

ANALYZING PRONUNCIATION PROBLEM WITH FRICATIVE CONSONANT AMONG UNDERGRADUATE STUDENTS

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Abstract

This study examines how phonological transfer from different regional accents affects the articulation of fricative consonants /f/, /v/, /θ/, and /ð/, leading to systematic pronunciation variations. Unlike previous research that broadly investigates Indonesian-English phonological differences, this study highlights how regional accents further shape L2 pronunciation patterns. Using qualitative research, data were collected through spoken language analysis and in-depth interviews with eight UIN Malang students from Pontianak, Sidoarjo, Indramayu, Bekasi, and Palangkaraya. Findings reveal that students from Malay-influenced regions (Pontianak and Palangkaraya) struggle more with fricative articulation than those from areas where the accent aligns more closely with Standard Indonesian (Sidoarjo, Indramayu, Bekasi). The most common errors include substituting /f/ with /p/ and /v/ with /b/, as well as replacing interdental fricatives with /s/, /t/, /d/, or /z/. These patterns result from phonological transfer, where L1 phonetic constraints shape L2 pronunciation, alongside the influence of exposure to diverse linguistic environments. These findings suggest that regional accents are not just linguistic variables but are also shaped by social and historical factors affecting foreign language acquisition. They underscore the need for pronunciation instruction that addresses accent-specific challenges rather than applying uniform teaching strategies. Language education policies should recognize regional phonetic diversity as a natural aspect of second language learning and develop more targeted pedagogical approaches to enhance pronunciation accuracy.

Keywords: Pronunciation, Pronunciation Problems, Error, English, English Learners

INTRODUCTION

English pronunciation presents unique challenges for learners worldwide, particularly when specific sounds do not exist in their native languages. For Indonesian students at UIN Maulana Malik Ibrahim Malang, English is utilized as a second language, encountered and used in their daily lives, especially in relation to their academic courses such as English 1 and English 2, and potentially additional subjects depending on their chosen majors (Tambunsaribu, 2021). However, these students often have limited time and opportunities to practice articulating English phonemes in class and rarely engage in practice at home (Marpaung, 2021).

A key area of difficulty is the pronunciation of fricative consonants. Sounds in the categories classified as fricatives (such as /f/, /v/, /θ/, and /ð/) are especially problematic for Indonesian learners, as some of the sounds do not exist in the Indonesian phonetic inventory. Most of my students make errors producing these sounds and this is also one of the many things that can lead to misunderstanding or a reduction in the clarity of their spoken English. In Indonesia, when a person learn a language, their way in learning a new language is not free from cultural influences and their respective native languages which sometimes doesn't match

with the new language they learn, resulting in mispronunciation in the new language (Fauzi, 2014).

EFL learners frequently make pronunciation errors, with ingredients of such making fricative consonants errors (Islami, 2021). In this sense an error is a globally and consistently inaccurate pronunciation relative to the target, which is different from a mistake — something done in a conscious manner. Many language learners, for instance, have a hard time to distinguish between the pronunciation of /v/ and /f/, like in the word “vast”. Needless to say, it doesn't help that they usually pronounce this word /fɑ:st/, and not with the correct pronunciation /vɑ:st/.

Thus, this research is to investigate the specific pronunciation problems encountered with fricative consonants by the students of HKI at Maulana Malik Ibrahim Islamic University of Malang. The goal of this study is to discover the major causes of these phonetic mistakes and to comprehend how the English pronunciation of students is influenced by their native language. The analysis of common fricatives pronunciation errors and its phonological interrelation with native phonology of the learners can provide suggestions for teaching strategies which might solve this issue efficiently. This research study will look over the impact of Class oriented practices and Home Work Learning Steps to develop English Pronounce skills in these students.

According to Fuchs & Birkholz in Adhani (2021), fricatives are a sound resulting from narrowing of the vocal track. Furthermore, (Adhani, 2021) said that fricative is an articulator with very close sister that is going to make turbulence on the proceed air stream that going through it. A fricative consonant, in simple words, is the sound we make when we put our mouth very near tone another but don't close it fully and allow air to flow through the resulting then the opened mouth to creates a friction. There are 9 fricative consonant in phonetics transcription in english language: /f/, /v/, /s/, /z/, /θ/, /ð/, /ʒ/, /ʃ/, /h/.

According to Galakjani (2011) in Yusriati & Hasibuan (2019) there are some factors that can affect pronunciation. These include motivation, attitude, age, and the thought that first language influences. Motivation plays also an important role since some studies prove that when learning the new language, the more motivated a person they speak like natives. Yusriati & Hasibuan, (2019) Say that the personal character of a learner will be affect on her/his foreign language mastery. Meaning that the attitude is also an integral factor affect pronunciation when students care more on his/her own speaking. Another factor that comes plays in sentence is the difference in age when Galakjani (2011) in Yusriati & Hasibuan (2019) states that there is a biological or neurological stage that ends at the age of 12 years. After this time frame, acquiring perfect proficiency/fluency in the subject language that we study will become difficult.

Tambunsaribu (2021) states that generally the characteristic of his mother tongue influences the foreign language spoken by the person. When people speak their mother language which is different from the second language which they learn can cause problem to communicate each other as they are different as the native speaker approach the language Putra (2019) States that a learner doesn't assume the language he/she learns and from his/her native language similar but the fact is that both of them are completely different with each other and it influenced to pronunciation error.

This method is also known as error analysis according to Schmidt & Richards in Islami, Putrawan, & Riyantika (2021), which is a process for identifying, classifying, and interpreting the inappropriate forms of a second or foreign language that is used by the language learner. Consequently the function of error analysis as stated by Putra (2019) is to find out how well someone grasps the language, know how someone acquires a particular language, and obtain information about their troubles in learning the language.

METHOD

This study investigates the impact of regional accents on the pronunciation of fricative consonants in English among students at UIN Malang. Due to practical constraints, the research employs a qualitative approach with a small sample size to provide in-depth insights into the phonological challenges faced by Indonesian learners of English. The following sections outline the research design, participants, data collection procedures, data analysis methods, and ethical considerations undertaken in this study.

This study explored how local accents affect the pronunciation of English fricatives using a descriptive qualitative approach. This method allows for a detailed examination of individual speech patterns and the influence of regional dialects. Qualitative data provide deeper insights that numbers alone might overlook, especially with a small sample size. The research analyzed the speech of a selected group of students from different regional backgrounds to identify pronunciation patterns and challenges.

The study involved 8 undergraduate students from UIN Malang who are enrolled in English language courses. Participants were selected using purposive sampling to ensure representation from distinct regional backgrounds within Indonesia. The regions included in the sample were Pontianak, Sidoarjo, Indramayu, and Bekasi, reflecting a diversity of dialects and phonological systems. The selected participants at least have 8 year's experience in learning English.

Here is the table with only initials for participant names:

Table 1. Demographic Profile

Initials	Age	Gender	Region
A.F.	21	Male	Pontianak
B.S.	22	Male	Pontianak
C.P.	23	Male	Pontianak
D.F.	20	Male	Pontianak
E.S.	22	Male	Sidoarjo
F.A.	21	Male	Indramayu
G.W.	23	Male	Bekasi
H.L.	20	Male	Palangkaraya

Data collection was conducted in two main phases: pronunciation assessment and semi-structured interviews. The pronunciation assessment required participants to read a

standardized list of English words and sentences containing target fricative consonants (/f/, /v/, /θ/, /ð/, /s/, /z/). The assessment materials were carefully selected to include 30 words featuring the target fricatives and 10 sentences designed to provide contextualized pronunciation. Each participant was individually recorded in a quiet room using high-quality audio recording equipment to ensure clear sound capture. To maintain consistency, the researcher provided standardized instructions and ensured participants fully understood the task, minimizing external variability. Each recording session lasted approximately 20 minutes, allowing sufficient time to analyze pronunciation accuracy and patterns.

In-depth interviews were conducted to collect detailed insights into participants' language backgrounds, exposure to English, and personal experiences with English pronunciation. The interviews covered three main sections: demographic information, language background, and pronunciation experiences. Demographic information included age, gender, region of origin, and educational background. The language background section explored participants' first language (L1), their exposure to English through media, education, and social interactions, as well as their self-assessed proficiency level. The pronunciation experiences section focused on participants' perceptions of their pronunciation abilities, specific challenges with English fricatives, and strategies they used to improve. The interviews were conducted face-to-face and audio-recorded with participants' consent to ensure accurate data collection. Each session lasted approximately 30 minutes, providing ample time for participants to share their experiences in depth.

Data analysis was conducted in two stages: phonetic transcription and thematic analysis. Recorded audio files from the pronunciation assessments were transcribed phonetically using the International Phonetic Alphabet (IPA) by the researcher and a trained linguist to ensure accuracy and reliability. Discrepancies between transcribers were resolved through discussion to achieve consensus.

Each target fricative was evaluated based on correct or incorrect pronunciation. The scoring criteria included two categories: correct pronunciation, where the fricative was accurately produced according to standard English pronunciation, and incorrect pronunciation, where the fricative was substituted with another consonant, omitted, or distorted. The collected scores were then analyzed to identify common substitution patterns and pronunciation errors among participants from different regional backgrounds, providing insights into the influence of linguistic variation on English fricative production.

Transcripts from the semi-structured interviews were analyzed using thematic analysis to identify recurring themes related to pronunciation challenges and the influence of regional accents. The analysis process began with familiarization, where transcripts were read and re-read to gain a deep understanding of the content. Next, significant statements related to pronunciation difficulties and regional influences were identified and labelled through coding. These codes were then grouped into broader themes that captured the essence of participants' experiences. The themes were reviewed to ensure they accurately represented the data and remained distinct from one another. Finally, each theme was clearly defined and given an appropriate name to encapsulate its meaning effectively.

FINDINGS

1. Influence of Regional Accents on Fricative Pronunciation

Different variations were found in the pronunciation of fricative consonants among respondents from different regions, attributable to the accents or dialects of Indonesian prevalent in those areas. The following are the findings derived from the respondents' regional backgrounds:

Table 2. Respondents' regional backgrounds

Region	Influencing Accent	Common Substitutions	Main Challenges
Pontianak (4)	Malay	/f/ → /p/, /v/ → /b/, /θ/ → /t/, /ð/ → /d/	Simplification of sounds, difficulty with interdental fricatives (/θ/, /ð/)
Sidoarjo (1)	Javanese	/f/ → /p/, /v/ → /b/, /θ/ → /s/ or /t/	Strong influence of Javanese phonology, interdental fricatives replaced
Indramayu (1)	Sundanese	/f/ → /p/, /θ/ → /t/, /ð/ → /d/	Lack of interdental fricatives in Sundanese, leading to substitutions
Bekasi (1)	Jakarta/Betawi	/v/ → /b/, occasional /θ/ → /t/ or /d/	Fewer difficulties with /s/ and /z/, but /θ/ and /ð/ remain problematic
Palangkaraya (1)	Kalimantan Malay	/f/ → /p/, /θ/ → /s/, /ð/ → /d/	Strong influence of Kalimantan Malay phonology, leading to simplifications

Based on the table above, variations in the pronunciation of fricative consonants were observed among respondents from different regions, influenced by their local accents or dialects. Respondents from Pontianak (4 participants) exhibited pronunciation patterns influenced by the Malay accent, where /f/ was often replaced with /p/, /v/ with /b/, and the interdental fricatives /θ/ and /ð/ with /t/ and /d/, respectively. These substitutions were largely due to the Malay accent's tendency to simplify sounds, making it challenging for speakers to produce English fricatives accurately. Similarly, the respondent from Sidoarjo, who spoke with a Javanese accent, showed a strong tendency to replace /f/ with /p/, /v/ with /b/, and /θ/ with /s/ or /t/. The simplification of these sounds is a common characteristic of Javanese phonology, leading to difficulties in producing interdental fricatives correctly.

The Indramayu respondent, whose pronunciation was shaped by a Sundanese accent, also demonstrated similar patterns of substitution, replacing /f/ with /p/, /θ/ with /t/, and /ð/ with /d/. The absence of interdental fricatives in Sundanese contributed to difficulties in accurately pronouncing these sounds. In contrast, the Bekasi respondent, influenced by the Jakarta accent with some Betawi elements, exhibited pronunciation patterns that were more aligned with standard Indonesian. However, /v/ was still commonly replaced by /b/, and while

/s/ and /z/ were pronounced correctly, difficulties remained in producing /θ/ and /ð/, leading to frequent substitutions. Lastly, the Palangkaraya respondent, whose speech was influenced by the Kalimantan Malay accent, exhibited pronunciation patterns similar to those from Pontianak, where /f/ was replaced with /p/ and /θ/ with /s/. These patterns reflect the general tendency of Kalimantan Malay speakers to simplify certain sounds, which affected their ability to produce English fricatives, particularly interdental ones.

Across all regional backgrounds, the most common difficulties involved the pronunciation of interdental fricatives /θ/ and /ð/, which were consistently substituted with /t/, /d/, or /s/. The absence of these sounds in Indonesian phonology, combined with regional accent influences, contributed to pronunciation challenges, particularly among respondents from regions where phonemic simplification is a linguistic trait.

From the above findings, the influence of regional accents on fricative pronunciation can be observed in the following substitution patterns. Below is a table summarizing the sound substitutions by region:

Table 3. Sound substitution

Fricative Consonant	Pontianak	Sidoarjo	Indramayu	Bekasi	Palangkaraya
/f/	/p/, /v/	/p/	/p/	/p/	/p/
/v/	/b/	/b/	/b/	/b/	/b/
/θ/	/s/, /t/	/s/, /t/	/t/	/s/	/s/
/ð/	/d/, /z/	/d/, /z/	/d/	/d/	/d/

Regional accents significantly influenced how respondents pronounced English fricative consonants, presenting specific challenges based on their linguistic backgrounds. One of the primary difficulties was the lack of equivalent phonemes in their native accents. Respondents from Pontianak and Palangkaraya, influenced by the Malay dialect, as well as those from Indramayu with a Sundanese background, struggled with the pronunciation of interdental sounds like /θ/ and /ð/, which do not exist in Indonesian phonology. As a result, common substitutions were observed, with /f/ frequently replaced by /p/ and /v/ by /b/, particularly among speakers from Malay and Javanese-speaking regions. This pattern highlights the influence of Indonesian's phonetic inventory, which lacks these specific sounds. Additionally, simplification of articulations was another major challenge, especially among respondents with Javanese and Sundanese accents. These accents tend to streamline complex sounds, making it difficult for speakers to accurately produce English fricatives, particularly the interdental consonants.

Discussion

This study found that regional accents significantly influence how UIN Malang students pronounce fricative consonants in English. The main challenges include the substitution of /f/ with /p/ and /v/ with /b/, difficulties in pronouncing interdental fricatives /θ/ and /ð/, and variations in how local accents affect the articulation of other fricatives. Students from areas with Malay and Javanese influences tend to experience greater difficulties compared to those from regions where the accent is closer to Standard Indonesian.

This phenomenon can be explained through the concept of phonological transfer (Choi, 2016), where the phonetic system of a first language (L1) affects sound production in a second language (L2). Since Indonesian lacks interdental sounds like /θ/ and /ð/, students substitute them with more familiar sounds from their native phonetic inventory, such as /s/, /t/, /d/, and /z/. Similarly, the substitution of /f/ → /p/ and /v/ → /b/ occurs due to similarities in articulation in specific accents, particularly those influenced by Malay and Javanese. The tendency to simplify articulation in certain regional accents also contributes to the omission of some phonetic features in the production of English fricatives.

These findings align with previous research by Cho and Lee (2016), which suggests that phonological transfer from L1 to L2 is a major factor in pronunciation errors among language learners. However, this study also highlights that the degree of errors varies depending on regional accents—an aspect that has not been extensively explored in earlier studies. For instance, prior research has primarily focused on differences between Indonesian and English pronunciation in general, without considering how variations in Indonesian regional accents further shape L2 pronunciation. Therefore, this study provides a novel perspective on the complexity of English phonological acquisition in Indonesia.

From these findings, it can be interpreted that regional accents are not merely a linguistic factor but also have social and historical dimensions that influence foreign language acquisition. Students growing up in linguistically homogeneous communities tend to exhibit stronger phonological transfer than those who have been exposed to language diversity from an early age. Additionally, exposure to English in academic settings or media plays a crucial role in mitigating the influence of local accents on pronunciation.

The implications of this study highlight the need for more context-specific teaching strategies in English pronunciation instruction for students with diverse accent backgrounds. Phonetics and phonology programs should focus on specific pronunciation errors caused by regional accents and provide targeted exercises for difficult sounds. For example, students from Pontianak and Palangkaraya may benefit from targeted exercises that emphasize interdental fricatives, while those from Sidoarjo and Indramayu might need additional practice on distinguishing /f/ from /p/ and /v/ from /b/. Furthermore, language education policies should adopt a more inclusive approach, recognizing regional accent variations in English pronunciation not just as errors but as a natural phenomenon in second language learning.

While this study provides valuable insights into the pronunciation challenges faced by UIN Malang students, the small sample size and limited regional diversity may restrict the generalizability of the findings. Future research could expand the sample size to include a broader range of respondents from other regions of Indonesia. Additionally, investigating the role of exposure to English in the home, school, and media could provide further insights into how different factors contribute to pronunciation difficulties.

CONCLUSION AND SUGGESTION

In conclusion, this study shows that the influence of regional accents contributed toward the pronunciation of English fricative consonants for undergraduate students. Differences in pronunciation are influenced by the phonological system of Indonesian, the respondents' mother tongue and regional dialects. Developmental phonological processes, such as the substitution of /f/ with /p/ and /v/ with /b/, can be found despite the differences in the treating manner of articulation between the two phonemes. When /f/ (measurement for fairly eminent sound, and /v/ (measurement for voiced labiodental fricative) are replaced by the Indonesian phonological system that does not distinguish between /f/ and /v/, they are simply replaced with /p/ and /b/. Notable Issues with Interdental Fricatives, /θ/ and /ð/: /θ/ and /ð/ proved to be quite difficult for respondents to produce correctly, resulting in substitutions with /s/, /t/, /d/, and /z/. Such difficulties are related to the non-existence of interdental fricatives in Indonesian phonemic system which, in turn, caused transfer of phonology from L1 to L2. The Influence of Standard Indonesian: Related to the accent of the respondents of Bekasi being closer to the standard Indonesian accent, they had fewer problems with the realisation of /s/ and /z/ but still had problems with both the interdental fricatives as well as /v/. This means that English pronunciation is affected by the phonological constraints of Indonesian, in general. Phonological transfer from L1 to L2 is likely a contributing factor to the pronunciation difficulties observed in the results as the respondents find themselves unconsciously matching an unfamiliar L2 sound to the closest similar sound in their L1.

REFERENCES

- Adhani, R., Ismiyati, Y., & Silfia, E. (2021). An analysis of students' difficulties in pronouncing English fricative consonant at the Eleventh Grade of SMA Negeri 1 Kota Jambi. *JELT: Journal of English Language Teaching*, 5(1), 25-37.
- Amin, M., Davis, C. J., Amjad, A. I., Parveen, S., & Naqvi, S. A. A. (2024). Identifying Acoustic Variability Patterns in Spoken English of Fricative Consonants Among Pakistani Native Punjabi Speakers. *Journal of Asian Development Studies*, 13(3), 1036-1046.
- Cho, M.-H., & Lee, S. (2016). The impact of different L1 and L2 learning experience in the acquisition of L1 phonological processes. *Language Sciences*, 56, 30-44. <https://doi.org/10.1016/j.langsci.2016.02.006>
- Choi, J. (2016). Investigation into Korean EFL Learners' Acquisition of English /s/ + Consonant Onset Clusters. *Advances in Language and Literary Studies*, (h. 48-54).
- Fagniat, S., Charlier, B., Delvaux, V., Harmegnies, B., Huberlant, A., Piccaluga, M., & Huet, K. (2024). Production of fricative consonants in French-speaking children with cochlear implants and typical hearing: acoustic and phonological analyses. *Proc. Interspeech 2024*, 877-881.
- Fauzi, F. (2014). Error analysis of Sundanese English pronunciation on fricatives sound. *Buletin Al-Turas*, 20(1), 199-218.
- Hidayat, M. Y. R., Franchsicha, E. M. L., & Rohmana, W. I. M. (2023). The implementation of literature in extracurricular "student conversation club". *Bahtera: Jurnal Pendidikan Bahasa dan Sastra*, 22(2), 232-238.
- Idayani, A., & Sailun, B. (2023). Students'ability in pronouncing English fricative consonants at english language education of fkip uir. *EJI (English Journal of Indragiri): Studies in Education, Literature, and Linguistics*, 7(1), 156-271.
- Islami, R., Putrawan, G. E., & Riyantika, F. (2021). An analysis of students' pronunciation errors of friction consonants in spoken production. *International Journal of Educational Studies in Social Sciences (IJESSS)*, 1(2), 81-86.
- Kalaldehy, R. (2016). English pronunciation errors by Jordanian university students. *Arab World English Journal (AWEJ)*, 7(2), 394-416.
- Kurniawan, D. (2016). The error analysis of the pronunciation of dental fricative consonants (/ɹ̥/, /ã/) by the students of English education study program faculty of teacher training and education sriwijaya university. *The Journal of English Literacy Education: The Teaching and Learning of English as a Foreign Language*, 3(2), 157-163.
- Maiza, M. (2020). An Analysis of Students Pronunciation Errors. *JOEEL (Journal of English Education and Literature)*, 1(1), 18-23.
- Marpaung, T. A., Sabarudin, S., & Mulyadi, M. (2021). Pronunciation errors of fricative sounds made by english students. *Journal of English Education and Teaching*, 5(3), 368-380.
- Metruk, R. (2017). Pronunciation of English dental fricatives by Slovak university EFL students. *International Journal of English Linguistics*, 7(3), 11-16.
- Putra, F. P. (2019). An Error Analysis of English Plosive and Fricative Consonants at Vocational High Schools. *Wanastra: Jurnal Bahasa dan Sastra*, 11(2), 141-150.

- Tambunsaribu, G., & Simatupang, M. S. (2021). Pronunciation problems faced by Indonesian college students who learn to speak English. *European Journal of Molecular & Clinical Medicine*, 8(2), 759-766.
- Yusriati, Y., & Hasibuan, S. H. (2019). The analysis of English pronunciation errors by English education students of FKIP UMSU. *Journal of English Education and Teaching*, 3(2), 230-248.