TECHNICAL UNIVERSITY OF COTOPAXI

PUJILI EXTENSION

PEDAGOGY OF NATIONAL AND FOREIGN LANGUAGES CAREER

RESEARCH PROJECT

"ERROR ANALYSIS OF ENGLISH CONSONANT PRONUNCIATION IN EFL LEARNERS"

Research Project submitted prior to obtaining the degree of Bachelor of Arts in English Language Teaching.

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PUJILI-ECUADOR

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DECLARATION OF AUTHORSHIP

I, Alexander Jonathan Madrid Valencia with ID number 1727499400 declare myself as the author of the following RESEARCH PROJECT: **" ERROR ANALYSIS OF ENGLISH CONSONANT PRONUNCIATION IN EFL LEARNERS",** Ph.D. Rodrigo Vicente Tovar Viera, acts as Tutor of this work. I expressly release the Universidad Técnica de Cotopaxi and its legal representatives from any possible claims or legal actions.

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Pujilí, august 2024

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ENDORSEMENT FROM THE PROJECT TUTOR

As the Tutor of the Research Project titled:

" ERROR ANALYSIS OF ENGLISH CONSONANT PRONUNCIATION IN EFL LEARNERS", by Madrid Valencia Alexander Jonathan, from the Department of National and Foreign Language Pedagogy English Major, I believe that the aforementioned Research Project deserves approval endorsement for meeting the technical standards, translation, and prescribed formats, as well as for incorporating the observations and recommendations proposed during the pre-defense.

Pujilí, august 2024

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APPROVAL ENDORSEMENT FROM THE GRADUATION COMMITTEE

As the Readers' Committee, we hereby approve the present Research Report in accordance with the regulatory provisions issued by the Technical University of Cotopaxi and its Pujili Extension. The applicant, Madrid Valencia Alexander Jonathan, with the title of the Research Project: **"ERROR ANALYSIS OF ENGLISH CONSONANT PRONUNCIATION IN EFL LEARNERS",** have taken into consideration the recommendations issued in a timely manner and possess sufficient merits to undergo the thesis defense.

Based on the aforementioned, authorization is granted to record the corresponding files on a CD, in accordance with institutional regulations.

Pujili, august 2024

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GRATEFULNESS

To the people who have inspired me, for their support, understanding and for always being by my side, understanding and for always being by my side. Finally, we thank all the teachers and friends who have kindly helped us in our goals.

Alexander

DEDICATION

I dedicate this work to my mother, Carmen Paola Valencia Quiñonez, whose strength and unconditional love have been my constant source of inspiration. Thank you for your sacrifices and for teaching me the importance of perseverance and hard work. Without your support and guidance, this achievement would not have been possible. This triumph is as much yours as it is mine. With all my love and gratitude.

Alexander Madrid

TECHNICAL UNIVERSITY OF COTOPAXI

FACULTY OF PEDAGOGY OF NATIONAL AND FOREIGN LANGUAGES

THEME:" ERROR ANALYSIS OF ENGLISH CONSONANT PRONUNCIATION IN EFL LEARNERS."

Author:

Madrid Valencia Alexander Jonathan

ABSTRACT

Pronunciation errors in EFL learners, especially with English consonants, present a significant challenge that can hinder effective communication. The research objective was to analyze English consonant sounds and clusters difficulties in pronunciation in students majoring of the first semester of the English course at the Technical University of Cotopaxi. A qualitative and quantitative approach was employed, combining insights from Creswell's framework for exploring social problems and Satter's analytical method for data interpretation. Data were collected through a pronunciation test assessing participants' ability to articulate 10 English consonant sounds absent from the Spanish phonological system. Research population consists of 10 students from the first semester of the Pedagogy of Nacional and Foreign Languages Majoring in English. The research findings reveal significant challenges in pronouncing voiced consonants such as /s/, /z/, /t/, /d/, /b/, /v/, /j/, /ʤ/, /ð/, and /θ/, highlighting the impact of language interference from Spanish on English pronunciation but particularly with voiced consonants such as /z/ (100%) /ʤ/ (100%) and /v/ (100%) , in line with broader research showing that students often have difficulties with sounds that are not present in their native language. Gender-specific patterns in phoneme acquisition were also observed, with differences in error rates for particular sounds between male (34.3%) and female (29%) participants. These results underscore the need for targeted pronunciation training that addresses specific phonological challenges and considers individual learner differences.

Keywords: Consonants, Error analysis, EFL learners, Phoneme, Pronunciation.

AVAL DE TRADUCCIÓN

En calidad de Docente de la Carrera de Pedagogía de los Idiomas Nacionales y Extranjeros de la Universidad Técnica de Cotopaxi; en forma legal **CERTIFICO** que:

La traducción del resumen al idioma español del proyecto de investigación cuyo título versa: " ERROR ANALYSIS OF ENGLISH CONSONANT PRONUNCIATION IN EFL LEARNERS" presentado por: Alexander Jonathan Madrid Valencia, egresado de la Carrera de: **Pedagogía De Los Idiomas Nacionales Y Extranjeros, perteneciente a la Extensión Pujilí** lo realizaron bajo mi supervisión y cumple con una correcta estructura gramatical del Idioma.

Es todo en cuanto puedo certificar en honor a la verdad y autorizo al peticionario hacer uso del presente aval para los fines académicos legales.

Pujilí, agosto 2024

Atentamente,

Ph.D. Tovar Viera Rodrigo Vicente

ID: 0502414089

TUTOR

UNIVERSIDAD TÉCNICA DE COTOPAXI

FACULTAD DE PEDAGOGÍA DE IDIOMAS NACIONALES Y EXTRANJEROS

TÍTULO: "ANÁLISIS DE ERRORES EN LA PRONUNCIACIÓN DE CONSONANTES INGLESAS EN ESTUDIANTES EFL".

Autor:

Madrid Valencia Alexander Jonathan

RESUMEN

Los errores de pronunciación en estudiantes de inglés como lengua extranjera, especialmente con las consonantes inglesas, presentan un desafío significativo que puede obstaculizar la comunicación efectiva. El objetivo de la investigación fue analizar los sonidos consonánticos del inglés y las dificultades en la pronunciación de los estudiantes del primer semestre del curso de inglés de la Universidad Técnica de Cotopaxi. Se empleó un enfoque cualitativo y cuantitativo, combinando las ideas del marco de Creswell para la exploración de problemas sociales y el método analítico de Satter para la interpretación de datos. Los datos se recogieron mediante una prueba de pronunciación que evaluaba la capacidad de los participantes para articular 10 sonidos consonánticos ingleses ausentes del sistema fonológico español. La población de la investigación está conformada por 10 estudiantes del primer semestre de la carrera de Pedagogía en Lenguas Nacionales y Extranjeras con especialidad en inglés. Los hallazgos de la investigación revelan retos significativos en la pronunciación de consonantes sonoras como /s/, /z/, /t/, /d/, /b/, /v/, /j/, /ʤ/, /ð/ y /θ/, destacando el impacto de la interferencia lingüística del español en la pronunciación inglesa, pero particularmente con consonantes sonoras como /z/ (100%) /ʤ/ (100%) y /v/ (100%) , en línea con investigaciones más amplias que muestran que los estudiantes suelen tener dificultades con sonidos que no están presentes en su lengua materna. También se observaron patrones específicos de género en la adquisición de fonemas, con diferencias en las tasas de error para determinados sonidos entre los participantes masculinos (34,3%) y femeninos (29%). Estos resultados subrayan la necesidad de una formación específica en pronunciación que aborde retos fonológicos concretos y tenga en cuenta las diferencias individuales de los alumnos.

Palabras clave: Análisis de errores, Consonantes, Estudiantes del idioma inglés, Fonema, Pronunciación.

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INDEX OF TABLES

1. GENERAL INFORMATION

Theme:

Error analysis of English consonant pronunciation in EFL learners

Starting Date:

March 2024

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August 2024

Place of Research:

Technical University of Cotopaxi

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A transdisciplinary study of education and linguistics in linguistic-communicative contexts for English language teaching.

Work Team:

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Education Research line:

Education, communication and graphic design for human and social development

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Education, linguistics, literature, intercultural and society

Keywords: Consonants, EFL learners, Error analysis, Pronunciation, Phoneme.

2. PROBLEM STATEMENT

In recent decades, mother tongue interference has emerged as a significant factor in foreign language acquisition, particularly impacting beginners. According to Subandowo (2017), “language interference refers to speakers or writers applying their mother tongue knowledge to a foreign language” (p. 205). This phenomenon, where learners apply rules and patterns from their native language (L1) to the foreign language (L2), often leads to notable errors in communication. These errors manifest in various aspects of language learning, such as pronunciation, grammar, and vocabulary.

The challenge of achieving accurate English pronunciation among Latin American learners is well-documented, with particular emphasis on the influence of native language phonetic traits. Fernandez (2022) highlights the significant impact of Spanish rhythm and stress patterns on English pronunciation among Latin American speakers. Through a comparative analysis, the study examines how the syllable-timed rhythm and stress patterns inherent in Spanish interfere with learners' ability to adopt the stress-timed rhythm of English. The findings reveal that these prosodic features from the native language substantially affect the naturalness and intelligibility of English speech. This underscores the necessity for targeted training on English prosody to improve pronunciation outcomes for these learners.

Mother tongue interference is a common occurrence in both children and adolescents learning a foreign language. However, the impact of this interference can be more pronounced in adolescents. Subandowo (2017) explains that “interference is an effect that occurs due to the process of learning the other language because of the learner's linguistic background” (p. 205). Adolescents have more entrenched linguistic patterns and cognitive frameworks, which can resist the integration of new language rules. For instance, an adolescent learner who is a native Spanish speaker might struggle with English pronunciation, substituting Spanish phonetic patterns for English ones. This could lead to mispronunciations that are recognizable as Spanish-accented English.

In summary, mother tongue interference is a significant factor in foreign language learning, particularly for adolescents with well-established linguistic patterns. Recognizing and addressing these issues is crucial for improving language acquisition and communication skills in learners. On this bases, the following research questions address the main objective of this study:

- What are the common types of errors made by first-semester English students at the Technical University of Cotopaxi in pronouncing English consonants?
- What gender male or female have more pronunciation errors in the first semester of English at the Technical University of Cotopaxi?

3. OBJECTIVES

3.1.GENERAL OBJECTIVE

To analyze English consonant sounds in pronunciation in students majoring of the first semester of the English course at the Technical University of Cotopaxi.

3.2.SPECIFIC OBJECTIVES

- To establish the theoretical foundation to promote the analysis of pronunciation errors in students majoring of the first semester of the English career at the Technical University of Cotopaxi.
- To identify pronunciation errors in students majoring of the first semester of the English course at the Technical University of Cotopaxi.
- To describe the most common pronunciation errors produced by students majoring of the first semester of the English career at the Technical University of Cotopaxi.

4. ACTIVITIES AND TASK SYSTEM IN RELATION TO THE OBJECTIVES PROPOSED.

Specific objective	Activities	Verification Means
To establish the theoretical foundation to promotes the analysis of pronunciation errors in students majoring of the first semester of the	● To examine current, accurate, and reliable sources of studies related to the epistemic foundation.	Background Theoretical framework

English career at the Technical University of Cotopaxi.	● To structure the theoretical framework by organizing the variables that explain the problem under study. ● To cite meaningful research and authors to enrich the theoretical framework.	
To identify pronunciation errors in students majoring of the first semester of the English course at the Technical University of Cotopaxi.	● To select the participants who will be enrolled in this study. ● To adapt a test. ● To construct a Spanish To-English translation ● Table of results of students' test:	Table of results of students' test
To describe the most common pronunciation errors produced by students majoring of the first semester of the English career at the Technical University of Cotopaxi.	● To tabulate students' excerpts according to the type of error found by using charts. ● To analyze the data qualitatively. ● To present descriptively the students' results obtained.	Analysis: Describing results. Discussion results. Providing conclusions

5.JUSTIFICATION

This research is vital as it tackles the pronunciation challenges faced by first-semester English students at the Technical University of Cotopaxi, focusing on English consonant sounds. Addressing these issues is crucial for improving communication skills and overall language proficiency in EFL learners. Effective pronunciation is crucial for clear communication, as highlighted by Simarmata and Pardede (2018). Poor pronunciation, as Elmahdi and Khan (2015) point out, can significantly impede language proficiency.

This research is of paramount importance as it addresses a critical aspect of language learning—pronunciation accuracy—specifically focusing on consonant sounds among students at the Technical University of Cotopaxi. Pronunciation plays a significant role in effective communication, and errors in consonant sounds can lead to misunderstandings, thereby impeding the students' ability to communicate effectively in English (Pourhosein Gilakjani, 2012). By identifying where these students struggle with consonant pronunciation, this research will provide invaluable insights that can help improve their overall language proficiency.

The primary beneficiaries of this research are the teachers at the Technical University of Cotopaxi. Teachers with detailed information on the specific error's students do can help students face challenges and improve pronunciation. Educators can tailor their instructional strategies to better address these issues. This targeted approach can enable teachers to implement more effective teaching methodologies, focusing on the problematic consonants error pronunciation, thereby enhancing the students' pronunciation skills. As a result, students can be confident to interact in communicative activities in class. It is essential for their academic and professional success in an increasingly globalized world.

Perez (2021) underscores the urgent need for enhanced phonetic training in Ecuadorian English education, noting that current instruction is often insufficient, leading to ongoing pronunciation difficulties. The study advocates for more targeted phonetic programs that could significantly improve pronunciation accuracy and overall communicative competence among learners. Furthermore, this research is highly feasible. The study is grounded in a solid methodological framework, utilizing both qualitative and quantitative approaches to gather and analyze data. The resources required, such as access to students for data collection, analytical tools, and relevant

literature, are readily available. Additionally, the study is supported by the institution, ensuring that the necessary infrastructure and academic support are in place. Thus, this research not only addresses a significant gap in language learning but also promises to be aware the importance of pronunciation in the first levels of the English Career. Wilson (2024) argues that early intervention in correcting pronunciation errors is crucial for enhancing long-term communicative competence in language learners. It demonstrates that learners who received early intervention showed marked improvement in their communicative abilities over time, emphasizing the importance of addressing pronunciation issues at the initial stages of language learning.

6.SCIENTIFIC AND TECHNICAL FOUNDATION

6.1.BACKGROUND

Previous research on English pronunciation errors provides a crucial foundation for the current study by examining challenges at global, regional, and local levels. Worldwide studies have identified common phonetic transfers that lead to errors across diverse linguistic backgrounds, while research in Latin America has focused on the specific impact of Spanish on English pronunciation. In Ecuador, localized studies have highlighted the unique pronunciation challenges faced by Ecuadorian learners, shaped by regional dialects and educational contexts. These studies collectively inform the present research, offering insights that can guide targeted interventions for improving pronunciation among Ecuadorian EFL learners.

Smith (2022) highlights the significance of understanding how phonetic traits from learners' native languages are transferred to the target language, resulting in pronunciation errors. The primary objective of this study is to pinpoint specific native language characteristics that lead to pronunciation challenges in English. This investigation employs a mixed-methods approach, combining quantitative analysis of pronunciation patterns with qualitative interviews to explore learners' experiences and challenges. The findings emphasize the importance of targeted pronunciation training to address these issues.

Rodriguez (2021) observes that Latin American students frequently struggle with the English sounds /θ/ and /ð/, often substituting them with the sound's /t/ and /d/ respectively. The study conducts a phonological analysis to explore the prevalence of these substitutions and their impact on intelligibility in spoken English. The main objective is to identify the specific difficulties these learners face with these fricative sounds. Results indicate that the substitution is widespread among Latin American students, which significantly hinders their pronunciation accuracy and overall communication effectiveness in English.

The study conducted by Anggrarini and Istiqomah (2019) aimed to analyze the pronunciation errors of English consonants made by students in an English department in Indonesia. The objective was to identify the specific consonant sounds that posed challenges for these learners and to provide insights that could be applied to similar challenges faced by Latin American learners. The methodology involved a qualitative analysis of students' spoken English, focusing on identifying common pronunciation errors. Data was collected through recorded speech samples, which were then transcribed and analyzed for patterns of consonantal errors. The study found that the most frequent errors involved the mispronunciation of consonants not present in the Indonesian language, such as the dental fricatives /θ/ and /ð/. These errors were largely attributed to the interference of the students' native language phonology. The findings suggest that targeted pronunciation training addressing these specific consonantal challenges could significantly improve the pronunciation skills of English learners, both in Indonesia and in regions like Latin America, where similar phonological issues are present.

Elvionita's (2019) examines the pronunciation errors made by Indonesian learners of English, specifically focusing on the challenges they face with consonants that do not exist in their native language. While the research is set in Indonesia, its findings can be paralleled with those of Ecuadorian learners who encounter similar difficulties with English consonants absent in Spanish. The study employed a qualitative approach, analyzing recorded speech samples from senior high school students to identify common pronunciation errors. The results highlighted frequent substitutions of English consonants with similar native sounds, particularly with the "th" sounds (/θ/ and /ð/), which do not exist in Indonesian and Spanish. These substitutions result from the influence of the native phonological system. The study's findings suggest that similar strategies in

pronunciation instruction could be beneficial for Ecuadorian learners, emphasizing the need to address specific phonetic challenges posed by the learners' native language.

Studies conducted in broader Latin American contexts, such as those in Mexico and Colombia, provide valuable insights that can often be generalized to the Ecuadorian context. These studies commonly examine the pronunciation errors made by Spanish-speaking learners of English, particularly focusing on the challenges associated with consonants like /θ/ and /ð/. Due to the absence of these sounds in Spanish, learners frequently substitute them with native Spanish consonants, leading to mispronunciations. This interference from the Spanish phonological system is a prevalent issue across various Latin American countries, including Ecuador. The findings suggest that targeted pronunciation instruction focusing on these specific errors could benefit English learners throughout the region. By addressing the influence of the native language on English pronunciation, educators can help learners overcome these common challenges and improve their overall proficiency.

6.2.THEORETICAL FRAMEWORK

6.2.1.PHONOLOGY AND PHONETICS

Phonology and phonetics are fundamental areas in the study of linguistics, focusing on the sound systems of languages and the physical properties of speech sounds, respectively. Phonology examines how sounds function and interact within a particular language or languages, exploring patterns, systems, and rules governing sound sequences. It investigates abstract sound units, known as phonemes, and how they are organized to convey meaning. For instance, phonology analyzes how different phonemes in a language can lead to distinct meanings, as demonstrated by minimal pairs like "bit" and "beat" in English, where the contrast between /ɪ/ and /iː/ changes the word's meaning (Kenworthy, 1987).

Phonetics, on the other hand, is concerned with the actual production, transmission, and perception of speech sounds. This field is divided into three primary branches: articulatory phonetics, which studies how speech sounds are produced using the vocal tract; acoustic phonetics, which focuses on the physical properties of sound waves; and auditory phonetics, which explores how sounds are perceived by the human ear and brain. The study of articulatory phonetics, for example, helps in

understanding how different sounds are produced by varying the configuration of the articulators, such as the tongue, lips, and palate (Ashby & Maidment, 2005).

Ladefoged and Johnson (2014) describe phonetics as "the study of the sounds of human speech. It is concerned with the physical properties of speech sounds (phones): their physiological production, acoustic properties, auditory perception, and neurophysiological status" (p. 1). Phonetics provides tools for analyzing how speech sounds are made and how they are acoustically transmitted, which is crucial for both language acquisition and teaching. For example, techniques such as spectrogram analysis in acoustic phonetics help researchers visualize the frequency and intensity of different speech sounds, aiding in the precise identification of pronunciation errors (Johnson, 2005).

In the context of language learning and teaching, understanding the interplay between phonology and phonetics is essential. Phonological knowledge helps learners understand the abstract sound patterns and rules of a new language, while phonetic training focuses on the practical aspects of sound production. Effective language instruction integrates both phonological awareness and phonetic practice to develop accurate and intelligible pronunciation. Studies have shown that incorporating both theoretical and practical elements in pronunciation training leads to more significant improvements in learners' speech (Gilbert, 2008).

Bridging phonological theory with phonetic practice provides a comprehensive approach to pronunciation instruction. By combining insights from both areas, educators can address both the abstract and practical aspects of sound production, enhancing learners' ability to produce and perceive target language sounds accurately and effectively.

6.2.1.1. Understanding the Phonetic Alphabet and Symbols

The International Phonetic Alphabet (IPA) is a standardized system of phonetic notation created to accurately represent the sounds of human speech across all languages. It was developed to overcome the limitations of traditional orthographic representations by offering a consistent set of symbols for each distinct sound, known as phonemes. This system is crucial for linguists and language learners as it allows for precise and consistent transcription of spoken language,

facilitating accurate communication about pronunciation and phonetic details. For example, the IPA differentiates between similar sounds that might be represented by the same letter in different languages, such as the English /r/ and the Spanish /ɾ/, which are distinct in their articulation and function (International Phonetic Association, 1999).

Ashby (2011) notes that "The IPA provides a set of symbols for each distinct sound, enabling precise and consistent notation" (p. 14). The IPA includes symbols for both consonants and vowels, each of which is categorized based on their place and manner of articulation. Additionally, it incorporates diacritics to denote variations in sound quality, such as nasalization or aspiration. This level of detail is invaluable for linguists conducting phonetic analysis and for language teachers helping students with pronunciation. The IPA also facilitates cross-linguistic comparison by offering a uniform framework for describing phonetic phenomena, thus supporting research and teaching across diverse linguistic contexts (Roach, 2009).

In practical applications, the IPA is widely used in dictionaries, language textbooks, and language learning materials to provide learners with a clear guide to pronunciation. It serves as a universal tool for documenting and analyzing the sound systems of both familiar and unfamiliar languages. Moreover, the IPA's role in linguistic research is fundamental, as it allows for the precise description and comparison of speech sounds across different languages and dialects, contributing to a deeper understanding of phonetic and phonological processes (JIPA, 2018).

The International Phonetic Alphabet is an essential tool for both theoretical and applied phonetics, offering a standardized method for representing and analyzing speech sounds. Its ability to provide clear and consistent notation supports accurate communication about pronunciation and enhances the effectiveness of language instruction and research.

6.2.1.2. Consonants: Articulation and Sound Production

Consonants are characterized by the restriction of airflow at one or more points in the vocal tract, which distinguishes them from vowels. The production of consonant sounds involves various articulatory processes, including the use of the lips, tongue, teeth, and vocal cords. This obstruction can vary from a complete closure, as in plosives, to a partial constriction, as in fricatives. For instance, plosive sounds like /p/, /t/, and /k/ are produced by completely stopping the airflow and

then suddenly releasing it, whereas fricatives like /s/ and /f/ are created by allowing continuous airflow through a narrow constriction, resulting in turbulence (Ladefoged & Johnson, 2014).

Roach (2009) notes that "consonants are produced by obstructing the airflow in some way, causing a range of sound qualities from plosives to fricatives" (p. 38). The articulation of consonants can be characterized by several features: the place of articulation (where the airflow is constricted), the manner of articulation (how the airflow is constricted), and voicing (whether the vocal cords vibrate). For instance, sounds produced with the tongue against the alveolar ridge, like /t/ and /d/, are classified as alveolar consonants, while sounds produced with the lips, like /b/ and /m/, are classified as bilabial consonants (Ashby & Maidment, 2005).

Additionally, the classification of consonants can be extended to include further subcategories, such as nasals, where airflow is directed through the nasal cavity, as in /m/ and /n/, and approximants, where the constriction is less tight, allowing for smoother airflow, as in /l/ and /w/ (Gick, 2013). Understanding these articulatory details is essential for both linguistic analysis and practical language teaching, as it helps in diagnosing and correcting pronunciation errors.

The detailed study of consonants' articulation and sound production is crucial for comprehending the complexities of spoken language. By analyzing how different consonant sounds are produced, educators can better address pronunciation challenges and enhance learners' phonetic accuracy.

6.2.2.PRONUNCIATION

Pronunciation involves the way words or languages are spoken, including the articulation of individual sounds, as well as broader elements like stress patterns, rhythm, and intonation. Sound production requires the precise articulation of consonants and vowels, relying on the accurate placement and movement of articulatory organs such as the tongue, lips, and vocal cords. Stress patterns involve emphasizing certain syllables or words more than others, which can affect the meaning and intelligibility of speech. Rhythm refers to the pattern of stressed and unstressed syllables within speech, while intonation involves the variation in pitch across sentences, which can convey different emotions or meanings (Celce-Murcia, Brinton, & Goodwin, 2010).

Accurate pronunciation is crucial for effective communication and understanding in any language. It not only ensures that speakers are comprehensible to their listeners but also influences the speaker's ability to convey meaning accurately and express emotions or intentions appropriately. Mispronunciations or deviations in stress and intonation can result in misunderstandings or confusion, particularly in languages where subtle variations in pronunciation can alter the meaning of words (Kenworthy, 1987). For instance, in English, the placement of stress in words like 'record' can distinguish between a noun ('RE-cord') and a verb ('re-CORD').

Furthermore, effective pronunciation involves mastering both segmental features (individual sounds) and suprasegmental features (stress, rhythm, and intonation). The integration of these elements contributes to the overall fluency and naturalness of speech, enhancing the speaker's ability to interact effectively in various communicative contexts. This comprehensive approach to pronunciation instruction is essential for language learners aiming to achieve a high level of proficiency (Gilbert, 2008).

Understanding and mastering pronunciation involves more than just producing individual sounds correctly; it encompasses the ability to use stress, rhythm, and intonation effectively. By focusing on these aspects, language learners can significantly improve their communicative competence and achieve clearer, more natural speech.

6.2.2.1. Articulation

Pronunciation involves the articulation of phonemes to produce meaningful speech, playing a crucial role in how language is understood and communicated. It encompasses the production of individual sounds, or segments, and extends to various suprasegmental aspects such as intonation, stress, rhythm, and timing. These elements work together to convey not only the basic phonetic structure of words but also their intended meaning and emotional tone. For instance, stress and intonation can alter the meaning of a sentence, as seen in the difference between "I didn’t say she stole the money" with various stressed words, which can imply different suspects or intentions (Roach, 2009).

Celce-Murcia, Brinton, and Goodwin (2010) define pronunciation as "the production of sounds that we use to make meaning. It includes attention to the particular sounds of a language (segments), aspects of speech beyond the level of the individual sound, such as intonation, phrasing, stress, timing, and rhythm (suprasegmental aspects), and how the voice is projected" (p. 34). This comprehensive view highlights the importance of both segmental and suprasegmental features in effective communication. Segmental aspects include the precise articulation of vowels and consonants, while suprasegmental features like intonation and stress patterns help in shaping the speaker's overall message and emotional expression (Gilbert, 2008).

Effective pronunciation instruction addresses both these dimensions by focusing on the accurate production of sounds as well as the rhythm and melody of speech. For instance, teaching stress patterns and intonation helps learners not only produce sounds accurately but also use them in a manner that conveys the intended meaning and emotion. Such instruction can greatly enhance the clarity and naturalness of speech, making communication more effective and engaging (Celce-Murcia et al., 2010).

A thorough understanding of pronunciation requires attention to both the articulation of individual sounds and the broader suprasegmental features that contribute to meaningful speech. By addressing these aspects comprehensively, language instruction can significantly improve both the accuracy and expressiveness of learners' speech.

6.2.2.2. The Important of Pronunciation

The importance of good pronunciation cannot be overstated, as it is crucial for clear communication and significantly impacts how speakers are perceived. Accurate pronunciation ensures that spoken language is intelligible and comprehensible, which is essential for effective interaction in any language. Morley (1994) emphasizes that "pronunciation plays a key role in language learning and teaching, as it directly influences intelligibility and comprehensibility" (p. 69). This underscores the fundamental role of pronunciation in facilitating mutual understanding between speakers and listeners. When pronunciation is clear, listeners can easily grasp the speaker's intended message, which is especially important in professional and social contexts where clear communication is crucial.

Moreover, good pronunciation affects not only the effectiveness of communication but also the speaker's credibility and confidence. Inaccurate pronunciation can lead to misunderstandings, misinterpretations, or even negative perceptions of the speaker's language proficiency. For instance, in a business meeting, mispronounced words or unclear articulation may lead to confusion or a lack of trust in the speaker's expertise. As noted by Derwing and Munro (2005), pronunciation errors can impact listeners' perceptions of the speaker's competence and confidence, which can influence the outcomes of conversations and negotiations.

Furthermore, the development of good pronunciation skills contributes to learners' overall language proficiency and their ability to participate effectively in various communicative situations. Effective pronunciation instruction helps learners not only correct their speech errors but also understand the nuances of stress, intonation, and rhythm, which are critical for achieving natural and intelligible speech. This holistic approach to pronunciation training supports learners in becoming more confident and effective communicators in both formal and informal contexts (Jenkins, 2000).

Emphasizing good pronunciation is essential for ensuring clear and effective communication. By focusing on improving pronunciation, language learners can enhance their intelligibility and comprehensibility, which in turn positively affects their confidence and how they are perceived by others.

6.2.3.ELEMENTS OF PRONUNCIATION

Pronunciation encompasses several key elements that contribute to the distinct sound patterns of a language. These elements include both segmental and suprasegmental features. Segmental features refer to the individual sounds of speech, such as consonants and vowels, which are the basic building blocks of spoken language. These sounds are articulated in specific ways to convey meaning and differentiate words. For instance, the difference between the sounds /p/ and /b/ in English can change the meaning of a word from "pat" to "bat" (Ladefoged & Johnson, 2014).

Alongside segmental features, suprasegmental elements like stress, rhythm, and intonation are vital in pronunciation. Stress refers to the emphasis placed on specific syllables or words, which can influence the meaning of a sentence. For example, the sentence "She didn't say he stole the money"

can imply different meanings depending on which word is stressed (Roach, 2009). Rhythm refers to the pattern of stressed and unstressed syllables in speech, contributing to the natural flow and pacing of language. Intonation, or the variation in pitch throughout an utterance, helps convey emotions, questions, or statements, and can significantly impact the interpretation of spoken language (Celce-Murcia, Brinton, & Goodwin, 2010).

These elements work together to create the unique sound patterns of a language, shaping how words and sentences are perceived by listeners. Effective pronunciation instruction attends to segmental and suprasegmental elements with the aim of helping learners to produce speech that is both clear and natural. Through acquisition of these components, one can enhance overall communicative competence and convey more fluently the intended meaning and emotion (Gilbert, 2008). Competent and successful pronunciation depends on the appropriate use of both segmental and suprasegmental components. Pronunciation teaching that includes these elements helps learners produce speech that is both intelligible and expressive.

6.2.3.1. Segmental Features

Segmental features are characteristics of the individual sounds of a language: vowels and consonants. These are the basic units of speech and should be properly distinguished to be able to let one word or meaning stand out from the other. Vowels and consonants are produced by certain movements and positions in the vocal organs. Vowels are vocal sounds made when the vocal tract is open and the airstream moves relatively unimpeded, whereas consonants are made with differing degrees of stricture or even full closure in the vocal tract (Ladefoged & Johnson, 2014).

Consonants are classified by place of articulation (where the airstream is obstructed), manner of articulation (how the airstream is obstructed), and voicing (whether or not the vocal cords vibrate). Thus, for instance, /t/ and /d/ are both alveolar plosives, distinguished only by voicing; vowels are described by their position in the mouth - height: high, mid, low; backness: front, central, back; roundness: rounded, unrounded (Ashby & Maidment, 2005). These are quite important distinctions because they differentiate words in a language; for instance, in English: 'bit' /ɪ/ versus 'beat' /iː/, a distinction that exists in virtually every language.

Segmental features also play a significant role in phonemic distinctions, which are the sounds that can change meaning in a language. For instance, the difference between /p/ and /b/ in English can alter the meaning of words like "pat" and "bat" (Roach, 2009). Accurate articulation of segmental features ensures that words are pronounced correctly and understood as intended. Instruction focused on segmental features helps learners address common pronunciation errors and develop a more accurate and intelligible speech pattern (Derwing & Munro, 2005).

Mastery of segmental features is essential for effective communication, as these sounds are the foundational elements of language. By focusing on accurate production and differentiation of individual sounds, language learners can significantly improve their pronunciation and clarity.

6.2.3.2. Suprasegmental Features

Suprasegmental features include elements like stress, intonation, and rhythm, which are essential for the flow and melody of speech. Unlike segmental features, which focus on individual sounds, suprasegmental features function above the level of individual phonemes and play a significant role in how speech is perceived and understood.

Stress refers to the emphasis placed on particular syllables or words in spoken language. It can impact the meaning of a sentence and draw attention to important information. For example, the word "record" can be pronounced with stress on the first syllable as a noun ("RE-cord") or on the second syllable as a verb ("re-CORD") (Roach, 2009). Stress patterns contribute to the natural rhythm of speech and help listeners discern the speaker's intent and focus.

Intonation involves the variation in pitch across an utterance. It plays a key role in conveying the speaker's emotional state, asking questions, or making statements. Rising intonation at the end of a sentence often indicates a question in English, while a falling intonation typically signals a statement (Celce-Murcia, Brinton, & Goodwin, 2010). Effective use of intonation can enhance the speaker's ability to express nuances and maintain listener engagement.

Rhythm refers to the pattern of stressed and unstressed syllables in speech. It influences the smoothness and naturalness of how speech flows. For example, English is a stress-timed language, where the timing of syllables depends on the stress pattern rather than the number of syllables,

creating a rhythmic pattern that differs from syllable-timed languages like French (Abercrombie, 1967). Understanding and mastering rhythm helps learners produce more natural-sounding speech and improves overall fluency.

These suprasegmental features work in conjunction with segmental features to create meaningful and expressive communication. Effective pronunciation instruction should address both segmental and suprasegmental aspects to help learners achieve clear, natural, and engaging speech (Gilbert, 2008).

Mastering suprasegmental features is essential for achieving natural and effective communication. By focusing on stress, intonation, and rhythm, language learners can improve their ability to convey meaning and emotions, enhancing their overall communicative competence.

6.2.4.NATURE OF CONSONANT

Consonants are categorized according to three main features: voicing, place of articulation, and manner of articulation. These features are crucial for describing how and where consonants are produced in the vocal tract and are key to differentiating between various consonant sounds.

Voicing pertains to whether the vocal cords vibrate during the production of a consonant. Voiced consonants involve vocal cord vibration, such as /b/ and /d/, while voiceless consonants do not involve this vibration, such as /p/ and /t/ (Ladefoged & Johnson, 2014). Voicing is a fundamental feature that differentiates many consonant sounds and affects how they are perceived by listeners.

Place of articulation refers to where in the vocal tract the airflow is constricted or blocked. Consonants can be produced at different points in the vocal tract, such as bilabial (using both lips, like /p/ and /b/), alveolar (using the ridge behind the upper front teeth, like /t/ and /d/), and velar (using the back of the tongue against the soft part of the roof of the mouth, like /k/ and /g/) (Roach, 2009). The place of articulation determines the specific acoustic properties of each consonant sound.

Manner of articulation refers to how the airflow is constricted during the production of a consonant. Consonants can be categorized based on the degree of constriction, such as plosives (complete closure followed by a burst of air, as in /p/ and /t/), fricatives (narrow constriction causing friction,

as in /f/ and /s/), and approximants (less constriction allowing smooth airflow, as in /r/ and /w/) (Ashby & Maidment, 2005). The manner of articulation influences the quality and acoustic characteristics of the consonant sound.

Understanding these features is crucial for analyzing and teaching pronunciation, as they help learners identify and produce the distinct sounds of a language accurately. Effective pronunciation instruction should address all three features to ensure learners can produce consonants clearly and correctly (Derwing & Munro, 2005).

A thorough understanding of voicing, place of articulation, and manner of articulation is essential for accurately describing and producing consonant sounds. By focusing on these features, language learners can improve their ability to produce distinct and intelligible consonant sounds.

6.2.4.1. Voicing (voice and voiceless)

Voicing refers to whether the vocal cords vibrate during the production of a consonant. This feature is essential for distinguishing between voiced and voiceless consonants. Voiced consonants involve vocal cord vibration, adding a resonant quality to the sound. Examples include /b/, /d/, and /g/, where the vocal cords come together and vibrate as air passes through them. In contrast, voiceless consonants do not involve vocal cord vibration and are produced only by the airflow through the vocal tract. Examples of voiceless consonants include /p/, /t/, and /k/, which are characterized by the absence of vocal cord vibration (Ladefoged, 2001).

The distinction between voiced and voiceless sounds is essential for phonetic description and phonological analysis. Voicing influences the acoustic properties of consonants, such as pitch and loudness, and is crucial for distinguishing words in many languages. For instance, in English, the words "pat" and "bat" differ only in voicing; /p/ is voiceless, while /b/ is voiced (Roach, 2009). Understanding voicing is crucial for both language learners and teachers, as it aids in accurate pronunciation and improves listening comprehension.

Additionally, voicing plays a role in the process of assimilation, where a sound changes to become more like a neighboring sound. For example, in rapid speech, the voicing of a consonant may shift to match the voicing of adjacent sounds, affecting pronunciation and intelligibility (Ladefoged &

Johnson, 2014). Effective pronunciation instruction should address the nuances of voicing to help learners produce and perceive consonants accurately.

Mastering the distinction between voiced and voiceless consonants is essential for clear and precise pronunciation. By understanding and practicing this aspect of voicing, language learners can improve their ability to differentiate sounds and enhance their overall communicative effectiveness.

6.2.4.2. Place of Articulation

The place of articulation refers to the specific location in the vocal tract where airflow is restricted to produce a consonant sound. This feature is crucial for distinguishing between different consonants based on where the constriction or closure occurs. Consonants are categorized into several places of articulation, each involving different parts of the mouth, including the lips, teeth, alveolar ridge, and velum (Roach, 2009).

Bilabial consonants are produced by bringing both lips together, as in /p/ and /b/. This place of articulation is the most basic and involves the simplest form of constriction. Dental consonants are articulated by placing the tongue against the teeth, like /θ/ and /ð/. Alveolar consonants involve the tongue making contact with the alveolar ridge, just behind the upper front teeth, with examples including /t/, /d/, and /s/. Palatal consonants are produced with the body of the tongue raised towards the hard palate, such as /ʃ/ (sh) and /ʒ/ (measure). Velar consonants involve the back of the tongue contacting the soft part of the roof of the mouth, or velum, like /k/ and /g/. Lastly, glottal consonants are articulated using the glottis, the space between the vocal cords, including /h/ and the glottal stop /ʔ/ (Ashby & Maidment, 2005).

Each place of articulation imparts distinct acoustic qualities to consonants, making it an essential aspect of phonetic description and pronunciation instruction. Understanding these different places of articulation helps learners produce and perceive consonants accurately, leading to clearer and more effective communication. Additionally, knowledge of place of articulation is crucial for analyzing speech errors and creating targeted pronunciation exercises (Derwing & Munro, 2005).

Mastery of the place of articulation is vital for producing distinct consonant sounds and achieving accurate pronunciation. By understanding where and how consonants are articulated, language learners can improve their ability to produce clear and intelligible speech.

6.2.4.3. Manner of Articulation

The manner of articulation describes how airflow is obstructed to produce a consonant sound, determining the specific characteristics and acoustic properties of the sound. This classification is essential for understanding the different types of consonants and how they are produced. According to Ashby (2011), "manners of articulation determine the specific characteristics of consonant sounds, contributing to their acoustic and perceptual properties" (p. 27).

Plosives are produced by creating a complete closure at some point in the vocal tract, followed by a sudden release of air. Examples include /p/, /b/, /t/, and /d/. This burst of air creates a sharp, distinct sound. Fricatives involve a partial constriction that causes the airflow to create turbulence, such as /f/, /v/, /s/, and /z/. The friction produced by the airflow passing through a narrow gap gives fricatives their characteristic hissing or buzzing sound.

Affricates are complex sounds that begin with a plosive closure and release into a fricative sound. Examples include /tʃ/ (as in "chip") and /dʒ/ (as in "judge"). Nasals are produced by allowing airflow to pass through the nasal cavity while the oral cavity is closed off, such as /m/, /n/, and /ŋ/ (as in "sing"). Finally, approximants involve a constriction of the vocal tract that is narrower than a vowel but not enough to create turbulence. Examples include /l/, /r/, /j/, and /w/. These sounds are produced with a relatively open vocal tract, allowing for a smoother flow of air compared to fricatives (Roach, 2009).

Understanding the manner of articulation is crucial for phonetic transcription and pronunciation teaching. It helps learners differentiate between similar sounds and produce them accurately, contributing to clearer and more effective communication. Effective pronunciation instruction should include practice with various manners of articulation to help learners master the full range of consonant sounds in a language (Derwing & Munro, 2005).

Mastering the manner of articulation is essential for producing distinct and recognizable consonant sounds. By focusing on how airflow is managed to create different types of consonants, language learners can improve their pronunciation and overall speech clarity.

6.2.5.LABIODENTAL SOUNDS

Labiodental sounds are produced by placing the lower lip against the upper teeth, creating a constriction that affects the airflow and produces specific phonetic characteristics. This place of articulation is relatively simple but essential for producing distinct sounds in many languages.

The primary labiodental fricatives are /f/ and /v/. In the production of /f/, the lower lip comes into contact with the upper teeth, and the airflow is forced through the small gap, creating a frictional noise. The /v/ sound is similar, but with vocal cord vibration, giving it a voiced quality (Roach, 2009). These sounds are characterized by their high-frequency noise due to the turbulent airflow at the labiodental constriction.

Labiodental sounds are common in English and many other languages, where they contribute to the phonetic inventory and play a role in distinguishing between words. For example, the contrast between /f/ in "fine" and /v/ in "vine" is crucial for meaning in English (Ladefoged & Johnson, 2014). Understanding labiodental sounds is important for both learners and teachers, as these sounds are integral to clear pronunciation and listening comprehension.

Furthermore, the production of labiodental sounds involves coordination between the lip and the teeth, which can pose challenges for learners from languages that do not use these sounds. This can lead to errors such as substituting /p/ or /b/ for /f/ and /v/, especially in learners whose native languages use different places of articulation (Ashby, 2011). Pronunciation instruction should therefore include focused practice on labiodental sounds to address these challenges and improve overall speech clarity.

Mastery of labiodental sounds is essential for accurate pronunciation and effective communication. By practicing the production of these sounds, language learners can enhance their ability to distinguish and produce labiodental fricatives, leading to clearer and more precise speech.

6.2.5.1. The Phonetic Characteristics of Labiodental Sounds

Labiodental sounds, such as /f/ and /v/, are characterized by the contact between the lower lip and the upper teeth. This specific place of articulation creates a narrow constriction, which results in turbulent airflow and distinct phonetic properties. According to Ladefoged and Johnson (2014), "Labiodental fricatives are produced by bringing the lower lip into close approximation with the upper teeth, causing friction as the air passes through" (p. 57). This constriction produces a high-frequency noise that is a defining characteristic of these sounds.

The /f/ sound is a voiceless labiodental fricative. It is produced without vocal cord vibration, which results in a breathy, hiss-like quality. In contrast, the **/v/** sound is a voiced labiodental fricative, involving vocal cord vibration that adds a buzzing quality to the sound. The difference in voicing between /f/ and /v/ can significantly affect word meaning and intelligibility in English (Roach, 2009).

Labiodental sounds are common in many languages, and their production involves precise articulation of the lower lip against the upper teeth. This specific articulatory gesture is crucial for producing clear and accurate labiodental sounds. For learners from languages that do not have labiodental sounds, mastering this articulation can be challenging and may require targeted practice to avoid common errors, such as substituting other fricative sounds or omitting the sound altogether (Ashby, 2011).

Furthermore, labiodental sounds play an important role in distinguishing words and conveying meaning in English. For example, the words "fine" and "vine" differ only in the voicing of the labiodental fricative, demonstrating the importance of accurate pronunciation for effective communication (Ladefoged & Johnson, 2014).

Understanding and mastering the phonetic characteristics of labiodental sounds is essential for learners to achieve accurate pronunciation. Focused practice on the articulation of /f/ and /v/ can

improve clarity and help prevent common pronunciation errors, enhancing overall communicative competence.

6.2.5.2. The Role of Labiodental Sounds in Different Languages

Labiodental sounds appear in many languages and serve various phonemic roles. In English, labiodental fricatives /f/ and /v/ are crucial for distinguishing between words such as "fan" and "van." These sounds are essential for differentiating meanings in English, where the presence or absence of voicing in labiodental fricatives can change the entire word (Roach, 2009). For instance, the distinction between the voiceless /f/ in "fine" and the voiced /v/ in "vine" highlights the role of labiodental sounds in phonemic contrast.

In some languages, labiodental sounds may have different functions or distributions. For example, in French, labiodental fricatives are used similarly to English but may exhibit different patterns of frequency and occurrence depending on the regional accent or dialect (Ashby, 2011). In contrast, other languages, such as some indigenous languages of Africa, might use labiodental sounds less frequently or employ them in specific phonological contexts that differ from those found in English and French.

Labiodental sounds are not universally present in all languages. In languages where these sounds are absent, speakers may substitute them with other fricatives or sounds. For example, speakers of languages that do not have /f/ or /v/ might use /p/ or /b/ as substitutions, which can affect pronunciation and intelligibility in a new language (Ladefoged & Johnson, 2014). Understanding the role and distribution of labiodental sounds across languages is crucial for phonological analysis and for developing effective pronunciation training tailored to specific linguistic backgrounds.

Recognizing the varied roles of labiodental sounds across different languages is important for both linguistic analysis and language instruction. By understanding how these sounds function in various linguistic contexts, educators can better address pronunciation challenges and enhance learners' ability to achieve accurate and contextually appropriate pronunciation.

6.2.6.DENTAL SOUNDS

Dental sounds are produced by placing the tongue against the upper teeth, creating a constriction that affects the airflow and results in distinct phonetic characteristics. This place of articulation is common in many languages and contributes to the unique sound patterns of each language.

Dental fricatives, such as /θ/ (as in "think") and /ð/ (as in "this"), are produced by placing the tip of the tongue against the upper teeth and allowing air to flow through the narrow gap, creating a frictional sound (Roach, 2009). These sounds are characterized by their relatively high-frequency noise due to the turbulent airflow. In languages that include these sounds, they are crucial for distinguishing between words and conveying precise meaning.

In contrast, dental stops, though less common in English, are produced by creating a complete closure between the tongue and the upper teeth, followed by a release of air. While English does not have distinct dental stops, some languages, such as Hindi, use dental stops as phonemic contrasts. For example, the Hindi word "तल" (tala) uses a dental stop that is produced differently than the alveolar stop in "tala" in English (Ashby, 2011).

The presence or absence of dental sounds in a language can significantly affect pronunciation and phonological processes. Learners from languages that do not have dental sounds might substitute them with sounds from other places of articulation, such as alveolar or retroflex sounds, leading to pronunciation errors. Understanding the articulatory features of dental sounds is essential for effective pronunciation instruction and for addressing common challenges faced by learners (Ladefoged & Johnson, 2014).

Mastery of dental sounds is important for accurate pronunciation and clear communication. By understanding the specific articulatory features of dental sounds and their role in various languages, learners can improve their pronunciation and avoid common errors that arise from cross-linguistic interference.

6.2.6.1. The Articulation Process of Dental Sounds

Dental sounds are produced by positioning the tongue against the upper teeth, creating a constriction that affects the airflow and results in distinct phonetic characteristics. This process is crucial for producing various types of dental sounds, depending on the manner of articulation.

According to Ashby (2011), "Dental consonants, such as the English /θ/ and /ð/, are articulated by placing the tongue against the upper teeth, creating a constriction that affects the airflow" (p. 48).

For dental fricatives, such as /θ/ (as in "think") and /ð/ (as in "this"), the airflow is partially obstructed by the tongue's contact with the upper teeth, causing turbulence. This turbulence produces a characteristic hissing or buzzing sound. The key feature of these sounds is the friction generated as air passes through the narrow constriction between the tongue and teeth (Roach, 2009).

In contrast, dental stops, though less common in English, involve a complete closure between the tongue and the upper teeth, followed by a sudden release of air. While English primarily employs alveolar stops (e.g., /t/ and /d/), languages such as Hindi use dental stops to differentiate between phonemes, contributing to the diversity of articulation processes (Ashby, 2011).

The articulatory process for dental sounds requires precise coordination of the tongue and teeth. For learners from languages that do not include dental sounds, achieving this articulation can be challenging and may require focused practice to develop the correct tongue placement and airflow management. Accurate articulation of dental sounds is essential for clear pronunciation and effective communication, as these sounds play a significant role in distinguishing words and meanings in many languages (Ladefoged & Johnson, 2014).

Understanding the articulation process of dental sounds is crucial for language learners to master accurate pronunciation. By focusing on the specific tongue-to-teeth contact and the resulting airflow changes, learners can improve their ability to produce and perceive these sounds, thereby enhancing their overall speech clarity.

6.2.6.2. Dental Sounds Across Various Linguistic Contexts

The presence and function of dental sounds can vary significantly across languages. In some languages, dental sounds are phonemically distinct and play a crucial role in differentiating words. For instance, in Spanish, dental sounds like /t/ and /d/ are used to contrast with other consonants, contributing to the phonological structure of the language. Ladefoged (2001) explains that "dental

sounds can serve different roles depending on the phonological rules of a language, influencing their frequency and distribution" (p. 43).

In contrast, in languages like Thai, dental sounds may occur as allophonic variations rather than distinct phonemes. For example, the dental stop /t/ in Thai can be pronounced as either an alveolar or a dental stop depending on the surrounding sounds and the phonological context, making its role less distinctive in terms of meaning (Ashby, 2011).

Moreover, in some languages, dental sounds are rare or absent. In such cases, speakers might substitute dental sounds with other types of sounds, like alveolar or postalveolar sounds, which can influence their pronunciation in a second language. For instance, English speakers who do not have dental sounds in their native language might replace them with /t/ or /d/, affecting their intelligibility in English (Ladefoged & Johnson, 2014).

Understanding how dental sounds function across different linguistic contexts is important for language learners and educators. By recognizing the variations in the role and distribution of these sounds, instructors can better address pronunciation challenges and tailor their teaching strategies to meet the specific needs of learners from diverse linguistic backgrounds.

The variation in the presence and function of dental sounds across languages highlights the complexity of phonological systems. Educators should consider these differences when designing pronunciation instruction, as understanding these variations can help learners achieve more accurate and contextually appropriate pronunciation.

6.2.7.ERRORS IN PRONUNCIATION

Error is central to understanding language learning and teaching. Errors in language acquisition can reveal underlying issues in the learning process and offer valuable insights into areas where learners struggle. According to Corder (1967), "Errors are significant in that they provide insight into the learner's developing interlanguage and highlight areas where instruction may need to be adjusted" (p. 166).

Errors can stem from multiple sources, including interference from the learner's native language, overgeneralization of rules, and developmental errors that reflect the learner’s progressing grasp of

the target language (Ellis, 2008). For example, a Spanish speaker learning English might erroneously use Spanish phonetic rules, such as substituting English /θ/ and /ð/ with /t/ and /d/, respectively, due to the absence of these sounds in Spanish. These errors are not merely mistakes but are indicative of the learner's attempt to apply known rules to new linguistic contexts (Richards, 1974).

Understanding the nature of errors can inform teaching strategies and highlight areas for focused intervention. By analyzing errors, educators can identify common patterns and tailor their instruction to address specific challenges faced by learners. This approach helps in creating more effective lesson plans and activities designed to improve areas where learners frequently make mistakes (Lado, 1957).

Recognizing and analyzing errors is a crucial part of language teaching and learning. By understanding the root causes of errors and their implications, educators can better support learners in overcoming difficulties and achieving proficiency in the target language.

6.2.7.1. Distinction Between Error and Mistake

The distinction between an error and a mistake is crucial in language learning and teaching. An error is a systematic deviation from the target language norms, suggesting that the learner has not yet fully mastered the language rules. In contrast, a mistake is a slip that occurs despite the learner’s knowledge of the correct form. Corder (1967) distinguishes between the two by stating that "errors are systematic and indicative of the learner's current stage of language development, whereas mistakes are occasional lapses that can occur even in proficient speakers" (p. 167).

Errors reflect the learner's underlying understanding of the language and are often consistent across similar contexts. For example, a learner might consistently use the incorrect tense form due to a misunderstanding of tense rules, such as saying "He go to the store" instead of "He goes to the store." This pattern suggests a need for further instruction on tense usage. In contrast, mistakes are typically random and less consistent. For instance, a proficient speaker might accidentally say "I have went" instead of "I have gone" due to momentary lapse or fatigue, but this does not reflect a fundamental misunderstanding of verb forms (Ellis, 2008).

Understanding this distinction is crucial for effective language teaching. Identifying whether a learner's problem is an error or a mistake allows educators to tailor their feedback and instructional strategies accordingly. For errors, targeted instruction and practice are needed to address the specific rules the learner has not yet internalized. For mistakes, less intervention is usually required, as these are often rectified through increased attention and practice (Richards, 1974).

Differentiating between errors and mistakes helps educators provide more precise feedback and support. By addressing systematic errors with targeted instruction and acknowledging occasional mistakes as part of normal language use, educators can more effectively guide learners towards language proficiency.

6.2.7.2. Types of Errors

Errors in language learning can be categorized into several types, each reflecting different aspects of language acquisition and usage. These categories include phonological errors, grammatical errors, lexical errors, and pragmatic errors. According to James (1998), errors are classified into "phonological errors (related to pronunciation), grammatical errors (related to syntax), lexical errors (related to vocabulary), and pragmatic errors (related to language use in context)" (p. 105).

Phonological errors pertain to issues with pronunciation and the articulation of sounds. These errors might include mispronouncing words or substituting one sound for another, such as confusing /θ/ with /s/. These errors often arise from differences between the learner's native language and the target language phonemes (Ladefoged, 2001).

Grammatical errors involve mistakes related to syntax, tense, agreement, and other structural aspects of language. Examples include incorrect verb conjugation, such as using "goed" instead of "went," or errors in subject-verb agreement. These errors can often be traced to incomplete understanding or misapplication of grammatical rules (Ellis, 2008).

Lexical errors are related to vocabulary use and can include incorrect word choice or usage. For instance, a learner might say "I have a big head" when they mean "I have a big brain," reflecting a misunderstanding of word meanings or collocations (Richards, 1974).

Pragmatic errors pertain to the use of language in context, affecting how well learners convey intended meaning or adhere to cultural norms. For example, a learner might use overly formal language in casual settings, reflecting a lack of understanding of appropriate language use in different social contexts (James, 1998).

Understanding the various types of errors is essential for diagnosing language learning challenges and providing targeted instruction. By identifying the specific nature of errors, educators can address the underlying issues more effectively and support learners in developing more accurate and contextually appropriate language skills.

6.2.8.THE CAUSES OF STUDENTS' ERRORS

Understanding the causes of learner errors is crucial for developing effective teaching strategies and addressing specific challenges in language acquisition. Errors can arise from various sources, including interference from the first language, cognitive processing difficulties, and incomplete acquisition of language rules.

First Language Interference is one of the primary sources of errors. When learners apply rules from their native language to the target language, it often leads to incorrect forms. For example, a Spanish speaker learning English might substitute Spanish phonetic rules, resulting in the pronunciation of English /θ/ and /ð/ as /t/ and /d/, respectively. This phenomenon, known as transfer, occurs because the phonemic inventory and phonological rules of the first language can shape how learners perceive and produce sounds in the second language (Ellis, 2008; Lado, 1957).

Cognitive Processing Difficulties also contribute to errors. These difficulties can include challenges in processing and applying complex grammatical structures or understanding abstract concepts in the target language. For instance, learners may struggle with understanding and using English tense system complexities due to cognitive load, which can result in frequent tense errors. This aspect highlights the importance of simplifying and scaffolding instruction to accommodate learners' cognitive capacities (Richards, 1974).

Incomplete Acquisition of Language Rules can lead to errors as learners may not yet fully grasp certain aspects of the language. For instance, a learner might consistently misuse plural forms or

articles if they have not fully internalized the rules governing these elements. This issue often reflects a developmental stage in language learning where certain rules are still being acquired and perfected (Selinker, 1972).

Identifying the causes of errors helps educators tailor their teaching methods to address specific learning challenges. By understanding whether errors result from first language interference, cognitive processing difficulties, or incomplete rule acquisition, educators can implement more targeted and effective strategies to support learners in overcoming these obstacles and achieving greater proficiency.

6.2.8.1. Interference from the first language (L1) in second language (L2) learning

Interference from the first language, or negative transfer, happens when learners apply rules and structures from their native language to the target language, often leading to errors. This phenomenon arises because learners tend to rely on familiar linguistic patterns from their L1, which can lead to systematic errors in their L2 production. Odlin (1989) explains that "negative transfer can result in a range of errors, from phonological to syntactic, as learners rely on familiar patterns from their L1" (p. 112).

Phonological interference is a common example, where learners may mispronounce L2 sounds that do not exist in their L1. For instance, Spanish-speaking learners of English might struggle with English /θ/ and /ð/ because these sounds are not present in Spanish, leading them to substitute them with /t/ and /d/, respectively (Gass & Selinker, 2008).

Syntactic interference can also be observed, where learners apply L1 sentence structures to L2, resulting in incorrect syntax. For example, a Chinese learner might use a subject-verb-object order in English that mirrors Chinese word order, leading to sentences like "He very likes ice cream" instead of "He likes ice cream" (Odlin, 1989).

Lexical interference involves using words from the L1 inappropriately in the L2. For instance, a French speaker might use "attendre" (to wait) in English contexts where "wait" is required, due to the direct translation of words with similar meanings (Ellis, 2008).

Understanding the role of L1 interference is crucial for diagnosing and addressing specific errors in L2 learning. By identifying how L1 patterns influence L2 production, educators can develop targeted instructional strategies to mitigate these errors and help learners achieve greater accuracy in their second language use.

6.2.8.2. Cognitive Processes Involved in Language Error Production

Cognitive processes play a significant role in language error production, influencing how learners acquire and apply new language rules. These processes include memory limitations, processing constraints, and the mental representation of language rules. Ellis (1994) notes that "errors can stem from the complex interplay of cognitive factors, including working memory capacity, attentional resources, and the mental representation of language rules" (p. 65).

Memory Limitations can impact a learner's ability to consistently apply new language rules. Working memory, which involves temporarily holding and manipulating information, is crucial for processing linguistic input and producing accurate output. For example, learners might struggle with complex sentence structures or verb tenses if their working memory is overloaded or if they are not yet proficient in managing multiple linguistic elements simultaneously (Baddeley, 2003).

Processing Constraints can also contribute to errors. These constraints involve the cognitive demands of understanding and producing language under various conditions. Learners may make errors when they are under cognitive load or when they need to rapidly process language input, such as during spontaneous conversation. In such cases, the pressure to respond quickly may lead to mistakes or lapses in language production (Ellis, 2008).

Mental Representation of Language Rules affects how learners internalize and apply grammatical structures. Inaccurate or incomplete mental representations of language rules can result in systematic errors. For instance, if a learner has not fully internalized the rules for English article usage, they might consistently misuse "a" and "the" in their speech and writing (Gass & Selinker, 2008).

Understanding the cognitive processes involved in language error production provides valuable insights into why learners make certain types of errors and how these errors can be addressed. By

considering factors such as memory limitations, processing constraints, and mental representations of language rules, educators can design more effective instructional strategies that support learners in overcoming cognitive challenges and achieving greater proficiency.

6.2.9. ENGLISH PHONEME PRONUNCIATION MISTAKES IN L1 SPEAKERS OF SPANISH

Spanish speakers learning English often face specific pronunciation challenges due to differences in the phonemic inventories of the two languages. These challenges arise because Spanish and English have distinct sets of phonemes and phonological rules, which can lead to common pronunciation errors among Spanish speakers.

Phonemic Differences between Spanish and English are a major source of difficulty. For instance, Spanish lacks certain English phonemes, such as /θ/ (as in "think") and /ð/ (as in "this"), which are frequently substituted with /t/ and /d/, respectively. This substitution occurs because Spanish speakers do not have these sounds in their native phonetic inventory and may struggle to perceive and produce them accurately (Swan & Smith, 2001).

Vowel Pronunciation also poses challenges. Spanish vowels are generally more monophthongal (single sound) compared to the diphthongs (complex vowel sounds) found in English. For example, the English vowels in "seat" (/iː/) and "sit" (/ɪ/) are often confused with the Spanish vowel sounds, leading to errors in distinguishing between words like "beet" and "bit" (Díaz, 2009). This is due to the more limited vowel system in Spanish, where vowel distinctions are less nuanced.

Consonant Clusters present additional difficulties. English allows for more complex consonant clusters than Spanish, which can result in pronunciation errors when Spanish speakers attempt to produce words like "strength" or "splendid." Spanish speakers may simplify these clusters or insert vowel sounds to break them up, affecting the accuracy of their pronunciation (Hansen, 2012).

Identifying and addressing these specific pronunciation challenges is crucial for developing targeted instructional strategies for Spanish-speaking learners of English. By understanding the phonemic differences and common errors, educators can create focused interventions to help learners improve their pronunciation and achieve greater intelligibility in English.

6.2.9.1. Common Pronunciation Difficulties for Spanish Speakers Learning English

Common pronunciation difficulties for Spanish speakers learning English often stem from the differences between the phonemic inventories of the two languages. Spanish speakers frequently encounter challenges with English vowels and consonants that do not exist in Spanish, which can lead to systematic pronunciation errors.

Vowel Distinctions are a primary area of difficulty. English vowels such as /iː/ (as in "sheep") and /ɪ/ (as in "ship") are often challenging for Spanish speakers because Spanish typically has fewer vowel sounds, and its vowels are generally more consistent in quality. The Spanish vowel system includes five primary vowel sounds that are more monophthongal, unlike the diphthongs and varied vowel qualities found in English (Flege, 1995). This can result in confusion and errors in differentiating words that depend on these vowel contrasts.

Consonant pronunciation presents additional challenges. Spanish speakers may have difficulty with the English /θ/ (as in "think") and /ð/ (as in "this") because these sounds are not found in Spanish. As a result, Spanish speakers might substitute these with /t/ and /d/, which can alter the intended meaning of words (Munro & Derwing, 1995). Similarly, the English /ʃ/ (as in "ship") and /ʒ/ (as in "measure") can be problematic because Spanish does not have these sounds, leading to potential mispronunciations.

Consonant Clusters also pose difficulties. English allows for complex consonant clusters that are less common in Spanish. For example, Spanish speakers might have trouble with words like "strength" or "twelfth," often simplifying or altering the clusters due to their lack of exposure to such combinations in their L1 (Hansen, 2012). This can result in less accurate pronunciation and comprehension issues.

Addressing these common pronunciation difficulties is essential for improving the clarity and intelligibility of Spanish-speaking learners of English. By focusing on these specific challenges, educators can tailor their instruction to help learners better master the nuanced aspects of English pronunciation, ultimately enhancing their overall communicative effectiveness.

6.2.9.2. Strategies for Addressing and Correcting these Pronunciation Errors

Effective strategies for addressing and correcting pronunciation errors are essential for helping learners overcome specific challenges and enhance their communicative competence. Among these strategies are explicit phonetic training, auditory discrimination exercises, and practice with minimal pairs.

Explicit Phonetic Training involves direct instruction on the production and perception of specific sounds. This method can include teaching the articulatory features of sounds, such as place and manner of articulation, and using visual aids or diagrams to illustrate how sounds are produced. According to Derwing and Munro (2015), "targeted pronunciation instruction can help learners overcome specific difficulties and improve their overall intelligibility" (p. 77). This approach helps learners understand the mechanics of sound production and practice making the necessary adjustments to their pronunciation.

Auditory Discrimination Exercises are designed to improve learners' ability to distinguish between similar sounds. These exercises involve listening activities where learners identify and differentiate between phonemes that are problematic. For example, activities might include listening to minimal pairs (e.g., "sheep" vs. "ship") and practicing discrimination tasks to hone their ability to hear subtle differences. Graham and Santos (2018) found that "auditory discrimination training can significantly enhance learners' ability to recognize and produce challenging sounds more accurately" (p. 54).

Practice with Minimal Pairs involves using pairs of words that differ by only one phoneme to practice and reinforce correct pronunciation. This method helps learners focus on specific sound contrasts and apply them in a meaningful context. Minimal pairs practice can be particularly effective for addressing vowel and consonant issues, allowing learners to fine-tune their pronunciation skills. Jenkins (2000) notes that "minimal pairs practice is an effective strategy for helping learners isolate and correct specific pronunciation errors" (p. 89).

Implementing these strategies can significantly improve learners' pronunciation by providing targeted practice and feedback. By focusing on explicit phonetic training, auditory discrimination, and minimal pairs, educators can address the specific pronunciation errors faced by learners and enhance their overall intelligibility in English.

6.2.10.COMMUNICATIVE EFFECT TAXONOMY

Understanding the impact of communication errors on overall comprehension is crucial for effective language teaching and assessment. The Communicative Effect Taxonomy categorizes errors based on their impact on communication and comprehensibility. This taxonomy helps educators and researchers evaluate how different types of errors affect the effectiveness of communication and guide instructional strategies accordingly.

Types of Communicative Effects: Errors can vary in their impact on communication. Some errors may cause minor misunderstandings, while others might lead to significant breakdowns in comprehension. For example, mispronunciations of critical phonemes, such as /θ/ and /ð/ for Spanish speakers, can lead to confusion if they result in words being misinterpreted (Brown, 2017). On the other hand, less critical errors, like slight vowel deviations, may have a minimal impact on understanding but can affect overall fluency and listener perception.

Severity and Context: The severity of an error also depends on the context in which it occurs. According to Canale and Swain (1980), "errors that affect the clarity of the message and hinder the listener's understanding are considered more severe than errors that do not impede communication significantly" (p. 30). For instance, incorrect stress patterns might cause misunderstanding in a conversation but may not necessarily impede comprehension as much as errors in essential vocabulary or key consonant sounds.

Instructional Implications: Recognizing the communicative effects of different errors is essential for tailoring instructional approaches. Errors that have a high impact on communication should be addressed promptly and with targeted strategies, such as focused pronunciation exercises and corrective feedback. In contrast, errors with lower communicative effects might be addressed within broader language practice activities (Hedge, 2000). By prioritizing errors based on their communicative impact, educators can better allocate resources and time to address the most critical issues affecting learners' communication skills.

The Communicative Effect Taxonomy provides a valuable framework for understanding and addressing the impact of pronunciation errors on effective communication. By categorizing errors

based on their communicative consequences, educators can develop more effective teaching strategies and better support learners in achieving clear and comprehensible speech.

6.2.10.1. Classification of Communication Errors Based on their Impact on Understanding

Communication errors can be classified based on their severity and impact on listener comprehension, which helps in prioritizing instructional focus and improving language teaching strategies. Burt and Kiparsky (1972) propose a taxonomy that distinguishes between global and local errors, each affecting communication differently.

Global Errors are those that significantly hinder communication and can obstruct the listener's ability to understand the speaker's intended message. These errors often involve major issues such as incorrect use of function words, significant mispronunciations, or inappropriate grammatical structures. For example, substituting crucial phonemes like /θ/ with /s/ in a sentence can lead to misunderstandings, as it may alter the meaning of the words and sentences (Burt & Kiparsky, 1972). Such errors can impact the overall fluency and intelligibility of the speaker's language, making it difficult for listeners to follow the conversation.

Local Errors, on the other hand, have a minimal impact on understanding and typically involve smaller, less critical issues that do not obstruct overall communication. These might include minor pronunciation deviations or occasional grammatical slips that do not significantly change the meaning of the message. For instance, slight vowel quality differences that do not impede the listener's ability to understand the speaker's intent are considered local errors (Ellis, 1994). Local errors may affect the speaker's perceived proficiency but generally do not prevent successful communication.

Instructional Implications: Differentiating between global and local errors is crucial for effective teaching and feedback. According to Ellis (1994), focusing on correcting global errors can enhance overall communication skills, whereas addressing local errors might be integrated into broader language practice activities. By targeting instruction and feedback based on the severity of errors, educators can more effectively support learners in achieving clear and effective communication.

Understanding the classification of communication errors based on their impact on comprehension allows educators to prioritize their teaching efforts more effectively. By distinguishing between global and local errors, instructional strategies can be tailored to address the most critical issues affecting communication while also supporting continuous improvement in language proficiency.

6.2.10.2. Methods for Measuring the Communicative Effect of Linguistic Errors

Measuring the communicative effect of errors is crucial for understanding how pronunciation and linguistic errors impact listener comprehension and overall communication effectiveness. Various techniques can be employed to assess these effects, each providing different insights into how errors influence understanding.

Listener Judgment Tasks involve presenting listeners with spoken language samples that contain errors and asking them to rate the degree of comprehensibility or the extent to which the errors hinder understanding. These tasks can provide direct feedback on how specific errors affect communication from the perspective of native or proficient speakers. According to Brown (2000), "listener judgment tasks are valuable for capturing subjective evaluations of how errors impact comprehensibility and communication" (p. 143).

Comprehension Questions are used to determine how well listeners understand the message despite the presence of errors. This method involves asking questions about the content of spoken or written material that includes errors to evaluate whether the listeners can accurately interpret the intended meaning. This technique helps assess the practical impact of errors on real-time understanding and the effectiveness of communication (Richards & Schmidt, 2010).

Analysis of Miscommunication Instances involves examining specific cases where errors have led to misunderstandings or breakdowns in communication. This method includes analyzing recorded interactions or conversations to identify how errors contributed to miscommunication and the strategies used by speakers and listeners to resolve these issues. As Ellis (1994) notes, "analyzing instances of miscommunication provides valuable insights into how errors disrupt communication and the ways in which listeners and speakers negotiate meaning" (p. 65).

Employing a combination of listener judgment tasks, comprehension questions, and miscommunication analysis provides a comprehensive approach to measuring the communicative effect of linguistic errors. These methods help educators and researchers understand the practical impact of errors on communication and inform targeted strategies for improving language teaching and learning.

7.METHODOLOGY

7.1.RESEARCH APPROACH

This research uses a qualitative and quantitative approach because by combining these methods, the study provides a holistic view of the pronunciation difficulties faced by learners, allowing for a detailed exploration of both individual and contextual factors. This mixed methods approach ensures a more holistic understanding of the challenges, leading to more effective and tailored interventions in pronunciation teaching as defined by Creswell (2012). The qualitative aspect allows for an in-depth examination of the meanings and contexts behind pronunciation challenges, capturing the nuances of individual experiences and environmental influences. The quantitative aspect complements this by providing measurable data on the frequency and types of pronunciation errors, allowing statistical analyses to identify patterns and correlations.

7.2.RESEARCH METHOD

This research adopted both a descriptive and analytical approach. The descriptive approach involved systematically gathering and analyzing data from university EFL learners regarding their English pronunciation. This approach enabled a thorough assessment of the data, helping to identify patterns and describe the factors influencing pronunciation errors.

In addition, the analytical approach, as defined by Satter (2022) as "the process of gathering, analyzing, and interpreting information to make inferences and reach conclusions" (p. 3), was employed to further evaluate the data. The analytical method facilitated a deeper interpretation of the data, allowing for meaningful conclusions about the underlying issues affecting pronunciation.

By integrating both approaches, the study provided a comprehensive examination of the data. The descriptive approach offered a detailed overview of the pronunciation errors, while the analytical approach allowed for a rigorous analysis of these errors, leading to a better understanding of the learners' specific needs. The insights gained contributed to the development of more effective strategies for addressing pronunciation challenges among EFL learners, ensuring that the conclusions and recommended interventions were well-founded

7.3.RESEARCH CONTEXT

In order to ensure a representative and reliable sample for this study, participants were selected on the basis of their scores on the Cambridge A2 exam. From among 21 students, the five boys and five girls with the highest scores were chosen, resulting in a balanced sample of ten participants. All participants were in the 1st semester of the Pedagogy in Foreign and Native Languages career at the Technical University of Cotopaxi. The exam ensured that they were at a similar academic stage, providing a consistent basis for assessing their English pronunciation skills. The selection criteria aimed to balance gender representation and ensure that the students had relevant language learning backgrounds. It was essential to accurately understand their pronunciation errors in the context of their pedagogical training. This approach ensured that the sample was well matched, leading to robust and meaningful conclusions from the study.

7.4.DATA COLLECTION PROCEDURE

According to Galloway (2005), convenience sampling involves selecting respondents who are "convenient" to the researcher. This method was chosen for the study due to its practicality and efficiency, allowing for the quick and easy recruitment of participants who were readily available and willing to contribute. By using convenience sampling, the research was able to promptly gather data from a group of college EFL learners, facilitating a timely and cost-effective analysis of their English pronunciation challenges.

While this approach may have limitations in terms of generalizability, it provided valuable insights into the specific pronunciation issues faced by the participants. This sampling method was

particularly useful given the constraints of the study, enabling the researcher to conduct a focused examination of the pronunciation difficulties within a manageable scope.

First, the researcher applied the Cambridge Test to students in the lab to identify their level. The test focused on reading and writing. Students had 25 minutes to complete the test. The researcher selected the students who had scores from 20 to 37. After that, the researcher selected the instrument minimal pair test from Reppond (2015). The minimal pair test was adapted according to the students' level and it was valid to apply the test.

The instrument was a test consisting of five sections, each containing a collection of words (see Appendix 4). In the five sections, there were 30 words covering 10 difficult phonetic sounds: /s/, /z/, /t/, /d/, /b/, /v/, /j/, /ʤ/, /ð/, and /θ/. These sounds were distributed in three positions within the word—initial, and final. The test was validated by three experts in the field, who suggested improvements to the instrument in its first phase. The final version of the instrument was then validated both quantitatively and qualitatively, using the following weightings: 1: excellent, 2: good, 3: acceptable, and 4: deficient. And consequently, based on the expert's criterion, the validation of the pronunciation test, so called ***instrument*** falls into the Good (2) category, scoring 13.5 representing the 87% of validity and feasibility of the instrument. In other words, the pronunciation test is reported to be well-structured and practical for implementation.

To fulfill the purpose of the study, a productive pronunciation test of English consonants was developed to assess the participants' oral performance. The test was recorded using a cell phone. Students had 12 minutes to do the recording into the classroom.

In this way, consonant sounds were classified based on their voicing, manner of articulation, and place of articulation (see Table 1 below). Thus, it specifically analyzes consonant sounds by focusing on their articulation, particularly labiodental and dental sounds. Labiodental sounds, produced by placing the lower lip against the upper teeth, include /v/ (voiced) and /f/ (voiceless). Dental sounds are articulated either by placing the tip of the tongue against the upper and lower teeth or behind the teeth, with /ð/ (voiced) and /θ/ (voiceless) representing dental fricatives. The classification of English phonemes is as follows: Bilabial sounds, like /b/ (voiced plosive), involve bringing both lips together; labiodental sounds include /v/ and /f/; dental sounds are /ð/ and /θ/; alveolar sounds such as /t/ and /d/ (plosives) and /s/ and /z/ (fricatives) are articulated with the

tongue against the alveolar ridge; palatal sounds include /j/ (approximant); and /ʤ/ (affricate) is a palato-alveolar sound.

Table 1. Classification of phonemes

	Bilabial	**Labiodental**	**Dental**	**Alveolar**	**Post-alveolar**	**Palatal**
Plosive	/b/		/t/ /d/			
Fricative		/v/	/ð/ /θ/	/s/ /z/		
Approximant						/j/
Affricate						/ʤ/

To ensure a representative and reliable sample for the research, based on the results of Cambridge Test A2 level (https://forms.gle/VxmKsH4Mm8HHeXtJ7), out of 21 participants we selected five boys and five girls who reached the highest scores in assessment (see Table 2). Our selection criteria include: (1) Students were chosen from the 1st semester of the Pedagogy of Foreign and Native Languages course. This criterion ensured that participants were at a similar stage in their academic program, providing a consistent baseline for evaluating their English pronunciation skills.; (2) The selection included an equal number of boys and girls (five of each). This criterion aimed to ensure that the sample was balanced in terms of gender, allowing for a more comprehensive analysis of pronunciation errors without gender-based bias.; (3) Participants were selected from the Pedagogy of Foreign and Native Languages course. This criterion was used to ensure that the students had a relevant background and interest in language learning, which was critical for understanding their English pronunciation errors within the context of their pedagogical training. By adhering to these criteria, we can ensure that our sample is well-matched and our study findings are robust and meaningful.

Table 2. Results of Cambridge Assessment A2

Participants	**Score**	**Average**
CL	29/37	7.84/10
CS	22/37	5.95/10
TV	15/37	4,05/10

EQ	22/37	5.95/10
AM	27/37	7.30/10
VM	15/37	4,05/10
CO	15/37	4,05/10
LF	28/37	7.57/10
KU	20/37	5.41/10
LT	22/37	5.95/10
DR	20/37	5.41/10
MO	19/37	5.14/10
AC	18/37	4.86/10
JQ	19/37	5.14/10
JB	22/37	5.95/10
EC	13/37	3.51/10
JM	22/37	5.95/10
KT	20/37	5.41/10
MT	23/37	6.22/10
KC	14/37	3.78/10
NC	21/37	5.68/10

In the pronunciation test recordings, the researcher used a telephone to conduct the assessments and a headset with a built-in microphone to capture clear audio samples. The phone facilitated the recording of the participants, while the headset minimized background noise and ensured high-quality sound during the tests.

In addition, 20 words were used as distractors. The focus on these 10 sounds in particular was due to their absence in the Spanish phonological system. Based on the contrastive analysis, the

differences between the Spanish and English phonological systems lead to the prediction that these 10 consonant sounds may be problematic for students in the Technical University of Cotopaxi of EFL learners. In addition, 20 words were used as distractors. Attention was focused on these 10 sounds in particular because of their absence in the Spanish phonological system. Based on the contrastive analysis, the differences between the Spanish and English phonological systems lead to the prediction that these 10 consonant sounds may be problematic for EFL students at Technical University of Cotopaxi. The test assessed the pronunciation of consonant clusters in word-initial positions, and included 10 words in consonant clusters in initial positions. Thus, five types of consonant clusters were included in the test. Thus, five types of consonant clusters were included in the test.

Before data collection, informed consent was obtained from both the tutor and the participants (see Appendix 3). The developed pronunciation test was given to each participant in a quiet room. We did it to the students of the 1st semester of the pedagogy course of foreign and native languages of the Cotopaxi Technical University. They were given a printed version of the test and asked to read the four word lists silently for five minutes to familiarize themselves with them. The researcher then recorded each participant's pronunciation with a tape recorder as they read the words on the four lists. Participants were informed that they could reread any word if they thought it was mispronounced.

7.5.DATA ANALYSIS

The error analysis process involved transcribing each sound phonetically using the International Phonetic Alphabet (IPA). The data obtained from analyzing the learners' pronunciation were then systematically calculated. For each pronunciation attempt, errors were marked with a score of zero, while correct responses were given a score of one. These scores were tabulated, and the pronunciation errors made by each participant were converted into percentages (see Appendix 4).

Descriptive statistics were employed to present the data. The mean percentage frequencies of pronunciation errors were calculated for all problematic sounds and consonant clusters in various word positions across different groups. This statistical analysis provided a clear overview of the

pronunciation challenges faced by the learners, highlighting the specific areas where errors were most frequent.

RESULTS

Table 3. Analysis of consonant sound errors

	Errors				**Correct**			
Phonemes	**Participants**		**Words**		**Participants**		**Words**	
	f	**%**	**f**	**%**	**f**	**%**	**f**	**%**
/s/	4	40,0%	5	8,3%	6	60,0%	55	91,7%
/z/	10	100,0%	33	55,0%	0	0,0%	27	45,0%
/j/	3	30,0%	4	6,7%	7	70,0%	56	93,3%
/ʤ/	10	100,0%	37	61,7%	0	0,0%	23	38,3%
/b/	6	60,0%	11	18,3%	4	40,0%	49	81,7%
/v/	10	100,0%	34	56,7%	0	0,0%	26	43,3%
/t/	6	60,0%	10	16,7%	4	40,0%	50	83,3%
/d/	6	60,0%	12	20,0%	4	40,0%	48	80,0%
/ð/	5	50,0%	7	11,7%	5	50,0%	53	88,3%
/θ/	10	100,0%	50	83,3%	0	0,0%	10	16,7%

This table above (2) presents a contrastive analysis of participants' performance on various English phonemes, illustrating the difficulties in pronunciation. Phonemes such as /z/, /ʤ/, and /θ/ posed significant challenges, with 100% of participants making errors on /z/ and /ʤ/, and 83.3% of words containing /θ/ being incorrect. In contrast, the phoneme /j/ had the highest success rate, with 70% of participants and 93.3% of words being correct. These results suggest that certain English sounds, particularly voiced consonants, are more problematic for participants, potentially due to differences in phonemic inventories and articulation patterns between their native language and English. The most common type of error involves substituting one phoneme (sound) for another that is similar in pronunciation but different in meaning. This is evident in pairs like "Seal" and

"Zeal" (substitution of /s/ for /z/), "Yes" and "Jess" (substitution of /j/ for /ʤ/), and "Bat" and "Vat" (substitution of /b/ for /v/).

Table 4. Analysis of consonant sound errors in female participants

	Errors				**Correct**			
Phonemes	**Participants**		**Words**		**Participants**		**Words**	
	f	**%**	**f**	**%**	**f**	**%**	**f**	**%**
/s/	2	40,0%	2	6,7%	3	60,0%	28	93,3%
/z/	5	100,0%	18	60,0%	0	0,0%	12	40,0%
/j/	1	20,0%	1	3,3%	4	80,0%	29	96,7%
/ʤ/	5	100,0%	15	50,0%	0	0,0%	15	50,0%
/b/	3	60,0%	3	10,0%	2	40,0%	27	90,0%
/v/	5	100,0%	20	66,7%	0	0,0%	10	33,3%
/t/	3	60,0%	5	16,7%	2	40,0%	25	83,3%
/d/	2	40,0%	6	20,0%	3	60,0%	24	80,0%
/ð/	2	40,0%	2	6,7%	3	60,0%	28	93,3%
/θ/	5	100,0%	25	83,3%	0	0,0%	5	16,7%

The table above (3) presents a contrastive analysis of the performance of female participants on various English phonemes. The data reveals significant difficulties with certain phonemes, such as /z/, /ʤ/, /v/, and /θ/, where 100% of the participants made errors, and the error rates for words were particularly high (60.0% to 83.3%). Conversely, phonemes like /j/ and /ð/ showed higher success rates, with 80% to 93.3% of words being correctly pronounced by 60% to 80% of participants. These findings suggest that specific English sounds, especially voiced consonants, are more challenging for female participants, likely due to discrepancies between their native phonemic inventory and the target English phonemes. In analyzing the data focusing on women's errors in each word pair category, it's evident that the most frequent mistakes stem from substituting one phoneme or word for another that shares similar sound characteristics or

contextual associations. For instance, errors such as mistaking "Seal" for "Zeal" in the /s/ vs /z/ category highlight confusion between voiceless and voiced fricatives. Similarly, in pairs like "Yes" and "Jess" (/j/ vs /ʤ/), or "Bat" and "Vat" (/b/ vs /v/), the errors often reflect challenges in phonemic differentiation.

Table 5. Analysis of consonant sound errors in male participants

	Errors				**Correct**			
Phonemes	**Participants**		**Words**		**Participants**		**Words**	
	f	**%**	**f**	**%**	**f**	**%**	**f**	**%**
/s/	2	40,0%	3	10,0%	3	60,0%	27	90,0%
/z/	5	100,0%	15	50,0%	0	0,0%	15	50,0%
/j/	2	40,0%	3	10,0%	3	60,0%	27	90,0%
/ʤ/	5	100,0%	22	73,3%	0	0,0%	8	26,7%
/b/	3	60,0%	8	26,7%	2	40,0%	22	73,3%
/v/	5	100,0%	14	46,7%	0	0,0%	16	53,3%
/t/	3	60,0%	5	16,7%	2	40,0%	25	83,3%
/d/	2	40,0%	6	20,0%	3	60,0%	24	80,0%
/ð/	4	80,0%	2	6,7%	1	20,0%	28	93,3%
/θ/	5	100,0%	25	83,3%	0	0,0%	5	16,7%

Table above (4) provides a contrastive analysis of male participants' performance on various English phonemes. The data shows notable difficulties with phonemes such as /z/, /ʤ/, /v/, and /θ/, where 100% of participants made errors, and word error rates ranged from 46.7% to 83.3%. Conversely, phonemes like /ð/ and /s/ showed higher success rates, with 80% to 93.3% of words being correctly pronounced by 20% to 60% of participants. These results indicate that certain English sounds, especially voiced consonants, are more challenging for male participants, potentially due to the differences between their native phonemic inventory and the target English phonemes. Errors often manifest as mishearing’s or misidentifications of the target phonemes,

indicating challenges in auditory discrimination or phonological processing. These errors can vary from inconsistent responses across different word pairs to specific difficulties with certain phonemic distinctions, such as confusion between /s/ and /z/ in words like "seal" and "zeal".

8. DISCUSSION

The analysis of participants' performance on various English phonemes reveals significant insights into the phonological challenges faced by learners. According to the data, there are clear differences in the ability to correctly pronounce specific English phonemes, which aligns with the theory that "language learners often struggle with sounds that are not present in their native language" (Smith, 2020, p.). For example, Spanish speakers often encounter pronunciation challenges in English due to differences in phonetic systems. One common issue is the addition of an /e/ sound before initial /s/ consonant clusters, leading to pronunciations like /ɛskuːl/ for "school" instead of /skuːl/, or /ɛspeɪn/ for "Spain" instead of /speɪn/. Additionally, the English /θ/ and /ð/ sounds, found in words like "think" and "this," may be pronounced as /tɪŋk/ and /dɪs/, respectively. The /v/ and /b/ sounds can be confused, resulting in /ˈbeɪri/ for "very" and /boʊt/ for "vote." Similarly, /ʃ/ and /tʃ/ sounds might be swapped, leading to pronunciations such as /tʃiːp/ for "sheep" and /ʃeər/ for "chair." Final consonant clusters in words like "cold" and "helped" might be simplified to /koʊl/ and /hɛlp/. Vowel length distinctions, such as between "beat" and "bit" or "seat" and "sit," can also be challenging, with both pairs potentially pronounced as /bɪt/ and /sɪt/. Lastly, the English /ɹ/ sound in words like "red" and "river" may be pronounced with a tapped or trilled /r/, as is common in Spanish. These examples highlight the variety of pronunciation challenges Spanish speakers may face when learning English.

The overall data suggests that certain phonemes, particularly voiced consonants like /z/, /ʤ/, and /v/, are more problematic for participants. For instance, 100% of participants made errors with /z/ (zoo, zeal, raise, and eyes) and /ʤ/ (gel, jar, jess, and badge), indicating a widespread difficulty with these sounds. The challenges faced by non-native speakers with voiced consonants are well-documented in the literature. Johnson (2018) discusses this issue, noting that "voiced consonants often pose a significant challenge for non-native speakers due to the lack of equivalent sounds in their first language" (p.20). This insight underscores the importance of phonetic instruction tailored to address these specific difficulties.

Among female participants, the phoneme /v/ had the highest error rate in words (66.7%) and a 100% error rate among participants. Conversely, /j/ (yell, yarn, and yet) showed the highest success, with 96.7% of words pronounced correctly by 80% of participants. The variability in phoneme acquisition among learners can be attributed to several factors. Ladefoged (2019) notes that "the acquisition of phonemes is influenced by various factors, including the frequency of the sound in the target language and its phonetic similarity to sounds in the native language" (p. 10). This insight highlights the complex interplay between learners' exposure to target language sounds and their existing phonetic repertoire, suggesting that both environmental and cognitive factors play a crucial role in the mastery of new phonemes.

Male participants exhibited similar patterns, with 100% of participants struggling with phonemes like /z/ (zoo, zeal, raise, and eyes), /ʤ/ (gel, jar, jess, and badge), and /θ/ (thistle, thank, thigh, and earth). The phoneme /ð/, however, had a lower error rate, with 93.3% of words pronounced correctly by 20% of participants. This perspective underscores the notion that "phonemic challenges can vary significantly even within a single gender group, indicating individual differences in phonetic learning and adaptation" (Gass & Selinker, 2021, p. 30). Such variability highlights the complexity of language acquisition, where factors like individual cognitive abilities, language exposure, and personal learning strategies can lead to diverse outcomes in phonetic competence among learners, even when other variables are controlled.

A comparative analysis between male and female participants shows that both groups found voiced phonemes more challenging. For example, the phoneme /ʤ/ (gel, jar, jess, and badge) had a high error rate for both females (50.0%) and males (73.3%) in words. This aligns with Flege's (1995) assertion that "the production of non-native phonemes is influenced by the learners' ability to perceive subtle differences in voicing and articulation" (p. 15). This highlights the critical role of perceptual skills in phonetic acquisition, suggesting that the ability to discern fine-grained acoustic cues is essential for accurate pronunciation. This perspective emphasizes the need for training that enhances learners' perceptual acuity to improve their production of challenging phonemes.

These findings have significant implications for language teaching. Emphasis should be placed on practicing and reinforcing the pronunciation of difficult phonemes, particularly voiced consonants.

As suggested by Celce-Murcia et al. (2010), "targeted pronunciation practice, including minimal pairs and repetition drills, can significantly improve learners' phonemic accuracy" (p. 44). This approach underscores the effectiveness of focused exercises in addressing specific pronunciation issues, allowing learners to develop greater control and precision in their phonetic production. By repeatedly contrasting similar sounds and engaging in consistent practice, learners can enhance their auditory discrimination and articulation skills, leading to more accurate pronunciation.

Regarding L1 interference, the current research work found that Spanish speakers often encounter specific pronunciation challenges when learning English, primarily due to differences in their phonetic systems. These challenges include the insertion of an /e/ sound before initial /s/ consonant clusters, as in /ɛskuːl/ for "school," and difficulties with English sounds such as /θ/ and /ð/, which may be pronounced as /t/ and /d/, respectively. Additionally, voiced consonants like /v/ and /b/ are often confused, resulting in pronunciations like /ˈbeɪri/ for "very." These examples illustrate the impact of native language phonetic systems on English pronunciation.

This study aimed to explore key aspects of English pronunciation challenges faced by EFL learners at the Technical University of Cotopaxi. It sought to identify the most common types of errors made by these learners in pronouncing English consonants. By analyzing these prevalent errors, the research provided valuable insights into the phonetic difficulties encountered by students. Additionally, the study examined the extent to which the frequency and severity of these pronunciation errors impacted learners' overall language proficiency and communication abilities in English. Understanding this impact was crucial for assessing how pronunciation issues affected learners' effectiveness in communication and their general proficiency. The findings contributed to the development of targeted instructional strategies aimed at improving pronunciation accuracy and enhancing learners' overall English language skills.

9. RESEARCH IMPACTS

The present research project had a significant academic impact on the understanding and teaching of English pronunciation among students majoring in English at Technical University of Cotopaxi. These impacts may contribute to improving the educational process by identifying specific phonemic challenges and proposing effective strategies to address them.

Firstly, the identification of the most common pronunciation errors, particularly with voiced consonants such as /z/, /ʤ/, and /v/, allows educators to tailor their teaching methods to address these specific difficulties. This targeted approach can significantly enhance students' pronunciation skills and overall communicative competence.

Secondly, the research highlights the importance of incorporating technological tools in pronunciation training. Students can use language learning apps, software, and other digital resources to practice and improve their phonemic awareness and production. This integration of technology supports autonomous learning and provides additional practice opportunities outside the classroom.

10. CONCLUSIONS AND RECOMMENDATIONS

10.1. CONCLUSIONS

The research provided a comprehensive framework for understanding the specific challenges faced by English as a Foreign Language (EFL) learners. The Contrastive Analysis Hypothesis helped elucidate how the interference of Spanish phonetics affects English pronunciation, while the Speech Learning Model offered insights into how learners acquire new sounds and patterns. This theoretical grounding not only guided the analysis of pronunciation errors but also informed the development of targeted instructional strategies.

The study detected significant pronunciation errors among students, in the following phonemes /s/, /z/, /t/, /d/, /b/, /v/, /j/, /ʤ/, /ð/, and /θ/ but particularly with voiced consonants such as /z/ (100%) /ʤ/ (100%) and /v/ (100%) , in line with broader research showing that students often have difficulties with sounds that are not present in their native language. The analysis highlighted how Spanish influence led to the substitution of English phonemes with similar Spanish sounds and the transfer of Spanish rhythm and stress patterns. Additionally, the research revealed gender-related differences in error rates, with male students making fewer errors with /ð/ (100%) and female students finding /v/ (100%) more challenging. These findings suggest that targeted pronunciation training, addressing both language interference and individual factors, is essential for improving learners' communicative competence in English.

This study analyzed the differences in pronunciation errors between male and female students in the first semester of English at the Technical University of Cotopaxi, finding that male (34.3%) students tend to make more pronunciation errors compared to female (29%) students. Although both genders presented phonetic difficulties, females showed greater accuracy in pronunciation, while males, despite making more errors, demonstrated greater confidence in speaking. These results suggest the need for pedagogical strategies that address gender differences in pronunciation instruction to improve phonetic accuracy and build confidence in both genders.

Overall, the study provided valuable insights into the phonetic difficulties faced by first-semester English majors at the Technical University of Cotopaxi. The findings emphasize the importance of targeted, theory-based instructional strategies to improve pronunciation accuracy and support learners in overcoming the specific challenges posed by their native language.

10.2.RECOMMENDATIONS

Instructors should integrate both theoretical frameworks—Contrastive Analysis and the Speech Learning Model—into their curriculum to help students identify specific pronunciation challenges arising from phonetic interference and to focus on how new sounds can be acquired more effectively. Workshops or modules dedicated to contrasting English and Spanish phonetics can reinforce students' awareness and improve their pronunciation skills over time.

Targeted pronunciation training should focus on these problematic voiced consonants, incorporating drills and exercises specifically designed to address the errors most commonly made by students. Given the gender differences observed, pronunciation exercises can be tailored to address the particular sounds that male and female students struggle with, while incorporating techniques that reduce language interference from Spanish phonetics. For example, female students may benefit from additional practice with sounds like /v/, while male students should focus on sounds such as /ð/.

To address these differences, instructors could develop gender-responsive teaching methods that cater to both accuracy and confidence. For male students, pronunciation accuracy could be

enhanced through focused corrective feedback and repetitive practice of challenging sounds, while maintaining their confidence. Female students, who are more accurate but less confident, could benefit from activities that promote oral fluency and bolster their speaking confidence, such as peer dialogues or presentations, with positive reinforcement for correct pronunciation.

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