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Research Article

A Sociophonetic Analysis of Interdental Fricatives Among University Students

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ABSTRACT

This study examined the relationship between socioeconomic status (SES) and substitution patterns of the English interdental fricative sounds among university students. This study addresses the need to examine students' socioeconomic status (SES), their substitution patterns for the target sounds, and the possible relationship between SES and substitution frequency. A total of 132 Bachelor of Arts in English Language completed a sociodemographic questionnaire and participated in a pronunciation task. Results indicated that 53.8% of the participants belonged to the lower SES group, 33.3% to the middle SES group, and 12.9% to the upper SES group. Across all socioeconomic groups, participants commonly substituted the voiced th /ð/ sound with the voiced alveolar stop /d/, while other substitutions were less frequent. For the voiceless th /θ/ sound, the most frequent substitution was the voiceless alveolar stop /t/, with /tʃ/ and /s/ appearing only occasionally. Statistical analyses revealed a weak positive but non-significant correlation between socioeconomic status and substitution patterns, indicating that SES did not influence the production of the interdental fricatives. This suggests that variation in interdental fricatives is primarily driven by first-language phonology. Consequently, language educators should pivot toward explicit, intelligibility-based pronunciation instruction rather than deficiency-based pedagogical models.

Keywords: *Sociophonetics, Philippine English, pronunciation patterns, English phonology, interdental fricatives*

Introduction

Language can be an expression of social identity, more than just a vehicle of communication. Even with just a short conversation, people's backgrounds can already be inferred based on how they speak because speaking differently is deeply connected to identity: this connection includes the community associated with the speaker (Wardhaugh, 2006). Being part of a certain group or community has established this unwritten and unspoken system of how they speak that most people learned without even knowing, and this somehow shows a sense of belonging.

Bourdieu et al., (2009) illustrate this with a valuable metaphor depicting language as a symbolic marketplace wherein certain "language goods" are valued more than others.

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Certain ways of speaking are valued more than others because society attributes more symbolic power to those ways of speaking. All of these discussions about language, identity, social norms, and power relate directly to sociophonetics, the intersection of sociolinguistics and phonetics, which examines systematic speech variations based on how language sounds are produced and perceived within social contexts (Komatsu, 2014).

One area of interest in sociophonetics is the variation of interdental fricatives, specifically /θ/ as in think and /ð/ as in this. These sounds may often be substituted or modified depending on dialect or by those learning English as a second language. This is particularly true for Filipino learners who inherently do not have the sounds present in their first language. Filipino students have the challenge of substituting the interdental fricatives with either /t/ or /d/ because interdental fricatives are entirely absent from the phonological inventories of major Philippine languages, making /θ/ and /ð/ notorious targets for L1 phonological interference (Pachina, 2019).

Studies have shown that interdental fricatives vary across dialects and social groups. For instance, New York City has a variety of working-class speakers will say “ting” instead of “thing” or “dis” instead of “this”. In linguistic terms, this is known as TH-stopping (Labov, 1966). In some regions of England, such as Cockney accents, people perform TH-fronting and say “fink” for “think” or “bruvver” for “brother”, people who learn English as a second language also replace the TH sound with whatever sound exists in their own language (Newlin-Łukowicz, 2013). These differences cannot be called mistakes because it represents who a person is. In this context, examining how such variation appears in academic settings can offer a valuable perspective.

While there have been numerous studies conducted examining the sociophonetic variations existing in native English-speaking communities, not many have focused on the sociophonetic variations of university students enrolled in Bachelor of Arts in English Language programs in the Philippines. Since Bachelor of Arts in English Language students are exposed to aspects of phonology and articulation through their instruction; it would be important to identify if these students demonstrate the influence of such exposure through their respective pronunciations (Chappell & Kanwit, 2022).

Therefore, this study examines the sociophonetic variation of interdental fricatives among Bachelor of Arts in English Language students at Mariano Marcos State University, focusing on how socioeconomic status relates to substitution patterns in pronunciation. Specifically, it sought to answer the following questions: 1) What is the socioeconomic status of the university students? 2) What substitution patterns for interdental fricatives are observed among the university students? and 3) Is there a relationship between socioeconomic status and the substitution patterns among university students?

Materials and Methods

This study utilized a quantitative, descriptive-correlational research design to evaluate how socioeconomic status impacted pronunciation differences in the English interdental fricatives. This design choice was effective in capturing patterns in the substitution of interdental fricatives and in quantitatively describing the relationship, if any, between different pronunciation tendencies among students and their socioeconomic status. Correlational research provided a way to explore potential relationships among variables without manipulating them, which was suitable in an ESL context where the goal was to observe natural speech variation.

Population and Sample

The study attempted total enumeration, resulting in a final sample size of 132 participants (an 85.1% response rate) who met all inclusion criteria and consented to the study.

The Instrument

The instruments used for this study were a sociodemographic questionnaire and a coding sheet. The pre-survey elicited information about the participants' socioeconomic background, such as household income, parental occupation, and high school attended, which

were then used to categorize participants into three SES groups.

To analyze the substitution patterns that emerged from the pronunciation task, the study utilized a coding sheet. The coding sheet contained the list of target words from a poem titled Al Aaraaf by Edgar Allan Poe. This poem, unlike most others, contained words with the interdental fricatives. The use of a poem for the pronunciation task in this study was supported by Agbayani & Sy (2022) who used a poem containing the English interdental fricatives to analyze pronunciation patterns. Likewise, the poem selected for the study had a total of 7 words with the voiceless th /θ/ sound, and 7 words with the voiced th /ð/ sound, providing an even number of target sounds. Dyani et al., (2025) pointed out that the placement of sounds (initial, medial, or final) affected the way sounds could be articulated and substitutions could be made.

Data Collection

Prior to collecting data, the researcher obtained approval from the University Research Ethics Review Board (URERB) of Mariano Marcos State University. The complete research protocol was submitted for ethical approval. No study components commenced until the formal approval had been received.

Once participants agreed to participate in the study, they were given a sociodemographic questionnaire designed to collect information regarding their household income, the occupations of their parents, and the type of high school attended. These variables were then used to create upper, middle, or lower socioeconomic status (SES) groupings using a standardized income matrix.

After participants were assigned to an SES group, they were asked to perform a pronunciation task in which they read a short passage (an excerpt from Al Aaraaf by Edgar Allan Poe) that contained the target interdental fricatives. Each individual's pronunciation of the passage was recorded in a controlled setting using a digital audio recorder; this ensured that the production of the target sounds was as clear as possible.

The collected data were later transcribed phonetically and coded for analysis, including a coding of substitution patterns for possible future analyses. A linguistically trained rater independently verified a random sample of the transcriptions to ensure inter-rater reliability.

All data and recordings were anonymized and stored in a secure manner prior to analysis, and patterns and relationships between SES and the differences in pronunciations were investigated. Ethical considerations for this study included minimal risk to the participant and an opportunity for them to withdraw from the study or take a break at any time during participation.

Statistical Analysis

The study employed a descriptive and hypothesis testing methods of data analysis. For the purposes of analyzing the occurrence of correct and substituted productions of the interdental fricative sounds of varying different SES groups, the frequency percentage formula of GAE-standard correct productions and substitutions of the target sound across different SES groups was computed, and in order to determine if a significant relationship exists between the participants' SES and the frequency of substitution, a hypothesis testing of SES and substitution frequency using the Spearman's rho and Kendall's Tau B was conducted.

To ensure reliability and validity of the results, the statistical computations and analyses was performed with the assistance of a statistician.

Result and Discussion

This discusses the findings related to the socioeconomic status of the respondents, the substitution patterns for the interdental fricative sounds, and shows whether socioeconomic status (SES) has a significant relationship between substitution patterns.

Socioeconomic Status of the Respondents

Socioeconomic status (SES) plays an important role in influencing learners' linguistic development, exposure to educational resources, and exposure to varied language contexts. In language-related programs like a Bachelor of Arts in English Language, it is critical to understand the SES background of students when interpreting possible influences on their language

performance. The participants' data were secured by means of sociodemographic questionnaire, which gathered facts regarding estimated monthly income, occupation of the parent, and kind of high school attended. As shown in table 1, the information was utilized in grouping the participants into three groups: upper, middle, and lower SES groups, by means of a uniform income classification scheme.

Table 1

Socioeconomic Status of Respondents

Socioeconomic Status	f	%
Lower	71	53.8
Middle	44	33.3
Upper	17	12.9
Total	132	100

As shown in Table 1, the majority of the respondents were classified as belonging to the lower SES group, comprising 71 respondents or 53.8% of the total sample. This was followed by 44 respondents or 33.3% who were identified as middle SES group, while the smallest proportion consisted of 17 respondents or 12.9% from the higher SES group. Overall, the data indicate that more than half of the participants came from a lower socioeconomic background.

From this distribution, the respondents are described in terms of Philippine English lectal variation, specifically basilectal, mesolectal, and acrolectal features, to identify patterns in their pronunciation. The respondents from the lower SES group may have had limited experience with the prestigious and standardized types of English prior to entering the institution. Hence, those enrolled at this institution are presumed to produce phonological characteristics related to the basilect of Philippine English which tend to produce phonological characteristics that are highly influenced by their local first languages and deviate significantly from international English norms (Agbayani & Sy, 2022; Magpale, 2025). Since the basilect generally has less intelligibility when compared with other sociolects, it is theorized that students from this SES group might be more likely than their more affluent counterparts to produce substitutions for the interdental fricative sounds of PE (Tak et al.,2023)

Meanwhile, the middle SES group are classified as belonging to the mesolect of Philippine English. The mesolect represents the transitional phase of Philippine English where an individual exhibits both the phonological features of the basilect and the acrolect. Students who fall within the mesolect category have experienced more consistent education and access to resources that support the development of English (Liu, 2020). Thus, the phonological patterns exhibited by students who fall within this SES group may vary depending on context; these students may shift between localized and standardized realizations (Magpale, 2025). This linguistic flexibility indicates that they may produce different substitution behaviors depending on the context and that they possess local speech norms while also being exposed to more prestigious varieties of English throughout their lives.

The smallest group, consisting of 17 respondents from the upper SES group, is expected to have the greatest correlation with the acrolect of the Philippine English. It is anticipated that this group may be more likely to develop higher levels of linguistic capital compared to their counterparts from lower socioeconomic status groups due to greater access to quality educational programmes,

greater exposure to international media and the expectation from society that they might use the most prestigious forms of English. Participants from the upper SES group are expected to demonstrate a lower frequency of substitution of interdental fricatives in their speech and provide a basis for comparison for examining the effect of socio-economic status on pronunciation.

Overall, the distribution of respondents across SES groups displayed in Table 2 indicates that many respondents were raised in linguistic environments that did not provide access to high prestige varieties of English, thereby instilling localized phonological patterns in their speech. In contrast, the distribution for the middle and upper socioeconomic SES group may indicate an increased level of access to linguistic resources as well as an increased exposure to standard English, and that these factors have increased their ability to pronounce English with greater phonological flexibility and accuracy. Therefore, the distribution provides a context for understanding the substitution patterns in the production of interdental fricative sounds demonstrated by respondents from various SES groups.

Substitution Patterns for the Interdental Fricatives

The participants completed a pronunciation task which included the reading of Al Aaraaf by Edgar Allan Poe, containing words selected to evaluate the participants' production of interdental fricatives. For the voiced th /ð/ sound, they said target words like that, there, thy, thee, heathen, withering, and with. In contrast, for the voiceless th /θ/ sound, participants pronounced words such as thrown, thrill, thought, earthly, nothing, path, and death. A coding sheet was utilized to track whether each pronunciation aligned with General American English (GAE) standards or demonstrated a substitution pattern.

Table 2 presents the total number of pronunciation tokens produced by participants, categorized according to socioeconomic status.

Table 2

Token Production of Interdental Fricative Sounds

Socioeconomic Status	**Participants (f)**	**Voiced th /ð/**	**Voiceless th /θ/**
Lower	71	497	497
Middle	44	308	308
Upper	17	119	119

Each participant pronounced a total of 14 target words, consisting of seven words containing the voiced th /ð/ and seven words containing the voiceless th /θ/ sounds. All 71 participants from the lower SES group pronounced seven words containing the interdental fricatives, resulting in a total of 497 recorded tokens each for both the voiced th /ð/ and voiceless th /θ/ sounds. In addition, all 44 participants from the middle SES group completed the task, resulting in a total of 308 tokens each for the voiced th /ð/ and voiceless th /θ/ sounds. The 17 participants from the upper SES group produced a total of 119 tokens for each voiced th /ð/ and voiceless th /θ/ sounds. This structured procedure ensures an even and reliable collection of data to examine patterns of substitution of the interdental fricatives across the socioeconomic groups, which are then used to discuss the patterns observed among the participants.

Table 3 presents the frequency and percentage distribution of substitution patterns for the voiced th/ð/ sound across the three socioeconomic status (SES).

Table 3

Frequency of Substitution for the Voiced th /ð/ Sound

Type of Substitution	Lower SES		Middle SES		Upper SES	
	f	%	*f*	%	*f*	%
No Substitution	270	54.3	178	57.8	67	56.3
Voiced Alveolar Stop /d/	163	32.8	94	30.5	36	30.3
Voiceless Alveolar Stop /t/	45	9.1	12	3.9	8	6.7
Voiceless th /θ/	19	3.8	24	7.8	8	6.7

As shown in table 3, it was found that the lower SES group produced the lowest number of correct tokens for the voiced th /ð/ sound with an average of 270 tokens or 54.3%; therefore, approximately half of their attempts produced a substitution. For the middle SES group, the participants produced 178 out of 308 correct tokens or 57.8%, demonstrating that more than half of that group successfully articulated the sound. The upper SES group produced 67 correct tokens out of 119 attempted tokens (56.3%); therefore, the upper SES had a lower percentage than the middle SES group. The difference in percentages is minimal compared to the difference in sample sizes for both groups; the middle SES group had 44 participants while upper SES group had only 17 participants. With decreasing sample sizes, the effect of individual differences increases on the overall result because a small number of participants producing a higher percentage of substitutions might decrease the overall group percentage, without indicating less competence.

Across all socioeconomic groups, the most frequent substitution for the voiced th /ð/ sound was the voiced alveolar stop /d/ with 163 tokens (32.8%) recorded from the lower SES group, 94 tokens (30.5%) from middle SES group, and 36 tokens (30.3%) from upper SES group. Common substitutions occurred in words such as that /ðæt/ → /dat/, there /ðɛər/ → /dɛər/, and with /wɪð/ → /wɪd/.

The second most common substitution was the voiceless alveolar stop /t/. The largest number of tokens for voiceless alveolar stop /t/ substitutions was found among the lower SES group, who produced 45 tokens (9.1%) compared to the 12 tokens (3.9%) produced by the middle SES group and the 8 tokens (6.7%) produced by the upper SES group. The following examples illustrate voiceless alveolar stop substitutions by participants: thy /ðaɪ/ → /taɪ/, thee /ði/ → /ti/, heathen /ˈhiːðən/ → /ˈhiːtən/ and withering /ˈwɪðərɪŋ/ → /ˈwɪtərɪŋ/.

The third substitution pattern involved a devoicing sound, where voiced th /ð/ sound was substituted with the voiceless th /θ/ sound. This devoicing behavior occurred at a slightly greater rate among the middle SES group and the following examples were noted: with /wɪð/ → /wɪθ/; heathen /ˈhiːðən/ →

/ˈhiːθən/; and withering /ˈwɪðərɪŋ/ → /ˈwɪθərɪŋ/.

The observed substitution patterns suggest that the production using the voiced alveolar stop /d/ appears particularly related to the marked status of voiced th /ð/ sound in the Philippine communication context where Philippine languages do not include this sound. In the absence of this sound at all, the voiced alveolar stop /d/ is likely to provide second-language English learners in the Philippines with an analogue that is phonetically similar, phonetically more familiar and, hence, more accommodating in terms of articulation. The occurrence of the voiceless alveolar stop /t/ substitution suggests that unlike the common substitution of the voiced alveolar stop /d/, which is a basic challenge for everyone learning this sound, the voiceless alveolar stop /t/ substitution is a clear sign of social class. Its frequency is highest in the lower SES group and lowest in the middle SES group, meaning substitution acts as a key marker showing the distance between a student's background and the prestige English standard. Lastly, the devoicing may result from style shifting, where participants attempted to produce the more prestigious form but were unable to sustain voice presence, indicating linguistic flexibility rather than a firmly entrenched non-standard pattern.

These patterns are consistent with the findings of Agbayani & Sy (2022); Magpale (2025) showing that in communities lacking interdental fricatives, speakers frequently replace them with sounds that is familiar to their native language, the most common being the voiced alveolar stop /d/ and the voiceless alveolar stop /t/. The devoicing observed may result from style-shifting, demonstrating that some substitutions are systematic adaptations to native language phonology, while others, like devoicing, reflect contextual adjustments to speech style, linking variation to social identity and communicative situational demands (Hazen, 2011).

Overall, the middle and upper SES groups were more accurate in their production of the voiced th /ð/ sound than the lower SES group, but in all groups the same substitutions were produced, voiced alveolar stop /d/ is the most common substitution, followed by voiceless alveolar stop /t/ and voiceless th /θ/ sound being the less common type of substitution produced. This evidence supports the observation that the voiced/ð/ th sound lacking in many of the Philippine languages, is still difficult of produce among all socioeconomic groups.

A similar substitution pattern emerges for the voiceless th /θ/ sound, as shown in Table 4.

Table 4

Frequency of Substitution for the voiceless th /θ/ *Sound*

Type of Substitution	Lower SES		Middle SES		Upper SES	
	f	%	*f*	%	*f*	%
No Substitution	283	59	203	65.9	86	72.3
Voiceless Alveolar stop /t/	183	36.8	84	27.3	28	23.5
Voiceless Affricate /tʃ/	17	3.4	12	3.9	5	4.2
Voiceless Sibilant /s/	4	0.8	9	2.8	0	0

As shown in Table 4, the highest percentage of correct productions (no substitutions) for the voiceless th /θ/ was observed among participants from the upper SES group. The upper SES group produced 86 correct tokens (72.3%), followed by the middle SES group with 203 tokens (65.9%) and the lower SES group with 283 tokens (59.0%).

However, there was a considerable number of substitutions, with the majority of substitutions being in the form of voiceless alveolar stop /t/ for all participants. Among the lower SES group 183 tokens (36.8%) were produced most commonly in words such as thrown /θroʊn/ → /troʊn/, nothing/'nʌθɪŋ/ → /'nʌtɪŋ/, and path /pæθ/ → /pat/. The middle SES group participants produced 84 tokens (27.3%), while upper SES group participants produced 28 tokens or 23.5%.

The second most frequent type of substitution which occurred mostly in the lower SES group with 17 tokens (3.4%), middle SES group with 12 tokens (3.9%), and upper SES group with 5 tokens (4.2%) was the voiceless affricates /tʃ/. This type of substitution was replaced in words like thrill

/θrɪl/ → /tʃrɪl/ and thrown /θroʊn/ → /tʃroʊn/.

The least common type of substitution was made by replacing the voiceless th /θ/ with a voiceless sibilant /s/ and only by the participants in the lower SES group with 4 tokens or 0.8%, the middle SES group with 9 tokens or 2.8%, and the upper SES group did not provide any substitution using the voiceless sibilant /s/.

The upper SES group's ability to produce the voiceless th /θ/ sound with no substitution may indicate increased exposure to standard English varieties, greater educational opportunities, and access to high-prestige English corresponded with greater accuracy in production. However, almost all participants produced the majority of their tokens correctly, showing that accurate production is possible across SES groups.

The most common substitution for the voiceless th /θ/ sound was the use of alveolar stops /t/, reflecting the absence of interdental fricatives in participants' native languages. This pattern is similar to what was observed for the voiced th /ð/, indicating that both sounds present articulatory challenges for speakers whose L1 lacks interdental fricatives. Even participants in the middle SES group had greater exposure to speaking English in its standard form, but still produced a voiceless alveolar stop /t/, showing that articulatory difficulty can lead to predictable substitutions regardless of linguistic exposure. Participants from the higher SES group, despite having the most access to high- prestige English, also

occasionally substituted /θ/, demonstrating that even speakers with extensive exposure may struggle with accurate production.

These substitutions mainly reflect the inability to articulate the interdental fricative correctly, even when speakers are aware of its fricative quality. However, upper SES participants did not substitute /θ/ with the voiceless sibilant /s/, suggesting that higher exposure to standard English reduces the likelihood of this type of substitution.

Overall, the most frequent type of substitution for the voiceless /θ/ sound across all socioeconomic groups was the voiceless alveolar stop /t/, reflecting a widespread tendency toward stop-fronting due to the absence of interdental fricatives in Philippine languages. The next most common substitution was the voiceless affricate /tʃ/, which emerged across all groups as an attempt to preserve some fricative quality even though the articulation was shifted toward a more familiar affricate form. The least frequent substitution was the voiceless sibilant /s/, which appeared only occasionally and was absent in the upper SES group.

Correlation Between Socioeconomic Status and Substitution Patterns

To examine the relationship between socioeconomic status (SES) and the pronunciation of interdental fricatives, the total number of substitutions produced by each respondent was analyzed in relation to their socioeconomic status.

Table 5 shows the correlation between socioeconomic status (SES) and the total number of interdental fricative sound substitutions among university students.

Table 5

Relationship Between SES and Substitution Patterns

Variable Pair	Spearman's rho	Kendall's Tau-B
Correlation coefficient	0.047	0.037
p-value	0.295	0.301
Correlation	**weak positive**	**weak positive**
Significance	**ns**	**ns**

Note. ***H_a*** ***= positive correlation. * p < .05, ** p < .01, *** p < .001, one-tailed. ns = not significant.***

The results of the Spearman's rho test indicated an exceptionally weak, non-significant positive relationship (ρ = 0.047, p = 0.295, df = 131). Similarly, Kendall's Tau B yielded a weak positive coefficient (τb = 0.037, p = 0.301). Although both coefficients are positive, suggesting that higher SES might be associated with slightly fewer substitutions, the p values are greater than the conventional threshold of .05. This means that the observed relationships are not statistically significant, and the hypothesis (H_a) predicting a positive correlation between SES and substitution frequency is not supported.

The weak and non-significant correlations imply that socioeconomic background, as measured by household income, parental occupation, and type of high school attended, does not exert a meaningful influence on the pronunciation of the interdental fricatives /θ/ and /ð/ in this sample. Instead, the substitution patterns observed among students appear to be more strongly shaped by linguistic factors, particularly the absence of interdental fricatives in the Filipino phonological system, rather than by socioeconomic stratification.

The findings of this study can be understood through Labov's Variation Theory (1966), which holds that the way we use language varies due to social and situational conditions. The factors influencing this are things like age, gender, socio-economic status (SES), and the context of what is being said.

This variable can take many different forms or variants, with each variant having a certain probability of usage and not being a fixed or absolute way of doing something. Thus, speakers select variants based on social and situational stimuli in their environment, resulting in systematic variation that is dependent on context.

Moreover, the occasional style-shifting observed, such as devoicing or attempts to approximate standard forms, aligns with Labov's notion that speakers adjust their speech, which is consistent with Labov's premise of speakers shifting their production based on context and the perceived level of formality (Hazen 2011). Substitution occurred even among those who came from higher socioeconomic status (SES) backgrounds—the group that has had the greatest exposure to standard English—which demonstrates how linguistic ability and physical constraints of making speech sounds may take precedence over motivations based on prestige or social acceptability. Therefore, these results support prior analyses of Interdental fricative production among university students is shaped by first-language influence and that the absence of interdental fricatives in the L1 system leads to predictable substitution patterns (Agbayani and Sy, 2022; Dyani et al., 2025), as well as interaction of social exposure, linguistic environment, and structural limitations of the sound system (Louf et al., 2023). Finally, taking all the studies into consideration confirms both that linguistic variation is a system, and that a speaker's social background only partially determines marked phoneme production; thus, social and linguistic factors influence phonological variation and are both involved in the production of marked forms of a speaker's speech.

Conclusion

The study found no significant relationship between socioeconomic status and the pronunciation of the English interdental fricatives. Participants from all socioeconomic groups exhibited comparable substitution patterns for the interdental fricatives, replacing voiced th /ð/ with voiced alveolar stop /d/ and voiceless th /θ/ with voiceless alveolar stop /t/, with occasional use of voiceless affricate/tʃ/ and voiceless sibilant /s/.

These results imply that socioeconomic status (SES) does not serve as the only determinant in developing proficiency with complex phonological features, such as interdental fricatives. Pronunciation patterns are found among students from multiple socioeconomic backgrounds, and these patterns can frequently overlap or be somewhat mixed. Therefore, social interactions, community norms, peer networks, and exposure to diverse language models can dramatically influence an individual's phonological features. Even individuals who are considered to have greater economic advantage may sometimes acquire non-standard forms of pronunciation based on their surrounding social environment.

The study could be extended by future researchers by bringing in international students from different linguistic backgrounds. This would enrich the research by providing a comparison of substitution patterns across the varied language communities and understanding how exposure to English through various media, peer conversations, and language learning environments all play a role in more broad understanding about the interaction of the speakers' linguistic background and external experiences on naturally occurring pronunciation variation. Such studies could offer valuable insights into the factors shaping pronunciation variation and inform strategies for language instruction across diverse learner populations.

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References

Agbayani, R. S., & Sy, D. B. F. (2022). Phonological varieties of interdental fricative voiced and voiceless 'th' among philippine english lectal speakers. *Studies in English Language Teaching, 10*(2), p96. https://doi.org/10.22158/selt.v10n2p96

Bourdieu, P., Thompson, J. B., & Raymond, G. (2009). Language and symbolic power (1. publ. in paperb., repr). Polity Press.

Chappell, W., & Kanwit, M. (2022). Do learners connect sociophonetic variation with regional and social characteristics?: THE CASE OF L2 PERCEPTION OF SPANISH ASPIRATION. *Studies in Second Language Acquisition, 44*(1), 185–209. https://doi.org/10.1017/S0272263121000115

Dyani, A. P., Romadhoni, N. N., & Rohmana, W. I. M. (2025). Analysis of mispronunciation the "th"sound by efl learners in university level. Journal of Linguistics.

Hazen, K. (2011). Labov: Language variation and change. In R. Wodak, B. Johnstone, & P. Kerswill, The SAGE Handbook of Sociolinguistics (pp. 24–39). SAGE Publications Ltd. https://doi.org/10.4135/9781446200957.n3

Komatsu, M. (2014). Sociophonetics: An Introduction. *ENGLISH LINGUISTICS, 31*(2), 671–680. https://doi.org/10.9793/elsj.31.2_671

Labov, W. (1966). Social Stratification of English in New York City.

Liu, B. (2020). Social class, language attitudes, and language use: A case study of Chinese university students. Chinese Language and Discourse. *An International and Interdisciplinary Journal, 11*(1), 5–30. https://doi.org/10.1075/cld.19002.liu

Louf, T., Ramasco, J. J., Sánchez, D., & Karsai, M. (2023). When dialects collide: how socioeconomic mixing affects language use (Version 2). arXiv. https://doi.org/10.48550/ARXIV.2307.10016

Magpale, T. A. J. (2025). Exploring sociolectal identity through speech rhythm in philippine english.

Languages, 10(5), 101. https://doi.org/10.3390/languages10050101

Newlin-Łukowicz, L. (2013). TH-stopping in new york city: substrate effect turned ethnic marker? 19.2. https://repository.upenn.edu/server/api/core/bitstreams/aca90c41-4ccd-4c10-9724-792e23ee1dcd/content

Pachina, E. (2019). Pronunciation problems of students in the philippines. All You Need to Know about Teaching English Abroad! https://www.teflcourse.net/blog/pronunciation-problems- of-students-in-the-philippines/

Tak, J., Zipagan, M., & Kwak, E. J. (2023). Speech intelligibility of the diastratic varieties of Philippine

English. Studies in English Language and Education, 10(3), 1434–1451. https://doi.org/10.24815/siele.v10i3.29241

Wardhaugh, R. (2006). An introduction to sociolinguistics (5th ed). Blackwell Pub.