addition, students showed increased confidence and motivation to speak after receiving constructive feedback.

This study will investigate the phonological errors of vowels and consonants in the speech of EFL students in Indonesia in light of these linguistic, pedagogical, emotional, and technical problems. Long vowels, fricatives, diphthongs, and consonant clusters are examples of segmental error patterns that are included in the analysis. Additionally, the factors that cause these errors include intralingual factors, affective conditions like insecurity, situational factors like exposure to input and teaching methods, and L1 interference. Additionally, by integrating CAPT technology, minimal pairs, and the phonetic drill approach, the study will provide a suitable teaching plan providing.

As a result, in addition to a more thorough mistake mapping, a useful contribution is made in the form of instructional suggestions that encourage improved pronunciation and assist students in communicating more effectively, self-assuredly, and pertinently in cross-cultural situations. Lastly, this introduction highlights the importance of research in the Indonesian EFL context, as well as its significance to teaching methods, technology advancements, and students' psychological states.

METHOD

This research adopted a qualitative descriptive method aiming to explore the types and patterns of pronunciation errors, particularly in vowel and consonant sounds, made by non-native English speakers. The qualitative design allowed for a more in-depth understanding of how learners perceive their pronunciation difficulties and how these affect their spoken English performance. The study focused on identifying recurring issues and their possible causes, rather than measuring pronunciation accuracy statistically.

A total of 20 participants took part in this study. They were university students majoring in English education at an institution in Indonesia. All participants had at least one year of exposure to formal English phonology instruction and were considered to be at an intermediate to upper-intermediate level of proficiency based on their academic background and English learning experience. The selection was done purposively to ensure the relevance of their responses to the topic of pronunciation errors.

To collect data, the researcher designed a questionnaire comprising nine items both open-ended and close-ended to capture students' experiences and reflections regarding their pronunciation of English vowels and consonants. The instrument was created in English and distributed through an online platform (Google Forms) to ensure easy access and flexibility for the respondents.

RESULTS AND DISCUSSION

This study shows the challenges faced by learners in mastering English pronunciation, particularly concerning vowel and consonant sounds. The analysis reveals several important findings that have significant implications for teaching strategies and the development of English phonology curricula.

Firstly, it was found that only about 44.4% of participants truly understand the difference between vowels and consonants. This lack of understanding is caused by several factors, including the absence of explicit instruction regarding the articulatory and acoustic properties that distinguish vowels (produced with an open vocal tract) from consonants (which involve some degree of constriction or closure of the vocal tract). Additionally, the influence of the learners' native language plays a crucial role, as their native phonemic inventories may not align with English, making it difficult for them to recognize and accurately produce English sounds. This lack of knowledge leads to pronunciation errors and difficulties in comprehension, especially with minimal pairs such as "ship" and "sheep," which differ only in vowel sound.

To address this issue, recommended teaching methods include providing clear phonetic instruction using visual aids such as vocal tract diagrams, audio examples, and articulatory descriptions. Moreover, contrastive analysis between English sounds and those of the learners' native language can enhance phonological awareness. Practice with minimal pairs is also highly encouraged to improve phoneme discrimination and production skills.

Secondly, the study shows that participants' familiarity with IPA (International Phonetic Alphabet) symbols is very low, with only about 22.2% truly recognizing and understanding these symbols. IPA is a universal system important in phonetic learning because it enables learners to accurately read phonetic transcriptions and imitate foreign language sounds without relying on spelling. However, limited understanding of IPA is often due to traditional teaching methods that emphasize spelling and vocabulary memorization over phonetic literacy. The complexity and unfamiliarity of IPA symbols can also intimidate learners if not introduced gradually.

To improve IPA comprehension and usage, instruction should begin early by introducing IPA symbols alongside new vocabulary and sounds. The use of interactive learning tools such as digital apps, flashcards, and interactive charts that connect IPA symbols with their corresponding sounds in audio-visual form can help learners grasp the concepts more easily. Contextual practice involving transcription of simple words and sentences, gradually increasing in complexity, can also boost learners' confidence in using IPA.

Furthermore, the study found variation in participants' phoneme identification skills; some could recognize phonemes in isolated words but struggled with more natural, connected speech. This indicates the need for training not only in segmental features (phonemes) but also suprasegmental features (intonation, stress, and rhythm). While learners may identify sounds theoretically, applying this knowledge in real communication remains challenging.

To enhance overall phonological competence, a multisensory learning approach is recommended, combining auditory, visual, and kinesthetic activities to reinforce sound recognition and production. Providing immediate and constructive feedback during pronunciation practice is important to correct errors promptly. Additionally, regular exposure to authentic language through media and direct interaction with native speakers can help learners become accustomed to natural pronunciation patterns.

The lack of IPA mastery causes participants difficulties in reading phonetic transcriptions and imitating sounds not found in their native language. For example, the symbols /θ/ and /ð/, representing dental fricatives in English, often confuse Indonesian speakers because these sounds do not exist in Indonesian. This results in an inability to distinguish and produce these sounds correctly, ultimately affecting the clarity and comprehension of their spoken communication. Therefore, strengthening phonetic instruction and IPA literacy is crucial to improving pronunciation skills and effective communication in English.

This study also highlights the participants' ability to identify phonemes in certain words, with a particular focus on the word "thing." The results showed that only about 33.3% of participants were able to correctly identify the phonemes of the word as /θɪŋ/. The majority of participants had difficulty distinguishing the sound /θ/ (voiceless dental fricative) from /t/ (voiceless alveolar stop) and /ð/ (voiced dental fricative), often substituting these sounds with those more familiar from their

native language. This difficulty can be explained by the fact that the sounds /θ/ and /ð/ do not exist in Indonesian, so participants tend to use the closest substitute sounds. This indicates that without special training and a deep understanding of the articulation of these sounds, participants will continue to experience confusion in correctly pronouncing and recognizing these phonemes. Therefore, phonetic instruction emphasizing intensive articulation and listening practice is necessary for participants to accurately distinguish and produce these sounds.

Furthermore, the study also found that participants experienced significant difficulty distinguishing between long and short vowel sounds, such as the /i:/ sound in "sheep" and the /ɪ/ sound in "ship." Only 11.1% of participants were able to correctly differentiate these two vowel sounds. This difficulty arises because Indonesian does not have meaningful vowel length distinctions that differentiate word meanings, so participants lack sensitivity to the differences in duration and vowel quality important in English. As a result, participants often pronounce words like "ship" and "sheep" with similar vowel sounds, which can cause misunderstandings in oral communication. This phenomenon underscores the importance of teaching that emphasizes vowel length differences through repeated listening and pronunciation practice, as well as learning methods involving visualization of sound duration and kinesthetic exercises to help participants physically feel the difference in vowel length. With this approach, it is hoped that participants can improve their ability to recognize and accurately produce long and short vowel sounds, making their verbal communication clearer and more effective.

The study also examined participants' ability to identify the number of consonants and vowels in simple words such as "cat," "jump," and "bag." For the word "cat" (/kæt/), 66.7% of participants correctly identified that the word consists of two consonants and one vowel. However, some participants miscounted the number of vowels or consonants, indicating ongoing confusion in identifying the phonemic components of a word.

In the case of the word "jump" (/dʒʌmp/), the success rate increased sharply, with 88.9% of participants answering correctly. This suggests that phoneme structures in words with clearer consonant-vowel patterns are easier for participants to recognize. For the word "bag" (/bæg/), 66.7% of participants also answered correctly, though some still made errors, particularly in counting the vowels.

These errors indicate that although participants have begun to understand phoneme patterns in simple words, further practice is needed to improve the accuracy of phoneme identification, especially in words with more complex phoneme combinations.

Overall, the study's findings show that pronunciation errors of vowels and consonants in English among participants are strongly influenced by several key factors: a lack of basic understanding of phonemes, limited mastery of IPA symbols, and difficulties distinguishing similar sounds or sounds absent in their native language.

Based on these findings, several important recommendations can be developed to improve English pronunciation teaching:

a. Enhancement of Basic Phonology Teaching

Teachers need to emphasize learning the difference between vowels and consonants from the beginning, providing concrete examples through audio-visual materials to

help students better understand and distinguish these two sound types. Basic phonology instruction should be an integral part of the English curriculum to build a strong foundation in pronunciation.

b. IPA Training and Introduction

Mastery of IPA symbols should be mandatory in phonetic learning. Teachers can use various interactive media, such as phonetic apps or listening exercises, to train students to recognize and pronounce IPA symbols correctly. Understanding IPA enables students to read dictionaries more easily, imitate native speakers' pronunciation, and self-correct their pronunciation errors.

c. Minimal Pairs and Drilling Exercises

Practicing minimal pairs—words that differ by only one vowel or consonant sound, such as "ship" vs. "sheep" or "thing" vs. "sing"—is crucial for enhancing students' phonemic sensitivity. These exercises should be repeated frequently (drilling) so students become accustomed to hearing and producing subtle but meaningful sound differences.

d. Use of Visual and Audio Media

Articulation diagrams, demonstration videos, and sound recordings can help students understand tongue and lip positions when pronouncing specific sounds, especially those absent in their native language. Visual and audio media also make learning more engaging and easier to comprehend.

e. Continuous Evaluation and Feedback

Teachers should provide regular evaluations and specific feedback on students' pronunciation errors so they can gradually improve. Evaluations can be conducted through oral tests, voice recordings, or direct observation during speaking activities.

7. Further Implications and Research Suggestions

This study also offers important implications for the development of English curriculum and teaching methods in Indonesia. There is a need to integrate phonology learning, IPA training, and the use of technology and interactive media in the learning process. Furthermore, future research could involve a larger number of participants, expand the range of tested words, or compare results across different age groups and educational backgrounds.

CONCLUSION

The results of this research demonstrate that Indonesian EFL students continue to face substantial challenges in mastering English vowel and consonant pronunciation. The most frequent errors involve the mispronunciation of long and short vowels, as well as the substitution of unfamiliar consonant sounds with those more common in Indonesian. These difficulties stem from a lack of foundational phonological knowledge, limited familiarity with IPA symbols, and the absence of certain English sounds in the students' native language. Furthermore, traditional teaching methods that prioritize grammar and vocabulary over pronunciation contribute to these persistent issues. To address these challenges, it is essential to implement comprehensive phonetic instruction that includes IPA literacy, minimal pairs drills, and regular exposure to authentic spoken English. By adopting these strategies, educators can help students develop clearer, more accurate pronunciation and greater confidence in spoken English, ultimately enhancing their communicative competence in academic and real-world contexts.

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