

The Exploration of English Consonant: A Literature Review

Aisyah Rizqa Fitri Siregar

State Islamic University of North Sumatera

Email : aisyahrizqafitrisiregar@gmail.com

Yani Lubis

State Islamic University of North Sumatera

Email: yanilubis@uinsu.ac.id

Siti Juliaika

State Islamic University of North Sumatera

Email : julaika458@gmail.com

Abstract. *This research focuses on the study of English consonants. This research used literature review method to explore the English consonant such as the manner of articulation, the organs produced the consonant, and the benefit of learning English consonant. The results are, the first section explores the specific anatomical structures and organs within the vocal tract that play a role in producing consonant sounds. The second section examines the different ways in which airflow is obstructed or modified during consonant production, highlighting categories such as plosives, fricatives, affricates, nasals, and approximants. The third section investigates the various factors that influence consonant pronunciation, including phonetic, phonological, sociolinguistic, and individual factors, as well as the impact of language contact and second language acquisition. The final section discusses the advantages of learning English consonants, such as improved communication skills, enhanced listening comprehension, expanded vocabulary acquisition, and increased oral fluency. Overall, this research provides valuable insights into the study of English consonants, offering a comprehensive understanding of their production, variations, and implications for language instruction and speech pathology.*

Keywords: *English Consonant, Phonology*

INTRODUCTION

The production of consonants involves intricate coordination between the articulatory organs, such as the lips, tongue, teeth, and vocal cords. Understanding the precise articulatory gestures required to produce each consonant sound is crucial for accurately describing and transcribing spoken language (Handoko & Yohana, 2023). This section of the review will explore the physiological mechanisms involved in producing English consonants, highlighting the specific movements and positions of the vocal tract that result in the distinctive sounds of the English language.

English consonants can be classified based on various articulatory and acoustic characteristics. One common classification system is the manner of articulation, which categorizes consonants according to how airflow is obstructed or modified during production. Manners of articulation in English are plosives, fricatives, affricates, nasals, and approximants (Iqbal & Rahman, 2017).

Learning English consonants provides several advantages, namely students can improve communication skills, improve listening skills, improve vocabulary acquisition, and improve Oral Fluency. By learning English consonants, it will provide many advantages in improving English skills. This literature review aims to provide a comprehensive overview of English consonants, encompassing their production, classification, patterns, perception, and acquisition. By synthesizing the current body of knowledge, we strive to enhance our understanding of the phonetic intricacies of the English language. This review contributes to the broader field of linguistics, language teaching, and speech pathology, offering insights that can inform research, pedagogy, and clinical practice. Ultimately, a deeper comprehension of English consonants will empower individuals to communicate effectively and promote the advancement of language-related disciplines.

RESEARCH METHOD

This literature review employed a systematic approach to gather relevant scholarly works, research articles, and theoretical frameworks on English consonants. The research objectives were defined to provide a comprehensive overview of the current state of knowledge regarding English consonants. A literature search was conducted using multiple databases and appropriate keywords. Analysis and interpretation were conducted to identify the categories of the finding. The findings were then structured into a coherent narrative, supported by in-text citations and a comprehensive reference list.

FINDING AND DISCUSSION

1. Articulatory Organs Involved In Consonant Production

Articulatory organs involved in consonant production focuses on understanding the specific anatomical structures and organs within the vocal tract that play a role in producing consonant sounds in human speech. The production of consonants requires precise coordination and manipulation of these articulatory organs to create distinct and recognizable sounds.

The main articulatory organs involved in consonant production are (Akmajian et al., 2017):

- a. Lips: The lips are highly flexible and can be used to obstruct or modify airflow during speech production. They play a crucial role in producing labial consonants such as /p/, /b/, /m/, /f/, and /v/.
- b. Teeth: The upper and lower teeth can come into contact or create a narrow gap, influencing the airflow and sound production for specific consonants such as dental fricatives /θ/ and /ð/.
- c. Alveolar Ridge: The alveolar ridge is a small ridge behind the upper front teeth. It is involved in the production of alveolar consonants, including /t/, /d/, /n/, /s/, /z/, and /l/.
- d. Hard Palate: The hard palate is the bony part of the roof of the mouth. It contributes to the production of velar consonants such as /k/, /g/, and /ŋ/.
- e. Soft Palate (Velum): The soft palate, also known as the velum, is a flexible muscular structure located at the back of the roof of the mouth. It plays a crucial role in distinguishing between oral and nasal consonants. When the soft palate is raised, it blocks the airflow through the nasal cavity, allowing for the production of oral consonants. When the soft palate is lowered, it allows the airflow to pass through the nasal cavity, resulting in nasal consonants such as /m/, /n/, and /ŋ/.
- f. Tongue: The tongue is a versatile articulatory organ that can assume various positions within the oral cavity to produce different consonant sounds. It can make contact with different parts of the vocal tract, including the alveolar ridge, hard palate, and velum. The movements and positions of the tongue contribute to the production of consonants such as /t/, /d/, /s/, /z/, /ʃ/, /ʒ/, and many more.

- g. **Vocal Cords (Vocal Folds):** The vocal cords, located in the larynx, are responsible for producing voiced consonants. They vibrate when air passes through them, creating a buzzing or vibrating sound. Voiced consonants include /b/, /d/, /g/, /v/, /z/, /ʒ/, and others.

Understanding the specific roles and interactions of these articulatory organs is crucial for accurately describing and transcribing consonant sounds in various languages. Researchers and phoneticians study the movements and positions of these organs using techniques such as electromyography, acoustic analysis, and imaging technologies to gain insights into the complex coordination involved in consonant production.

2. Manner of articulation

Manner of articulation refers to the way in which airflow is obstructed or modified during the production of consonant sounds. It plays a significant role in distinguishing different consonant categories and understanding the phonetic characteristics of a language. Several manners of articulation exist, including plosives, fricatives, affricates, nasals, and approximants. It can be seen below (Reetz & Jongman, 2020):

- a. **Plosives:** Plosives, also known as stops, are consonants produced by a complete closure of the vocal tract followed by a sudden release of air. They include sounds such as /p/, /b/, /t/, /d/, /k/, and /g/. During the closure phase, no airflow is released, creating a build-up of air pressure. The release of the closure results in an audible burst of sound. The closure point can vary, such as bilabial (using both lips) for /p/ and /b/, or alveolar (using the tongue against the alveolar ridge) for /t/ and /d/.
- b. **Fricatives:** Fricatives are consonants produced by the narrow constriction of the vocal tract, creating turbulent airflow. Examples include /f/, /v/, /s/, /z/, /ʃ/, and /ʒ/. The airflow is partially obstructed, resulting in a continuous hissing or buzzing sound. Fricatives can be produced at different points of articulation, such as labiodental (/f/ and /v/), alveolar (/s/ and /z/), and postalveolar (/ʃ/ and /ʒ/).
- c. **Affricates:** Affricates are consonants that combine the characteristics of both plosives and fricatives. They start with a complete closure like a plosive and are followed by a slow release with friction like a fricative. Examples include /tʃ/ (as in "church") and /dʒ/ (as in "judge"). Affricates typically have a complex and distinct sound due to the combination of the two manners of articulation.

- d. **Nasals:** Nasals are consonants produced by completely closing the oral cavity while allowing air to pass through the nasal cavity. This results in sounds such as /m/, /n/, and /ŋ/. Nasals are produced by lowering the velum (soft palate), allowing the air to pass through the nose. Each nasal corresponds to a specific point of articulation, such as bilabial (/m/), alveolar (/n/), and velar (/ŋ/).
- e. **Approximants:** Approximants are consonants produced with a more open vocal tract, allowing the airflow to pass with minimal constriction. They include sounds such as /r/ and /l/. Approximants can be further categorized into liquids (e.g., /r/ and /l/) and glides (e.g., /j/ as in "yes" and /w/ as in "we"). Liquids involve a more relaxed tongue position, while glides involve a more pronounced movement of the articulatory organs.

3. Influences on Consonant Pronunciation

The topic of "Influences on consonant pronunciation" focuses on the various factors that affect the way consonant sounds are produced in a language. Consonant pronunciation can be influenced by a range of factors, including phonetic, phonological, sociolinguistic, and individual factors. Understanding these influences helps explain the variability observed in the pronunciation of consonant sounds.

- a. **Phonetic Factors:** Phonetic factors include the articulatory and acoustic properties of consonant sounds. The specific place of articulation, manner of articulation, and voicing characteristics of a consonant can vary across languages and dialects, leading to different pronunciations. Phonetic factors also encompass coarticulatory effects, where the pronunciation of a consonant is influenced by adjacent sounds, resulting in assimilation or coarticulation phenomena (Tabain, 2019).
- b. **Phonological Factors:** Phonological factors refer to the rules and patterns governing the distribution and behavior of consonants within a language. These rules dictate how consonant sounds interact with other sounds in different phonological environments. For example, English has a rule of final consonant devoicing, where voiced consonants become voiceless at the end of a word or syllable (Itô, 2018).

- c. **Sociolinguistic Factors:** Sociolinguistic factors encompass the social and cultural influences on consonant pronunciation. Variation in pronunciation can be observed based on regional dialects, social class, ethnic backgrounds, and individual speech communities. Different sociolinguistic groups may exhibit specific patterns of consonant pronunciation, leading to variation and distinct accents (Tanner et al., 2020).
- d. **Individual Factors:** Individual factors refer to the idiosyncratic differences in consonant pronunciation among speakers. These differences can arise due to factors such as age, gender, speech habits, and language learning background. Each individual has their own unique way of producing consonant sounds, influenced by their motor control abilities, speech development, and personal linguistic experiences (Edwards, 2017).
- e. **Language Contact and Second Language Acquisition:** Consonant pronunciation can also be influenced by language contact situations and second language acquisition. When individuals learn a new language or come into contact with a different linguistic community, they may transfer phonetic and phonological features from their native language to the target language. This can lead to accented pronunciations and the incorporation of sounds or sound patterns from the native language into the acquired language (Perkins & Zhang, 2022).

By considering these influences on consonant pronunciation, researchers gain a comprehensive understanding of the complex factors shaping the variability and diversity in the production of consonant sounds across languages and speakers.

4. Advantages of Learning English Consonants

Learning English consonants offers several benefits for language learners. Here are some key advantages:

- a. **Enhanced Communication Skills:** Consonants play a crucial role in conveying meaning and facilitating effective communication. By learning English consonants, learners can improve their ability to produce and understand the distinct sounds of the language. This leads to clearer and more accurate pronunciation, enabling learners to express themselves more confidently and be better understood by native English speakers.

- b. Improved Listening Comprehension: Developing proficiency in English consonants enhances listening comprehension skills. By recognizing and distinguishing different consonant sounds, learners can better understand spoken English, even in challenging contexts such as fast-paced conversations, accents, or variations in pronunciation. This skill is particularly important for effective communication in real-life situations, academic settings, and professional environments.
- c. Enhanced Vocabulary Acquisition: English consonants contribute significantly to the formation of words and word families. By mastering the pronunciation of consonant sounds, learners can accurately recognize and produce English words, facilitating vocabulary acquisition. This knowledge allows learners to expand their word recognition skills, comprehend written texts more effectively, and develop a richer vocabulary repertoire.
- d. Improved Oral Fluency: Learning English consonants supports the development of oral fluency. When learners have a solid grasp of consonant sounds, they can speak more fluidly and naturally, with fewer pauses and interruptions. Accurate pronunciation of consonants enables learners to produce connected speech and maintain a smooth rhythm, leading to improved overall fluency in spoken English.

Overall, learning English consonants provides learners with the necessary foundation to improve their communication skills, enhance listening comprehension, expand vocabulary, boost oral fluency, foster intercultural understanding, and contribute to personal, academic, and professional growth in English-speaking environments.

CONCLUSION

In conclusion, the discussion on articulatory organs involved in consonant production provides insights into the specific anatomical structures and organs within the vocal tract that are essential for producing consonant sounds. The understanding of these articulatory organs, such as the lips, teeth, alveolar ridge, hard palate, soft palate (velum), tongue, and vocal cords, helps describe and transcribe consonant sounds accurately.

The examination of manner of articulation reveals different ways in which airflow is obstructed or modified during consonant production. This includes plosives, fricatives, affricates, nasals, and approximants, each characterized by specific articulatory and

acoustic properties. Understanding the manner of articulation allows for the identification and differentiation of consonant categories and facilitates the study of phonetic and phonological characteristics of languages.

The influences on consonant pronunciation encompass a range of factors, including phonetic, phonological, sociolinguistic, and individual factors. These factors contribute to the observed variability in the pronunciation of consonant sounds. Phonetic factors involve articulatory and acoustic properties, while phonological factors refer to the rules and patterns governing consonant behavior within a language. Sociolinguistic factors relate to social and cultural influences, and individual factors account for idiosyncratic differences among speakers. Additionally, language contact and second language acquisition can influence consonant pronunciation.

REFERENCES

- Akmajian, A., Farmer, A. K., Bickmore, L., Demers, R. A., & Harnish, R. M. (2017). *Linguistics: An introduction to language and communication*. MIT Press.
- Edwards, J. G. H. (2017). *Pronunciation and individual differences*. Routledge.
- Handoko, H., & Yohana, N. (2023). Speech Production and Malocclusion: A Review. *JURNAL ARBITRER*, 10(1), 107–115.
- Iqbal, M., & Rahman, G. (2017). *A comparative study of Pashto and English consonants*.
- Itô, J. (2018). Syllable theory in prosodic phonology. *Routledge*, 10.
- Perkins, K., & Zhang, L. J. (2022). The effect of first language transfer on second language acquisition and learning: From contrastive analysis to contemporary neuroimaging. *RELC Journal*.
- Reetz, H., & Jongman, A. (2020). *Phonetics: Transcription, production, acoustics, and perception*. John Wiley & Sons.
- Tabain, M. (2019). *The phonetic properties of consonants*. In *The Routledge Handbook of Phonetics*. Routledge.
- Tanner, J., Sonderegger, M., Stuart-Smith, J., & Fruehwald, J. (2020). Toward “English” phonetics: Variability in the pre-consonantal voicing effect across English dialects and speakers. *Frontiers in Artificial Intelligence*, 3(38).