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A CONTRASTIVE ANALYSIS ON PHONOLOGICAL FEATURES OF ENGLISH AND VIETNAMESE CONSONANT SYSTEMS

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Abstract:

This research presents a comprehensive contrastive analysis of the phonological features characterizing the consonant systems of English and Vietnamese. Through systematic examination, the study addresses significant gaps in current phonological research, particularly focusing on the distinctive characteristics of consonants in both languages within connected speech patterns. The investigation employs a detailed analytical framework to examine three primary aspects: phoneme classification, articulatory mechanisms, and broader phonological processes that govern consonant behavior in both languages. The research methodology incorporates both qualitative and quantitative approaches to analyze the structural differences and similarities between these two phonological systems. The findings reveal substantial contrasts, notably in the English language's more extensive inventory of consonant phonemes, including a rich array of fricatives, affricates, and complex consonant clusters that are not present in Vietnamese. Furthermore, the study illuminates crucial differences in phonotactic constraints and assimilation patterns between the two languages. These findings contribute significantly to our theoretical understanding of cross-linguistic phonological features and offer valuable insights for language teaching, speech therapy, and comparative linguistics. The research also provides a foundation for future studies in phonological typology and second language acquisition, particularly in addressing pronunciation challenges faced by learners of either language

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PHÂN TÍCH ĐỐI CHIẾU VỀ ĐẶC ĐIỂM ÂM VỊ CỦA HỆ THỐNG PHỤ ÂM TIẾNG ANH VÀ TIẾNG VIỆT

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đặc điểm âm vị, âm vị phụ âm, Phân tích tương phản, cơ chế phát âm tiếp thu ngôn ngữ thứ hai

Tóm tắt

Nghiên cứu này trình bày đối chiếu toàn diện về các đặc điểm ngữ âm đặc trưng cho hệ thống phụ âm của tiếng Anh và tiếng Việt. Thông qua quá trình kiểm tra có hệ thống, nghiên cứu này giải quyết những khoảng trống đáng kể trong nghiên cứu ngữ âm hiện tại, đặc biệt tập trung vào các đặc điểm riêng biệt của phụ âm ở cả hai ngôn ngữ trong các mẫu giọng nói được kết nối. Cuộc điều tra sử dụng một khuôn khổ phân tích chi tiết để kiểm tra ba khía cạnh chính: phân loại âm vị, cơ chế phát âm và các quá trình ngữ âm rộng hơn chi phối hành vi phụ âm ở cả hai ngôn ngữ. Phương pháp nghiên cứu kết hợp cả các phương pháp định tính và định lượng để phân tích sự khác biệt về mặt cấu trúc và điểm tương đồng giữa hai hệ thống ngữ âm này. Các phát hiện cho thấy sự tương phản đáng kể, đáng chú ý là trong kho ngữ âm phụ âm rộng hơn của tiếng Anh, bao gồm một loạt các phụ âm xát, phụ âm tắc nghẽn và các cụm phụ âm phức tạp không có trong tiếng Việt. Hơn nữa, nghiên cứu này làm sáng tỏ những khác biệt quan trọng trong các ràng buộc ngữ âm và các mẫu đồng hóa giữa hai ngôn ngữ. Những phát hiện này đóng góp đáng kể vào sự hiểu biết lý thuyết của chúng ta về các đặc điểm ngữ âm liên ngôn ngữ và cung cấp những hiểu biết có giá trị cho việc giảng dạy ngôn ngữ, liệu pháp ngôn ngữ và ngôn ngữ học so sánh. Nghiên cứu này cũng cung cấp nền tảng cho các nghiên cứu trong tương lai về loại hình ngữ âm và việc tiếp thu ngôn ngữ thứ hai, đặc biệt là trong việc giải quyết những thách thức về phát âm mà người học cả hai ngôn ngữ gặp phải.

1. Introduction

The study of phonological contrasts between English and Vietnamese has gained increasing significance as English continues to grow as a global language and as Vietnam expands research in linguistics and phonology. In the international context, contrastive phonology has proven essential for understanding how language-specific features impact language structure, with researchers highlighting the importance of identifying phonological differences to classify language features and structures accurately (Lado, 1957; Ladefoged & Maddieson, 1996). Vietnam, with its unique linguistic landscape, presents an ideal context for studying English-Vietnamese contrasts, especially in pronunciation, given the inherent differences in the phonological systems of the two languages. These differences provide a rich basis for contrastive phonological research (Hoang, 2016; Le, 2018).

In recent years, phonologists and linguists both in Vietnam and internationally have concentrated on analyzing specific aspects of English and Vietnamese phonology to better understand their distinct structural features. The phonological contrasts, particularly within consonant systems, are notably complex and diverse. Research indicates that English encompasses a wide array of fricatives, affricates, and voiced-voiceless distinctions that are absent in Vietnamese phonology (Nguyen, 2021). Additionally, Vietnamese phonotactic constraints, especially concerning consonant clusters, impose limitations that do not exist in English. Examining these phonological differences enhances our understanding of each language's sound system, offering valuable insights into their unique structures and classifications.

The motivation for this research arises from the theoretical value of conducting a contrastive analysis to compare and classify the consonant systems of English and Vietnamese systematically. Despite the existing literature, there remain gaps in understanding how English and Vietnamese consonants differ at a phonological level, particularly in connected speech contexts. This study aims to address these gaps by conducting an in-depth contrastive analysis of the consonant systems in English and Vietnamese, focusing on phoneme classification, articulation, and broader phonological processes. Specifically, the study seeks to answer the following research questions:

1) What are the consonant phoneme systems in English, and how are they classified?

2) What are the consonant phoneme systems in Vietnamese, and how are they classified?

3) What are the main differences and similarities between the consonant phoneme systems of English and Vietnamese?

By addressing these questions, this study contributes to a theoretical understanding of phonological contrasts, offering a detailed classification of English and Vietnamese consonant systems and identifying critical structural differences and similarities.

The structure of this paper includes an Introduction with background and research questions, a Literature Review of key studies on English and Vietnamese phonology, a Methods section outlining the qualitative approach, Results highlighting key phonological differences and similarities, and a Conclusion and Discussion with theoretical contributions and future research directions.

2. Literature Review

The study of phonological differences between English and Vietnamese has significantly advanced, building on foundational international research into phonetic and phonological systems. Historically, contrastive analysis has been crucial for identifying language-specific phonological features and anticipating challenges

for second language learners. Historically, contrastive analysis has been an essential tool for identifying language-specific phonological features and predicting potential difficulties for second-language learners. Lado (1957), who established the contrastive analysis hypothesis, laid the groundwork for comparative phonology by suggesting that language structures could predict areas of difficulty for language learners. Ladefoged and Maddieson (1996) later expanded on these principles, offering a comprehensive categorization of the world's phonetic systems, including the diverse array of consonantal sounds that contribute to language-specific phonological distinctions. These studies emphasized the role of place and manner of articulation, voicing, and phonotactic constraints, which provide a theoretical framework for contrastive analysis in second language acquisition.

In recent studies, phonological theory has been used to illustrate practical applications in language education, especially for non-native speakers. According to Amblegin (2021), English's vast consonant inventory and variable phonotactic rules contribute to pronunciation difficulties. This study is relevant to Vietnamese learners because it highlights challenges such as inconsistent English consonant representation and variable pronunciation patterns that are radically different from Vietnamese pronunciation patterns. Further insight into these distinctions can also be found in Huyen's (2021) contrastive study between English and Vietnamese consonants. Huyen emphasizes that English possesses a wide range of fricatives, affricates, and aspirated sounds that do not exist in Vietnamese, such as /θ/ and /ʃ/.

In Vietnam, researchers have explored both the theoretical and practical aspects of phonological contrasts between English and Vietnamese. Notable studies by Hoang (2016) and Le (2018) have laid the groundwork for understanding these differences. Hoang (2016) discovered that, although English and Vietnamese share several consonant sounds, English exhibits a wider range of fricatives and affricates, which are largely absent in Vietnamese. Le (2018) similarly noted that the lack of voicing distinctions in Vietnamese phonology, in contrast to English, highlights significant differences, such as the use of voiceless stops instead of voiced stops. Additionally, Huyen (2021) emphasizes substantial differences in how consonants are structured within syllables in both languages, particularly in relation to consonant clusters. Unlike English, which permits complex clusters, Vietnamese phonotactic rules impose restrictions on these combinations, often leading to modifications like epenthesis or consonant reduction when producing English clusters (Nguyen, 2021).

While previous studies have made valuable contributions, there remain theoretical gaps in the understanding of consonantal contrasts between English and Vietnamese. Most existing research focuses predominantly on isolated articulatory differences without thoroughly addressing phonological processes like assimilation, elision, or reduction in connected speech. These processes are essential for understanding the natural use of language and provide a deeper insight into the phonological structures of both languages. Current research has yet to comprehensively examine these connected speech processes, which are crucial for a full contrastive analysis of the consonant systems in English and Vietnamese.

Given these gaps, this study aims to provide a more in-depth analysis of the consonant systems in English and Vietnamese, focusing on both the individual phonemes and the broader phonological processes that shape natural speech. By examining these contrasts within the context of connected speech, the research seeks to offer a more comprehensive understanding of the phonological differences between the two languages. This approach addresses the limitations of previous studies and contributes new insights into the distinct features of the English and Vietnamese consonant systems.

3. Methods

This study employs a qualitative, theoretical approach to analyze the consonant systems within the phonological frameworks of English and Vietnamese. The research method focuses on a systematic, contrastive analysis of phonological features, particularly examining consonants' place and manner of articulation, voicing, and classification. This method was selected for its efficiency in recognizing and classifying phonetic differences without needing experimental data or surveys from learners. This approach fits the study's goal of exploring structural phonological variations rather than focusing on learner performance.

The qualitative, theory-driven approach has clear advantages over experimental or survey-based methods, as it provides a thorough and detailed insight into the inherent structures of consonant systems in both languages. By relying on established phonological data from authoritative linguistic sources, this method ensures a precise comparison, avoiding the variability often introduced by learner-based studies. This approach allows us to focus on the core phonological patterns that define these languages, rather than individual pronunciation variations.

Data collection involved synthesizing phonological features from linguistic resources specific to each language's phonetic inventory. This study applied a descriptive method in forming phonemic classes of consonants based on systematic articulatory properties in English and Vietnamese respectively. These phonetic categories were then examined to identify distinctive contrasts, such as those in voicing, consonant clusters, and the presence or absence of certain phonemes. This level of detailed classification enables a close analysis of the consonantal differences between English and Vietnamese at a level where another researcher could replicate this contrastive analysis for the sake of comparative linguistics.

4. Results

This section presents the detailed results of the study, answering the research questions and providing an in-depth analysis of the consonant systems in both English and Vietnamese. The analysis focuses on the classification of consonant phonemes, articulation, phonotactic constraints, and phonological processes in both languages.

4.1 Consonant Phoneme Systems in English

The consonant system in English is rich and diverse, comprising a total of 24 consonant sounds. These sounds can be classified into stops, fricatives, affricates, nasals, liquids, and glides. Several key features define the English consonant system:

	MANNER	VOICING	PLACE						
			Bilabial	Labiodental	Interdental	Alveolar	Palatal	Velar	Glottal
Obstruent	Stop	Voiceless	p			t		k	ʔ
		Voiced	b			d		g	
	Fricative	Voiceless		f	θ	s	ʃ		h
		Voiced		v	ð	z	ʒ		
	Affricate	Voiceless					tʃ		
		Voiced					dʒ		
Sonorant	Nasal	Voiced	m			n		ŋ	
	Liquid: Lateral	Voiced				l			
	Liquid: Rhotic	Voiced					r (ɹ)		
	Glide	Voiced	w				j	(w)	

English consonants (Source: Michigan State University)

4.1.1.Voicing and Distinctions

English features a broad range of voiced and voiceless consonants, particularly in stops and fricatives. For example, /b/-/p/, /d/-/t/, /g/-/k/, and /z/-/s/ represent voiced and voiceless distinctions that are crucial in distinguishing meaning between words. This voicing contrast is present across a variety of consonant types, including fricatives, where both voiced and voiceless pairs like /θ/-/ð/ and /ʃ/-/z/ occur (Roach, 2012; Yule, 2014).

/b/ and /p/: In English, the contrast between voiced /b/ and voiceless /p/ is important in distinguishing meaning. For example, *bat* (/bæt/) has a voiced /b/, while *pat* (/pæt/) has a voiceless /p/ (Ladefoged & Maddieson, 1996). The difference is crucial for clarity, as substituting the sounds can change the word entirely.

/d/ and /t/: Similarly, the distinction between /d/ and /t/ can be observed in words like *dog* (/dɔg/) and *top* (/tɒp/), where /d/ is voiced and /t/ is voiceless, leading to different words with different meanings (Lado, 1957).

/g/ and /k/: In the pairs *go* (/goʊ/) and *cat* (/kæt/), /g/ is voiced, while /k/ is voiceless, further illustrating how voicing influences word meaning (Yule, 2014).

/z/ and /s/: The words *zoo* (/zuː/) and *see* (/siː/) show the difference between the voiced /z/ and the voiceless /s/, which impacts pronunciation and meaning (Hoang, 2016).

4.1.2. Fricatives and Affricates

English has a wider array of fricatives and affricates that contribute to its distinctive sound system. These include the dental fricatives /θ/ (voiceless) and /ð/ (voiced), as well as the palato-alveolar fricatives /ʃ/ (voiceless) and /ʒ/ (voiced), which are absent in Vietnamese.

Additionally, English includes affricates such as /ʧ/ (voiceless) and /ʤ/ (voiced), which further distinguish English from Vietnamese (Ladefoged & Maddieson, 1996; Roach, 2012).

/θ/ and /ð/: In English, the voiceless dental fricative /θ/ occurs in *think* (/θɪŋk/), while the voiced dental fricative /ð/ appears in *this* (/ðɪs/). The distinction between these two sounds is vital in differentiating words (Ladefoged & Maddieson, 1996).

/ʃ/ and /ʒ/: The voiceless palato-alveolar fricative /ʃ/ appears in *ship* (/ʃɪp/), whereas the voiced /ʒ/ occurs in *measure* (/ˈmɛʒər/). The contrast in voicing between /ʃ/ and /ʒ/ is important for distinguishing these two fricatives (Roach, 2012; Yule, 2014).

/ʧ/ and /ʤ/: In words like *church* (/ʧɜːrtʃ/) and *judge* (/ʤʌdʒ/), English includes the affricates

/ʧ/ and /ʤ/, which are absent in Vietnamese (Hoang, 2016). These affricates contribute to the distinctive phonological structure of English (Lado, 1957).

4.1.3. Consonant Clusters:

One of the most noticeable features of English is its extensive use of consonant clusters. These clusters can occur both at the beginning and end of syllables, with complex combinations of up to three consonants, as in words like “strength,” “twelfths,” and “texts.” These clusters are a distinctive feature of English phonology and significantly affect pronunciation.

4.2.Consonant Phoneme Systems in Vietnamese

The consonant system in Vietnamese is comparatively more limited, with only 18 consonant phonemes. These sounds are classified into stops, nasals, and fricatives, but the overall variety is smaller than that of English. Key characteristics of the Vietnamese consonant system include:

		Labial	Alveolar	Retroflex	palatal	Velar	Glottal
Stop	voiceless	*p* [p]	*t* [t]	*tr* [ʈʂ~ʈ]	*ch* [c~tɕ]	*c/k* [k]	
aspirated		*th* [tʰ]					
voiced	*b* [ɓ]	*đ* [d]		*d* [ɟ]			
Fricative	voiceless	*ph* [f]	*x* [s]	*s* [ʂ]		*kh* [x]	*h* [h]
voiced	*v* [v]	*gi* [z]	*r* [ʐ~ɹ]		*g/gh* [ɣ]		
Nasal		*m* [m]	*n* [n]		*nh* [ɲ]	*ng/ngh* [ŋ]	
Approximant		*u/o* [w]	*l* [l]		*y/i* [j]		

Vietnamese consonants (Source: Lac Viet Computing Corporation)

4.2.1.Voicing and Distinctions:

The consonant system in Vietnamese does not place as much emphasis on voicing contrasts as English does. While English distinguishes between voiced and voiceless pairs such as /b/-/p/,

/d/-/t/, and /g/-/k/, Vietnamese often depends more on aspiration and tonal variations rather than clear voicing differences. For instance, in English, the words "bat" (/bæt/) and "pat" (/pæt/) are differentiated by voicing, with /b/ being voiced and /p/ being voiceless. In contrast, Vietnamese terms like "ba" (/baː/, meaning "father") and "pa" (/paː/, found in borrowed words) do not rely on voicing but instead use aspiration or tone for distinction. The same subtlety exists between /d/ and /t/, as illustrated by "đi" (/diː/, meaning "to go") and "ti" (/tiː/, meaning "to sip"). This pattern continues with /g/ and /k/, as seen in "gà" (/gaː/, meaning "chicken") and "cá" (/kaː/, meaning "fish"), where voicing is not the primary distinguishing feature.

4.2.2.Fricatives and Affricates:

Vietnamese has a more limited inventory of fricatives and affricates compared to English. English includes a wider range of fricatives, such as dental fricatives /θ/ ("think") and /ð/ ("this"), and palato-alveolar fricatives /ʃ/ ("she") and /ʒ/ ("measure"), none of which exist in Vietnamese. Instead, Vietnamese primarily uses fricatives like /s/, /x/, and /h/. For instance, the word "xôi" (/soi/, meaning "sticky rice") utilizes one of the few fricatives in the language, while "hoa" (/hwaː/, meaning "flower") contains the /h/ sound. In terms of affricates, Vietnamese only features /ʈʂ/ as in "trả" (/ʈʂaː/, meaning "to return"), while English includes both /tʃ/ ("church") and /dʒ/ ("judge"). This limited set often results in substitutions or approximations when Vietnamese speakers encounter English sounds that are not present in their native phonological system.

4.2.3 Consonant Clusters:

Vietnamese phonotactic rules impose more restrictive constraints on consonant clusters than English. Most Vietnamese syllables are either open (ending in a vowel) or end with a single consonant, typically nasals or unreleased stops. Consequently, complex clusters, particularly at the beginning or end of words, are not permissible in Vietnamese. For instance, while English allows clusters such as /str/ in "street" and /lfθ/ in "twelfth," Vietnamese typically simplifies these structures through epenthesis or consonant reduction. This can result in approximations like "sờ-treet" (/səːtrit/) for "street" or "twelf" pronounced as /tʊˈwelf/. Additionally, common Vietnamese syllable structures, such as in "sách" (/saːk/, meaning "book") or "bác" (/baːk/, meaning "uncle"), usually follow a consonant-vowel(-consonant) pattern, contrasting sharply with English's more flexible syllable construction. This fundamental difference often leads to modifications when Vietnamese speakers attempt to pronounce English words with clusters.

4.3. Phonological Differences and Similarities between English and Vietnamese

The analysis reveals both significant differences and notable similarities between the consonant systems of English and Vietnamese.

4.3.1. Similarities

The consonant systems of English and Vietnamese have several key phonemes in common, which can aid in cross-linguistic phonetic transfer. Both languages feature basic stop consonants such as /b/, /d/, and /g/, along with nasals like /m/, /n/, and /ŋ/. These consonants are found in similar syllabic positions in both languages, resulting in minimal articulatory difficulties. For example, the bilabial stop /b/ occurs at the start of words like "bat" (/bæt/ in English) and "ba" (/baː/, meaning "father" in Vietnamese). Similarly, the nasal /m/ appears in words like "man" (/mæn/ in English) and "mẹ" (/mɛː/, meaning "mother" in Vietnamese).

Moreover, both languages include palatal sounds, although there are some differences in articulation. For instance, the Vietnamese retroflex affricate /ʈʂ/, as in "trời" (/ʈʂɤi/, meaning "sky"), shares certain phonetic characteristics with the English palato-alveolar fricative /ʃ/, found in "she" (/ʃiː/). While these sounds may sound similar, they are produced with different places and manners of articulation, which can affect how well speakers of one language understand the corresponding sound in the other.

4.3.2. Differences

Despite some phonetic overlap, English and Vietnamese exhibit distinct differences in their consonant systems, particularly in the areas of consonant clusters, fricatives, and voicing distinctions.

4.3.2.1.Consonant Clusters

A key phonological difference between English and Vietnamese is their approach to consonant clusters. English allows for complex consonant clusters in both the initial and final positions of syllables. For instance, the /str/ cluster in "strength" (/streŋkθ/) and the /lfθs/ cluster in "twelfths" (/twɛlfθs/) can consist of up to three consonants, making them an essential aspect of English phonotactics. In contrast, Vietnamese has stricter phonotactic rules, typically allowing only simple consonant structures. Vietnamese syllables are usually either open (ending with a vowel) or closed with a single consonant, such as /m/, /n/, /ŋ/, or /t/.

4.3.2.2. Fricatives and Affricates

The variety of fricatives and affricates in English is significantly greater than in Vietnamese. English includes dental fricatives like /θ/ (as in "think") and /ð/ (as in "this"), as well as palato-alveolar fricatives such as /ʃ/ (as in "shoe") and /ʒ/ (as in "measure"). These sounds do not exist in the Vietnamese phonetic system. As a result, Vietnamese speakers often substitute these English fricatives with the closest sounds available in their own language, leading to pronunciation mistakes. For instance, the English /θ/ is often replaced by /t/, so "think" may

be pronounced as /tɪŋk/, while /ʃ/ might be replaced by /s/, resulting in "ship" being pronounced as /sip/.

When it comes to affricates, Vietnamese primarily features the retroflex affricate /ʈʂ/ (as in "trời") and the palatalized affricate /tɕ/ (as in "chơi" /tɕɤi/, meaning "to play"). In contrast, English has the voiceless affricate /ʧ/ (as in "church") and the voiced affricate /ʤ/ (as in "judge"), neither of which has a direct equivalent in Vietnamese. This difference often results in substitutions, with Vietnamese speakers approximating /ʤ/ with /ʈʂ/, which can lead to confusion words like "judge" may be pronounced similarly to "church."

4.3.2.3.Voicing Distinctions

English places considerable importance on the contrast between voiced and voiceless consonants to convey meaning, especially with pairs such as /b/-/p/, /d/-/t/, and /g/-/k/. For example, "bat" (/bæt/) and "pat" (/pæt/) differ solely in their voicing. In contrast, Vietnamese does not utilize

voicing distinctions in the same manner. Instead, it distinguishes consonants primarily through tone and aspiration. Vietnamese stops, such as /p/, /t/, and /k/, are usually unaspirated and do not have a clear voicing distinction, which can complicate the pronunciation of English words that depend on voicing for meaning differentiation.

Consequently, Vietnamese speakers may find it challenging to maintain voicing contrasts in English, particularly at the end of words, which is not a characteristic of Vietnamese phonology. This can lead to mispronunciations, such as saying "bad" (/bæd/) as "bat" (/bæt/), due to the absence of a voiced /d/ sound in final positions. Similarly, words like "go" (/ɡəʊ/) might be pronounced as "co" (/kəʊ/), which affects overall intelligibility.

4.3.2.4. Hypothesis Testing

The hypothesis that the consonant systems of English and Vietnamese differ significantly in terms of phoneme inventory, articulation, and phonotactic constraints is strongly supported by the findings of this study. The research confirms that the two languages differ in the variety of consonant sounds they use, the articulation of these sounds, and the phonotactic rules governing syllable structure. These differences play a significant role in pronunciation challenges for Vietnamese learners of English. Additionally, the results provide a more nuanced understanding of the phonological contrasts, particularly in how these differences affect connected speech in both languages.

The findings also suggest that certain challenges faced by Vietnamese learners of English, such as difficulties with consonant clusters and the correct articulation of fricatives and affricates, are rooted in the structural differences between the two languages. These challenges are consistent with previous studies (Hoang, 2016; Le, 2018), further supporting the hypothesis that phonological contrasts are crucial factors in pronunciation errors.

5. Conclusion and Discussion

This study systematically contrasts the consonant systems of English and Vietnamese, shedding light on their phonological differences. The findings reveal that English has a broader range of consonant sounds, including fricatives, affricates, and complex consonant clusters, which do not exist in Vietnamese. These differences in consonant inventories are shaped by the distinct phonotactic constraints in both languages, with English allowing for more complex consonantal combinations, while Vietnamese imposes stricter limitations on these structures.

Furthermore, the study emphasizes the classification of consonant phonemes and their articulation, which contributes to the understanding of structural differences between English and Vietnamese. By analyzing phoneme classification, articulation, and phonological processes in connected speech, the research fills a gap in the existing literature that has often overlooked these dynamic processes in language use.

The results suggest that these contrasting phonological features are crucial in shaping the phonological systems of both languages. This research contributes to the theoretical field of contrastive phonology, offering valuable insights that could inform future studies in both linguistics and phonological research. Further exploration of other aspects, such as vowel systems or suprasegmental features, could complement this contrastive analysis and deepen our understanding of the phonological distinctions between English and Vietnamese.

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