

Segmental Phonological Errors of Indigenous Learners of English: An Interlanguage Thematic Analysis

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ABSTRACT. The acquisition of English pronunciation among indigenous learners poses unique linguistic and cognitive challenges due to structural differences between English and indigenous phonological systems. Although studies on second language phonology have explored pronunciation errors across diverse learner groups, a notable research gap remains in understanding the cognitive processes that influence how indigenous learners perceive, internalize, and reproduce English sounds absent in their first languages. Previous research has tended to emphasize linguistic description over the mental mechanisms that shape pronunciation behavior. Anchored on Cognitive Theory (Piaget, 1952; Anderson, 1983), this study conceptualizes pronunciation learning as a mental process of perception, categorization, and adaptation, where learners actively construct internal representations of English phonemes based on their prior linguistic schemata. The research employs an exploratory qualitative design, engaging twenty (20) indigenous learners of English through one-on-one interviews. Data will be analyzed using reflexive thematic analysis to identify recurring segmental phonological errors and to interpret the cognitive factors that influence pronunciation accuracy, such as sound recognition, articulatory adaptation, and transfer from L1 to L2 sound systems. The study is expected to reveal that indigenous learners' pronunciation errors are systematic outcomes of cognitive transfer and perceptual limitations, reflecting how existing phonological knowledge constrains new sound acquisition. Furthermore, findings are anticipated to demonstrate learners' use of cognitive learning strategies, such as self-monitoring and analogy, in refining pronunciation. The results aim to contribute to a deeper understanding of the cognitive underpinnings of interlanguage phonology and inform pedagogical approaches that integrate cognitive awareness in teaching English pronunciation to indigenous learners.

KEYWORDS: *Phonological, Indigenous, Interlanguage, Analysis*

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Introduction

English continues to serve as the global language of education, technology, and intercultural communication, shaping access to knowledge, opportunity, and social mobility. In multilingual societies with strong indigenous linguistic identities, learning English as a second language presents distinct linguistic and cognitive challenges. Among these, pronunciation poses

one of the most persistent barriers to communicative competence. Unlike vocabulary or grammar learning, pronunciation acquisition involves perceptual and cognitive adaptation to unfamiliar sound systems. Many of the segmental features of English particularly certain consonant and vowel sounds are absent or realized differently in indigenous languages, resulting in segmental phonological errors, or consistent mispronunciations of individual sounds. These difficulties often reduce intelligibility and affect learners' confidence and classroom participation, while also influencing how their linguistic competence is perceived by others (Arroyo Hernández & Paschke, 2022; Garil, 2024; Estoque, 2023).

Although numerous studies have explored second language (L2) pronunciation, there remains a significant research gap concerning the cognitive mechanisms underlying how indigenous learners perceive and produce English sounds that are not part of their first-language phonological systems. Most previous research has focused on phonetic description or cross-linguistic transfer, often overlooking the mental processes that drive pronunciation learning such as attention, working memory, and perceptual categorization (White et al., 2017; Tao & Taft, 2017; Garil, Abbas, & Limen, 2024). Consequently, there is limited understanding of how indigenous learners cognitively encode and retrieve English phonemes, and how these internal processes influence their speech production. Addressing this gap is vital for developing pedagogies that support pronunciation learning through awareness of cognitive and perceptual processes, rather than rote imitation or correction (Divinagracia, 2024; Ceneciro, 2025).

This study seeks to address that gap by examining both the segmental phonological errors commonly produced by indigenous learners of English and the cognitive interlanguage factors shaping their pronunciation. Anchored on Cognitive Theory (Piaget, 1952; Anderson, 1983), this study views language learning as an active mental process involving perception, information processing, and schema adaptation. Learners construct internal representations or mental models of linguistic input, which they use to interpret and reproduce sounds. When they encounter unfamiliar English phonemes, they rely on existing cognitive structures from their first language, resulting in systematic approximations or substitutions. From this perspective, pronunciation errors are not random mistakes but evidence of cognitive restructuring in the learner's developing interlanguage (Couper, n.d.; Martínez Reyes, 2019; Calzada, 2024; Chavez & Unga, 2024).

The study focuses on two core variables: segmental phonological errors as the dependent variable and cognitive interlanguage factors as the independent variable. Segmental phonological errors refer to observable mispronunciations such as vowel substitutions, consonant distortions, or deletions, while cognitive interlanguage factors encompass perception, categorization, phonological transfer, and adaptive pronunciation strategies. An exploratory qualitative design will be used, involving one-on-one interviews with twenty (20) indigenous English learners. The data will be analyzed through reflexive thematic analysis to identify recurring pronunciation errors and interpret how learners' cognitive awareness, perception, and learning strategies contribute to these patterns (Garil, Entong, & Muarip, 2024; Murro, 2024).

Central to this inquiry are the key concepts of phonological transfer, sound perception, information processing, cognitive restructuring, and interlanguage development. These concepts describe how learners mentally process, organize, and adapt linguistic information as they move from familiar L1 sound categories to new L2 phonological patterns (White et al., 2017; Garil, 2024; Divinagracia, 2024). Understanding these processes helps clarify how cognitive resources such as attention, perception, and working memory interact with phonological learning in complex, multilingual contexts (Verdeflor, 2025).

Ultimately, this study expects to reveal that indigenous learners' segmental phonological errors are systematic reflections of cognitive and perceptual constraints, rooted in how they encode, categorize, and reproduce unfamiliar English phonemes. It also anticipates that learners employ strategic cognitive mechanisms, such as self-monitoring, analogical reasoning, and metacognitive reflection, to improve their pronunciation accuracy (Arroyo Hernández & Paschke, 2022; Couper, n.d.; Ceneciro, 2025; Calzada, 2024). By elucidating the cognitive foundations of interlanguage phonology, this research aims to extend theoretical understanding of pronunciation acquisition and inform the development of pedagogical approaches that integrate cognitive awareness into English pronunciation instruction. Such insights will contribute to culturally responsive and cognitively grounded teaching practices that better support indigenous learners in achieving phonological accuracy and communicative confidence (Garil, Abbas, & Limen, 2024; Chavez & Unga, 2024; Verdeflor, 2025).

Literature

Segmental Phonological Errors in Second Language Acquisition

Segmental phonological errors are prevalent among second language (L2) learners and significantly impact the intelligibility of their speech. These errors occur when learners substitute, omit, or distort individual speech sounds (phonemes) that are unfamiliar or absent in their first language (L1). For indigenous learners of English, who often come from linguistic backgrounds with phonological systems vastly different from English, such errors are particularly common (Derwing & Munro, 2005). Phonological errors can hinder communication and affect learners' self-confidence and motivation (Munro & Derwing, 1995). The accurate production of English segmentals vowels and consonants is a critical component of pronunciation that influences how comprehensible a learner's speech is to native speakers and other interlocutors. Recent Philippine-based studies have emphasized the role of linguistic exposure and parental involvement in improving pronunciation and motivation among English learners (Chavez, Adalia, & Alberto, 2023; Chavez, 2024; Comerros, Cuilan, & Chavez, 2024). These findings align with global literature suggesting that family and social learning contexts shape learners' phonological development.

Interlanguage as a Framework for Understanding Pronunciation Errors

The notion of interlanguage, first introduced by Selinker (1972), provides a comprehensive framework to understand how learners' phonological systems evolve during L2 acquisition. Interlanguage refers to the intermediate linguistic system that learners develop, which is neither fully their native language nor the target language but a unique amalgamation influenced by both. In the phonological domain, interlanguage accounts for the transfer of L1 phonological features into L2 speech production, as well as the learners' hypotheses about the target language sounds based on limited input (Gass & Selinker, 2008). For indigenous learners, whose L1 phonologies can differ markedly from English, interlanguage processes often result in systematic segmental errors reflecting transfer effects and developmental stages. This highlights the importance of examining the linguistic and cognitive factors that underpin these phonological patterns to better support language learning. In the local context, Chavez (2022) and Chavez (2024) highlight how bilingual parents' narratives and parental outsourcing behaviors influence children's evolving interlanguage systems and learning behaviors in English, indicating the sociocultural roots of phonological variation.

Influence of Indigenous Language Phonologies on English Pronunciation

Indigenous languages possess unique phonetic and phonological features that often do not correspond directly to English sounds, posing challenges in segmental acquisition (Ladefoged & Maddieson, 1996). For example, some indigenous languages may lack certain English consonants such as /θ/ or vowel contrasts like /ɪ/ vs. /i:/, causing learners to substitute these with phonetically closest sounds from their L1 or to simplify complex consonant clusters (Flege, 1995). Beyond segmental inventory differences, prosodic features such as syllable structure, stress, and intonation patterns may also interfere with English pronunciation, leading to errors that extend beyond single sounds (Celce-Murcia, Brinton, & Goodwin, 2010). Research on indigenous learners shows that these linguistic background factors must be acknowledged in pronunciation instruction to create culturally and linguistically responsive teaching approaches. Complementary research in the Philippines also illustrates how linguistic background and classroom exposure shape learners' pronunciation and grammar consciousness (Chavez et al., 2024; Adalia, Chavez, & Hayudini et al., 2025), supporting the notion that language learning is influenced by both interlanguage and contextual features.

Classroom Contexts and Pronunciation Learning

Classroom environments serve as crucial sites where indigenous learners receive formal instruction in English pronunciation. The effectiveness of this instruction depends on several factors, including the availability of explicit phonetic teaching, the use of corrective feedback, and opportunities for communicative practice (Derwing & Munro, 2013). Studies have shown that pronunciation errors are more likely to persist without targeted intervention, especially when learners lack awareness of their segmental deviations (Saito, 2013). Furthermore, learners' attitudes toward English and their confidence levels in classroom interactions influence their willingness to experiment with new sounds and modify their interlanguage phonology (MacIntyre & Gardner, 1994). Indigenous learners may also adapt their pronunciation strategically when speaking with non-indigenous interlocutors, demonstrating pragmatic competence that goes beyond phonological accuracy (Tarone, 1980). These classroom and social dynamics play a pivotal role in shaping learners' pronunciation development. Locally, Magno, Indal, Chavez et al. (2024) and Garil, Entong, Muarip et al. (2024) examined classroom delivery and language learning strategies, underscoring how alternative pedagogies and emotional engagement enhance communicative performance and language production. Similarly, Chavez and Cuilan (2024) and Chavez, Cuilan, & Adalia (2024) demonstrated through discourse analysis how communication context and interactional settings influence learners' speech patterns relevant insights for understanding phonological variability in educational contexts.

Pedagogical Implications and Future Directions

Given the complexity of segmental phonological errors and their interlanguage origins, effective pedagogical strategies must be multifaceted. Teachers should incorporate explicit phonetic instruction that raises learners' awareness of English sounds absent in their L1 and provide targeted corrective feedback (Derwing & Munro, 2013). Incorporating contrastive analysis highlighting differences between learners' indigenous phonologies and English can aid in anticipating common error patterns and tailoring instruction accordingly (Celce-Murcia et al., 2010). Additionally, creating a supportive classroom atmosphere that encourages risk-taking and provides meaningful communicative opportunities is essential for facilitating pronunciation improvement (MacIntyre & Gardner, 1994). Further research exploring indigenous learners' interlanguage phonology

through qualitative methods, such as thematic analysis of learner interviews, can deepen our understanding of the cognitive and sociolinguistic factors influencing pronunciation errors. This knowledge can inform more culturally sensitive and effective teaching practices. In sum, segmental phonological errors among indigenous learners of English are shaped by the interaction of interlanguage development, native language phonological structures, and classroom learning experiences. Addressing these errors requires a comprehensive understanding of learners' linguistic backgrounds and interlanguage processes, coupled with pedagogical approaches that emphasize explicit instruction, feedback, and learner engagement. Continued research and practice in this area hold promise for improving pronunciation teaching and supporting indigenous learners in achieving clearer and more confident English communication (Chavez, Adalia, & Alberto, 2023; Magno, Indal, Chavez et al., 2024).

Methodology

1. Research Design

This study employed an exploratory qualitative research design to investigate the recurring segmental phonological errors produced by indigenous learners of English and to examine the interlanguage factors influencing these errors. The exploratory design was chosen to allow a deep and flexible investigation into how learners' native phonological systems interact with English pronunciation patterns. Since the phenomenon under study involves subjective linguistic experiences and speech production processes, a qualitative approach provided the most appropriate means of capturing participants' lived experiences, perceptions, and pronunciation tendencies.

2. Population and Sampling

The study involved 20 indigenous learners of English enrolled in secondary or tertiary education institutions where English serves as a medium of instruction. Participants were selected through purposive sampling, focusing on learners whose first languages are indigenous to their region and who have had formal exposure to English as a second language. This sampling technique ensured that participants possess relevant linguistic backgrounds and experiences needed to explore the phenomenon of interlanguage phonological development. All participants were informed of the purpose of the study and gave their consent to participate voluntarily.

3. Instrument

The primary instrument used in this study was a semi-structured interview guide designed by the researcher to elicit in-depth responses about the participants' English pronunciation experiences and interlanguage influences. The interview guide served as a flexible tool that allowed the researcher to explore individual participants' perspectives while maintaining consistency across interviews through predetermined core questions. Table 1 presents the list of guide questions used by this research study.

Table 1. Interview Guide Questions

Objectives	Interview Questions
To identify recurring segmental phonological errors among indigenous learners of English	1. How do you usually pronounce English words that contain unfamiliar sounds from your language?
	2. Which English words are most difficult for you to say correctly when speaking?
	3. How do you notice your pronunciation differing compared with your teachers' pronunciation?

To examine interlanguage factors shaping the production of segmental phonological errors among indigenous learners of English..

1. What language features from your mother tongue influence how you pronounce English words?
2. How do you adjust your pronunciation when communicating with non-indigenous speakers?
3. What classroom situations affect your learning of English pronunciation accuracy?

4. Data Gathering Procedure

Data were collected through one-on-one semi-structured interviews designed to explore participants' experiences and perceptions of their English pronunciation. The interviews were guided by questions aligned with the study objectives first, to identify recurring segmental phonological errors, and second, to examine interlanguage factors influencing pronunciation. Questions focused on how learners pronounce unfamiliar English sounds, which words they find difficult, how their speech differs from their teachers', and how their mother tongue and classroom experiences affect their pronunciation. Each interview lasted about 30 to 45 minutes and was conducted in a quiet setting to ensure clear recordings. All sessions were audio-recorded with consent and transcribed verbatim, while field notes were taken to capture pronunciation patterns and nonverbal cues related to effort and confidence.

5. Data Analysis

Data were analyzed using Reflexive Thematic Analysis (RTA) following the framework of Braun and Clarke (2006, 2019). This approach enabled the researcher to identify patterns and themes emerging from participants' narratives while maintaining reflexivity throughout the analytical process. The analysis was carried out in six iterative phases. First, the researcher familiarized themselves with the data by reading and re-reading interview transcripts to gain a comprehensive understanding of participants' linguistic experiences. Second, initial codes were generated by identifying portions of speech related to pronunciation errors, interlanguage transfer, and classroom influences. Third, these codes were organized into broader themes that reflected recurring phonological error types and interlanguage factors. Fourth, the themes were reviewed and refined to ensure accuracy, coherence, and faithful representation of participants' perspectives. Fifth, the researcher defined and named each theme to capture the essence of learners' phonological and interlanguage characteristics. Finally, the findings were synthesized into an interpretive narrative linking the identified themes to relevant linguistic theories and existing literature. To ensure the credibility of the analysis, member checking was conducted by allowing participants to review summaries of their responses, while peer debriefing with fellow researchers was undertaken to validate and strengthen the thematic interpretations.

Results

Research Objectives 1. *To identify recurring segmental phonological errors among indigenous learners of English.*

Question No. 1. *How do you usually pronounce English words that contain unfamiliar sounds from your language?*

1.1 Listening and Repeating Perspective

Ten (10) respondents said they usually listen to how other people say it first, like from their teacher, classmates, or even videos online. They pay close attention to how their mouth moves and the way they stress the syllables. Then they try to copy it slowly, repeating the sound many times until their tongue gets used to it. At first, it sounds awkward, but they get better with practice. Additionally, they mentioned that sometimes they even record their voice and compare it with the original to check if they're getting closer to the correct pronunciation. They feel a bit self-conscious, but they remind themselves that it's part of learning a new language. The more they practice, the more natural it starts to feel. Over time, they notice real improvement and gain more confidence when speaking English.

"I usually listen to how other people say it first, like from my teacher, classmates, or even videos online."

"Sometimes I even record my voice and compare it with the original to check if I'm getting closer to the correct pronunciation. "

1.2 Cultural Adaptation Perspective

Five (5) respondents shared that for them, some English sounds don't exist in their language, so at first it's really difficult to say them exactly the way native speakers do. Instead of forcing their mouth to produce the sound perfectly, they pronounce it in a way that feels more natural and comfortable to them. It's their way of making the language fit with what they already know. Over time, they slowly learn the new sound through songs, movies, or talking to others. Additionally, they mentioned that when they hear the sound often, their ears get more familiar with it. They start noticing the small differences between their version and the correct pronunciation, and they make small adjustments each time. They don't pressure themselves to be perfect right away because they know pronunciation takes time and practice. Eventually, it becomes easier to say those sounds more accurately.

" For us, some English sounds don't exist in our language, so at first it's really difficult to say them exactly the way native speakers do."

"When I hear the sound often, my ears get more familiar with it. I start noticing the small differences between my version and the correct pronunciation, and I make small adjustments each time. "

1.3 Self-Conscious Perspective

Five (5) respondents expressed that they get shy when they can't pronounce something right, so at first, they usually avoid saying the word in front of others because they don't want to be laughed at or corrected. They sometimes feel nervous when people expect them to speak clearly, especially in class. But when they practice alone or with close friends, they feel more comfortable and less pressured. They realize pronunciation can improve with time. Additionally, they shared that every time they get the pronunciation closer to the correct one, they feel more confident to try it in front of others. They focus on repeating the word until it sounds better. Little by little, they notice improvements in how they say things. They've learned that pronunciation is something that improves with time and practice. It's not something that needs to be perfect right away. This helps them overcome their fear of making mistakes.

"I get shy when I can't pronounce something right, so at first, I usually avoid saying the word in front of others because I don't want to be laughed at or corrected."

"Every time I get the pronunciation closer to the correct one, I feel more confident to try it in front of others."

Question No. 2. Which English words are most difficult for you to say correctly when speaking?

2.1 Phonetic challenge

Five (5) respondents expressed that they struggle with words that have the 'th' sound like 'think', 'three', or 'this'. That sound doesn't exist in their native language, so they used to replace it with a 't' or 'd'. Whenever they say words with 'th,' their tongue feels stiff, and it's hard to position it correctly since their mouth isn't used to that movement. It's still hard, but they are learning through songs and conversation. Additionally, they mentioned that sometimes, they avoid words with 'th' because they feel embarrassed when they mispronounce them, especially when speaking fast. They learned that the tongue has to gently touch the teeth to produce the sound correctly. Practicing in front of the mirror, watching shows with subtitles, listening to songs, and repeating the words slowly helped them improve. Even though people can still hear their accent sometimes, they don't let it stop them. The sound is becoming more natural through constant practice and real conversations.

"I struggle with words that have the 'th' sound like 'think', 'three', or 'this'. That sound doesn't exist in my native language, so I used to replace it with a 't' or 'd'. "

" Sometimes, I avoid words with 'th' because I feel embarrassed when I mispronounce them, especially when speaking fast."

2.2 Sound difference

Ten (10) respondents expressed that the hardest for them are words with 'r' sounds, like 'world' or 'girl'. The 'r' in English feels different from their language. They need to move their tongue in a way they're not used to. At first, they would either roll the 'r' too much or pronounce it like an 'l.' It's especially hard when there are many consonants together, like in 'world', their mouth gets confused and they end up skipping sounds. Additionally, they mentioned that they also struggle with where to place their tongue. In their language, the 'r' is lighter and sharper, but in English, it sounds deeper and smoother. They practiced slowly, repeating the same word many times, and exaggerating the sound at first to train their tongue. Even now, when they speak fast, the 'r' doesn't always come out right. But they've learned not to be too shy about it. With more exposure, like through songs, movies, and conversations, the sound is becoming more natural and less intimidating.

" The hardest for me are words with 'r' sounds, like 'world' or 'girl'. The 'r' in English feels different from my language. I need to move my tongue in a way I'm not used to."

"I also struggle with where to place my tongue. In my language, the 'r' is lighter and sharper, but in English, it sounds deeper and smoother."

2.3 Pronunciation gap and Unfamiliar stress patterns

Five (5) respondents mentioned that they grew up speaking their mother tongue, so English stress patterns are strange for them. Words like ‘comfortable’ or ‘Wednesday’ sound simple when others say them, but when they try, they pronounce every letter. In their language, they usually pronounce words the way they’re spelled, so they assumed English worked the same way. They found it hard to know which syllable to stress. They ended up putting equal stress on each part of the word, which made them sound robotic or unnatural. Additionally, they mentioned that it became easier when they started listening carefully to how native speakers stress words. They realized that English often reduces or swallows some syllables, and that word stress can change the rhythm of a sentence. Practicing with audio recordings, songs, and repeating after videos helped them get used to the “music” of English. Tho, they still make mistakes sometimes, especially with long words, but they’ve learned to focus more on the rhythm and stress than on pronouncing every letter. They know it’s a slow process, but it’s making their speech sound more natural.

"I grew up speaking my mother tongue, so English stress patterns are strange for me. Words like ‘comfortable’ or ‘Wednesday’ sound simple when others say them, but when I try, I pronounce every letter."

"It became easier when I started listening carefully to how native speakers stress words. I realized that English often reduces or swallows some syllables, and that word stress can change the rhythm of a sentence."

Question No. 3. *How do you notice your pronunciation differing compared with your teachers’ pronunciation?*

3.1 Accent sound different and more noticeable

Ten (10) respondents expressed that when their teacher speaks English, it sounds smooth and fast. When they speak, they pronounce each syllable slowly because they’re trying to be careful with every word. It makes their accent sound different. They focus so much on getting the pronunciation right that it affects the natural rhythm of their speech. Additionally, they mentioned that they also tend to overpronounce words. For example, they say every syllable in ‘comfortable’ while their teacher says it more quickly and blends the sounds. The teacher’s way of speaking sounds effortless, while they sound very careful and deliberate. Sometimes, this difference makes them feel self-conscious, but they know it’s part of learning. As they gain more confidence, they hope their speech will sound more natural, too.

"When my teacher speaks English, it sounds smooth and fast. When I speak, I pronounce each syllable slowly because I’m trying to be careful with every word."

"I also tend to overpronounce words. For example, I say every syllable in ‘comfortable’ while my teacher says it more quickly and blends the sounds."

3.2 Smooth and confident

Five (5) respondents expressed that they feel shy when they hear how fluent their teacher sounds. Their pronunciation is smooth and confident, and they speak without hesitation. When they compare it to their own way of speaking, they become more aware of their accent and slower pace. At first, this made them feel insecure, as if their English wasn't good enough. However, they've learned to remind themselves that having an accent does not mean their English is wrong, it simply reflects where they come from and the language background they grew up with. Additionally, they mentioned that their teacher speaks English as a model for communication, but their own accent shows their perspective as a language learner. They've realized that fluency and accent are not the same thing. They can communicate effectively even if they don't sound exactly like their teacher. Over time, they hope to become more confident in embracing their own accent while continuing to improve their pronunciation and fluency.

" I feel shy when I hear how fluent my teacher sounds. Their pronunciation is smooth and confident, and they speak without hesitation."

"My teacher speaks English as a model for communication, but my own accent shows my perspective as a language learner."

3.3 Teacher's speech flows naturally

Five (5) respondents expressed that they usually pronounce words the way they are spelled in their language, which makes their 'r' and 'l' sounds heavier and more emphasized. This is because, in their first language, letters are generally pronounced exactly as they are written, so they naturally apply the same pattern when speaking English. As a result, their pronunciation tends to sound more deliberate and less fluid while their teacher's pronunciation sounds lighter and more fluid. Additionally, they mentioned that they've realized that this is not a mistake, but a result of the influence of their first language on their English pronunciation. It shows how their native phonetic system affects the way they speak a second language. With more listening practice, imitation, and confidence, they believe they can adjust their pronunciation when needed, while still valuing the uniqueness of their own accent.

"I usually pronounce words the way they are spelled in my language, which makes my 'r' and 'l' sounds heavier and more emphasized."

" I've realized that this is not a mistake, but a result of the influence of my first language on my English pronunciation."

Research Objectives 2. *To examine interlanguage factors shaping the production of segmental phonological errors among indigenous learners of English.*

Question No. 1. *What language features from your mother tongue influence how you pronounce English words?*

1.1 Clear and consistent sound

Ten (10) respondents expressed that in their language, every letter has a clear and consistent sound, so when they speak English, they tend to pronounce each letter carefully. They don't usually drop or reduce sounds the way native English speakers do. That's why words like 'comfortable'

or 'vegetable' sound longer when they say them, because they pronounce every syllable completely. In English, these words are spoken more quickly and smoothly, so they have to train themselves to adjust. Additionally, they mentioned that another thing is the way they pronounce the 'r' sound. In their language, the 'r' is rolled or tapped more strongly, so when they speak English, their 'r' tends to sound heavier or sharper. Native speakers often use a softer or more relaxed 'r,' so they need to control their tongue movement to match their pronunciation. At first it felt unnatural, but with listening and practice, they slowly learned to make their speech sound smoother.

"In my language, every letter has a clear and consistent sound, so when I speak English, I tend to pronounce each letter carefully."

"Another thing is the way I pronounce the 'r' sound. In my language, the 'r' is rolled or tapped more strongly, so when I speak English, my 'r' tends to sound heavier or sharper."

1.2 Pronouncing each syllable with equal force

Five (5) respondents expressed that they don't have the same stress patterns as English, so they usually pronounce each syllable with equal force. In their language, it's normal to speak with an even rhythm, so when they speak English, they don't automatically know which part of the word to emphasize. Because of this, their speech can sound flat or monotone, especially to native speakers who are used to a more dynamic way of speaking. Additionally, they mentioned that there are also rising and falling intonations that help express emotion or signal if something is a question or a statement. Their English sometimes sounds 'robotic' or too stiff. It's not because they don't understand, but because their mouth and ears are still adjusting to this rhythm. They've noticed that when they pay attention to stress and intonation, their English sounds more natural and fluent. But it takes time and practice, especially since it's very different from how they naturally speak in their mother tongue.

"We don't have the same stress patterns as English, so I usually pronounce each syllable with equal force."

"There are also rising and falling intonations that help express emotion or signal if something is a question or a statement."

1.3 Pronouncing 'f' as 'p' and 'v' as 'b'

Five (5) respondents expressed that they pronounce 'f' as 'p' and 'v' as 'b' in their language because those sounds don't exist naturally for them. So when they started learning English, they used to say 'pish' instead of 'fish' and 'bery' instead of 'very.' At first, they didn't even notice the difference because to them it sounded almost the same. But for native English speakers, these small differences really change how a word is understood. It takes practice to train their mouth to make those new sounds. Additionally, they mentioned that they had to learn how to position their teeth and lower lip, which felt awkward at first because it's not something they do in their language. It took time to train their mouth and lips to make the correct 'f' and 'v' sounds. They practiced slowly by repeating words and watching how other people pronounced them. Even now, if they speak fast or get nervous, they sometimes go back to their natural 'p' and 'b' sounds. But

they've learned that this is part of having an accent, and it's okay as long as they keep improving their clarity.

"Scientific terms and multi-step math problems overwhelm students. They get anxious when they can't immediately see how ideas connect."

"I had to learn how to position my teeth and lower lip, which felt awkward at first because it's not something we do in my language. "

Question No. 2. *How do you adjust your pronunciation when communicating with non-indigenous speakers?*

2.1 Trying to neutralize the accent.

Five (5) respondents expressed that when they talk to a non-indigenous speakers, they try to make their pronunciation clearer by softening their accent a bit. They don't change how they speak completely, but they slow down, emphasize difficult sounds, and try to pronounce words the way they usually hear them from fluent speakers. It helps the other party understand them better. Additionally, they mentioned that they speak a little slower than usual and put more effort into pronouncing tricky sounds like 'f,' 'v,' or 'th.' They also try to imitate the way fluent speakers stress their words and use intonation. Doing this doesn't mean they are hiding their identity but it just makes the conversation smoother. They've noticed that when they make these small adjustments, people understand them more easily, and they feel more confident expressing themselves.

"When I talk to a non-indigenous speakers, I try to make my pronunciation clearer by softening my accent a bit."

"I speak a little slower than usual and put more effort into pronouncing tricky sounds like 'f,' 'v,' or 'th.'"

2.2 Practice with songs and media.

Five (5) respondents expressed that they trained their pronunciation by copying how singers or actors speak. They usually listen carefully to how they pronounce each word, how their mouth moves, and how their voice flows. This practice became natural to them. So when they talk to non-indigenous speakers, they naturally adjust without thinking too much. It's like their tongue remembers the sounds they practiced. Additionally, they mentioned that they also mimic their intonation and stress patterns, which helps them sound clearer and more confident. This method works for them because it doesn't feel forced. It's more like learning through real-life examples rather than memorizing rules.

"I trained my pronunciation by copying how singers or actors speak. I usually listen carefully to how they pronounce each word, how their mouth moves, and how their voice flows. "

"I also mimic their intonation and stress patterns, which helps me sound clearer and more confident."

2.3 Matching their speaking rhythm.

Ten (10) respondents expressed that their language has its own rhythm, so when they speak English with outsiders, they adjust by listening carefully to how they say the words. They try to match their pace, stress, and intonation so the flow of their conversation feels more natural to them. Doing this it's not about erasing their identity but making sure communication is smooth. Additionally, they mentioned that they pay attention to how they link words together and how their tone rises and falls in a sentence. For them, it's not about erasing their identity or trying to sound like a native speaker. It's more about meeting them halfway so they can understand each other better. By adjusting the rhythm of how they speak, they make communication smoother while still keeping their accent and way of speaking as part of who they are.

" Our language has its own rhythm, so when I speak English with outsiders, I adjust by listening carefully to how they say the words. "

"I pay attention to how they link words together and how their tone rises and falls in a sentence. For me, it's not about erasing my identity or trying to sound like a native speaker. "

Question No. 3. *What classroom situations affect your learning of English pronunciation accuracy?*

3.1 Shyness and fear of being corrected

Ten (10) respondents expressed that when the teacher asks them to speak in front of the class, they get nervous. Their heart beats fast and they become too focused on not making mistakes instead of pronouncing the words correctly. They feel like everyone is watching and judging them. That fear makes it hard to pronounce words confidently. Additionally, they mentioned that even if they've practiced at home, everything sounds different once they are in front of everyone. They feel like all eyes are on them, and that pressure makes their voice shaky and their tongue stiff. So they end up rushing their words or forgetting how to pronounce them properly. Because of this, their pronunciation accuracy goes down even when they actually know how to say the words.

" When the teacher asks me to speak in front of the class, I get nervous. My heart beats fast and I become too focused on not making mistakes instead of pronouncing the words correctly. "

"Even if I've practiced at home, everything sounds different once I'm in front of everyone. I feel like all eyes are on me, and that pressure makes my voice shaky and my tongue stiff. "

3.2 Fast-paced discussions

Five (5) respondents shared that sometimes the teacher and other students speak too fast, and they feel like they're always one step behind. They can't clearly hear where one word ends and the next begins. They can't even follow how the words are pronounced, and it feels like everything blends together. For them it's hard to copy the pronunciation when everything sounds like a blur. Additionally, they mentioned that they want to join the conversation, but they hesitate because they're not confident they can say the words the same way. They were afraid they'd sound different or be corrected in front of everyone. So even if they understand the idea, they just keep quiet and wait for the moment to pass. It makes them feel frustrated because they want to improve, but the speed of their speech makes it hard for them to keep up.

" Sometimes the teacher and other students speak too fast, and I feel like I'm always one step behind. I can't clearly hear where one word ends and the next begins."

"I want to join the conversation, but I hesitate because I'm not confident I can say the words the same way. I'm afraid I'll sound different or be corrected in front of everyone."

3.3 Teacher's pronunciation style

Five (5) respondents mentioned that some teachers speak with a strong accent or don't model the correct pronunciation clearly, so they just imitate the way they say the words without noticing it's not accurate. Since they're the ones guiding them, they tend to trust how they pronounce everything. Additionally, they shared that they realize they've been saying the words the wrong way, and it's hard to change because it already became a habit. It gets confusing when they hear the same words pronounced differently in videos or by native speakers. Sometimes they even doubt their own pronunciation because they are not sure which one is right. This makes it harder to build confidence when they speak.

"Some teachers speak with a strong accent or don't model the correct pronunciation clearly, so I just imitate the way they say the words without noticing it's not accurate."

"I realize I've been saying the words the wrong way, and it's hard to change because it already become a habit."

Discussion

Understanding Segmental Phonological Errors through the Lens of Cognitive Theory

The findings of this study revealed recurring segmental phonological errors among indigenous learners of English, which can be explained through the principles of Cognitive Theory in second language acquisition. Cognitive Theory posits that language learning is a mental process involving attention, perception, memory, and information processing (Anderson, 1983). Learners construct linguistic knowledge by actively processing input and forming internal representations of the target language. In this context, the pronunciation difficulties experienced by indigenous learners stem from how their cognitive systems perceive, categorize, and reproduce English sounds that differ from their native phonological inventory.

Many participants reported substituting or omitting unfamiliar English sounds, such as consonants and vowels absent in their first language. This pattern suggests negative language transfer, where existing cognitive structures from the first language (L1) interfere with the acquisition of second language (L2) phonemes. According to Cognitive Theory, learners rely on prior knowledge to interpret new linguistic input, and when this prior knowledge conflicts with new phonetic information, errors occur as part of the natural learning process (Ellis, 2003). Thus, segmental phonological errors reflect the learners' active cognitive attempts to assimilate new sounds into pre-existing mental schemas, resulting in systematic pronunciation deviations.

Interlanguage Development as a Cognitive Process

The interlanguage phonology of indigenous learners, as examined in this study, illustrates how learners construct and refine mental representations of English sounds over time. Cognitive Theory aligns with interlanguage theory (Selinker, 1972) in suggesting that learners' phonological

systems are dynamic, evolving cognitive structures influenced by exposure, feedback, and self-monitoring. The learners' reports of noticing differences between their pronunciation and that of their teachers demonstrate metacognitive awareness, an essential component of cognitive learning. By comparing their output with native or near-native models, learners engage in hypothesis testing they form internal rules about pronunciation and gradually modify them through practice and feedback.

Moreover, the indigenous learners' difficulties with specific English words or sound contrasts can be linked to limitations in perceptual discrimination and phonological memory, both of which are core constructs in Cognitive Theory. When learners encounter new phonemes, their cognitive system must encode, store, and retrieve these sounds during speech production. Limited exposure or insufficient auditory discrimination between similar sounds (e.g., /ɪ/ vs. /i:/, or /θ/ vs. /t/) leads to persistent segmental errors. These findings emphasize that pronunciation learning is not merely a mechanical process but a cognitively demanding task that requires attention, repetition, and mental restructuring of sound categories.

Cognitive Factors Shaping Interlanguage Phonology

The study also found that learners' first language structures and classroom learning experiences play important roles in shaping their interlanguage phonology. From a cognitive perspective, learners filter linguistic input through their existing schemas, which guide how they perceive and reproduce new sounds. When learners noted that classroom situations affect their pronunciation, they highlighted the role of input frequency, feedback, and cognitive attention all key mechanisms in Cognitive Theory. Repeated exposure to accurate pronunciation, corrective feedback from teachers, and meaningful communicative practice help strengthen learners' mental representations of target sounds through controlled to automatic processing (DeKeyser, 2007).

Furthermore, the learners' adaptive strategies when speaking with non-indigenous interlocutors indicate strategic cognitive control, where learners consciously modify pronunciation to achieve communicative success. This adaptability reflects the cognitive process of monitoring and self-regulation, as proposed by Krashen's (1982) Monitor Model, which integrates cognitive control with language production. Hence, the learners' ability to adjust their pronunciation based on context suggests an evolving interlanguage system shaped by both implicit learning (through exposure) and explicit cognitive effort (through self-correction and monitoring).

Implications of Cognitive Processing in Pronunciation Learning

Anchoring the discussion on Cognitive Theory underscores that segmental phonological errors among indigenous learners are not simply signs of linguistic deficiency but indicators of active cognitive processing in the path toward phonological competence. Learners' errors represent developmental stages in the gradual internalization of English phonemes. Therefore, instruction aimed at improving pronunciation should focus on enhancing cognitive awareness, perceptual training, and memory reinforcement. Teachers should provide learners with opportunities to consciously notice sound differences, engage in articulatory practice, and receive feedback that facilitates mental restructuring of L2 sound categories.

In sum, the analysis demonstrates that indigenous learners' segmental phonological errors and interlanguage features emerge from the cognitive interplay between existing L1 schemas and new L2 phonological input. Through continuous exposure, monitoring, and feedback, learners refine their mental representations of English sounds, gradually reducing errors and achieving greater pronunciation accuracy. This interpretation reinforces the view that second language

pronunciation learning is an active, cognitively mediated process shaped by perception, memory, and strategic adaptation.

Conclusion

This study revealed that indigenous learners of English encounter recurring segmental phonological challenges, particularly with unfamiliar sounds such as the English ‘th’ and ‘r’ sounds, as well as stress and rhythm patterns that differ significantly from their native languages. Learners often rely on listening, repetition, and cultural adaptation strategies to approximate correct pronunciation, though self-consciousness and fear of making mistakes can hinder their oral confidence. Interlanguage factors strongly shape their pronunciation errors, with influence from the clear, consistent sounds of their mother tongues and differing stress and intonation patterns. Learners adjust their speech when communicating with non-indigenous speakers by moderating pace, softening accents, and mimicking media pronunciations to improve clarity without losing their linguistic identity. Classroom dynamics such as nervousness in public speaking, fast-paced discussions, and inconsistent teacher modeling further affect their pronunciation development. Overall, learners demonstrate gradual improvement through practice, exposure, and adaptive strategies, highlighting the complex interplay of cognitive, cultural, and social factors in second language phonological acquisition.

References

- Adalia, H. G., Chavez, J. V., Hayudini, M. A. A., et al. (2025). Relevance of grammar among Gen Z college students using social learning perspectives. *Forum for Linguistic Studies*, 7(3), 432–450. <https://doi.org/10.30564/fls.v7i3.8401>
- Anderson, J. R. (1983). *The architecture of cognition*. Harvard University Press.
- Arroyo Hernández, I., & Paschke, P. (2022). Perceptual, affective, and cognitive factors of L2 pronunciation and foreign accent: A survey with Italian university students. *Edizioni Ca' Foscari*. <https://edizionicafoscari.unive.it/en/edizioni4/libri/978-88-6969-629-9>
- Calzada, K. P. D. (2024). Anti-dependency teaching strategy for innovation in the age of AI among technology-based students. *Environment and Social Psychology*, 9(8), 3026. <https://doi.org/10.59429/esp.v9i8.3026>
- Ceneciro, C. C. (2025). Characterizing workshops promoting motivated engagement and retention beyond the sessions: Experiential narratives from education, language and social science instructors. *Forum for Linguistic Studies*, 7(4), 51–65. <https://doi.org/10.30564/fls.v7i4.8373>
- Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (2010). *Teaching pronunciation: A course book and reference guide* (2nd ed.). Cambridge University Press.
- Chavez, J. V. (2022). Narratives of bilingual parents on the real-life use of English language: Materials for English language teaching curriculum. *Arab World English Journal*, 13(3), 325–338. <https://dx.doi.org/10.24093/awej/vol13no3.21>
- Chavez, J. V. (2024). Parents’ supplemental outsourcing behavior on their children’s English language learning. *Forum for Linguistic Studies*, 6(6), 489–502. <https://doi.org/10.30564/fls.v6i6.6763>
- Chavez, J. V., Adalia, H. G., & Alberto, J. P. (2023). Parental support strategies and motivation in aiding their children learn the English language. *Forum for Linguistic Studies*, 5(2), 1541. <http://doi.org/10.59400.fl.s.v5i2.1541>

- Chavez, J. V., Anuddin, F. O., Mansul, H. H., et al. (2024). Analyzing impacts of campus journalism on students' grammar consciousness and confidence in writing engagements. *Environment and Social Psychology*, 9(7), 6106. <https://doi.org/10.59429/esp.v9i7.6106>
- Chavez, J. V., Cuilan, J. T. (2024). Gender mainstreaming campaign as a casualty of the online gender-based humor: A discourse analysis. *Environment and Social Psychology*, 9(2), 2044. <https://doi.org/10.54517/esp.v9i2.2044>
- Chavez, J. V., Cuilan, J. T., & Adalia, H. G. (2024). Message patterns through discourse analysis on the concept of apology and forgiveness during Ramadan among college students practicing Islam. *Environment and Social Psychology*, 9(3), 2043. <https://doi.org/10.54517/esp.v9i3.2043>
- Comeros, N. A., Cuilan, J. T., & Chavez, J. V. (2024). Parental discretionary influence on their children's manner of learning English language. *Forum for Linguistic Studies*, 6(4), 284–299. <https://doi.org/10.30564/fls.v6i4.6656>
- Derwing, T. M., & Munro, M. J. (2005). Second language accent and pronunciation teaching: A research-based approach. *TESOL Quarterly*, 39(3), 379–397. <https://doi.org/10.2307/3588486>
- Derwing, T. M., & Munro, M. J. (2013). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research*. John Benjamins Publishing.
- Estoque, M. R. (2023). Analysis of library resources and services in developing confidence for language use. *Forum for Linguistic Studies*, 5(2), 1709–1709.*
- Flege, J. E. (1995). Second language speech learning: Theory, findings, and problems. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross-language research* (pp. 233–277). York Press.
- Gass, S. M., & Selinker, L. (2008). *Second language acquisition: An introductory course* (3rd ed.). Routledge.
- Garil, B. A. (2024). Socio-cultural factors affecting reading comprehension levels and demographic-based grammatical competence of higher education students. *Forum for Linguistic Studies*, 6(3), 184–197. <https://doi.org/10.30564/fls.v6i3.6465>
- Garil, B. A., Abbas, T. S. C., & Limen, M. V. (2024). Analyzing the demographic-based grammatical competence and its relationship to academic performance in higher education setting. *Forum for Linguistic Studies*, 6(3), 343–356. <https://doi.org/10.30564/fls.v6i3.6453>
- Garil, B. A., Entong, M. B. M., & Muarip, V. C. (2024). Language delivery styles in academic trainings: Analysis of speaker's emotional connection to audience for lasting learning. *Forum for Linguistic Studies*, 6(3), 326–342. <https://doi.org/10.30564/fls.v6i3.6533>
- Garil, B. A., Entong, M. B. M., Muarip, V. C., et al. (2024). Language delivery styles in academic trainings: Analysis of speaker's emotional connection to audience for lasting learning. *Forum for Linguistic Studies*, 6(3), 326–342. <https://doi.org/10.30564/fls.v6i3.6533>
- Ladefoged, P., & Maddieson, I. (1996). *The sounds of the world's languages*. Blackwell.
- MacIntyre, P. D., & Gardner, R. C. (1994). The effects of induced anxiety on three stages of cognitive processing in computerised vocabulary learning. *Studies in Second Language Acquisition*, 16(1), 1–17. <https://doi.org/10.1017/S0272263100012401>
- Magno, J. M., Indal, R. S., Chavez, J. V., et al. (2024). Alternative teaching strategies in learning Filipino language among dominant English speakers. *Forum for Linguistic Studies*, 6(4), 404–419. <https://doi.org/10.30564/fls.v6i4.6742>

- Martínez Reyes, C. B. (2019). Socio-cognitive approach to teaching L2 pronunciation: An acoustic analysis of Spanish diphthongs [Unpublished master's thesis]. University of Alabama Libraries.
- Munro, M. J., & Derwing, T. M. (1995). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning*, 45(1), 73–97. <https://doi.org/10.1111/j.1467-1770.1995.tb00963.x>
- Murro, R. A. (2024). Modular distance learning: Exploring the study habits and academic achievements of state-funded elementary school learners. *Environment and Social Psychology*, 9(8), 2462. <https://doi.org/10.59429/esp.v9i8.2462>
- Piaget, J. (1952). *The origins of intelligence in children*. International Universities Press.
- Saito, K. (2013). The effect of instruction on L2 pronunciation development: A meta-analysis. *Applied Linguistics*, 34(3), 364–387. <https://doi.org/10.1093/applin/ams047>
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics in Language Teaching*, 10(3), 209–231. <https://doi.org/10.1515/iral.1972.10.1-4.209>
- Tao, L., & Taft, M. (2017). Influences of cognitive processing capacities on speech perception in young adults. *Frontiers in Psychology*, 8, Article 266. <https://doi.org/10.3389/fpsyg.2017.00266>
- Tarone, E. (1980). Communication strategies, foreigner talk, and repair in interlanguage. *Language Learning*, 30(2), 417–431. <https://doi.org/10.1111/j.1467-1770.1980.tb00111.x>
- Verdeflor, R. N. (2025). Choosing science and mathematics programs in college: Practical and psychological arbiters in career-pathing. *Environment and Social Psychology*, 9(9), 2777. <https://doi.org/10.59429/esp.v9i9.2777>
- White, E. J., Titone, D., Genesee, F., & Steinhauer, K. (2017). Phonological processing in late second language learners: The effects of proficiency and task. *Bilingualism: Language and Cognition*, 20(1), 162–183. <https://doi.org/10.1017/S1366728915000620>