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Phonological Deviations in Georgian EFL Learners' Pronunciation within Academic Discourse

Abstract

This study investigates phonological deviations in the English pronunciation of Georgian EFL learners, focusing on vowel production and its influence on oral fluency within academic discourse. Although fluency is often seen as a measure of language proficiency, pronunciation remains a persistent challenge for Georgian learners due to limited contact with native speakers, cross-linguistic transfer from Georgian, and interference from English orthography. Unlike English, Georgian lacks reduced vowels and phonemic vowel length distinctions, while its transparent orthographic system encourages learners to associate spelling with sound. These structural differences often lead to mispronunciations that decrease clarity in academic contexts.

The research was conducted at Tbilisi State University with 20 undergraduate participants enrolled in a Practical Phonetics course. Data were collected through classroom observations, audio recordings, and an error-focused checklist across 14 sessions, totaling approximately 200 minutes of student speech. A mixed-methods approach combined quantitative categorisation of frequent vowel errors with qualitative thematic analysis. The checklist targeted monophthong/diphthong quality, vowel length, and schwa realisation, allowing systematic identification of patterns and their possible causes.

Results revealed several consistent tendencies. High-frequency monophthong-to-monophthong substitutions often affected meaning (e.g., word → ward). Schwa was particularly unstable, often replaced by full vowels or diphthongs in suffixes (e.g., dangerous → /ˈdeɪndʒəroʊs/, government → /ˈgʌvərmənt/). Overgeneralisation of suffix pronunciation, such as treating -ate endings as verb forms (climate → /ˈklaɪmeɪt/), further highlighted orthographic influence. Vowel length inconsistencies, especially the substitution of /iː / with /ɪ/, indicated difficulties in perceiving and producing length contrasts absent in Georgian. Learners also displayed varying strategies with diphthongs: both monophthongisation (most → /mɒst/) and diphthongisation (country → /ˈkaʊntri/) were observed, reflecting unstable phonological representations.

The analysis suggests these deviations originate from interactions of first-language transfer, reliance on spelling, and developmental interlanguage processes. While some patterns align with global EFL trends, others are specific to the Georgian phonological system, notably the absence of vowel reduction and the strong grapheme-phoneme correspondence in Georgian.

Pedagogically, the findings highlight the importance of targeted instruction prioritising intelligibility over native-like accuracy. Explicit training in vowel length distinctions, schwa usage, and stress placement should be combined with perception-based methods and contextual listening practice. Raising awareness of irregularities in English spelling–sound correspondence can reduce overreliance on orthography. Additionally, fostering learners' ability to perceive and produce high-functional-load vowel contrasts will likely improve overall communicative effectiveness.

In conclusion, the study emphasises both universal and Georgian-specific pronunciation challenges, offering empirical evidence for curriculum development and teaching strategies in EFL contexts. Future research with larger samples and automated acoustic analysis is recommended to validate these findings and monitor developmental changes in learners' phonological competence.

Keywords: *Georgian EFL learners, pronunciation errors, vowel modifications, cross-linguistic transfer, orthographic interference*

1. Introduction

While teaching a foreign language by integrating the four skills – reading, writing, listening, and speaking – the most desirable skills to develop are often associated with the so-called "productive skills", such as writing and speaking. These are considered fundamental skills necessary for a learner's success in life; in fact, a person's fluency in speaking often measures their proficiency in that language. However, speaking a foreign language fluently is a multilayered process that requires mastery of various language areas, such as grammar, vocabulary, strategy, sociolinguistics, pronunciation, and the like (Chastain, 1998).

Regarding the English language, pronunciation is one of the most essential and complex skills to master, especially for learners of English as a Foreign Language (EFL), due to limited exposure to authentic communicative discourse involving native speakers. This means that rather than naturally and unconsciously navigating all the necessary channels for comprehensible English speech production, EFL students must rely on effective classroom or personal teaching methods and consciously learn to produce clear pronunciation; essentially, they need to learn the same muscular patterns, articulation techniques, and train the vocal tract appropriately, creating the same mental representations as first language learners who have already developed these patterns and mental schemas for speech production in their native language. Consequently, pronunciation errors non-native EFL learners make during English oral performance are naturally frequent and multifaceted, as they are part of the learning process (Brown, 2000).

Although extensive research has addressed pronunciation challenges in global EFL contexts (Flege, 1995; Jenkins, 2000; Munro & Derwing, 2015), there is a noticeable gap concerning systematic, data-driven analyses of phonological deviations among Georgian EFL learners, particularly within academic discourse.

Therefore, this paper aims to investigate and analyse phonological deviations in Georgian students' pronunciation observed in academic discourse within the EFL classroom, reflect on the possible causes, and ultimately support the improvement of Georgian EFL students' phonetic fluency.

2. Challenges in Pronunciation for English Learners

English learners face various challenges when acquiring accurate pronunciation. One of the primary difficulties is the difference between the learner's first language (L1) phonetic system and the sounds of English. According to Flege (1995), cross-linguistic influences often result in accent errors, such as substituting non-native sounds with similar sounds from the L1. These errors can lead to communication breakdowns, especially when the pronunciation of key sounds diverges significantly from standard English pronunciation.

Another challenge is the role of stress, intonation, and rhythm in English. English is a stress-timed language, meaning that stressed syllables occur at roughly equal intervals, while unstressed syllables are

shortened or reduced (Roach, 2009). This contrasts with syllable-timed languages, where each syllable is given equal time. Learners from syllable-timed language backgrounds often struggle to master stress patterns, leading to unnatural or unclear speech.

Furthermore, the schwa /ə/ sound, often reduced in unstressed syllables, is a common pronunciation challenge for learners. Schwa is the most frequent vowel sound in English, yet it is difficult for learners, particularly those whose first languages do not include a reduced vowel sound (Celce-Murcia, Brinton, & Goodwin, 2010). Incorrect or missing schwa pronunciation can lead to mispronunciations of common suffixes and word endings, which may affect intelligibility.

Another reason to consider is that, as an international language used for global communication, English exhibits a higher level of acceptance towards different accents and "pronunciations," which presupposes the existence of their diverse variants. Consequently, according to Zhang & Yin (2009), in natural conversation, English speakers might produce assimilated sounds that are difficult for a non-trained ear to grasp; additionally, the pronunciation of ending sounds can differ significantly from those deeply rooted in learners, ultimately causing difficulties in understanding native speech. This often weakens the learner's confidence in both speaking and listening. However, as the global use of English expands, clear and intelligible pronunciation has become a central criterion for assessing language competence (Jenkins, 2000) and for providing meaningful language instruction and interaction within academic discourse.

Recent studies emphasise the complex interaction between orthographic input, exposure to native speaker models, and learner attitudes in shaping second language pronunciation. Saito (2021) highlights that the accuracy of L2 pronunciation is closely linked to the quality and amount of input learners receive, especially in communicative settings where clarity is prioritised over a native-like accent. Additionally, exposure to English through digital media and online platforms has familiarised learners with a wide range of accents, causing variability in pronunciation development. While this broadens learners' awareness, it may also lead to confusion if consistent pronunciation standards are not emphasised during instruction (Trofimovich & Isaacs 2012).

Furthermore, the work on intelligibility-focused pronunciation instruction argues that comprehensibility—rather than native-like pronunciation—should be the main goal in EFL settings (Munro & Derwing, 2015). This change supports the global English model, where English functions as a lingua franca among non-native speakers. Studies by Levis (2020) and Walker (2021) back up the idea that customised pronunciation instruction, especially one that concentrates on high functional load features (e.g., vowel length and stress), significantly boosts learner communication results. These findings indicate that effective pronunciation teaching should incorporate both segmental and suprasegmental features, considering the influence of the learner's first language, their identity, and the contexts in which English is used in everyday life.

In the case of Georgian learners of English as a foreign language, these patterns are further complicated by cross-linguistic interference from Georgian, which lacks features like vowel length and reduced vowels. Additionally, due to the phonetic nature of Georgian orthography, Georgian EFL learners often encounter difficulties in English pronunciation. In Georgian, there is a nearly one-to-one correspondence between graphemes (letters) and phonemes (sounds), meaning words are generally pronounced exactly as they are written. This transparent orthographic system can lead learners to expect similar regularity in English spelling and pronunciation. However, English has a deep orthography, characterised by numerous inconsistencies between spelling and sound. As a result, Georgian learners may rely too heavily on English spelling when attempting to pronounce words, leading to frequent mispronunciations. Common errors might include incorrect vowel sounds, over-pronunciation of silent or reduced letters, and misplacement of stress—many of these stem from the assumption that English words should be articulated the way they appear in

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written form. This reliance on orthography rather than phonological rules emphasises the importance of developing learners' awareness of English pronunciation patterns, particularly the irregularities that differ significantly from their first language.

As the preceding discussion illustrates, although extensive research has explored pronunciation challenges faced by English learners, there remains a lack of focused investigation into the specific pronunciation changes Georgian EFL students exhibit within academic discourse.

3. Methods

3.1. Participants and Setting

The study was conducted at Tbilisi State University in Georgia and was part of the English Philology programme. The participants included 20 Georgian undergraduate students from a sample of approximately 200 students enrolled in a practical course in English Phonetics. The selection of participants was based on a) their enrolment in the course, ensuring that all were exposed to similar teaching methods and academic requirements; b) their general familiarity with the key concepts of introductory phonetics, enabling them to reflect on their learning process; c) their having the same formal educational background in English, meaning they had completed 12 classes of general secondary education and achieved at least A2 in the National Exam in English.

3.2. Data Collection Procedures

The study used a mixed-methods approach, collecting data through both quantitative and qualitative means for different purposes, including observational data. Specifically, classroom observations were carried out during regular sessions of an English Phonetics course over two academic semesters, from Spring 2024 to Fall 2025. The students had a 2-hour class each week for 14 academic weeks, with about 1 hour dedicated to practical activities such as retelling the text verbally, repeating words, or engaging in conversations with peers in pairs or groups under the teacher's passive supervision. These conversations were mainly controlled with a specific communicative purpose, context, or pre-taught vocabulary related to the known topics. Each student's performance lasted between approximately 3 and 10 minutes, depending on individual learning styles and personality types. As a result, the performances of 20 students, each approximately 10 minutes long (totalling 200 minutes), were systematically observed in a controlled classroom environment.

3.3. Research instrument

A detailed observation checklist was used to record specific phonetic errors. The checklist was designed by the researcher for the purposes of this study, drawing on established procedures for phonetic error analysis (Celce-Murcia et al., 2010), including:

1. Vowel (Monophthong /diphthong) quality
2. Vowel length
3. Other vowel misarticulations

Observations were supplemented with audio recordings, allowing for a more precise acoustic analysis. The recorded data were analyzed through interpretive/thematic analysis (qualitative). manually to identify recurrent patterns in pronunciation errors made by different students. To assess the frequency and quantity of specific type of pronunciation changes the conditional, ad hoc formula: revealed in < 5 instances; revealed in 5-10 instances; revealed in > 10 instances was used.

4. Results and findings

Based on the analysis of the observational data obtained from 20 Georgian EFL students through 14 EFL classes in the Practical Course of Phonetics, the following phonetic and phonological changes were revealed:

Table 1

Vowel Quality and Modification Patterns Observed in Georgian EFL Learners' Speech

Category	Target Sound	Realized Sound	Example	Notes
1A. Monophthong → Monophthong (Change in Meaning)	/ɜː/	/ɔː/	*word → ward*	>10 instances
	/ɔː/	/ɜː/	*curse → course*	
	/ɑː/	/ɜː/, /ʌ/	*heart → hurt, hut*	
1B. Monophthong → Monophthong (Same Meaning)	/ʌ/	/ʊ/	*product → produkt*	5–10 instances
	/ʌ/	/ɒ/	*among, above →* /əˈmɒŋ/, /əˈbɒv/	
1C. Schwa /ə/ → Diphthongs (Suffixes)	/əs/	/oʊs/	*obvious, dangerous, curious*	>10 instances
	/ə.bəl/	/eib.əl/	*Comfortable, vegetable*	
1D. -ain Endings (French Origin)	/ən/	/ein/	*certain, Britain, mountain*	>10 instances
1E. Schwa /ə/ → Monophthong (Suffixes)	/ər/, /mənt/	/er/, /ment/	*singer, writer, government*	>10 instances
1F. Diphthong Monophthongization	/əʊ/, /oʊ/	/ɒ/	*most, over, old, open*	>10 instances
	/ʊə/	/ʌ/	*during → dʌrɪŋ*	<5 instances
1G. Diphthongization of Monophthongs	/ʌ/, /ɒ/	/aʊ/	*country, because*	<5 instances
	/ɔː/, /ɒ/	/aʊ/	*Austria, author, audience*	5–10 instances
2A. Vowel Length Inconsistencies	/iː/	/ɪ/	*people, evening*	>10 instances
	/ɑː/	/ʌ/	*heart, classroom*	
	/ɔː/	/ɒ/	*door, store, short*	
2B. Tenseness Errors	/æ/	/e/	*Africa, actually*	>10 instances
3A. [-ate] Suffix Overgeneralization	/ət/	/eɪt/	*climate, private*	Morphological overgeneralization; pronounced like verbs (e.g., *activate*)
3B. Spelling-Based [que] Pronunciations	/k/, /g/	/kue/, /gue/	*Basque, plague, unique*	Overreliance on orthography

Note. Phonemic symbols follow IPA conventions. Frequency thresholds are defined as: >10 instances = frequently observed; 5–10 = moderate; <5 = rare.

5. Discussion

The analysis of vowel modifications among Georgian EFL learners uncovers several consistent patterns, highlighting phonological transfer from their L1 and developmental features typical in interlanguage phonology. These patterns provide insights into learners' challenges with segmental accuracy and stress placement, along with the influence of orthography on pronunciation.

A notable finding is the high frequency of monophthong-to-monophthong substitutions leading to semantic shifts. For example, confusion between /ɜː/ and /ɔː/, as seen in words like "word" versus "ward," or /ɑː/ becoming /ʌ/ or /ɜː/ in cases like "*heart" → "hurt"/"hut*," may result from attempts to approximate unfamiliar English vowels using native phonological categories. The lack of phonemic vowel length in Georgian might explain these confusions, as well as the substitution of /iː/ with /□/ in words such as "*people" → "pipl*." This supports the idea that Georgian speakers may not reliably perceive or reproduce vowel length contrasts, consistent with earlier research on L1 interference in second-language phonology (Flege, 1995).

The schwa /ə/ appeared especially unstable, shifting to both diphthongs (e.g., "*dangerous" → /ˈdndʒərous/)* and full vowels *(e.g., "singer" → /sɪŋgər/ with /e/)*. These modifications, notably in suffixes and unstressed syllables, indicate that Georgian learners might overgeneralise stress and vowel patterns based on spelling. The change from schwa to /e/ or diphthongal forms in suffixes such as -ous, -able, and -ment may reflect a tendency to treat all syllables as equally stressed or to match pronunciation with the written form.

Similarly, the diphthong monophthongisation (e.g., "most" /məʊ st/ → /məst/) and the diphthonggisation of monophthongs (e.g., "country" /ˈ kʌ ntri/ → /ˈ kaʊ ntri/) indicate fluctuating strategies in approximating English diphthongs. These opposing trends suggest learners have not yet stabilised their internal representations of diphthongal contrasts. Such variation is typical of intermediate L2 learners and may reflect developmental processes rather than purely L1 transfer (Best & Tyler, 2007). Similarly, the diphthong monophthongisation (e.g., "*most" /məʊst/ → /məst/*) and the diphthongisation of monophthongs (e.g., "*country" /ˈkʌntri/ → /ˈkaʊntri/*) indicate fluctuating strategies in approximating English diphthongs. These opposing trends suggest learners have not yet stabilised their internal representations of diphthongal contrasts. Such variation is typical of intermediate L2 learners and may reflect developmental processes rather than purely L1 transfer (Best & Tyler, 2007).

Overall, the results suggest a combination of L1 transfer, limited exposure to native-like models, and orthographic influence as key factors contributing to vowel misarticulations.

6. Limitations of the study

Although this research provides valuable insights, several limitations must be acknowledged. First, classroom observations occurred in a controlled setting, which may not fully reflect students' pronunciation challenges in real-world communication. The manual analysis of errors introduces potential observer bias and human error in interpretation. Furthermore, factors such as regional differences, language backgrounds, and individual learning styles were not thoroughly considered, which could affect pronunciation difficulties and learning outcomes. Future studies should include sociolinguistic interviews with larger, more diverse participant groups, employ automated speech recognition tools for objective pronunciation evaluation, and conduct longitudinal research to monitor pronunciation progress.

7. Conclusion

The phonetic and phonological changes observed in the data highlight Georgian EFL students' difficulties in achieving native-like pronunciation. These include confusion between English vowels, especially where English phonemes lack direct Georgian equivalents; challenges with vowel length and stress patterns; and the influence of spelling patterns on pronunciation. The students' frequent monophthongisation of diphthongs and vice versa, along with inconsistent vowel length distinctions, clearly point to areas needing targeted focus in their phonetics training.

Finally, reflecting on the possible factors affecting Georgian EFL students' pronunciation, the following pedagogical implications emerge:

Addressing several contributing factors is crucial to reducing irregularities and deviations in English pronunciation among Georgian EFL learners. These factors include:

L1 interference, likely exacerbated by students' limited exposure to practising standardised pronunciation and a lack of phonetic transcription literacy.

To tackle these issues, further research should investigate the effectiveness of explicit instruction on specific aspects such as vowel length distinctions, schwa usage, and orthography–pronunciation mismatches. Moreover, greater emphasis should be placed on perception-based teaching methods and contextualised pronunciation practice, both of which can help learners develop more accurate and consistent phonological representations

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