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Mispronunciation of the Bilabial Plosive /p/ in Speech Production Amongst the First-Year Postgraduates in Linguistics at the National University of Lesotho

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Abstract

The first-year postgraduates in Linguistics at the National University of Lesotho (NUL) had been exposed to the voiceless bilabial /p/ in their academic journey. Despite being introduced to advanced phonetics and taking the leading role of accurate pronunciation in effective communication, the voiceless bilabial stop /p/ remains a persistent challenge for some non-native English speakers, often leading to communication breakdowns in academic and social contexts. This paper, therefore, investigates the mispronunciation of the bilabial plosive /p/ in oral communication amongst the first-year postgraduate learners in Linguistics at the NUL. Drawing on empirical data collected through recorded speech samples and perceptual assessments. The study used thematic analysis, and results reveal that, although students generally perceive the /p/ sound accurately, its production difficulties prevail, underscoring a gap between perception and articulation, thereby highlighting common substitution errors, such as the voiced bilabial plosive /b/. The study advocates for targeted pronunciation instruction, incorporating focused drills and integrative teaching approaches to enhance phonetic competence and communicative effectiveness. This research study contributes to a deeper understanding of phonetic challenges in second language acquisition within the context of Lesotho and to improve postgraduate students' oral proficiency.

Keywords: Bilabial plosive, Phonetic mispronunciation, Interlingual transfer, Speech production

1. Introduction

The postgraduate learners in Linguistics at the National University of Lesotho (NUL) face notable challenges in English pronunciation, largely due to significant phonetic and phonological differences between English and their native Sesotho language. Mokone (2021) states that these challenges affect not only individual sounds but also broader suprasegmental features, such as rhythm and intonation, which are essential for clear and fluent communication. Amongst these difficulties, the bilabial plosive /*p*/ stands out as a particular problematic consonant. Shariq (2015) stipulates that learners frequently substitute the voiceless /*p*/ with its voiced counterpart /*b*/, causing confusion in minimal pairs as in /***p****at*/ and /***b****at*/. This substitution reflects the absence of the aspirated /*p*/ sound in Sesotho and other phonological contrasts that do not exist in the learners' first language.

Moreover, Ladefoged and Johnson (2020) emphasise that the production of the /*p*/ sound requires precise articulation, involving a burst of air without vocal cord vibration. However, interference from native phonological systems often leads to mispronunciation, including substitution and the insertion of extraneous vowels, which negatively impact intelligibility in academic and communicative contexts. As for Flege's (2021) research, it indicates that while learners may perceive the /*p*/ sound correctly, they struggle with its accurate production, highlighting a gap between perception and articulation that calls for focused phonetic training.

Understanding the roots and implications of /*p*/ mispronunciation is crucial for both linguists and the NUL first-year postgraduate learners, as it does not only affect oral communication but also overall language acquisition. Addressing these issues early in the academic journey can foster clearer communication and more effective participation in the linguistic discourse community. Mahlangu (2022) states that the mispronunciation of the bilabial plosive /*p*/ amongst the NUL first-year postgraduate learners in Linguistics has been a focal point in studies on English pronunciation challenges faced by the postgraduate learners.

Studies indicate that mispronunciations often involve substitution with the voiced bilabial plosive /*b*/ or the insertion of additional sounds, which can distort intelligibility and communication effectiveness in academic contexts. Ladefoged and Johnson (2020) explain that the /*p*/ sound, a voiceless bilabial plosive, is frequently misarticulated due to interference from the learners' native phonological systems and limited exposure to phonetics of target language. According to Mahlangu (2020), the studies specific to the NUL postgraduate learners reveal persistent difficulties with /*p*/ mispronunciation. This hinders effective communication unless addressed through targeted instructional interventions. The phonological influence of Sesotho, combined with limited exposure to native language models (English) and insufficient pronunciation practice, contributes to these challenges. El Zarka (2013) notes that the mispronunciation of /*p*/ does not only affect clarity but can also lead to misunderstanding in academic and social interactions.

Moreover, research highlights the disparity between perception and production abilities. For example, Flege (2021) emphasises that learners often perceive /*p*/ correctly but struggle with its accurate articulation, indicating that production difficulties outweigh perceptual challenges. This gap suggests the need for focused pronunciation drills and integrative teaching approaches to enhance phonetic competence. Additionally, Georgiou (2021) underscores the role of interlingual transfer, where the learners' L1 phonetic inventories influence their English pronunciation, leading to persistent errors unless addressed through targeted instruction, which would create vicious circle. Mahlangu (2020) also notes that the NUL postgraduate learners in Linguistics benefit from explicit instruction and practice to overcome these persistent errors.

Therefore, this study aims to identify the specific phonetic issues causing /*p*/ mispronunciation amongst the first-year NUL postgraduate learners in Linguistics and to explore instructional strategies that may mitigate these difficulties. This is likely to enhance the knowledge of mispronunciation patterns and offer practical recommendations for educators, curriculum planners and policymakers to improve the teaching of pronunciation teaching and the learners' communicative competence in L2 settings. This paper also offers insightful body of knowledge to bridge gap in the literature by providing fresh insights for language instructors focused on the pronunciation development of the postgraduate learners in Linguistics.

In line with these objectives, the study addresses the following research questions:

1. How is inaccurate voicing of bilabial /p/ manifested in the English speech of the first year postgraduate linguistic learners at the National University of Lesotho?
2. Are there discernible patterns or tendencies on how the NUL first-year postgraduate learners in Linguistics mispronounce the bilabial plosive /*p*/ during English pronunciation?
3. Which phonetic and phonological factors contribute to the inaccurate voicing of the bilabial plosive /*p*/ amongst the NUL first-year postgraduate learners in Linguistics, resulting in mispronunciation?

2. Literature Review

2.1 Phonetic Challenges in English Pronunciation

Pronunciation difficulties are a well-documented barrier for non-native speakers of English, particularly regarding consonantal sounds, such as the bilabial plosive /*p*/. Ladefoged and Johnson (2020) explains that the /*p*/ sound, characterised as a voiceless bilabial plosive involving lip closure and a burst of air, is often mispronounced due to interference from the learners' native phonological sound system. This mispronunciation frequently manifests as substitution with the voiced bilabial plosive /*b*/ or omission of aspiration, which can significantly impair intelligibility. Sekhonyana (2022) agrees that such errors are common amongst the learners whose first language lack aspirated plosives, as is the case with many Sesotho speakers at the NUL.

2.1.1 Specific Pronunciation Problems With /**p**/ and Related Sounds

English learners often confuse /*p*/ and /*b*/ due to their similar articulatory features, but the distinction lies primarily in voicing and aspiration, with /*p*/ being voiceless and aspirated in certain positions (Thornbury, 2010). However, in stressed syllables, the voicing contrast can be less pronounced, complicating the learners' perception and production. Additionally, learners may struggle with the accurate aspiration of /*p*/ in word-initial and stressed syllable positions, leading to a weaker or unaspirated sound that listeners may perceive as /*b*/ (Fatima, 2022). Other consonantal sounds, such as /*θ*/ and /*ð*/ also pose challenges, often being replaced with labio-dental or alveolar plosives. These substitutions are being stigmatised in teaching environments and formal settings (Shobane, 2023). Furthermore, illustrating the influence of native phonologies on English pronunciation, Sekhonyana (2022) postulates that vowel distinctions, especially between similar vowels like /ɪ/ and /*iː*/ as in /*ship*/ and /*sheep*/, also contribute to pronunciation difficulties.

2.1.2 Influence of Native Language Phonology and Transfer

As for Mokone (2021), the phonological system of Sesotho, which lacks aspirated plosives and features a syllable-timed rhythm, strongly influences the learners' English pronunciation patterns. This L1 transfer results in substituting voiced bilabial plosive /*b*/ for voiceless bilabial stop /*p*/, omission of aspiration and challenges with English stress and intonation patterns (Mahlangu, 2022). Such transfer effects are common in second language acquisition and can lead to persistent pronunciation errors unless explicitly addressed.

The orthographic representation and phonological system of Sesotho further influence the production of /*p*/. Sesotho orthography and phonological system traditionally emphasise a limited vowel inventory and do not highlight certain consonantal distinctions present in English. This can lead to difficulties in perceiving and producing English consonants accurately, including the voiceless bilabial plosive /*p*/. For example, the tendency in Sesotho to neutralise certain consonantal contrasts, combined with the influence of local orthographic conventions, can result in the learners' not fully distinguishing /*p*/ from similar sounds (Sekhonyana et al., 2023).

Complicating the accurate production of /*p*/ is the issue of aspiration. In English, the /*p*/ sound is typically aspirated in certain positions, such as word-initial; however, Sesotho lacks this aspirated contrast as in /*pʰɪn*/. Consequently, the NUL first-year postgraduate learners mostly produce an unaspirated /*p*/ as in /*pin*/, which can affect intelligibility and lead to the perception of the sound as /*b*/ or as a less distinct consonant. Mokone (2021) contends that this lack of aspiration aligns with broader phonetic patterns observed in Lesotho English, where syllable-timed rhythm and missing contrastive stress also contribute to the variation of pronunciation.

2.1.3 Impact of Mispronunciation on Communication

Mispronunciation of /*p*/ and related phonemes can cause communication breakdowns, affecting both articulation and perception (Georgiou, 2021). Errors in stop consonant production, including omission and substitution, have been observed to reduce speech clarity

and listener understanding, particularly in academic contexts where precise communication is essential. Further, learners often perceive the correct phoneme but struggle with its production, highlighting a gap between perception and articulation that must be addressed through targeted instruction.

Mahlangu (2020) also clarifies that phonetic environment affects the realisation of /*p*/. Errors occur more frequently in word-initial and word-final positions, where articulatory demands are higher, and the learners' L1 phonotactic constraints limit their ability to produce the English /*p*/ accurately. As a result, L2 learners substitute and omit sounds that do not align with their native syllable structure or phonological rules.

2.1.4 Instructional Approaches to Address /**p**/ Mispronunciation

Effective pronunciation teaching involves explicit phonetic instruction, focusing on articulatory features, such as aspiration. ERIC (2022) stipulates that visual aids, minimal pair drills contrasting /*p*/ and /*b*/ and the use of technology, like acoustic analysis software, can enhance the learners' awareness and production accuracy. Amongst other tools that could improve the pronunciation of postgraduate learners is the Accurate Articulation Enhancer Technique *(AAET)*. The *AAET* is a speech intervention technique developed to enhance accurate phonetic articulation designed by Thabiso Shobane in 2023. A passage made of predominantly tongue twisters of bilabial plosive with their phonetic transcription can be used because the more frequency of the accurate articulation, the better the appreciation of the speech words in the passage, and the participants can read the targeted words with ease. Therefore, integrating pronunciation practice into communicative activities helps to reduce the learner's anxiety and promotes the transfer of skills to real-life contexts. Other helpful remedies include encouraging self-monitoring through recording and reflection; this also fosters the learner's autonomy and enhances improved pronunciation outcomes (Pawlak, 2011).

2.1.5 Contextualising Pronunciation Challenges at the NUL

According to Sekhonyana et al. (2023), at the National University of Lesotho, the first-year postgraduate learners' (in Linguistics) difficulties with /*p*/ are compounded by the phonological characteristics of Sesotho and limited exposure to native English pronunciation models. Studies have shown that, without targeted intervention, these learners tend to maintain persistent errors in /*p*/ production, underscoring the need for tailored instructional strategies that consider their linguistic background and learning context. Overall, the most common pronunciation challenges related to the bilabial plosive /*p*/ amongst the NUL first-year postgraduate learners include substitution with /*b*/, lack of aspiration and the influence of Sesotho phonology and orthography on perception and production. These challenges underscore the need for targeted pronunciation instruction that addresses these specific phonetic and phonological differences to improve the learners' intelligibility and communicative competence in English.

2.2 Research Gap

Despite extensive research on phonetic and phonological difficulties in second language learning, there remains a significant gap concerning the specific pronunciation problems faced by the National University of Lesotho (NUL) first-year postgraduate learners, especially regarding the bilabial plosive /*p*/ sound. As Mokoena (2014) observes, much of the existing literature focuses broadly on the first language interference and fossilised pronunciation errors but often neglects the detailed articulatory and perceptual challenges that the NUL learners encounter with English sounds not found in their native language.

Thamae (2017) also argues that the effects of these pronunciation difficulties on the learners' communication skills and identity in real-life contexts have been insufficiently studied. Lekhanya (2016) emphasises the urgent need for thorough research that identifies the common pronunciation mistakes amongst the NUL postgraduate learners and critically evaluates how effective specific teaching methods are overcoming these challenges. Addressing this gap is essential to improve pronunciation teaching, ensuring that approaches are both theoretically grounded and sensitive to the linguistic and cultural background of the NUL learners. Ultimately, such research is crucial for enhancing teaching strategies and improving learning outcomes for this group of English language learners.

3. Research Methodology

Investigating the mispronunciation of the bilabial plosive /*p*/ amongst the first-year learners in Linguistics, a qualitative descriptive research was appropriate for the current study. Richards (2015) states that this approach prioritises a comprehensive exploration and understanding of the phenomenon in its natural context, focusing on the detailed characteristics and patterns of mispronunciation as experienced and expressed by the learners themselves. Unlike quantitative approach that emphasises numerical measurement and statistical analysis, qualitative descriptive research captured the richness and complexity of the learners' speech production and their subjective experiences, providing nuanced insights into why and how mispronunciations occur (Smith, 2018).

The approach enabled the researchers to examine the specific ways in which the learners articulate the /*p*/ sound, identifying common error types, such as substitution, omission or distortion. Mokone and Mahlangu (2021) demonstrate that it also facilitates the investigation of the phonetic environments, such as word-initial, medial or final positions, where these errors are most prevalent. By analysing authentic speech data collected through recordings, the researchers can uncover subtle phonetic variations and patterns that might be overlooked in purely quantitative studies (Sekhonyana, 2022).

Moreover, qualitative descriptive research allows for the integration of the learners' perspectives through interviews, questionnaires or self-reflections. Pawlak (2011a) notes that this aspect is crucial for understanding the learners' awareness of their pronunciation difficulties, their attitudes towards these challenges and their experiences with pronunciation instruction. Such subjective data, as Baran-Łucarz (2017) observes, provide context to the

speech patterns observed and help to explain the psychological, cognitive or sociolinguistic factors that may contribute to mispronunciation.

This approach has been effectively employed in the previous pronunciation research to capture rich, detailed descriptions of phonetic errors and their underlying causes. For example, Mokone and Mahlangu (2021) and Sekhonyana (2022) have demonstrated how qualitative methods can reveal the interplay between linguistic interference, learner attitudes and instructional contexts in shaping pronunciation outcomes. By using this design, the researchers could develop a holistic understanding of the mispronunciation of /*p*/ that informs more targeted and effective pedagogical interventions.

In summary, the qualitative descriptive research approach, as supported by Smith (2018), offered the flexibility and depth necessary to explore the multifaceted nature of /*p*/ mispronunciation amongst the first-year learners in Linguistics, making it an ideal choice for this study.

3.1 Participants, Sample and Sampling Technique

The target participants for this study were the first-year postgraduate learners in Linguistics at the National University of Lesotho (NUL) who enrolled in linguistic courses, such as Advanced Phonetics and Phonology. Focusing on this specific group allows the research to delve into the pronunciation challenges faced by the learners who have a foundational understanding in linguistic concepts but may still struggle with practical phonetic production, particularly of the bilabial plosive /*p*/. To ensure a comprehensive and manageable study, a purposive sample 11 participants was used. This sample size stroke a balance between depth and breadth, enabling detailed qualitative analysis while maintaining feasibility in terms of data collection and analysis.

Selection criteria emphasised linguistic diversity, aiming to include the participants from different geographical native language backgrounds. This diversity was crucial for examining cross-linguistic influences on the mispronunciation of /*p*/, as the learners' first languages often shape their English pronunciation patterns. By incorporating the learners with different L1s, the study could better identify common error patterns and unique challenges related to specific linguistic backgrounds. The recruitment of participants were voluntary, facilitated through course announcements and direct invitations by instructors, ensuring ethical standards of informed consent and participant willingness.

3.2 Data Collection Methods

Researchers had drawn 11 participants from 65 postgraduate learners in the Faculty of Humanities at the National University of Lesotho in 2024/2025 academic year. Data collection employed multiple complementary methods to capture both the production and perception aspects of /*p*/ mispronunciation amongst the NUL first-year postgraduate learners in Linguistics. First, audio recordings of spoken tasks were collected. The participants were recorded while performing reading exercises and spontaneous speech tasks that contain multiple instances of the /*p*/ sound in various phonetic contexts: initial, medial and final positions within words. These recordings provided authentic speech samples that could be

phonetically transcribed and analysed to identify the patterns of mispronunciation, substitution or omission of the /*p*/ sound.

Second, semi-structured interviews were conducted to gain deeper insights into the learners' perceptions of their own pronunciation abilities. These interviews explored the participants' self-reported difficulties with the /*p*/ sound, their experiences in learning English phonetics, and their attitudes towards pronunciation correction and feedback. The researchers probed underlying causes of mispronunciation, understanding its impact on the learners' confidence and communicative competence.

The participants further completed pronunciation self-reflection questionnaires. These open-ended questionnaires encouraged the learners to articulate their challenges, describe strategies they use to improve pronunciation and reflect on the extent and quality of phonetics instruction they had received. This method supplements the spoken data and interviews by providing introspective perspectives that might not emerge in verbal interactions alone.

Finally, the researchers took detailed notes during observations, recordings and interviews. The notes captured non-verbal cues, such as hesitation, frustration or confidence, as well as contextual factors, like classroom environment or peer interactions, which may influence pronunciation performance. To sum up, the data collection methods provided a rich, triangulated dataset that can comprehensively address the research questions related to /*p*/ mispronunciation amongst the NUL postgraduate learners in Linguistics.

3.3 Data Analysis Methods

Exploring the mispronunciation of the bilabial plosive /*p*/ amongst the first-year postgraduate learners in Linguistics at the National University of Lesotho (NUL), it was critical to extract meaningful insights from diverse data sources when selecting appropriate data analysis methods. Given the research approach of the study, the analysis must be rigorous, systematic and sensitive to the linguistic and contextual nuances of the participants' speech and perceptions. Below, detailed data analysis methods are discussed for each data collection technique: audio recordings, structured interviews, self-reflection questionnaires and detailed field notes and observations.

3.3.1 Structured Interviews

Structured interviews generate rich qualitative data that reflect the learners' perceptions, attitudes and experiences regarding their pronunciation difficulties. Thematic analysis is the most suitable method for examining interview transcripts, as it allows the researchers to systematically code the data and identify recurring themes. These themes often relate to the learners' awareness of their mispronunciation; emotional responses, such as anxiety or frustration; learning strategies that they employ and their attitudes towards corrective feedback. For instance, themes might include "anxiety about pronunciation," "perceived difficulty of /*p*/" or "effectiveness of instruction." Alongside thematic analysis, content analysis can be applied to quantify the frequency of specific words or phrases related to pronunciation challenges, providing a semi-quantitative perspective on the learners' concerns. Where appropriate, narrative analysis may also be used to explore the stories of individual

learner in depth, highlighting how personal experiences and identity influence pronunciation learning amongst the NUL first-year postgraduate learners in Linguistics.

3.3.2 Field Notes

Field notes and observations provide contextual and non-verbal information that enrich the understanding of the learning environment and participant behaviour. The researchers analysed these notes to identify the factors influencing pronunciation performance, such as learner engagement, signs of frustration or confidence and classroom dynamics. This qualitative analysis helped to interpret the speech data within its broader social and instructional context. Additionally, non-verbal cues noted during recordings or interviews, such as hesitation or body language, were coded to correlate with the moments of pronunciation difficulty or learner self-awareness. Observational data served as a complementary source, helping to explain any discrepancies between the learners' self-perceptions and their actual pronunciation performance.

Together, these methods of data analysis, phonetic transcription and acoustic analysis for audio recordings, thematic and content analysis for interviews and questionnaires and interpretive analysis for field notes form a comprehensive framework. This framework enabled the researchers to capture both the objective features of /*p*/ mispronunciation and the subjective experiences of the NUL first-year postgraduate learners in Linguistics, providing a holistic understanding of the challenges involved and informing effective pedagogical interventions.

4. Key Findings of the Study

*4.1 Difficulties With the Aspiration of the Bilabial Plosive /**p**/*

The analysis of the audio recordings and phonetic transcriptions reveal that all 11 participants exhibited difficulties with the aspiration of the bilabial plosive /*p*/. Specifically, the expected aspiration, a burst of air following the release of /*p*/ was frequently absent or rather significantly reduced. In word-initial positions, where English typically requires strong aspiration in words, such as *pat* and *pen*, 9 out of 11 participants produced unaspirated /*p*/, resulting in a sound closer to the voiced bilabial plosive /*b*/. Interestingly, 2 out of the 11 participants demonstrated relatively consistent aspiration, suggesting individual variation in phonetic acquisition or exposure. This substitution was less frequent but still present in medial and final positions.

Phonetic transcription confirmed that the lack of aspiration was consistent across different phonetic environments, with 82% of /*p*/ occurrences in initial position, showing reduced or absent aspiration. This pattern aligns with the phonological characteristics of Sesotho, which does not distinguish aspirated from unaspirated plosives, indicating a strong L1 influence on English pronunciation (Flege & Bohn, 2021). Similarly, Georgiou (2021) supports the view that native language phonological systems significantly affect L2 phonetic production, particularly in the case of aspiration contrasts absent in the L1.

However, this finding contrasts with the work of Munro and Derwing (2015), who argue that adult learners can acquire target-like aspiration with sufficient exposure and focused instruction, even when their L1 lacks such contrasts. The variation observed amongst the participants in this study may thus reflect differences in individual learning experiences or instructional backgrounds.

*4.2 Difficulty in Producing the Aspirated /**p**/ Sound*

During interviews, eight participants acknowledged being aware of their difficulty in producing the aspirated /*p*/ sound. Several participants expressed uncertainty about how to produce the aspirated sound correctly. For example, one participant remarked,

1) *I don't feel the burst of air when I say words, like 'pat'.*

Another participant shared that,

2) *Sometimes I confuse /p/ and /b/ because they sound similar to me.*

These comments highlight a common perceptual and articulatory challenge amongst the learners. Additionally, the participants reported that this difficulty negatively impacted their confidence in speaking English fluently, with one noting,

3) *I hesitate to speak in class because I'm afraid my pronunciation will not be understood.*

To illustrate the variation in aspiration production amongst the participants, Table 1 categorises the 11 participants based on their ability to produce the aspirated /*p*/, those who produced unaspirated /*p*/ and those who confused /*p*/ with /b/.

Table 1. Summary of Participants' Production of the Bilabial Plosive /P/ Aspiration

Participant ID	Produced Aspirated /p/	Produced Unaspirated /p/	Confused /p/ with /b/
P1	Yes	No	No
P2	No	Yes	Yes
P3	No	Yes	No
P4	Yes	No	No
P5	No	Yes	Yes
P6	No	Yes	No
P7	No	Yes	Yes
P8	No	Yes	No

Participant ID	Produced Aspirated /p/	Produced Unaspirated /p/	Confused /p/ with /b/
P9	No	Yes	Yes
P10	No	Yes	No
P11	Yes	No	No

As shown, only three participants (P1, P4 and P11) consistently produced the aspirated /*p*/ sound correctly, while the majority (eight participants) produced an unaspirated /*p*/. Amongst those who produced unaspirated /*p*/, five participants also reported confusion between /*p*/ and /*b*/, which aligns with their self-reported difficulties during the interviews. This distribution underscores the strong influence of L1 phonological patterns, particularly from Sesotho, which lacks a contrastive aspiration feature, on the learners' English pronunciation.

The interview insights, combined with the phonetic data, suggest that targeted pronunciation training focusing on the perception and production of aspiration could help to reduce confusion and improve the learners' confidence and communicative effectiveness.

4.3 A Gap Between Theoretical Knowledge and Practical Application

Self-reflection questionnaires, particularly those with open-ended questions, offered valuable introspective data on the learners' self-assessed pronunciation challenges and the strategies that they use to improve. Qualitative content analysis is used to code the learners' responses, categorising the types of challenges reported, such as difficulty with specific sounds or lack of practice opportunities, as well as the strategies that the learners employ, like listening exercises or peer feedback. This method helps to identify commonalities and differences in the learners' self-perceptions. In the study, questionnaires included closed-ended or Likert-scale items, descriptive statistics, such as frequencies and means summarised trends in the learners' attitudes or self-reported proficiency. Importantly, the data from these questionnaires were triangulated with the findings from interviews and audio analyses to validate the learners' self-reports against observed pronunciation patterns.

In self-reflection questionnaires, seven participants identified aspiration as a specific area of difficulty. They reported that, although they understood the theoretical distinction between aspirated and unaspirated /*p*/, they found it challenging to consistently produce the aspirated version during spontaneous speech. This gap between theoretical knowledge and practical application is a well-documented phenomenon in second language phonetics, where learners may recognise phonological contrasts but still struggle with accurate articulation in real-time communication (Flege & Bohn, 2021).

Several participants described employing various strategies to address this issue. For instance, some engaged in exaggerated pronunciation drills, deliberately overemphasising the burst of air in words, like /*pat*/ and /*pen*/, to heighten their awareness and muscle memory. Others

mentioned regularly listening to native English speakers, using audio recordings and language learning applications to model correct aspiration. Despite these efforts, most participants indicated that progress was slow and incremental, with improvements emerging only after sustained and focused practice.

This finding is consistent with the research by Georgiou (2021), who notes that overcoming entrenched L1 phonetic habits often requires prolonged exposure and targeted training. The gradual nature of improvement reported by the participants also echoes Munro and Derwing's (2015) observation that the adult learners can make gains in L2 pronunciation, but these gains tend to occur over extended periods and with consistent, explicit instruction. Overall, the self-reflection data highlight both the persistence of L1 interference and the importance of metacognitive strategies and sustained practice in developing accurate L2 phonetic production. These insights reinforce the need for instructional approaches that combine explicit phonetic training with opportunities for meaningful communicative practice, supporting learners, as they bridge the gap between theoretical understanding and fluent, accurate speech.

4.4 Signs of Hesitation and Self-Correction

Field notes taken during recordings and interviews provided important qualitative evidence to complement the phonetic analysis. Observers consistently noted that, when the participants encountered words requiring an aspirated /*p*/, many displayed the signs of hesitation, such as pausing, repeating the word or briefly stopping in the middle of a sentence. These moments were often accompanied by self-correction attempts, with the participants sometimes repeating words, like "pat" or "pen," in an effort to produce the correct aspiration. This behavioural result aligns with self-reported uncertainty and lack of confidence, as the participants were aware of their pronunciation difficulties and actively tried to adjust their speech in real time.

Additionally, the observers recorded that the articulatory gestures of most participants lacked the characteristic burst of air associated with aspirated /*p*/. For example, during close observation, several participants brought their lips together and released the plosive, but without the forceful expulsion of air that distinguishes aspirated from unaspirated sounds in English. These observations confirmed the results of the phonetic transcription and acoustic analysis, reinforcing the finding that aspiration was frequently absent or significantly reduced.

Notably, the participants appeared more relaxed and fluent when producing unaspirated /*p*/, indicating a comfort zone rooted in their first language (L1) phonology. This comfort was evident in smoother speech flow, fewer pauses and greater overall confidence during utterances, where aspiration was not required. Such behaviour supports the view of Flege and Bohn (2021), who argue that L1 phonological patterns strongly shape L2 production, especially for features not present in the learners' native language.

Furthermore, these findings echo Georgiou's (2021) assertion that hesitation and self-correction are common when the learners confront unfamiliar phonetic contrasts, as they

must consciously monitor and adjust their speech, often at the expense of fluency. The observed reliance on unaspirated /*p*/, as a default articulatory setting, highlights the persistent influence of L1 and underscores the need for targeted pronunciation practice that addresses both the physical and psychological aspects of L2 phonetic acquisition.

The table below indicates aspiration challenges among NUL Postgraduate learners.

Table 2. Aspiration Challenges with /**p**/ amongst the NUL Postgraduate Learners

Data Source	**Key Findings**	**Number of Participants Affected (out of 11)**
Audio Recordings and Transcription	Frequent absence or reduction of aspiration in /*p*/ production, especially in word-initial position	9
Structured Interviews	Awareness of difficulty with aspiration and confusion between /*p*/ and /b/	8
Self-Reflection Questionnaires	Recognition of aspiration as a challenge and use of practice strategies	7
Field Notes and Observations	Hesitation and lack of air burst during /p/ production; greater confidence with unaspirated /p/	9

4.5 Discussion

The findings from this study reveal that the NUL first-year postgraduate learners in Linguistics face persistent challenges with the aspiration of the bilabial plosive /*p*/ in English. Audio recordings and phonetic transcription consistently showed that most participants produced /*p*/ without the expected burst of air, especially in the word-initial positions. This unaspirated /*p*/ often resulted in the sound being perceived as /*b*/, thus reducing intelligibility and occasionally causing confusion in oral communication.

Structured interviews and self-reflection questionnaires further indicated that, while many learners were aware of their difficulties with aspiration, they lacked both explicit strategies and confidence to address the problem. Several participants reported anxiety and hesitation when pronouncing /*p*/, particularly in formal or academic settings, which further affected their fluency and self-efficacy. Field notes corroborated these findings, highlighting the moments of self-correction, visible frustration and a general tendency to revert to unaspirated productions in spontaneous speech.

These patterns are consistent with the broader literature on L1 transfer and the role of native phonology in shaping L2 pronunciation (Mokone et al., 2021). The absence of aspirated plosives in Sesotho means that learners have not developed the perceptual or articulatory routines required for English /*p*/, making the acquisition of this feature particularly challenging. The results also echo the findings that pronunciation difficulties can hinder the learners' speaking fluency, confidence and willingness to participate in communicative activities. Importantly, the data suggest that, while the learners may be able to recognise the theoretical distinction between aspirated and unaspirated /*p*/, this knowledge does not automatically translate into accurate production, highlighting the need for explicit, focused pronunciation instruction.

5. Recommendations

Based on the findings, several recommendations can be made to enhance the teaching of aspiration in the English bilabial plosive /*p*/ for first-year postgraduate learners at the National University of Lesotho (NUL). First, explicit phonetic instruction is essential. Teachers should provide clear explanations and demonstrations of aspiration, utilising visual aids, such as placing a piece of paper in front of the mouth to help the learners to perceive the burst of air that accompanies the aspirated /*p*/. Auditory models should also be used to reinforce correct production, enabling learners to better distinguish and reproduce this phonetic feature (Fatima, 2022).

In addition, focused pronunciation drills are recommended. These drills should contrast aspirated and unaspirated plosives, such as /*p*/ versus /b/, across various word positions. Repetition and minimal pair exercises can facilitate the learners' internalisation of the articulatory differences, helping them to develop more accurate pronunciation habits. Incorporating technology into instruction can further support this process. For example, speech analysis software, such as *Praat*, can visually display aspiration, providing the learners with immediate and concrete feedback on their production, which can accelerate learning and self-correction. The Accurate Articulation Enhancer Technique *(AAET)* could be used to enhance accurate phonetic articulation of bilabial plosive /p/ (Shobane, 2023).

Moreover, integrating pronunciation practice into communicative tasks is crucial. Embedding exercises within role-plays, presentations and peer interactions can reduce the learners' anxiety and encourage the transfer of pronunciation skills to real-life communication contexts. Encouraging self-monitoring and reflection also fosters learner autonomy. By recording their own speech and reflecting on their pronunciation, the learners can develop greater self-awareness and take an active role in their learning process (Pawlak, 2011).

Finally, teacher training is a vital component of effective pronunciation instruction. Instructors must be confident and well-equipped to teach pronunciation, as uncertainty or lack of expertise amongst the teachers can undermine the effectiveness of the instruction provided Nangimah (2020). Therefore, ongoing professional development and training opportunities should be made available to ensure that educators possess the necessary skills and knowledge to support learners in overcoming pronunciation challenges related to aspiration.

6. Research Limitations

While this study offers valuable insights, several limitations should be acknowledged. Firstly, the sample size of 11 participants, even though sufficient for qualitative analysis, limits the generalisability of the findings to the wider population of the NUL postgraduate learners. The NUL has seven faculties: Agriculture, Education, Health Sciences, Humanities, Law, Social Sciences, and Science and Technology. In 2024/2025 academic year, the NUL had a population of 393 postgraduate students. Thus, 11 postgraduates in Linguistics were drawn from that population. This sample size was too small to generalise all the postgraduates at the NUL. For future research, a sample size of 39 or more would be appropriate. The study, therefore, recommends that future research may draw data from all the faculties, meaning that a larger-scale study to build on these insightful foundational findings is critical. Secondly, the study focused exclusively on the aspiration of /*p*/, potentially overlooking other significant pronunciation challenges that may co-occur or interact with this feature. Thirdly, the reliance on self-reported data in interviews and questionnaires may introduce bias, as the participants might over- or under-estimate their difficulties or progress. Fourthly, the study did not employ a control group or pre/post intervention design, making it difficult to assess the effectiveness of any specific teaching strategy. Finally, contextual factors, such as classroom environment, teacher expertise and access to pronunciation resources, were not systematically controlled or evaluated, which may have influenced the results. Despite these limitations, the study highlights the critical need for explicit, targeted pronunciation instruction and provides a foundation for future research and pedagogical innovation at the National University of Lesotho.

7. Conclusion

In summary, the study investigating the pronunciation challenges of the bilabial plosive /*p*/ amongst the first-year postgraduate learners in Linguistics at the National University of Lesotho revealed several key findings. The most prominent difficulty identified was the consistent lack of aspiration in the production of /*p*/, particularly in the word-initial positions. This absence of aspiration often led to the substitution of the voiceless /*p*/ with the voiced /*b*/, a pattern strongly influenced by the learners' native Sesotho phonological system, which lacks aspirated plosives. Further, the learners demonstrated varying levels of awareness regarding this pronunciation issue, with many expressing uncertainty and anxiety about producing the aspirated sound correctly. The study also highlighted the role of limited exposure to native English models and insufficient focused instruction in exacerbating these challenges.

These findings have important implications for pronunciation teaching in English as second language contexts, especially within Lesotho. They underscore the necessity of explicit, targeted instruction focused on the phonetic features, such as aspiration, which may not exist in the learners' first languages but are crucial for intelligibility in English. Addressing these specific pronunciation difficulties can enhance the learners' communicative competence by reducing misunderstandings and increasing their confidence in spoken English. Moreover, the study suggests that integrating technological tools, self-monitoring strategies and

communicative practice can support more effective learning outcomes. Overall, the research advocates for a pedagogical approach that combines theoretical knowledge with practical, learner-centred activities to bridge the gap between the learners' L1 phonology and English pronunciation norms, ultimately facilitating more accurate and fluent speech production.

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