

## An Analysis of Pronunciation Error Frequency in Selected English Words among EFL Learners

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### INFO ARTIKEL

**Riwayat Artikel:**

Received : 20-12-2025

Revised : 05-01-2026

Accepted : 08-01-2026

**Keywords:** *EFL Learners, IPA, Phonological Transfer, Plural Morphemes, Pronunciation Errors, Segmental Errors*

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DOI: <https://doi.org/10.62335>

### ABSTRACT

*Pronunciation errors remain a persistent challenge for learners of English as a Foreign Language (EFL) in this case students of Tourism Department, particularly in words with complex syllable structures, consonant clusters, and morphological endings. This study investigates the frequency and types of pronunciation errors, including phonetic deviations, produced by 22 EFL learners when pronouncing the words messages, colleagues, lunches, and stretch. Using a quantitative descriptive design, participants' spoken productions were recorded, transcribed using the International Phonetic Alphabet (IPA), and analyzed. Findings indicate that errors were most frequent in words with consonant clusters and plural morphemes, reflecting first-language phonological transfer and orthographic interference. Pedagogical implications for targeted pronunciation instruction and technology-assisted learning are discussed.*

### INTRODUCTION

Accurate pronunciation is essential for intelligible spoken communication in English. Many EFL learners struggle with words containing consonant clusters, affricates, and inflectional morphemes (Alsaeed & Alhaysony, 2023; Ahmed & Ali, 2024). Words like *messages*, *colleagues*, *lunches*, and *stretch* are frequently mispronounced due to irregular spelling–sound correspondences and syllable complexity.

Error analysis provides insights into learners' phonological development and identifies persistent pronunciation problems (Andestopano & Datuk, 2024). First-language influence significantly impacts pronunciation, as learners transfer L1 phonotactic rules to English, resulting in segmental and syllable structure errors (Lee, 2024; Jahanbin, 2025). Technology-assisted tools, such as speech recognition apps, support error correction and improve learner pronunciation (Li & Huang, 2025).

This study quantitatively examines pronunciation error frequencies in specific English words to guide targeted pronunciation instruction.

**Pronunciation Challenges in EFL;** Pronunciation is a core component of communicative competence, with mispronunciation affecting intelligibility and learner confidence (Gilakjani, 2011). Errors may occur in segmental features (vowels, consonants) or suprasegmental features (stress, rhythm, intonation) (Yani Lubis et al., 2024).

**Error Analysis in EFL;** Error analysis identifies patterns in learners' pronunciation. Substitutions, omissions, and devoicing are common, often stemming from L1 interference (Alsaeed & Alhaysony, 2023; Ahmed & Ali, 2024). Studies among Indonesian EFL learners reported vowel and consonant substitutions and syllable simplification as frequent error types (Andestopano & Datuk, 2024; Pranawijaya et al., 2025).

**L1 Influence and Interlanguage;** First-language transfer influences pronunciation, particularly for sounds absent in L1 phonological inventories (Lee, 2024; Alzubaidi et al., 2024). Learners apply L1 rules to English, producing systematic errors in vowels, consonants, and consonant clusters.

**Technology in Pronunciation Instruction;** Speech recognition and AI-based tools provide immediate feedback and monitor pronunciation accuracy, supporting both segmental and suprasegmental improvements (Li & Huang, 2025; Jahanbin, 2025).

**Research Gap and Questions;** Few studies examine error frequencies in specific words with plural morphemes and consonant clusters. This study addresses this gap using IPA-based analysis among EFL learners, and focuses on two research questions: (1) How often the errors occur? (2) What types of errors occur?

## **METHOD**

### **Research Design**

A quantitative descriptive design was employed to analyze pronunciation error frequencies without instructional intervention. A quantitative descriptive design is a non-experimental research approach that systematically collects and analyzes numerical data to describe the characteristics, conditions, or trends of a particular phenomenon or population as it exists *in reality*, without manipulating any variables. It answers research questions about “what is happening?” rather than “why it happens” or “what causes it.” A recent academic source that describes quantitative descriptive research explains that descriptive research designs in quantitative methodology are used to address questions about what exists and involve gathering data without manipulating variables (Peter Miksza et al. 2023)

## Participants

The participants are twenty-two students of Tourism Department taking basic English course. All shared the same L1 and had no specialized pronunciation training.

## Instruments

### Pronunciation Task

Participants read four target words aloud:

- *messages* /'mesɪdʒɪz/
- *colleagues* /'kɒli:gz/
- *lunches* /'lʌntʃɪz/
- *stretch* /stretʃ/

Recordings were collected in a quiet classroom.

### Error Classification

Errors were classified as:

- Vowel substitution or omission
- Consonant substitution, omission, devoicing
- Syllable structure errors (cluster reduction, syllable deletion)
- Morphological ending errors (incorrect plural morpheme pronunciation)

IPA transcriptions were used to document learners' deviations.

### Procedure

Participants completed the task individually. Two trained raters transcribed productions using IPA, with 92% inter-rater agreement. Discrepancies were resolved by discussion.

### Data Analysis

Error frequencies were calculated using descriptive statistics (frequency counts, percentages).

## RESULT AND DISCUSSION

### Results

**Table 1.** Frequency of Pronunciation Errors by Word (N = 22)

Word	Correct Productions	Error Frequency	Error Percentage
messages	9	13	59.1%

Word	Correct Productions	Error Frequency	Error Percentage
colleagues	6	16	72.7%
lunches	10	12	54.5%
stretch	14	8	36.4%

**Table 2.** Types of Pronunciation Errors Observed with IPA Examples (N = 22)

Error Type	Example Errors (IPA)	Frequency	Percentage
Vowel substitution	<i>messages</i> → /'mesədʒɪz/; <i>colleagues</i> → /'kɒlɪgɪz/	14	28%
Consonant substitution	<i>stretch</i> → /stretʃ/ → /stret/; <i>lunches</i> → /'lʌntʃɪz/ → /'lʌnts/	16	32%
Syllable structure errors	<i>messages</i> → /'mesɪdʒɪz/ → /'mesɪdʒz/; <i>colleagues</i> → /'kɒli:gz/ → /'kɒlɪgɪz/	11	22%
Morphological ending errors	<i>messages</i> → /'mesɪdʒɪz/ → /'mesɪdʒz/; <i>lunches</i> → /'lʌntʃɪz/ → /'lʌntʃ/	9	18%
<b>Total</b>	–	50	100%

## Discussion

The analysis of pronunciation errors among the 22 EFL learners revealed notable patterns across the target words *messages*, *colleagues*, *lunches*, and *stretch*. The word *colleagues* exhibited the highest frequency of errors (72.7%), consistent with previous findings that words with irregular orthography and final consonant clusters are particularly challenging for learners (Alzubaidi et al., 2024; Lee, 2024). The learners often substituted vowels and devoiced the final consonant /g/, reflecting segmental errors likely influenced by L1 phonological transfer (Alsaeed & Alhaysony, 2023; Jahanbin, 2025).

Words containing plural morphemes (*messages* and *lunches*) also showed high error frequencies, particularly in the pronunciation of the /ɪz/ suffix. This aligns with prior research indicating that morphological endings pose significant difficulty for EFL

learners, especially when the morpheme contains a syllabic consonant (/z/ or /ɪz/) not present in the learners' L1 phonotactic inventory (Ahmed & Ali, 2024; Pranawijaya et al., 2025).

*Stretch* showed the lowest error frequency (36.4%), yet some learners reduced the initial consonant cluster or misarticulated the final affricate /tʃ/, confirming that consonant clusters are a persistent source of segmental difficulty (Andestopano & Datuk, 2024). Overall, consonant and vowel substitution errors were the most frequent, accounting for 60% of all errors observed (Table 3). These findings are consistent with the broader literature on EFL pronunciation, which emphasizes that segmental features remain more error-prone than suprasegmental ones in early and intermediate learners (Li & Huang, 2025; Yani Lubis et al., 2024).

The high inter-rater agreement (92%) in error coding reinforces the reliability of the data, supporting the use of quantitative error frequency analysis as a valid tool to examine pronunciation patterns. Moreover, these findings suggest that explicit pronunciation instruction, particularly targeting vowels, consonant clusters, and morphological endings, can be effective in reducing errors. Recent research demonstrates that structured phonetic instruction and technology-assisted feedback (e.g., speech recognition apps) significantly improve learners' segmental accuracy and overall intelligibility (Alghamdi, 2023; Rahman & Abidin, 2023; Li & Huang, 2025).

In addition, the results confirm that first-language influence plays a key role in pronunciation errors. Learners applied L1 phonotactic rules, resulting in vowel substitutions, consonant devoicing, and syllable simplification. These patterns are consistent with interlanguage theory and previous studies on cross-linguistic influence in EFL pronunciation (Lee, 2024; Alsaeed & Alhaysony, 2023).

## **CONCLUSION, LIMITATION AND SUGESSTION**

This study quantitatively analyzed pronunciation error frequencies in four English words among 22 EFL learners. The key findings are: (1) *Colleagues* was the most error-prone word, followed by *messages* and *lunches*, while *stretch* had the fewest errors; (2) Consonant and vowel substitutions were the most frequent error types, followed by syllable structure errors and morphological ending mispronunciations; (3) L1 phonological transfer and orthographic interference were significant contributing factors.

The results underscore the importance of targeted pronunciation instruction focusing on segmental accuracy, consonant clusters, and plural morphemes. The findings also support the integration of technology-assisted feedback tools such as speech recognition apps to provide learners with immediate corrective feedback.

Future research should expand the word set, include learners from diverse L1 backgrounds, and incorporate acoustic analysis to objectively measure segmental and

suprasegmental accuracy. Moreover, longitudinal studies could investigate the effectiveness of interventions like shadowing, minimal-pair training, or AI-assisted pronunciation tools over time.

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