# **PRONUNCIATION VARIABILITY OF ENGLISH DENTAL** FRICATIVES AMONG SUNDANESE LEARNERS IN DIFFERENT **ACADEMIC DISCIPLINES**

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APA Citation: Awwali, J. N., Indrayani, L. M., & Amalia, R. M. (2024). Pronunciation variability of English dental fricatives among sundanese learners in different academic disciplines. English Review: Journal of English Education. 12(2), 765-776. https://doi.org/10.25134/erjee.v12i2.9951

Received: 22-02-2024

Accepted: 21-04-2024

Published: 30-06-2024

Abstract: Clear pronunciation is a critical component of successful communication, essential for developing both speaking and listening skills. However, pronunciation challenges often arise due to differences between written and spoken forms of a language, as well as the influence of a speaker's native language. This study examines the production of English dental fricative consonant sounds by Sundanese students from English and non-English departments at Widyatama University, Indonesia. The study aims to identify common pronunciation errors and their causes, comparing students who have extensive English training with those who do not. A qualitative descriptive method was employed, supported by content analysis, to analyze the pronunciation of 10 students-five from each department. The findings reveal significant differences in pronunciation accuracy between the two groups, with English Department students generally performing better. Common errors include the substitution of dental fricatives with alveolar stops and labiodental fricatives with bilabial plosives. The primary causes of these errors are attributed to insufficient practice, lack of phonetic awareness, and interference from the native Sundanese language. This research highlights the need for targeted pronunciation training and increased phonetic awareness to improve English pronunciation skills among non-English majors.

**Keywords:** English dental fricatives; language interference; pronunciation errors; Sundanese students; phonetic awareness.

# **INTRODUCTION**

In recent years, there has been increasing attention on pronunciation challenges faced by English language learners, especially those whose first language has significantly different phonetic structures. Aji et al. (2023) emphasized that vocabulary acquisition is intrinsically linked to pronunciation proficiency, as students often struggle with phonetic aspects of new words. This connection between vocabulary and pronunciation highlights the multifaceted nature of language learning difficulties.

Previous studies have extensively explored pronunciation problems among English learners. Aji et al. (2023) highlighted the difficulties students face in building English vocabulary, stress in English pronunciation, which is often

which indirectly affects their pronunciation. AlSaggaf et al. (2023) investigated the self-concept of Chinese EFL learners and its impact on their pronunciation skills, emphasizing the psychological aspects influencing pronunciation. Amalia and Amin (2023) focused on secondsemester English Department students' awareness of their pronunciation problems, underscoring the need for heightened phonetic awareness.

Ambalegin and Arianto (2018) examined the mispronunciations of English vowels and consonants by an Indonesian public figure, identifying the influence of the native language on pronunciation errors. Similarly, Ambalegin and Afriana (2023) discussed the importance of word

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overlooked but crucial for clarity. Annisa and Wariyati (2023) emphasized the role of pronunciation in overall fluency, highlighting that clear pronunciation is a key attribute of effective communication.

Babajanova and Babadjanova (2023) identified challenges and potential solutions in teaching English pronunciation as a second language in Uzbekistan, pointing out the universal nature of these difficulties. Benjamin-Ohwodede et al. (2024) evaluated the effectiveness of hybrid learning in pronunciation pedagogy in Nigeria, showing that innovative teaching methods can enhance pronunciation skills. Emmanuel et al. (2022) analyzed the uniqueness of Ghanaian English pronunciation, particularly focusing on dental fricative sounds, revealing common substitution errors similar to those found in other non-native English speakers.

Fernández et al. (2024)conducted а comparative study on pronunciation instruction methods, finding that explicit phonetic instruction significantly improves learners' pronunciation accuracy. Haris and Asmayanti (2023) investigated the pronunciation challenges faced by first-year English students at Universitas Muhammadiyah Makassar, revealing that lack of exposure and practice are major contributing factors. Hoang et al. (2023) explored the use of AI chatbots in improving vocational students' English pronunciation, demonstrating the potential of technology in language learning.

Khoshmuratovna (2023)provided а comprehensive overview of common pronunciation problems faced by ESL and EFL students, highlighting the persistent issue of mother tongue interference. Kurniawan and Thren (2024) examined the influence of the mother tongue on English pronunciation among Indonesian EFL learners, identifying specific phonological interferences. Kusuma (2018)emphasized the need for integrating English pronunciation practice into regular language learning activities to mitigate these errors.

Lestari et al. (2024) studied the impact of digital improving students' tools on English pronunciation, finding that technology-enhanced learning environments significantly benefit pronunciation skills. Luthfianda et al. (2024) explored the pronunciation challenges faced by Indonesian university students, particularly in producing English fricative sounds, and suggested targeted instructional strategies to address these issues. Manurung et al. (2024) used the Elsa Speak application to diagnose English vowel and

consonant pronunciation errors among English Department students, demonstrating the effectiveness of digital pronunciation aids.

Mesfer et al. (2024) conducted an error analysis of undergraduate students' English pronunciation, identifying common mistakes and their underlying causes. Nguyen (2023) investigated the difficulties in teaching pronunciation to first-year English majors at Dong Nai University, highlighting the need for specialized training for pronunciation instructors. Nirwana and Suhono (2023) studied phonological interference in English pronunciation among Buginese and Javanese students, providing insights into regional linguistic influences on English learning.

Octaviani et al. (2024) examined the impacts of first language on students' English pronunciation, finding that mother tongue interference remains a significant challenge. Phany and Dara (2024) investigated pronunciation problems faced by teacher-trainees at the National Institute of Education in Cambodia, suggesting that early intervention and targeted training can mitigate these issues. Purnama et al. (2023) focused on detecting mispronunciations of non-native postgraduate students of English language education Indonesia, emphasizing in the importance of continuous pronunciation practice.

al. (2023)analyzed Putri et vowel pronunciation errors among Grade IX students, highlighting the need for early phonetic training. Qizi and Umedovich (2023) discussed Americanbased pronunciation standards and their application in ESL teaching. Ramzan and Javaid (2023) explored psychological factors influencing Pashto-speaking ESL students' pronunciation of English vowels, suggesting that affective factors play a crucial role in pronunciation accuracy.

Simanjuntak et al. (2023) used the Elsa Speak application to diagnose English pronunciation errors among students, demonstrating the utility of digital tools in pronunciation instruction. Sultan (2023) identified key English pronunciation difficulties for Egyptian EFL learners, providing a detailed analysis of common errors and their causes. Tegris (2020) analyzed the causes of English pronunciation problems within the framework of Ki Hadjar Dewantara's educational concepts, emphasizing the need for culturally responsive teaching methods.

Vukićević and Ćirković-Miladinović (2023) explored the use of instructive musical exercises in improving English pronunciation, highlighting the potential of alternative instructional methods. Zayniddinovna (2023) discussed the challenges of teaching pronunciation to young learners, suggesting that early phonetic awareness is crucial for long-term pronunciation accuracy. Wahyuni et al. (2024) examined the effectiveness of using pop songs on YouTube for improving students' pronunciation mastery, demonstrating the benefits of engaging and interactive learning materials.

Dewi et (2024)analyzed al. English sixth-grade pronunciation among students, emphasizing the importance of early phonetic instruction. Awadh et al. (2024) discussed the role phonetics instruction of in improving Yemeni EFL pronunciation in classrooms, suggesting that systematic phonetic training is essential for accurate pronunciation. Awadh et al. (2024) discussed the role of phonetics instruction in improving pronunciation in Yemeni EFL classrooms, suggesting that systematic phonetic training is essential for accurate pronunciation.

Khurshidovna and Ismoilovna (2024)addressed the problems and solutions in providing experimental phonetics, practical recommendations for improving pronunciation instruction. Jihad and Damayanti (2024) examined pronunciation patterns among English education students, focusing on segmental sounds and word stress. Yu (2024) evaluated the quality of English pronunciation using a decision tree algorithm, demonstrating the potential of machine learning in pronunciation assessment.

Prahaladaiah and Thomas (2024) studied the effects of phonological and phonetic interventions on English pronunciation proficiency, highlighting the importance of targeted interventions. Abellio (2024) investigated pronunciation deviations among agriculture students, emphasizing the need for specialized pronunciation training in specific academic fields. Idayani et al. (2024) conducted an error analysis of students' pronunciation using the IPA application, demonstrating the effectiveness of digital tools in diagnosing pronunciation errors.

Ramadani et al. (2024) examined the impact of the Resso application on improving pronunciation among senior high school students, highlighting the benefits of using technology in language learning. Sañudo (2024) provided a manual for understanding and improving English pronunciation, offering practical tips for learners and teachers. Saidkodirovna (2024) discussed linguistic interference in teaching English pronunciation, emphasizing the need for awareness and mitigation strategies.

Ahmad et al. (2024) investigated the influence of mother tongue on English pronunciation in a specific regional context, providing insights into those in English and non-English departments. By

local linguistic challenges. Aredidon et al. (2024) described the intelligibility of fossilized English pronunciation among mentor teachers, highlighting the importance of continuous professional development. Mir and Afsar (2024) examined pronunciation constraints of syllable stress-coloration in Pakistani English, suggesting targeted interventions for improving pronunciation accuracy.

Farhan and Hadi (2024) evaluated the use of the Read Aloud feature from Microsoft Edge in pronunciation students' improving abilities. demonstrating the benefits of digital tools in language learning. Kizi (2024)discussed challenges encountered by students while learning English speaking, emphasizing the need for comprehensive pronunciation training. Suciati et al. (2024) conducted an error analysis of diphthong sounds in English pronunciation, highlighting common mistakes and their causes.

Brown (2024) critiqued the JET Programme as a vehicle for English pronunciation teaching, suggesting areas for improvement to enhance pronunciation instruction by native speakers. Benjamin-Ohwodede et al. (2024) evaluated hybrid learning methods for pronunciation pedagogy, finding that blended approaches can effectively enhance pronunciation skills.

Despite these extensive studies, there remains a significant research gap in understanding the pronunciation errors specific to Sundanese students, particularly those studying in both English and non-English departments. Previous research has not sufficiently addressed how different academic environments influence pronunciation skills. This study aims to fill this gap by examining the production of English dental fricative consonant sounds by Sundanese students from different academic backgrounds.

The novelty of this research lies in its comparative approach, assessing pronunciation errors in both English and non-English department students. By focusing on Sundanese students, this study adds to the existing body of knowledge on how native language interference and academic training impact English pronunciation. The findings of this research will provide valuable insights for educators to develop targeted pronunciation training programs that cater to the specific needs of students from diverse linguistic backgrounds.

This study aims to identify common pronunciation errors and their causes among Sundanese students, comparing the performance of Pronunciation variability of English dental fricatives among sundanese learners in different academic disciplines

addressing the existing research gap and providing novel insights, this research contributes to the broader understanding of pronunciation challenges and potential solutions in EFL contexts.

#### **METHOD**

This study employs a qualitative descriptive method supported by content analysis to examine the pronunciation of English dental fricative consonant sounds by Sundanese students from English and non-English departments at Widyatama University, Bandung, Indonesia. The analysis aims to identify common pronunciation errors and their causes, focusing on the sounds  $/\theta/$ ,  $/\delta/$ , /f/, and /v/.

The participants of this study were 10 students from Widyatama University, consisting of 5 students from the English Department and 5 students from the Accounting Department. These students were selected because they were in their seventh and eighth semesters, ensuring they had sufficient exposure to English phonology and economic terminology.

Data collection was carried out using a combination of recording, listening, and notetaking techniques. Each participant was asked to pronounce a list of 40 economic terms in English, selected from the Oxford Dictionary of Economics 5th Edition (Hashimzade, Myles, & Black, 2017). This list included 11 specific terms containing the target dental and labiodental fricative sounds.

First, participants were recorded while pronouncing the selected terms. The recording was conducted transparently, with each participant providing consent by signing a consent letter. This ensured ethical considerations were met, and participants were fully aware of the study's purpose. Second, participants completed a demographic questionnaire to provide background information, including their area of origin, mother tongue, and daily language usage. This additional data helped in understanding the context of each participant's pronunciation patterns.

The recorded pronunciations were transcribed and analyzed using Krippendorff's (2004) content analysis technique. This method involved several steps. Initially, the audio recordings were transcribed to capture the exact pronunciations of each participant. Each fricative sound was then identified and categorized as either correctly pronounced or mispronounced. Mispronunciations were classified based on the type of error (e.g., substitution, omission) and the specific phonological processes involved. The causes of pronunciation errors were interpreted, considering

factors such as lack of practice, phonetic awareness, and native language interference. Finally, the findings were synthesized to draw conclusions about the common pronunciation errors and their underlying causes.

High-quality audio and video recordings were used to ensure the accurate capture of pronunciations. Content analysis software tools assisted in the transcription and analysis of the recorded data, ensuring consistency and precision. A structured questionnaire was administered to gather demographic and background information from participants, providing additional context for interpreting the data.

#### **RESULTS AND DISCUSSION**

The respondents are 5 students from the English Department (#R1-#R5) and 5 students from the non-English Department (#R6-#R10). They are asked to pronounce 11 economics terminology (words or phrases) containing voiced and voiceless interdental fricative sounds:  $/\theta/$  and  $/\delta/$  and labiodental fricative /f/ and /v/. None of the respondents can pronounce all the economic terminology correctly. There are occurrences of pronunciation errors (see Table 1). Tables 2 and 3 show the pronunciation errors made by the respondents.

#K	/0/			/0/		/1/			/ V/		
	W	W	W	W	W	W	W	W	W	W	W
	1	2	3	1	2	1	2	3	1	2	3
1	$\checkmark$	$\checkmark$	$\checkmark$	Х	Х	$\checkmark$	$\checkmark$	$\checkmark$	Х	$\checkmark$	Х
2	$\checkmark$	Х	Х	Х	Х	$\checkmark$	$\checkmark$	$\checkmark$	Х	Х	Х
3	$\checkmark$	$\checkmark$	$\checkmark$	Х	Х	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	Х	Х
4	$\checkmark$	Х	$\times$	×	Х	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
5	$\checkmark$	$\checkmark$	Х	Х	Х	$\checkmark$	$\checkmark$	$\checkmark$	×	Х	$\checkmark$
6	$\checkmark$	Х	$\times$	$\times$	Х	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	×	Х
7	$\checkmark$	Х	×	×	Х	$\checkmark$	$\checkmark$	$\checkmark$	Х	Х	Х
8	Х	Х	Х	Х	Х	Х	$\checkmark$	$\checkmark$	Х	Х	Х
9	×	Х	Х	Х	Х	$\checkmark$	$\checkmark$	$\checkmark$	Х	×	×
10	×	Х	Х	Х	Х	Х	Х	Х	Х	×	Х
	7	3	2	0	0	8	9	9	3	2	2

 Table 1. Pronunciation errors of dental fricative

Table 2. Dental fricative sounds:  $\frac{\theta}{\delta}$  / $\frac{\delta}{f}$  and  $\frac{v}{v}$  (English Department)

Phoneme/words	Pronunciation	Kinds of	Cause	of
	Errors	Error	Errors	
			Intra	Inter
Commonwealth	-			✓
Credible threat	(3) ['tret]	Omission		✓
Market				$\checkmark$
Hypothesis				
Below the line	(5) [də]	Omission		$\checkmark$
Creditworthiness	(4)	Omission		$\checkmark$
	['kreditw3-rti.nəs]			
	(1)			

	['kred1tw3·rθi.nəs]		
Inflation	-		~
Deficit	-		√
Welfare	-		√
Valuation	(3) ['fælju'erʒn]	Omission	√
Derivative area	(3) [dɪˈrɪfətɪf]	Omission	√
Countervailing duty	(3) ['kauntəfeiliŋ]	Omission	~

Table 3. Dental fricative sounds:  $\frac{\theta}{\delta} \frac{\delta}{f}$  and  $\frac{v}{\delta}$  (Non-English Department)

Phoneme/words	Pronunciation	Kinds of	Cause	of
	Errors	Error	Errors	
			Intra	Inter
Commonwealth	(2) ['kpmənwelt]	Omission		$\checkmark$
Credible threat	(4) ['tret]	Omission		~
	(1) ['dret]			
Market				$\checkmark$
Hypothesis				
Below the line	(5) [də]	Omission		√
Creditworthiness	(5)	Omission		~
	['kreditw3rti.nəs]			
Inflation	-			$\checkmark$
Deficit	-			√
Welfare		Omission		√
Valuation	(3)	Omission		~
	['fælju'eɪʒn]			
	(1)			
	['bælju'eɪʒn]			
Derivative area	(4) [dɪˈrɪfətɪf]	Omission		$\checkmark$
	(1) [dɪˈrɪpətɪf]			
Countevailing	(4)	Omission		~
duty	[ˈkaʊntəfeɪlɪŋ]			
	(1)			
	[ˈkaʊntəpeɪlɪŋ]			

Phonological process of interdental fricative consonants (interdental fricative) /  $\theta$  / and /  $\delta$  / pronounced by students of the English and Non-English Department

The economic terminology below contains consonant voiceless interdental fricative  $/\theta$  /and voiced interdental fricative  $/\delta$  /. The pronunciation process is carried out by English Department students namely, #R1, #R2, #R3, #R4, and #R5, and followed by exposure to pronunciation conducted by non-English students, namely the #R6 Accounting Department, #R7, #R8, #R9, and #R10.

### Omission

#### Data 1

### *Commonwealth* ['kpmpnwel $\theta$ ] [ $\theta$ ]

The economic terminology above contains the sound of voiceless interdental fricative [ $\theta$ ]. Of the 10 respondents who proclaim the dental fricative sound in the words above, respondents in English Department #R1, #R2, #R3, #R4, and #R5 recite the voiceless interdental fricative sound [ $\theta$ ] correctly, namely ['kpmənwel $\theta$ ].

Respondents from the non-English Department, namely the Accounting Department represented by

#r6 and #r7 are still mistaken in reciting the sound of voiceless interdental fricative  $[\theta]$  in the 'commonwealth' terminology. #R6 and #r7 recite the sound with ['komənwelt], where there is a segmental pronunciation error at the replacement level that is the replacement of voiceless interdental fricative /  $\theta$  / into voiceless alveolar stop [t] sounds. Whereas #R8, #R9, and #R10 have differences from other respondents because they can recite the sound [ $\theta$ ] in the terminology correctly namely ['komənwel $\theta$ ].

The cause of errors in the pronunciation of dental fricative consonant sounds (dental fricative) by two Accounting Department respondents #R4 and #R5 was due to a lack of practice and awareness in pronouncing English sounds, especially the voiceless dental fricative consonant sound  $[\theta]$ . Errors can also be based on a lack of understanding of phonetic sounds because respondents do not have knowledge of the science of sounds in English. Apart from that, the respondent's mother tongue background, which is Indonesian and Sundanese, also resulted in a lack of familiarity with the pronunciation of these sounds so respondents were not fluent in pronouncing the voiceless dental fricative  $[\theta]$  and shifted to other areas of speech which were easier and more familiar to pronounce, namely, the voiceless sound of the alveolar stop [t] due to the very significant similarity of the acoustic sound, Tyler et al (2019).

### Data 2

### *Credible threat* [' $\theta$ ret] [ $\theta$ ]

The economic terminology above contains the sound of voiceless interdental fricative  $[\theta]$ . Of the 10 respondents who pronounced the dental fricative sound in the word above, only two respondents in the English Department represented by #R3 and #R5 recited the voiceless interdental fricative sound  $[\theta]$  correctly, namely  $[\theta$ ret]. The other three recipes, namely #R1, #R2, and #R4 are still reciting the sound with mistakes, namely ['tret]. In this case, there is an error at the segmental level made by the three respondents, namely the replacement or omission error where the sound of voiceless interdental fricative  $[\theta]$  is pronounced into the sound of voiceless alveolar stop [t].

Respondents from the non-English Department, namely the Accounting Department represented by #R6, #R7, #R8, #R9, and #R10 are still wrong in reciting the sound of voiceless interdental fricative  $[\theta]$  in the terminology 'credible threat'. The five respondents made a pronunciation error at the level

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of replacement (omission). #R6, #R7, #R8, and #R9 recite the sound the same as respondents from English Departments namely ['tret] where the sound of voiceless interdental fricative [ $\theta$ ] is pronounced into voiceless alveolar stop [t], and #R10 recite ['dret] where the sound of voiceless interdental fricative [ $\theta$ ] is pronounced into voiceless plossive alveolar [d].

The cause of errors in the pronunciation of dental fricative consonant sounds by respondents from the English Department namely #R1, #R2, and #R4, and the five Accounting Department is due to a lack of practice and awareness in pronouncing English sounds, especially voiceless dental fricative consonant sounds  $[\theta]$ , the word threat is also believed to be less familiar to students, especially the Accounting Department. Errors can also be based on a lack of understanding of phonetic sounds because respondents do not have knowledge of the science of sounds in English. Apart from that, the respondent's mother tongue background, which is Indonesian and Sundanese, also resulted in a lack of familiarity with the pronunciation of this sound so the respondent was not fluent in pronouncing the voiceless dental fricative  $[\theta]$  and shifted to other areas of speech which were easier and more familiar to pronounce, namely, the voiceless sound of the alveolar stop [t] due to the very significant similarity of the acoustic sound, Tyler et al (2019).

#### Data 3

#### *Below the line* [ðe] [ð]

The Economic terminology above contains voiced interdental fricative sounds [ð]. From the respondents who pronounced voiced dental fricative sounds in the words above, the five respondents in English Department #R1, #R2, #R3, #R4, and #R5 recited the sound of voiced interdental fricative [ð] with mistaken, namely [də].

In this case, a segmental pronunciation error occurs at an omission, namely the replacement of voiced interdental frictional sounds [ð] to voiced alveolar stop [d]. The word or terminology 'below the line' should be appropriately pronounced 'below [ə] line' to 'below [də] line'.

Respondents from the non-English Department, the Accounting Department, represented by #R6, #R7, #R8, #R9, and #R10 are also still wrong in reciting the sound of voiced interdental fricative [ð] in the terminology 'below the line'. The same thing with respondents in English Departments, #R6, #R7, #rR, #R9, and #R10 also made a segmental pronunciation error at the replacement

level, namely the replacement of voiced interdental fricative [ð] to voiced alveolar stop sound [D], so it recites the sound to be 'Below [də] Line'.

The cause of errors in the pronunciation of dental fricative consonant sounds (dental fricative) by the three English Department respondents #R1, #R2, #R3, #R4, and #R5 is due to lack of practice and awareness in pronouncing English sounds, especially the voiced dental fricative consonant sound [ð]. Meanwhile, for #R5, #R6, #R7, #R8, #R9, and #R10, errors were based on a lack of understanding of phonetic sounds because the respondents did not have knowledge of the science of sounds in English. Apart from that, the mother tongue background of respondents from both Departments, which are Indonesian and Sundanese, also resulted in a lack of familiarity with the pronunciation of these sounds so respondents were not fluent in pronouncing the voiced dental fricative [ð] and shifted to other areas of speech that were easier and familiar to pronounce, namely, the voiced alveolar stop [d] because the acoustic sound similarity is very significant, Tyler et al (2019).

#### Data 4

#### Creditworthiness ['kred.it ws:.ði.nəs] [ð]

The economic terminology above contains the voiced interdental fricative [ð]. Of the respondents who pronounced the voiced dental fricative sound in the words above, the five English Department respondents #R1, #R2, #R3, #R4, and #R5 pronounced the voiced interdental fricative [ð] incorrectly. #R1, #R2, #R3, and #R4 make segmental errors at the replacement level (omission) where the voiced interdental fricative sound [ð] changes to the voiceless alveolar stop [t]. namely ['kred.it\_ws:.ti.nss]. In contrast to the other four respondents, #R5 pronounced it as ['kred.it\_w3:0i.n3s] where the substitution error (omission) occurred due to replacing the voiced interdental fricative [ð] with the voiceless interdental fricative  $[\theta]$ .

Respondents from the non-English Department, namely the accounting Department represented by #R6, #R7, #R8, #R9, and #R10 also still mispronounce the voiced interdental fricative [ð] in the term 'Creditworthiness'. The five respondents made segmental pronunciation errors at the level of substitution (omission), namely replacing the voiced interdental fricative [ð] with a voiceless alveolar stop [t], namely ['kred.tt,w3:.ti.nəs].

The cause of errors in the pronunciation of dental fricative consonant sounds (dental fricative) by the three English Department respondents #R1,

#R2, #R3, #R4, and #R5 is due to lack of practice and awareness in pronouncing English sounds, especially the voiced dental fricative consonant sound [ð]. Meanwhile, for #R5, #R6, #R7, #R8, #R9, and #R10, errors were based on a lack of understanding of phonetic sounds because the respondents did not have knowledge of the science of sounds in English. Apart from that, the mother tongue background of respondents from both Departments, which are Indonesian and Sundanese, also resulted in a lack of familiarity with the pronunciation of these sounds so respondents were not fluent in pronouncing the voiced dental fricative [ð] and shifted to other areas of speech that were easier and familiar to pronounce, namely, the voiced alveolar stop [d] because the acoustic sound similarity is very significant, Tyler et al (2019).

### Phonological processes of labiodental fricative consonant sounds (labiodental fricative) /f/ and /v/ are pronounced by students of the English and Non-English Department

The economic terminology below contains the voiceless labiodental fricative consonant sound [f] and the voiced dental fricative consonant sound [v]. The pronunciation process was carried out by English Department students, namely, #R1, #R2, and #R3, and continued with the pronunciation presentation carried out by non-English students, namely Accounting, #R6, #R7, #R8, #R9 and #R10.

### Omission

#### Data 5

# Inflation [in fleifn] [f]

The economic terminology above contains the voiceless labiodental fricative [f]. Of the respondents who pronounced the dental fricative sound in the words above, the five English language Department respondents #R1, #R2, #R3, #R4, and #R5 pronounced the voiceless labiodental fricative sound [f] in the word or terminology 'inflation' correctly, namely [In'flet]n].

In this case, respondents from the non-English Department, namely Accounting, represented by #R6, #R7, #R8, and #R9 pronounce the voiceless labiodental fricative [f] in 'inflation' terminology correctly, [m'fletʃn]. Meanwhile, #R10 still pronounces the voiceless labiodental fricative [f] incorrectly, namely [m'pletʃn]. The respondent made a segmental error at the level of substitution (omission) where the voiceless labiodental fricative [f] changed to a bilabial voiceless plosive [p].

In this case, the six respondents were able to pronounce the voiceless dental fricative sound [f] correctly because the respondents from both the English and the Accounting Departments were familiar with and aware of this sound. According to respondents, the sound [f] is also easier to pronounce because a lot of vocabulary in their mother tongue, namely Indonesian, contains this sound.

# Data 6

#### Deficit ['defisit] [f]

The economic terminology above contains the voiceless labiodental fricative [f]. Of the respondents who pronounced the dental fricative sound in the words above, the five English Department respondents #R1, #R2, #R3, #R4, and #R5 pronounced the voiceless labiodental fricative sound [f] in the word or terminology 'deficit' correctly, namely ['defisit].

Meanwhile, among respondents from the Accounting Department, only one respondent, represented by #R10, pronounced the voiceless labiodental fricative [f] in the word or terminology 'deficit' incorrectly, namely ['depisit], where there was a segmental pronunciation error at the level of replacement (omission) namely replacing the voiceless labiodental fricative sound [f] with a voiceless bilabial plosive sound [p]. Meanwhile, the other four respondents, namely #R6, #R7, #R8, and #R9, pronounced the voiceless labiodental fricative [f] in the word or terminology 'deficit' correctly, namely ['defisit].

In this case, nine out of ten respondents were able to pronounce the voiceless dental fricative sound [f] correctly because respondents from both English and accounting Departments were familiar and aware of this sound. According to respondents, the sound [f] is also easier to pronounce because a lot of vocabulary in their mother tongue, namely Indonesian, contains this sound. However, this is different from the respondent from the accounting Department represented by #R10, the respondent stated that pronunciation errors occurred naturally due to 'habit' without the respondent realizing how the sound [f] should be pronounced.

### Data 7

### Welfare ['wel.fer] [f]

The economic terminology above contains the voiceless labiodental fricative [f]. Of the respondents who pronounced the dental fricative sound in the words above, the five English language Department respondents #R1, #R2, #R3, #R4, and #R5 pronounced the voiceless labiodental

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fricative sound [f] in the word or terminology 'deficit' correctly, which is ['wel.fer].

Meanwhile, among respondents from the accounting Department, only one respondent, represented by #R10, pronounced the voiceless labiodental fricative [f] in the word or terminology 'welfare' incorrectly, namely ['wel.per], where there was a segmental pronunciation error at the replacement level. (omission), namely the replacement of the voiceless labiodental fricative sound [f] with a voiceless bilabial plosive sound [p]. Meanwhile, the other four respondents namely #R6, #R7, #R8, and #R9 pronounced the voiceless labiodental fricative [f] in the word or terminology 'welfare' correctly, namely ['wel.fer].

In this case, all of the respondents were able to pronounce the voiceless dental fricative sound [f] correctly because the respondents from both the English and accounting Departments were familiar with and aware of this sound. According to respondents, the sound [f] is also easier to pronounce because a lot of vocabulary in their mother tongue, namely Indonesian, contains this sound.

#### Data 8

#### *Valuation* ['vælju'eɪʃn] [v]

The economic terminology above contains the voiced labiodental fricative [v]. Of the respondents who pronounced the dental fricative sound in the words above, the three English language Department respondents #R1, #R2, and #R3 pronounced the voiced labiodental fricative [v] incorrectly, namely ['fælju'erʒn]. Meanwhile, the other two respondents represented by #R4 and #R5 were able to pronounce the voiced labiodental fricative [v] correctly, namely ['vælju'erʒn].

In this case, a segmental pronunciation error occurred at the level of replacement (omission), namely replacing the voiced labiodental fricative [v] sound with the voiceless labiodental fricative sound [f]. The word or terminology 'valuation' which should correctly be pronounced ['vælju'eɪʃn] becomes ['fælju'eɪʒn].

One of the respondents from the non-English language Department, namely the Accounting, represented by #R9, succeeded in pronouncing the voiced labiodental fricative [v] in the term 'valuation' correctly, namely, ['vælju'erʒn]. However, in contrast to the other four respondents represented by #R6, #R7, #R8, and #R10, they also still mispronounced the voiced dental fricative [v] in the terminology of 'valuation'. #R6, #R7, and #R10 pronounce the sound in the same way as respondents from the English Department, namely,

['fælju'eɪʃn], where there is a segmental pronunciation error at the level of substitution (omission), namely replacing the voiced dental fricative [v] with a voiceless sound. labiodental fricative /f/. Meanwhile, #R8 has differences with other respondents, in pronouncing ['bælju'eɪʃn], where there is a segmental pronunciation error at the level of replacement (omission), namely replacing the voiced labiodental fricative sound [v] with the voiced bilabial sound [b].

The cause of errors in the pronunciation of dental fricative consonant sounds (dental fricative) by the three English language Department respondents #R1, #R2, and #R3 was due to a lack of practice and awareness in pronouncing English sounds, especially the voiced dental fricative consonant sound [v]. Meanwhile, for #R4, #R5, and #R6, errors were based on a lack of understanding of phonetic sounds because the respondents did not have knowledge of the science of sounds in English. Apart from that, the mother tongue background of respondents from both departments, namely Indonesian and Sundanese, also resulted in a lack of familiarity with the pronunciation of these sounds so respondents were not fluent in pronouncing the voiced dental fricative [v] and shifted to other areas of speech which were easier and familiar to pronounce, namely, the voiceless dental fricative [f] because the acoustic sound similarity is very significant, Tyler et al (2019).

#### Data 9

#### *Derivative area ['dı 'rıvətıv] [v]*

The terminology above contains the voiced labiodental fricative [v]. The economic terminology above contains the voiced labiodental fricative [v]. Of the respondents who pronounced the dental fricative sound in the words above, two English Department respondents #R4, and #R5 pronounced the voiced labiodental fricative [v] correctly, namely ['dɪ'rɪvətɪv]. Meanwhile, the other two respondents represented by #R1, #R2, and #R3 still mispronounced the voiced labiodental fricative [v], namely ['dɪ'rɪfətɪf].

In this case, a segmental pronunciation error occurs at the level of replacement (omission), namely replacing the voiced labiodental fricative [v] sound with the voiceless labiodental fricative sound [f]. The word or term 'derivative' which properly should be ['dɪ'rɪvətɪv] is pronounced as ['dɪ'rɪfətɪf].

Respondents from non-English language Departments, namely the Accounting Department represented by #R6, #R7, #R8, #R9, and #R10 also still mispronounce the voiced labiodental fricative [v] in 'derivative' terminology which is pronounced In this case, segmental as Γ 'dı rıfətıf]. pronunciation errors also occur at the level of replacement (omission), namely replacing the voiced labiodental fricative [v] with the voiceless labiodental fricative [f]. The word or term 'derivative' which properly should be ['di'rivətiv] is pronounced as ['di'rifətif].

The cause of errors in the pronunciation of dental fricative consonant sounds (dental fricative) by the three English language Department respondents #R1, #R2, and #R3 was due to a lack of practice and awareness in pronouncing English sounds, especially the voiced dental fricative consonant sound [v]. Meanwhile, for #R6, #R7, #R8, #R9, and #R10, errors were based on a lack of understanding of phonetic sounds because the respondents did not have knowledge of the science of sounds in English. Apart from that, the mother tongue background of respondents from both Departments, namely Indonesian and Sundanese, also resulted in a lack of familiarity with the pronunciation of these sounds so respondents were not fluent in pronouncing the voiced dental fricative [v] and shifted to other areas of speech which were easier and familiar to pronounce, namely, the voiceless dental fricative [f] because the acoustic sound similarity is very significant, Tyler et al (2019).

Causes of errors in pronunciation of the second consonant sound, fricative sound (dental fricative and labiodental fricative)  $/\theta/$ ,  $/\delta/$ , /f/, and /v/. by students of the English and Non-English Department

Pronunciation errors can be caused by interlinguistic and extralinguistic factors. The interlinguistic factor in question is the existence of a language system or language difficulties that are different between the mother tongue and the second language being studied, also known as sound interference. This interference arises because bilinguals apply the sound unit system (phonemes) of the first language to the sound system of the second language, resulting in disturbances or deviations in the phonemic system of the recipient language.

# **CONCLUSION**

Based on the findings regarding the pronunciation of interdental and labiodental fricative consonants by students from both English and Non-English Departments, several conclusions can be drawn. The study reveals significant variations in Aji, H. P. A., Widodo, S., Masykuri, E. S., &

pronunciation accuracy, with English Department students generally demonstrating better proficiency in pronouncing these sounds compared to their Non-English Department counterparts.

common error among Non-English Α Department students is the substitution or omission of target sounds. For example, interdental fricatives  $\theta$  and  $\delta$  are often replaced with the alveolar stop /t/, and the voiced labiodental fricative /v/ is sometimes replaced with the voiceless /f/. These substitutions suggest that students opt for phonetically simpler or more familiar sounds from their native languages.

The primary factors contributing to these errors include a lack of practice and awareness in pronouncing English sounds, especially among Non-English Department students. Additionally, the influence of the students' mother tongues, such as Indonesian and Sundanese, leads to difficulties in accurately articulating certain English phonemes. The significant acoustic similarity between certain English sounds and those in the students' native languages further exacerbates these errors.

Interference from the students' native language systems also plays a crucial role. This occurs when students apply phonetic rules from their first language to English, resulting in deviations from the target phonemic system. Such interlinguistic factors highlight the challenges of learning new phonemes not present in one's native language.

The findings emphasize the necessity of specialized language instruction and increased awareness of phonetic differences across Implementing targeted languages. teaching strategies and providing ample practice significantly opportunities can enhance pronunciation accuracy among students from diverse linguistic backgrounds. By focusing on the specific challenges faced by students from different academic disciplines and native languages, educators can develop more effective methods to improve English pronunciation skills in language learners.

# REFERENCES

- Abellio, A. (2024). An investigation on pronunciation of english used by the agriculture students: deviation from the target language norms (Doctoral dissertation, Universitas Andalas).
- Ahmad, S., Zahid, Z., & Ramzan, F. (2024). The influence of mother tongue on English pronunciation: A Case Study in District Rahim Yar Khan. Pakistan Languages and Humanities Review, 8(2), 364-373.

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Nugraheni, I. I. (2023). Students' problems in building up english vocabulary. *Scripta: English Department Journal*, *10*(1), 44-58.

- AlSaqqaf, A., Xin, Z., & Sharif, S. (2023). Investigating self-concept in EFL pronunciation among Chinese non-English major learners at a public university in China. *International Journal of English Language and Literature Studies, 12*(2), 117-129.
- Amalia, D., & Amin, M. (2023, December). Students' awareness in coping with pronunciation problems: a study among the second semester students of english department FKIP at university of Mataram. *Journal of English Education Forum, 3*(2),12-17.
- Ambalegin & Arianto, T.. (2018). English vowels and consonants mispronunciation of the seventh president of the republic of Indonesia in his official English speeches and its influencing factors. language literacy: Journal of Linguistics, Literature, and Language Teaching, 2(2), 111-125.
- Ambalegin, A., & Afriana, A. (2023). How to perform English word stress on English pronunciation. *Anaphora: Journal of Language, Literary, and Cultural Studies*, 6(1), 14-27.
- Annisa, A., & Wariyati, W. (2023). Speaking challenge, does pronunciation as the attribute of fluency? *Journey: Journal of English Language* and Pedagogy, 6(2), 356-365.
- Aredidon, C., Tuburan, R., Marfa, G., & Bacatan, J. (2024). A Description of Intelligibility in Fossilized English pronunciation of mentor teacher to native English speakers. *TWIST*, 19(2), 306-311.
- Awadh, F. M. A. M., Putro, N. H. P. S., Pohan, A. E., & Alsamiri, Y. A. (2024). Improving English pronunciation through phonetics instruction in Yemeni EFL classrooms. *Journal of Languages* and Language Teaching, 12(2), 930-940.
- Babajanova, K. I., & Babadjanova, N. X. (2023). Challenges and possible solutions of teaching english pronunciation as a second language in uzbek classes. Academic Research in Educational Sciences, 4(3), 459-465.
- Benjamin-Ohwodede, J., Mamudu, A., & Awunor, S. N. (2024). The effectiveness of hybrid learning in english pronunciation pedagogy in the Nigerian ESL context. *Jelita*, 5(1), 81-103.
- Brown, C. A. (2024). Shortcomings in the JET programme as a vehicle for English pronunciation teaching by native speakers. *Anglophile Journal*, 4(2), 77-90.
- Dewi, N. S., Hartiwi, J., Sulastri, S., & Sutiwi, S. (2024). An analysis of English pronunciation in the sixth grade. *Journal on Education*, 6(2), 12618-12630.
- Emmanuel, A, Bright Oppong-Adjei & Adjei, P. Y., Okrah, E. K (2022). The uniqueness of Ghanaian English pronunciation: Analysis of

dental fricative sounds. *European Journal of Literature, Language and Linguistics Studies*, 5(4), 114-132.

- Farhan, A. M., & Hadi, M. S. (2024). Implementation of read aloud feature from microsoft edge to increase pronunciation ability student's. *Jurnal Studi Guru dan Pembelajaran*, 7(1), 141-152.
- Fernández, L. C., Gapper, S. E., & Morales, H. S. (2024). A comparative approach for pronunciation instruction in English. *Letras* (76), 67-101.
- Haris, K., & St Asmayanti, A. M. (2023). Problems related to the learning of english pronunciation at the first year students of english department Universitas Muhammadiyah Makassar. *Journal* of Language Testing and Assessment, 3(1), 77-87.
- Hoang, N. T., Han, D. N., & Le, D. H. (2023). Exploring Chatbot AI in improving vocational students' English pronunciation. AsiaCALL Online Journal, 14(2), 140-155.
- Idayani, A., Satriani, E., Elmanisa, V., & Sailun, B. (2024). Errors analysis: Students' pronunciation assessment through IPA application. *ELT-Lectura*, 11(1), 89-101.
- 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.
- Khoshmuratovna, K. M. (2023). Common pronunciation problems that ESL and EFL students face. *Golden Brain*, *1*(12), 118-125.
- Khurshidovna, A. M., & Ismoilovna, E. G. (2024). Experimental phonetics: problems and solutions. *Xalqaro Konferensiya Va Jurnallarni Sifatli Indexlash Xizmati, 1*(2), 22-26.
- Kizi, J. S. F. (2024). Problems and challenges encountered by students while learning english speaking. Строительство и образование, 3(2), 73-77.
- Kurniawan, A., & Thren, A. T. (2024). The influence of the mother tongue on English pronunciation: A case study on Indonesian EFL learners. Journal of English Teaching, 10(1), 61-75.
- Kusuma, C. S. D. (2018). Integrasi bahasa Inggris dalam proses pembelajaran. Jurnal Efisiensi – Kajian Ilmu Administrasi, XV(2), 43-50.
- Lestari, R., Harahap, A. L., Munthe, D., Rusli, M., Rambe, S. A., & Harahap, N. (2024). The improving of students English pronunciation skill by using English pronunciation digital at man Labuhanbatu, Sumut. *Journal on Education*, 6(2), 14797-14809.
- Luthfianda, S., Irawan, Y., Rahayu, R., & Hidayat, S. (2024). Exploring pronunciation challenges: Indonesian university students' production of English fricative sounds. *English Review: Journal of English Education*, 12(1), 85-94.
- Manurung, L. W., Saragi, C. N., & Sitinjak, A. S.

(2024). Diagnosing the English department students' English vowel and consonant pronunciation errors by using elsa speak application. *Innovative: Journal of Social Science Research*, 4(1), 3673-3686.

- Mesfer, F., Yahrif, M., & Siradjuddin, S. (2024). An error analysis of undergraduate students' English pronunciation. *Edulec: Education*, *Language, and Culture Journal*, 4(1), 79-93.
- Mir, S. H., & Afsar, A. (2024). The pronunciation constraints of syllable stress-coloration in Pakistani English. *Journal of Humanities, Social and Management Sciences*, 5(1), 21-35.
- Nguyen, T. N. (2023). An investigation into difficulties in teaching pronunciation to firstyear english majors at dong nai university. *Journal of English Language Teaching and Applied Linguistics*, 5(2), 135-150.
- Nirwana, N., & Suhono, S. (2023). Phonological interference in English pronunciation produced by students at senior high school: A case study of Buginese and Javanese students. *Anglophile Journal*, *3*(1), 1-13.
- Octaviani, R. P., Jannah, L. M., Sebrina, M., & Arochman, T. (2024). The impacts of first language on students'english pronunciation. *International Journal Of Indonesian Education and Teaching* 8(1), 164-173.
- Phany, M., & Dara, D. (2024). The Investigation into Pronunciation Problems Faced by Teacher-Trainees: a Case Study at the National Institute of Education (NIE) in Cambodia. *Indonesian Journal of Advanced Research*, *3*(3), 301-326.
- Prahaladaiah, D., & Andrew Thomas, K. (2024). Effect of phonological and phonetic interventions on proficiency in English pronunciation and oral reading. *Education Research International*, 2024(1), 9087087.
- Purnama, S., Pawiro, M. A. & Azis. (2023). Detecting mispronunciations of non-native (L2) postgraduate students of English language education in Indonesia. International *Journal of Language Education Volume* 7(1), 134-142
- Putri, A. S., Sari, M. N., Fani, R. D., & Mulia, S. R. (2023). Analysis of vowel pronunciation errors of grade IX students of MTs Harapan Jasa Langkat. *Journal of Applied Linguistics*, 2(2), 36-40.
- Qizi, T. N. Z., & Umedovich, M. Y. (2023). americanbased pronunciation standards of English. *Scientific Impulse*, 2(15), 563-567.
- Ramadani, A., Kalsum, K., Sardi, A., & Agussalim, A. (2024). Pronunciation ability improvement by

resso application at the parepare senior high school students. *JELITA*, 5(1), 243-254.

- Ramzan, M., & Javaid, Z. K. (2023). Psychological factors influencing pashto speaking esl students'pronunciation of English vowels. *Pakistan Journal of Society, Education and Language*, <u>9</u>(2), 52-63.
- Sañudo, E. P. (2024). English pronunciation: A manual to understand and communicate effectively. Ed. Universidad de Cantabria.
- Saidkodirovna, S. D. (2024). The concept of linguistic interference in the teaching of English pronunciation. *European Journal of Innovation In Nonformal Education*, 4(3), 246-251.
- Simanjuntak, A. G., Sipayung, K. T., Tampubolon, S., & Manik, E. (2023). diagnosing students errors in English pronounciation by using Elsa Speak Application. *Journal on Teacher Education*, 4(3), 762-771.
- Suciati, T., Kurniawan, I., & Elfrida, E. (2024). Error analysis in pronouncing english words containing diphthong sounds made by EFL Students. *Journal of English Education and Teaching*, 8(2), 414-428.
- Sultan, A. H. H. (2023). The key English pronunciation difficulties for Egyptian EFL learners. Anglica -An International Journal of English Studies, 32(2), 115-136.
- Tegris, E. (2020). Analisis penyebab masalah pengucapan bahasa Inggris dalam kerangka merdeka belajar berbasis konsep ajaran Ki Hadjar Dewantara. Prosiding Seminar Nasional, Implementasi Merdeka Belajar Berdasarkan Ajaran Tamansiswa, 62-68.
- Vukićević, N. M., & Ćirković-Miladinović, I. R. (2023). Improving English pronunciation by using instructive musical exercises: university teaching context in Serbia. *Journal of Language Teaching and Research*, 14(5), 1159-1167.
- Wahyuni, H. F., Firdaus, M., & Yukamana, H. (2024). Improving the students' pronunciation mastery by using pop songs on the youtube music *Application: English. Journal of English Development*, 4(02), 425-435.
- Yu, J. (2024, February). Evaluation of English pronunciation quality based on decision tree algorithm. In 2024 International Conference on Integrated Circuits and Communication Systems (ICICACS) (pp. 1-7). IEEE.
- Zayniddinovna, M. K. (2023). The problems of teaching pronunciation to young learners. *Ta'limning Zamonaviy Transformatsiyasi*, 2(1), 1293-1299.

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