

A Comparative Analysis of Aspiration Errors among Postgraduate Students from Pashto and Punjabi Language Backgrounds

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Abstract



This research investigates pronunciation errors in English, specifically focusing on aspiration among postgraduate students from Pashto and Punjabi backgrounds at a public university in Lahore. It aims to identify the distinct pronunciation challenges faced by these groups when learning English as a second language. Voice recordings of participants reading a selected passage from "The Dreams of Tipu Sultan" by Girish Karnad are analyzed, particularly focusing on words containing aspirated sounds, like the /t/ phonic. The study includes participants from both linguistic backgrounds to ensure diversity. Analysis reveals that Pashto speakers generally demonstrate better pronunciation proficiency with fewer errors, while Punjabi speakers struggle more with aspirated sounds, notably the /t/ phonic. These findings align with existing literature, emphasizing how the native language's phonological system influences English pronunciation. The research contributes to understanding language acquisition and suggests tailored teaching approaches for diverse student populations, emphasizing the need for customized interventions to improve English proficiency among Pashto and Punjabi speakers in multicultural academic settings.

Keywords: English Pronunciation, Aspiration Errors, Pashto, Punjabi, Comparative Analysis.

Introduction

Phonology, in the words of Collin & Mees (2003), is an aspect of linguistics that investigates the structures and preferences adopted by users of a particular language. The aforementioned kind of research differs from phonetics, which explains the sounds of language. Since English pronunciation is the mental as well as physical representation of sounds, phonological knowledge is crucial. The reason for this is because English has techniques for conveying meaning. When someone uses language, their minds process the sound and cognitively comprehend it at the same time. Phonological rule knowledge is a component of linguistic competence, which refers to the language user's knowledge of a language. Linguistic performance is the actual spoken communication that occurs when the knowledge is put into practice illuminating the execution of the English aspiration and stress rules in speech.

This research aims to undertake a conscientious comparative analysis, exploring the intricacies of English aspirant errors among postgraduate students with Pashto and Punjabi language backgrounds at the public sector University of Lahore. The primary focus of this study revolves around the examination of aspiration errors, with a specific emphasis on the aspirated sound /t/. English acknowledges aspiration in its pronunciation. The few voiceless stops that are aspirated in English include /p/, /t/, and /k/. Therefore, with the presence of these voiceless stop consonants in words, aspiration occurs. According to Ladefoged (1993), aspiration refers to the voiceless interval that takes place after the stop articulation and before the vowel's voicing starts. Most commonly, ESL learners struggle to adopt the aspiration especially when their L1 does not have the same phenomenon leading to errors. These errors, characterized by a breathy release during consonant pronunciation, constitute a crucial area of investigation in the realm of second language acquisition. Hunting into aspiration errors offers valuable insights into the linguistic challenges confronted by students hailing from diverse language backgrounds as they navigate the complexities of English language learning. The selected public sector University of Lahore, with its diverse student demographic, serves as a

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compelling backdrop for this exploration, providing a nuanced understanding of aspiration errors in the linguistic repertoires of postgraduate students.

This study aspires to identify and scrutinize common aspiration errors in pronunciation prevalent among postgraduate students with Pashto and Punjabi language backgrounds. By doing so, it seeks to contribute to the broader comprehension of linguistic subtleties inherent in the interactions of Pashto and Punjabi speakers with the English language. The distinctive linguistic characteristics exhibited by these speakers, especially in the context of aspiration errors, become focal points of examination. Through a comprehensive analysis, this research not only enriches the field of language acquisition but also bears implications for pedagogical practices in English language education. The outcomes of this study are poised to inform language educators and curriculum developers, facilitating the design of targeted interventions tailored to enhance English language proficiency in the multifaceted and multicultural academic milieu of postgraduate studies.

In essence, this research illuminates the nuanced interplay of linguistic elements, shedding light on the challenges faced by postgraduate students with Pashto and Punjabi language backgrounds, and envisions a future where tailored language interventions can cultivate a more effective and inclusive English language learning environment.

Significance of the Research

When people from distinct linguistic backgrounds assemble to learn the English language in a formal setting i.e.; in ESL classrooms, several problems arise. In addition to grammatical and rhetorical errors, learners tend to make pronunciation errors as well. Several studies have been conducted on pronunciation problems in Pakistan which has proven that learners' L1 plays a major role in the utterance of English speech sounds (Imran et al. 2023). Researchers argued that errors in target language pronunciation can be associated with several distinct factors, including insufficient understanding of semantics, sentence structure, morphology, phonetics, and phonology (Meng et al., 2007). However, L1 interference has been widely categorized as one of the common factors of errors in pronunciation in ESL learning.

The proposed research targets the errors in English Aspirants particularly /t/, among the learners having Pashto and Punjabi as their mother tongues. Popularly, it has been observed that learners having Pashto as their L1, tend to perform better in ESL classrooms when it comes to pronunciation and aspiration of voiceless stops. Whereas, the Punjabi speakers relatively, find themselves struggling to learn the rule of aspiration; the reason being the spontaneous influence of L1 of the learners. Such errors need to be addressed and eradicated to make the learning of ESL effective and proficient. Thus, the research in hand attempts to address one such issue in particularly Pakistani context to enrich the field the phonetics and phonology with an antidote to these English language pronunciation errors.

Research Objectives

- To investigate the pronunciation challenges faced by Pakistani students from diverse backgrounds enrolled at a public sector university in Lahore.
- To compare the prominent pronunciation errors observed among the postgraduate students with Pashto and Punjabi language backgrounds at a public sector university in Lahore.
- To assess the underlying factors contributing to aspiration error /t/ in English pronunciation of postgraduate students with Pashto and Punjabi backgrounds at a public sector University in Lahore.

Research Questions

- What are the pronunciation challenges faced by Pakistani students from diverse backgrounds enrolled at a public sector university in Lahore?
- How do the prominent pronunciation errors observed differ among the postgraduate students with Pashto and Punjabi language backgrounds at a public sector university in Lahore?
- What are the underlying factors contributing to aspiration error /t/ in English pronunciation of postgraduate students with Pashto and Punjabi backgrounds at a public sector University in Lahore?

Statement of the Problem

Effective communication in English is a pivotal skill for academic and professional success, especially in a multilingual environment like a public sector university i.e. University of the Punjab Lahore. This study aims to address the pronunciation challenges faced by postgraduate students with

Pashto and Punjabi language backgrounds at the university. By investigating the prominent pronunciation errors exhibited by these students, the research seeks to contribute valuable insights into the linguistic fine distinctions affecting their English language proficiency. Additionally, exploring the factors underlying the aspiration error /t/ in the pronunciation of Pashto and Punjabi speakers will enhance the understanding of specific challenges within this linguistic context.

It is noteworthy that preliminary observations suggest a higher prevalence of aspiration errors, particularly in the use of the sound /t/, among Punjabi speakers as compared to Pashto speakers. This inconsistency may be attributed to the linguistic characteristics of the respective languages, with Pashto incorporating a higher frequency of aspiration words compared to Punjabi. Understanding these distinctions is crucial for tailoring targeted interventions and pedagogical strategies to address the unique pronunciation challenges faced by students from these language backgrounds at a public sector university in Lahore.

Literature Review

The English language encompasses six plosive consonant phonemes denoted as /p/, /b/, /t/, /d/, /k/, and /g/. The bilabial plosives, /p/ and /b/, involves the convergence of the lips. In contrast, the alveolar plosives, /t/ and /d/, are characterized by the contact of the tongue blade with the alveolar ridge situated behind the front teeth. The velar plosives, /k/ and /g/, entail the tongue making contact with the region where the hard palate transitions to the soft palate. These six plosive phonemes manifest in paired sets—bilabial (/p/, /b/), alveolar (/t/, /d/), and velar (/k/, /g/), with the initial sound being voiceless and the succeeding one being voiced. Notably, when voiceless plosives initiate a word, an audible release of air follows, resulting in aspirated plosives. The aspiration is denoted by a superscript [h] appended to the plosive symbols, as exemplified by [p^h], [t^h], and [k^h]. These variations in the articulation of phonemes, such as aspiration, are termed allophones.

These sounds are consistently voiceless, and when they appear at the beginning of a word, their release is followed by plosion, creating aspirated sounds. However, if these plosives follow /s/, they are un-aspirated. Syllables ending with /l/, /m/, /n/, /ŋ/ followed by a voiceless consonant are considerably shortened. When /p/, /t/, and /k/ begin a syllable and are followed by a vowel, they are aspirated, rendering the vowel voiceless at the beginning. If these plosives are followed by /l/, /r/, /j/, and /w/, the voiced consonants lose their voicing. This results in devoiced sounds in words like play [plei] tray [trei] quick [kwik] as opposed to "lay," "ray," and "wick," which contain voiced versions. Additionally, vowels preceding /p/, /t/, and /k/ at the end of a word are much shorter, especially if the vowel is long or a diphthong.

	<i>Bilabi al</i>	<i>Labio Dental</i>	<i>Dental</i>	<i>Alveolar</i>	<i>Plato- alveolar</i>	<i>Palatal</i>	<i>Velar</i>	<i>Glottal</i>
<i>Plosives</i>	p b			t d			k g	
<i>Fricatives</i>		f v	θ ð	s z	ʃ ʒ			h
<i>Affricates</i>					tʃ dʒ			
<i>Nasal</i>	m			n			ŋ	
<i>Lateral</i>				l				
<i>Approximant</i>	w				r	j		

Pashto is a native and official language in Afghanistan alongside Dari, spoken in Khyber Pakhtunkhwa and Baluchistan provinces as a native language. With over fifty million speakers, Pashto is also spoken in Iran and other countries (Hallberg, 1992; Habibullah and Barbara, 1996). In the realm of global communication, Pashto speakers engage in the acquisition of English as a second language, wherein they manifest challenges and errors in the realm of pronunciation. Linguistics have identified a few causes of incorrect English pronunciation like interference from one's mother tongue or first language, differences in the phonological systems of the two languages (i.e., learners' L1 and target language), lack of consistency in the sounds in different English varieties, the role spelling plays in pronunciation, etc. (Hassan, 2014). Moosa (1979), as referenced in Hassan (2014), discovered that Arab students learning English may face challenges in phonological distinctions due to their native Arabic phonological system, affecting phoneme combinations and sound patterns. This difficulty arises from differences in the phonological systems of their native language and the target language (English), leading to occasional substitutions like replacing /p/ with /b/ due to the absence of the /p/

sound in Arabic phonology. In the context of this study, the native speakers of either Pashto or Punjabi, which has a separate phonological system from English as a second language or the target language make errors in pronunciation. Khyal Bukhari is known for his extensive work in the Pashto language, especially phonetics and phonology, although he lacks specific phonetic representations. Despite not delving into articulation details, the overall treatment of Pashto in the book provides a glimpse into its phonetic and phonological features.

‘پ’ /p/, ‘ب’ /b/, ‘ت’ /t/, ‘د’ /d/, ‘ټ’ /t̪/, ‘ډ’ /d̪/, ‘ک’ /k/, ‘گ’ /g/, ‘ق’ /q/, ‘خ’ /x/, ‘ځ’ /ɣ/, ‘ح’ /h/, ‘س’ /s/, ‘ښ’ /z/, ‘ض’ /z̪/, ‘ظ’ /z̪/, ‘ش’ /ʃ/, ‘چ’ /tʃ/, ‘ج’ /dʒ/, ‘م’ /m/, ‘ن’ /n/, ‘ښ’ /ɳ/, ‘ڼ’ /ɳ̌/, ‘ل’ /l/, ‘ر’ /r/, ‘ړ’ /r̪/, ‘و’ /w/, ‘ی’ /j/

Similarly, Tegey and Robson (1996) presented a study on the central Pashto dialect spoken in Afghan regions such as Kabul, delineating distinctions from other Pashto dialects based on speakers' perspectives. Their analysis delves into the technical aspects of phonological characteristics, identifying thirty-two consonants categorized into four distinct groups within the central Pashto dialect. According to them, the first group is of those consonants, which are similar to English. These consonants include /b/, /tʃ/, /dz/, /f/, /g/, /h/, /dʒ/, /k/, /m/, /p/, /s/, /ʃ/, /ts/, /w/, /j/, /z/. In the second group, they have included consonants that are somewhat different from English consonants. These consonants are /t/, /d/, /l/, /n/. In the third group, there are consonant sounds that are very different from English. These consonants are symbolized by them as /ʃ/, /ɣ/, /h/, /x/, /q/, /r/, /kh/, /h/, /ʕ/. In the last group, they included Retroflex consonants found in the Pashto language. The Retroflex consonants listed by them are /t̪/, /d̪/, /ɳ̌/, /ť̪/. The following table shows these consonant phonemes in the Central dialect.

Likewise, in the discourse of Pakistani English (PE), Tariq Rehman draws parallels with Kachru's conceptualization of 'South Asian English' (SAE), asserting that analyzing PE without considering speakers' first language (L1) is an abstraction. Rehman categorizes PE speakers based on their adherence to British phonological rules, yielding distinct English varieties within each category. Notably, Pashto speakers in Variety B (Acrolect) exhibit a phonological peculiarity, substituting /t/ for /th/ in words like "think" due to the influence of Pashto's glottal fricative /h/. Moreover, Peter Roach's investigation, cited in Rahman's scholarly exploration (2016), delves into the distinctions in the place of articulation of /t/ and /d/ between the Pashto and English languages.

	<i>bilabial</i>	<i>labio</i> <i>denta</i>	<i>dental</i>	<i>alveol</i> <i>ar</i>	<i>retrof</i> <i>lex</i>	<i>plato</i> <i>alveolar</i>	<i>palatal</i>	<i>velar</i>	<i>uvul</i> <i>ar</i>	<i>glottal</i>
Plosive	<i>English</i>			<i>t d</i>						
	<i>Pashto</i>	<i>t̪ d̪</i>			<i>ť̪ ď̪</i>					

Several studies have examined phonemes in English yet not much research has been done on the subject of phonemes of Punjabi. Punjabi is the native tongue of the great majority of Pakistanis. Along with 21 other official languages, it is one of the most spoken languages in India as well (Ethnologue, 2016). Punjabi is roughly spoken as a first or second language by about 45 million people around the world. (Bhatia, 1993).

Similar to all other languages, the Punjabi language is also considered rhythmic. It performs this function by using tones to differentiate between words that would normally be similar (Ghai & Singh, 2012). Three tones have been determined to be the main tones in the Punjabi language: low-rising, high-rising, and mid-rising. The ability to differentiate between words that may seem identical to speakers of non-tonal languages is linked to Punjabi speakers' proper usage of tone. It is very difficult for students who wish to learn Punjabi as a second language to become fluent in the language's tonal framework. The pragmatics of the language can change due to a shift in tone (Brinton & Traugott, 2005).

Studies have shown that learning a second language can be considerably more difficult than learning a person's native language as learners already have a fully developed first language system in their minds when they begin learning a second language. Punjabi speakers have concerns about the linguistic gap. They seem to be worried about incorrectly pronouncing words and misunderstanding meanings in the language they are learning. Rather than conveying variations in a word's meaning via tonal intonations, Punjabi speakers should learn to use distinct English words. Rather than choosing the wrong language translation, they suppose they are mispronouncing words. They propose that the main reason is that the majority of immigrants from Punjab have fewer educational opportunities and have little exposure to a language (Kanwal et al., 2022). Rahman, (2016) undertook a significant study analyzing the phonological inventories of English and Pashto, the language of Khyber Pakhtunkhwa,

the northwest of Pakistan, to look into the phonemic commonalities across Pakistani languages and English. According to the study, there are some similarities between the two languages' place and articulation characteristics. The current study will explain the comparison of Pashto and Punjabi speakers when they become ESL learners.

Hassan et al. (2023) highlighted factors responsible for the wrong pronunciation of English words by students at the undergraduate level in Khyber Pakhtunkhwa, Pakistan, where L1 is Pashto. The study was quantitative in nature where a questionnaire was distributed among 72 BS English students of three different colleges and data was collected. The descriptive analysis of the data highlighted eight factors that appeared to cause incorrect pronunciation by students. These included learners' weakness in phonetics and phonology, Teacher's wrong pronunciation, L1 interference, words related to military discourse, poor oral fluency, inaccessibility to authentic language use, influence of spelling, and lack of speaking English inside the classroom.

Rahman (2016) analyzed Pashto and English consonants in his study. His research endeavors to juxtapose Pashto and English consonantal phonemes, examining their similarities and discrepancies. Emphasizing unshared consonantal sounds, the study scrutinizes both commonalities and divergences within the phonetic structures of the two languages. The consonants of Received Pronunciation of English are compared to Pashto consonants of the Yusafzai dialect in this study. Resultantly, it was found that some of the Pashto consonant sounds are not found in the Standard Variety of English. Some of the Pashto consonants have the same manner of articulation but different places of articulation. On the other hand, some of the English consonants are not found in the Pashto language.

Another study examines the Voice Onset Time of L1 Sindhi and L2 English stops acoustically. Its goal is to ascertain the Voice Onset Time (VOT) acoustic average values for Sindhi English stop consonants, or L1 and L2 speech production. The Voice Onset Time (VOT) in Sindhi-English stop consonants has been studied descriptively for the first time on English-Sindhi VOT stops. The data from the English and Sindhi languages were examined independently. For both Sindhi and English, there were acoustic variations both within and between the groups in VOT. The findings of the statistical tests were subjected to a pre-set significance level of p-value of less than 0.05. The findings show that the means of the voiceless sounds, /p/ and /k/, differ significantly. The results of the data show that for the voiceless and voiced consonantal sounds, such as /t/, /b/, /d/, and /g/, there is no statistically significant difference between the VOT (ms) means of male and female. The findings also showed that gender has no bearing on the English-Sindhi VOT features of stops; rather, the site of articulation changed English-Sindhi VOT (Abbasi et al., 2022).

Another research done on a regional language in Pakistan states that voiceless stops are unaspirated in Western Balochi but have aspirated features in Eastern Balochi. In this study, 84 natural speakers of both Balochi dialects took part. Participants in the initial trial generated terms in an image-identifying task using their L1, while the participants in the second trial read words in English. VOTs for the L1 and L2 voiced stops that were extracted from the production recordings. Findings indicate that Western Balochi converts their L1 negative VOTs to L2 stops with English voice. However, speakers of Eastern Balochi generate VOTs for English-voiced stops that differ markedly from their L1 VOTs. The study concluded that speakers of those languages with stops with negative VOT ranges face more difficulty acquiring L2 voiced stops of short-lag positive VOTs than those learners whose L1 does not have such stops. The speech learning model is used in this study to analyze all results (Abbasi, 2023).

Students must spend time practicing the language they want to learn with no compromise on their L1 to minimize the impact of their mother tongue in the process of learning it. When learning English, it's essential to avoid relying too much on one's native tongue. Students can develop critical reading tasks, back-translation exercises, and summarizing exercises to acquire an insufficient awareness of the differences between English and their native tongues, as well as to take language skills into account. Teaching English to people who are not native speakers is a challenging task. With certain novel methods, learning a second language is easy. Students can be trained to improve the target language by engaging in activities and an innovative strategy (Delbio et al., 2018).

Research Methodology

The study involves ten postgraduate students as participants, each representing distinct linguistic backgrounds, enrolled at a public sector university in Lahore. The participants are carefully selected

to include one Pashto speaker and one Punjabi speaker. The diversity in language backgrounds ensures a focused examination of pronunciation variations and aspiration errors within a multicultural academic setting.

Clarification of Participants

1. Pashto Speaker

Five postgraduate students (2 males, 3 females) hailing from a Pashto language background at the public sector university in Lahore.

2. Punjabi Speaker

Five postgraduate students (3 males, 2 females) with a Punjabi language background, were also enrolled at the same public sector university in Lahore.

This targeted selection of participants allows for a nuanced analysis of pronunciation differences, particularly focusing on aspiration errors, contributing valuable insights to the broader research objectives.

Instrument

The selected instrument for this research is a specific reading text extracted from the South Asian literature book "The Dreams of Tipu Sultan" by Girish Karnad. The chosen passage for analysis is located on page 29 of the mentioned book. Utilizing a literary work as a primary instrument provides a rich and culturally relevant context for exploring pronunciation variations and aspiration errors among the targeted participants, contributing depth and authenticity to the research outcomes.

Furthermore, it is worth noting that the selected passage (dialogues) contains an abundance of words featuring the alphabet "t." This characteristic offers a substantial pool of words for assessing both voiced and voiceless instances of the "t" sound. The diverse array of words with varying phonetic properties within the passage enhances the validity of the analysis, allowing for a comprehensive examination and comparison of pronunciation nuances and aspiration errors among both of the participants.

The selected passage (dialogues) from the South Asian literature book "The Dreams of Tipu Sultan" by Girish Karnad is as follows:

“YOUNG MAN (female voice): You are very handsome, your Majesty.

TIPU: Thank you. Come. Come and sit by me.

YOUNG MAN: But I'm not telling you anything you don't already know.

TIPU: Well, it's always nice to be reminded. When one spends as much time on horseback as I do, there's no time to look into mirrors.

YOUNG MAN: But surely your begums tell you. Specially Ruqayya Banu, your favorite queen-

TIPU: Beware! You're being impertinent.

YOUNG MAN: It's my intense admiration for you that makes me so bold-

TIPU: Look, I'm not given to entering into such conversation with just anyone.

YOUNG MAN: But I'm not just anyone.

TIPU: Then who are you?

YOUNG MAN: Doesn't anything strike you as unusual about me?

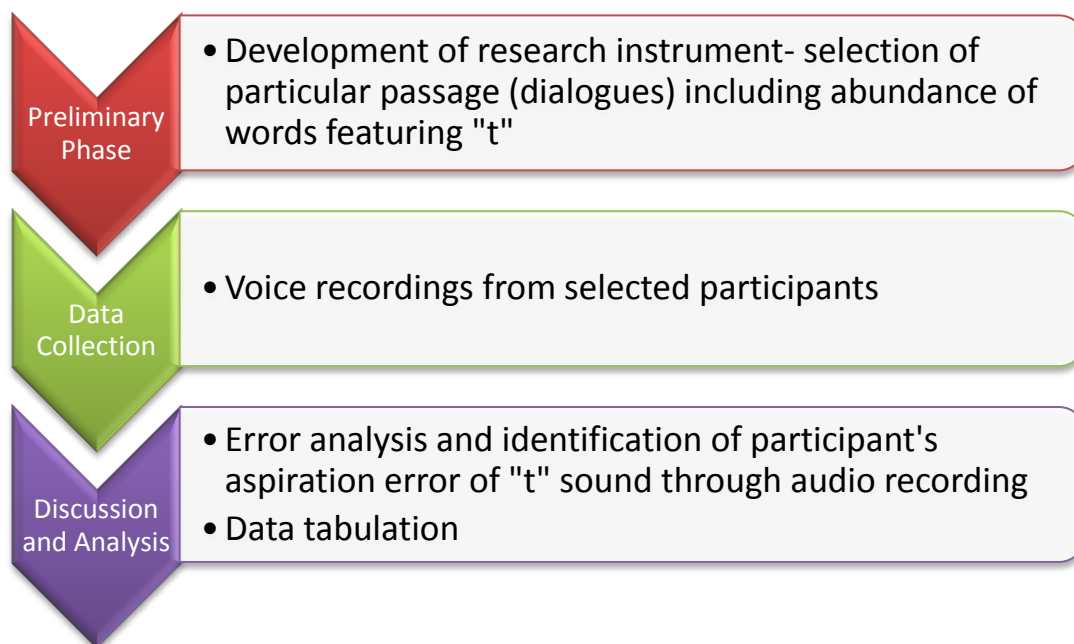
TIPU: Oh! Several things. You're delicate looking. And you have a woman's voice.

(The young man bows in front of Tipu.)

YOUNG MAN: Will the Sarkar-e-Khudadad kindly take off my turban?"

Procedures

The study comprised three primary research phases. Initially, the research focused on developing research instruments and selecting a suitable reading text for the reading test. Subsequently, the second phase involved the actual collection of data, and finally, the third phase encompassed the analysis and presentation of the gathered information. A visual representation of the research procedures is illustrated in the figure below.



To discern pronunciation challenges among the students, the study relied on audio recordings obtained from the Pashto and Punjabi speakers. The selected participants were advised to read out the given passage (dialogues) in voice recordings which will be analyzed during the third procedure of discussion and analysis.

During the phase of data analysis, the audio recordings underwent scrutiny to identify mispronounced aspiration sounds especially the focus on the pronunciation of aspirated sound "t". This involved a conscientious process where three raters independently listened to and analyzed each student recording to validate the presence of mispronounced aspirated sounds. Upon confirmation, these mispronunciations were transcribed phonetically and systematically tabulated.

The utilization of oral reading through a diagnostic reading passage played a pivotal role in controlling diagnostic analysis. Error analysis (EA) was integral in this process, serving as a method to pinpoint and document learner aspiration errors. Khansir (2012) asserted that through EA, teachers gain awareness of challenging areas for their students, allowing for targeted attention and emphasis on these areas in the teaching process.

The significance of error analysis extends to the planning of pedagogical strategies in language classrooms. It provides essential data that informs language instructors about their students' challenges and weaknesses. Armed with this information, instructors can make informed decisions to address problematic areas, thereby facilitating more effective language learning.

Moving forward, the results of this analysis will be instrumental in the subsequent phase of the study. A tailored pronunciation teaching module will be designed specifically for the participants based on these findings. Effective classroom pedagogy and teaching decisions, according to best practices, should align with the identified needs of the students. Language instructors must pinpoint students' weaknesses and subsequently design a teaching module that caters to those needs, enabling focused practice on English sounds and improvement in English pronunciation.

Discussion and Analysis

Analysis of Aspirated Words in Recorded Audio Reading

In the analysis of the provided dialogue passage for a recorded audio reading, the focus lies on words containing aspirated sounds, with particular attention to the repetition of these words. Noteworthy instances of aspiration are identified in words such as "handsome," "come," "bold," "admiration," and others. The analysis also encompasses words with the /t/ sound, including "thank you," "telling," and "time." Repetition is observed in the occurrence of words like "but," "not," "Ruqayya," "anything," and "into." The comprehensive breakdown reveals a total of 9 unique words with aspirants other than /t/, 39 repetitions of words with aspirants, 48 words with the /t/ sound, and 9 repetitions of words with the /t/ sound, providing valuable insights for the assessment of pronunciation and articulation in the recorded audio. The illustration is provided below:

A Comparative Analysis of Aspiration Errors among Postgraduate.....Fatima, Saleem & Bashir

Words with aspirants other than /t/	Repetition of words with aspirants other than /t/	Words with /t/ sound	Repetition of words with /t/ sound	Total
Handsome	1	Thank you	1	
Conversation	1	Majesty	1	
Come	2	Sit	1	
Looking	1	But	2	
Look	2	Not	2	
Admiration	1	Telling	1	
Queen	1	Time	2	
Spends	1	Strike	1	
Horseback	1	Anything	2	
		Don't	1	
		It's	1	
		To	2	
		Into	2	
		Tell	1	
		Favourite	1	
		Impertinent	1	
		Intense	1	
		That	1	
		Entering	1	
		Just	1	
		About	1	
		Things	1	
		Delicate	1	
		Front	1	
		Turban	1	
		Take	1	
		Tipu	7	
	9		39	48

Analysis of Voice Recordings of Pashto Students

Type of Pronunciation Error	Phonetic Symbol	Words	Total
Aspirants	/k/	<u>C</u> ome <u>Q</u> ueen <u>C</u> onversation <u>H</u> orseback	
	/p/	<u>S</u> pends	
	/t/	<u>T</u> ime	
			<u>6</u>

The analysis of the Pashto speaker's voice recordings indicates a commendable proficiency in the pronunciation of aspirants, particularly in handling words containing the /t/ sound. The speaker demonstrated accuracy in pronouncing words such as "impertinent," "thank you," "anything," "delicate," "Tipu," and "turban." However, there were six identified aspiration errors, with one of them related to the aspirated sound of /t/. Nevertheless, the overall performance reflects a strong command of pronunciation, with a minimal number of errors, showcasing the speaker's skill in enunciating words with diverse phonetic elements. The illustration of the analysis is given above.

Analysis of Voice Recordings of Punjabi Students

Type of Pronunciation Error	Phonetic Symbol	Words	Total
Aspirants	/t/	Majesty <u>T</u> ipu <u>T</u> hank you <u>T</u> ake <u>T</u> urban	
	/k/	<u>C</u> ome <u>L</u> ook	
			<u>7</u>

The voice recordings analysis of the Punjabi students indicates a proficiency in pronunciation, particularly concerning the words containing aspirated sounds and the /k/ sound except the aspirated sound /t/. However, it is observed that there were seven errors in the pronunciation of words with aspirants, and the specific words associated with these errors are also provided above. This suggests that Punjabi speakers might face challenges in producing aspirated sounds including the phoneme "t" accurately, which is attributed to the linguistic influence of Punjabi, where aspirated sounds are less prevalent. Notably, the errors encompass words like "Majesty," "Tipu," "thank you," "take," "turban," "come," and "look." Understanding the linguistic background of Punjabi speakers and the influence of their native language on English pronunciation can contribute to targeted pronunciation improvement strategies tailored to their linguistic needs.

Assessment of Students' Pronunciation with the /t/ Sound: A Comparison

Pushto Speaker	Punjabi Speaker	Total No. of Errors
Time	Majesty Tipu Thank you Take Turban	
1	5	6

The Pashto speakers and Punjabi speakers demonstrated variations in their pronunciation, specifically in words containing the /t/ sound. The Pashto speakers made one error in the pronunciation of the word "time," while the Punjabi speakers exhibited five errors across multiple words, including "Majesty," "Tipu," "thank you," "take," and "turban." Collectively, the total number of errors for both speakers in words with the /t/ sound amounted to six. This analysis provides insights into the distinct pronunciation patterns and challenges exhibited by speakers of different linguistic backgrounds.

Discussion

The comparison between Pashto and Punjabi speakers in the context of English pronunciation is discerned through the analysis of voice recordings and an exploration of relevant literature. The study reveals distinctive patterns in the pronunciation of aspirated sounds, especially the /t/ sound, among these two linguistic groups. In the analysis of the Pashto speaker's voice recordings, a commendable proficiency is noted, with only one identified error in the pronunciation of the word "time." The speakers demonstrated accuracy in handling words with aspirated sounds, such as "impertinent," "thank you," and "turban." This suggests a strong command over pronunciation, with minimal errors, showcasing the speaker's ability to enunciate words with diverse phonetic elements especially the production of phoneme /t/.

Contrastingly, the analysis of the Punjabi speaker's voice recordings indicates a proficiency in pronunciation, particularly in words containing aspirated sounds and the /k/ sound. However, the study identifies seven errors in the pronunciation of words with aspirants, including words like "Majesty," "Tipu," "thank you," and "turban." Notably, the errors suggest challenges in producing aspirated sounds, especially the phoneme "t," which can be attributed to the linguistic influence of Punjabi, where aspirated sounds are less prevalent. This finding aligns with existing literature on the phonological features of Punjabi, emphasizing the tonal nature of the language and potential challenges in adapting to English phonetic nuances.

The literature review further supports the understanding that learners, especially those from tonal languages like Pashto and Punjabi, may face distinct challenges in mastering the phonological complexities of English. The tonal framework in Punjabi, with three main tones (low-rising, high-rising, and mid-rising), adds a layer of complexity for learners. The linguistic gap and concerns about mispronunciation among Punjabi speakers highlighted in the literature correspond with the observed errors in the voice recording analysis. Additionally, the influence of the native language's phonological system on the pronunciation of English sounds is a recurring theme in the literature, and this influence is evident in the errors made by both Pashto and Punjabi speakers.

In a nutshell, the comparison between Pashto and Punjabi speakers underscores the need for targeted pronunciation improvement strategies tailored to the linguistic needs of each group. While the Pashto speakers exhibit a generally strong command of English pronunciation with minimal errors, the Punjabi speakers face challenges in producing aspirated sounds, notably the phoneme "t." Understanding these linguistic nuances is crucial for designing effective language teaching modules

that address the specific pronunciation challenges faced by learners from diverse language backgrounds.

Conclusion and Recommendations

People from across the globe with distinctive linguistic backgrounds, when entering an ESL classroom, face several challenges where the influence of their native language and culture cannot be expected not to be present in any possible manner in the learning process of a new language; supposedly English in this case. The learners tend to associate several features from their L1 and their own culture with the new language they learn. The language inventories despite being distinct from their L1, get connected with their native language. The learners are expected to witness positive as well as negative transfers from their L1. Some of the features of the target language are clearly understood and adopted by the learners without any conscious effort since there lies commonalities in the already developed system of their native language in their minds whereas, others are learned through conscious effort. With time, the command on the aspects of language that experience positive transfer gets better whereas errors can be reinforced if not dealt with too.

Therefore, all sorts of errors the ESL learners tend to make must need to be addressed before they become an integral part of their language learning. Pronunciation errors are primarily the ones that are affected more than any other aspect of language learning by the interference of the native tongue. The learners tend to incorporate the sounds from their native language inventory to the target language and therefore, the justice with the target language does not prevail. The research in hand focused on two such ESL learners having Pashto and Punjabi linguistic backgrounds. It has been noticed that learners having Pashto as their native tongue are far better at aspirating voiceless stops than those of Punjabi speakers of English. The speakers of Pashto aspirate effortlessly, the reason being the close similarity between both languages in terms of aspirations, whereas Punjabi speakers had to put in conscious effort and learn aspiration minimising the impact of L1 on the target language. It has been seen through the conducted research that Punjabi speakers struggle to train their minds to speak aspirated voiceless stop while Pashto speakers benefit from the positive transfer from their L1.

The research delves into an interesting and vital aspect of language acquisition, specifically on aspiration errors among postgraduate students with Pashto and Punjabi language backgrounds. Here are some recommendations for other researchers and teachers:

For Researchers:

- i. Consider diversifying the participant pool to include a larger number of speakers from each language background. This could help in acquiring a more comprehensive understanding of the trends and variations in pronunciation errors within each group.
- ii. Extend the research to a longitudinal study that tracks the progress of participants over a prolonged period. This could aid in assessing the effectiveness of intervention strategies, providing insights into the changes and improvements in pronunciation over time.
- iii. Employ advanced phonetic analysis techniques or software tools (CMU Sphinx, Google Speech API, or Microsoft Azure Speech) to conduct a more detailed and nuanced examination of aspiration errors. These tools can help in pinpointing subtle variations in pronunciation that might not be easily discernible through manual analysis.

For Teachers:

- i. Identified errors from the study can be integrated into language teaching programs to facilitate more effective learning outcomes.
- ii. Encourage collaboration and exchange programs between students from diverse linguistic backgrounds. This fosters peer learning and provides opportunities for students to practice and improve their pronunciation skills in a supportive and diverse setting.

For Students:

- i. Actively participate in pronunciation workshops or courses that specifically target common aspiration errors. These targeted interventions can enhance awareness and provide practical strategies to improve pronunciation skills.
- ii. Utilize language learning applications that offer pronunciation feedback and exercises. Many apps employ innovative methods, such as speech recognition technology, to provide real-time feedback on pronunciation, aiding in self-directed improvement.

- iii. Seek opportunities to engage in conversation with native English speakers. Regular interaction can contribute significantly to refining pronunciation, as it provides authentic exposure to the language and allows for immediate correction and feedback.
- iv. Explore online platforms that offer pronunciation guides and exercises. Numerous websites and platforms provide interactive tools and resources specifically designed to address common pronunciation challenges.
- v. Record your speech and listen to it critically. Compare your pronunciation with native speakers and identify areas of improvement. Self-evaluation, combined with targeted practice, can be a powerful tool for refining pronunciation skills.

These recommendations collectively aim to support students in proactively addressing aspiration errors, fostering a dynamic and effective approach to language acquisition and pronunciation enhancement.

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