



Challenges of Thai Learners in Pronouncing English Consonant Sounds

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ABSTRACT

The objective of this paper is to explicate the similarities and differences between Thai and English consonants and to compile the challenges faced by Thai learners in pronouncing consonants in various word positions and clusters. It also elucidates the difficulties encountered by Thai learners in mastering English consonant sounds. It identifies specific difficulties with initial fricatives (excluding /f/, /s/, /h/) and affricates. Difficulties in producing consonant clusters include replacing one consonant sound with another, omitting consonants, and inserting extra consonants. The problematic final consonant sounds are fricatives, affricates, and laterals due to the differences between the phonological systems of English and Thai. To enhance the pronunciation skills of Thai learners and address the challenges in pronouncing English consonants, emphasis should be placed on explicitly teaching these problematic sounds. Additionally, the factors contributing to these difficulties and potential strategies for addressing them are discussed. This paper also provides insights into effective approaches for improving the pronunciation skills of Thai learners to accurately articulate English consonants.

Keywords : English Consonant Sounds / Problems in Pronouncing English Consonants / English Consonant Clusters / English Pronunciation / Phonetic Transcriptions

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Introduction

English's status as the leading international language is evident in its critical role in global communication and access to vast knowledge, making it essential for education and professional growth. As Nakin and Inpin (2017) state, English is "the window to the world" (p.186), granting access to valuable information and resources. Proficiency in English not only enhances career prospects but also offers opportunities for higher income and professional development.

In a globalized world where English is a lingua franca, pronunciation is crucial for effective communication and opportunities in careers and academics. As Nakin and Inpin noted, "speaking skill in English is not just releasing words or sentences out" (2017, p.186). Pronunciation stands out as the foremost skill individuals notice when conversing in English. Good pronunciation ensures the message is understood, even with limited vocabulary. Those with strong pronunciation are more likely to communicate effectively, while those with poor pronunciation may struggle to be understood, leading to social isolation and limited opportunities. People are often judged by the way they speak, and "learners with poor pronunciation may be judged as incompetent, uneducated, or lacking in knowledge" (Pourhosein, 2012, p.96).

Definition of Pronunciation

Pronunciation does not only mean "an act of producing sounds of language" (Mohammed and Idris, 2020; p.193), but it is also "the production and perception of the significant sounds of a particular language in order to achieve meaning in contexts of language use" (Seidlhofer, 2001, p.56). In most cases, the interpretation of a sentence can be grasped based on its pronunciation (Harmer, 2001). As Morley observed, "pronunciation can no longer be ignored" (Morley, 1991, p.513). Moreover, "intelligible pronunciation is an essential component of communicative competence" (ibid, p.488). According to Burns and Claire, "pronunciation refers to the phonology of the language – or the meaningful perception and production of the sounds of that language and how they impact on the listener" (2003, p.5).

Features of English Pronunciation

The production of sounds in English consists of various features which are illustrated in Figure 1.

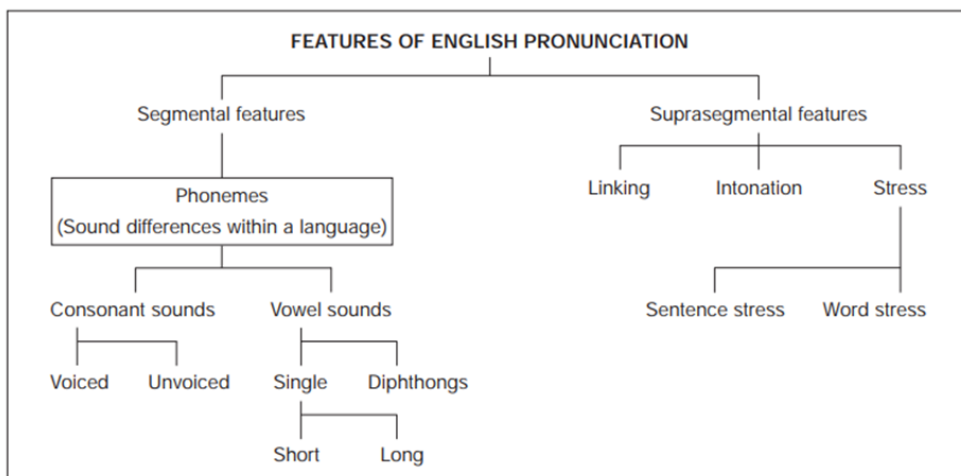


Figure 1 Features of English Pronunciation (Burns & Claire, 2003, p.6).

As can be seen from Figure 1, pronunciation involves features at both the segmental (micro) level and the suprasegmental (macro) level. The segmental level concerns individual sounds or phonemes details, while the suprasegmental level deals with the larger chunks of speech, such as whole words or phrases (Mohammed and Idris, 2020). The suprasegmental includes linking, intonation, and stress.

Segmental features refer to individual speech sounds, or segments, that make up words. These include consonants and vowels. Consonants are sounds produced with some obstruction in the vocal tract, while vowels are sounds produced with an open vocal tract. In English, the International Phonetic Alphabet (IPA) is used to represent consonants and vowels, for example, /p/, /b/, /t/, /d/, /k/, /g/ are consonants, while /i:/, /ɪ/, /eɪ/, /e/, /aɪ/ are vowels. Segmental features also include aspects like voicing, place of articulation, and manner of articulation of consonants, as well as tongue height, part of the tongue, and lip rounding of vowels.

Suprasegmental features, also known as prosodic features, are aspects of speech that extend over multiple segments or sounds. They include elements such as stress, linking, and intonation. Stress refers to the emphasis placed on certain syllables within words or on certain words within sentences. Intonation refers to the rise and fall of pitch patterns in speech, which can convey nuances of meaning, such as asking a question or expressing surprise. “Linking refers to the way the last sound of one word is joined to the first sound of the next word” (Burns and Claire, 2003, p.6).

Segmental features pertain to individual speech sounds, while suprasegmental features encompass aspects of speech that extend beyond individual sounds and contribute to the overall prosody and rhythm of spoken language. Both types of features are essential for understanding and pronouncing English effectively.

The International Phonetic Alphabet (IPA)

The International Phonetic Alphabet (IPA) is a valuable tool for language learners since each symbol in the IPA corresponds to a specific sound, making it easier to understand and produce correct pronunciation. IPA is an alphabetic system of phonetic notation that represents the sounds. Linguists and phoneticians use IPA to transcribe the sounds of any spoken language, regardless of its writing system. The IPA consists of a set of symbols, each representing a specific speech sound or phoneme. These symbols are based on the articulatory characteristics of the sounds, such as the position of the tongue, lips, and vocal cords during their production.

The IPA covers a wide range of sounds, including consonants, vowels, and suprasegmental features like stress and intonation. It includes symbols for sounds found in many languages around the world, as well as diacritics and modifiers to indicate variations in pronunciation, such as nasalization or aspiration.

For example, the English word ‘chat’ can be represented in IPA as /tʃæt/, which tells you exactly how to pronounce it. Learning the IPA symbols can significantly improve the pronunciation of a learner. Table 1 presents the IPA of English consonants and vowels.

Table 1 IPA of English consonants and vowels

Consonant	Example	Consonant	Example	Vowel	Example	Vowel	Example
/p/	paper	/ʃ/	shop	/i:/	tea	/eɪ/	gate
/b/	barber	/ʒ/	gendarme	/ɪ/	tip	/aɪ/	try
/t/	title	/h/	hill	/e/	get	/ɔɪ/	toy
/d/	doodle	/tʃ/	church	/æ/	fat	/əʊ/	tone
/k/	kick	/dʒ/	gene	/ʌ/	flood	/aʊ/	town
/g/	goggle	/m/	mime	/ɑ:/	far	/ɪə/	tear
/f/	fruitful	/n/	name	/ɒ/	fox	/eə/	fair
/v/	vivid	/ŋ/	wing	/ɔ:/	force	/ʊə/	tour
/s/	sensor	/l/	lily	/ʊ/	full		
/z/	zigzag	/w/	win	/u:/	food		
/θ/	<u>th</u> ird	/r/	rock	/ə/	<u>a</u> bout		
/ð/	<u>th</u> is	/j/	young	/ɜ:/	fur		

The Distinctions between Thai and English Consonant Sounds

Consonant sounds in both English and Thai are produced by obstructing or restricting the airflow in the vocal tract. The vocal tract plays a crucial role in speech production, comprising interconnected organs such as the larynx (voice box), pharynx (throat), oral cavity (mouth), and nasal cavity (nose). These structures work together to shape and modulate airflow from the lungs into audible speech sounds. The place of articulation, a crucial phonetic aspect, specifies where within the vocal tract a speech sound originates. It denotes the precise location where airflow is obstructed or restricted, leading to the formation of distinct speech sounds. The place of articulation (the articulators), along with the manner of articulation (the adjustment and regulation of airflow within the vocal tract) and voicing, is a fundamental aspect of phonetics used to classify and describe consonant sounds. While some consonant sounds involve the vibration of vocal cords (voiced sounds), others are voiceless due to the absence of vocal cord vibration.

In English, twenty-one letters are consonants, and there are twenty-four consonant sounds, while there are twenty-one consonant sounds in Thai. In English, fifteen consonant sounds are voiced, including /b/, /d/, /g/, /v/, /ð/, /z/, /ʒ/, /dʒ/, /m/, /n/, /ŋ/, /l/, /w/, /r/, and /j/ and the nine consonant sounds are voiceless, including /p/, /t/, /k/, /f/, /s/, /θ/, /h/, /ʃ/, and /tʃ/. Thai has a total of forty-four consonant letters, with its twenty-one consonant sounds categorized into twelve voiceless and nine voiced sounds. Tables 2 and 3 display all consonant sounds found in both English and Thai.

Table 2 English consonant sounds

Manner of articulation	Place of articulation															
	Bilabial		Labio dental		Dental		Alveolar		Post-alveolar		Palatal		Velar		Glottal	
	Vl ¹	Vd ²	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd
Plosive	/p/	/b/					/t/	/d/					/k/	/g/		
Nasal		/m/						/n/						/ŋ/		
Fricative			/f/	/v/	/θ/	/ð/	/s/	/z/	/ʃ/	/ʒ/					/h/	
Affricate									/tʃ/	/dʒ/						
Approximant		/w/								/r/		/j/				
Lateral Approximant								/l/								

Adapted from Roach, 2009, p.52

¹ voiceless sound

² voiced sound

Table 3 Thai consonant sounds

	Bilabial			Labio-dental	Alveolar			Post-alveolar	Palatal	Velar			Glottal
Plosive	/p/	/pʰ/	/b/		/t/	/tʰ/	/d/			/k/	/kʰ/		/ʔ/
	ป	พ ฟ ภ	บ		ฏ ต	ฐ ท	ด			ก	ข ฃ ค ฅ ฉ		อ
Nasal			/m/				/n/					/ŋ/	
			ม				ณ น					ง	
Fricative				/f/	/s/								/h/
				ฟ ฟ	ซ ส								ห ฮ
Affricate								/tʃ/	/tʃʰ/				
								จ	ฉ ช				
Trill						/r/							
						ร							
Approximant			/w/						/j/				
			ว						ย				
Lateral						/l/							
						ล ฬ							

Adapted from Naruemon, 2013, p.368

As can be seen from the tables above, some consonant sounds in English do not exist in Thai. These sounds include /g/, /v/, /θ/, /ð/, /z/, /ʃ/, /ʒ/, /tʃ/, and /dʒ/. However, some sounds are identical. The identical and different sounds are illustrated in Table 4.

Table 4 The identical and different consonant sounds in English and Thai

Identical consonant sounds in English and Thai		Consonant sounds that do not exist in Thai
English	Thai	
/p/	/p ^h /	/g/
/b/	/b/	/v/
/t/	/t ^h /	/θ/
/d/	/d/	/ð/
/k/	/k ^h /	/z/
/f/	/f/	/ʃ/
/s/	/s/	/ʒ/
/h/	/h/	/tʃ/
/m/	/m/	/dʒ/
/n/	/n/	
/ŋ/	/ŋ/	
/l/	/l/	
/w/	/w/	
/j/	/j/	

The /r/ sound in English differs from the /r/ sound in Thai. In English, /r/ is produced using the post-alveolar region and the blade of the tongue (post-alveolar), whereas in Thai, /r/ is produced using the alveolar ridge and the blade of the tongue. The /r/ in English is an approximant, where the articulators are brought close together without causing turbulence, while the /r/ in Thai is a trill, characterized by the rapid, repetitive vibration of one articulator against another.

/k/	/k ^h /	These two sounds are similar, but /k/ is voiceless, while /k ^h / is voiced.
/g/	/k/	These two sounds are similar, but /g/ is voiced, whereas /k/ is voiceless.
/tʃ/	/tɕ ^h /	These two sounds are similar, but /tɕ ^h / is aspirated.

English	Thai	
/dʒ/	/tɕ/	These two sounds are similar, but /dʒ/ is voiced, while /tɕ/ is voiceless.

Difficulties in Pronouncing Consonant Sounds

As mentioned above, the phonological systems between English and Thai are different. This tends to cause some difficulties for Thai learners. These difficulties are as follows:

1. Problematic pronunciation of consonants in the initial position

In English, there are 24 consonant sounds, but /ŋ/ is the only sound that cannot occur in the initial position. All consonant sounds in Thai can occur at the beginning of a word. In the following sections, the difficulties in pronouncing consonants in the initial position will be discussed.

Plosives

Thai learners have no difficulty in pronouncing a lateral and plosives in English (/p/, /b/, /t/, /d/, and /k/) except /g/ when it is the beginning of a word. In Thai, aspiration (releasing a small puff of air and using [ʰ] to show aspiration) plays a crucial role in distinguishing between various phonemes, while in English, the presence of aspiration signifies the allophonic distribution of a phoneme. Consequently, in English [pʰ] and [p] are the allophones of /p/, but /pʰ/ and /p/ in Thai are two different phonemes. These sounds in English and Thai are identical.

Table 5 Aspirated and unaspirated sounds

Aspirated sound		Unaspirated sound	
English	Thai	English	Thai
/pʰ/ paper /'peɪpə/	/pʰ/ /pʰu:tʰ/ (speak)	/p/ speak /spi:k/	/p/ /pla:/ (fish)
/tʰ/ team /ti:m/	/tʰ/ /tʰe:/ (pour)	/t/ stay /steɪ/	/t/ /ta:/ (eye)
/kʰ/ kind /kaɪnd/	/kʰ/ /kʰa:ŋ/ (chin)	/k/ scan /skæn/	/k/ /kɛ/ (sheep)

³ All Thai words in this paper are transcribed without tones.

Thai learners are prone to having difficulty pronouncing /g/ (the English-voiced velar plosive) in the initial position, as this sound does not exist in Thai. It is likely that the sound /g/ in English is substituted with the Thai /k/ which is voiceless (Kanokpermpoon, 2007).

Fricatives

According to Kanokpermpoon (2007), some English fricatives seem to be problematic sounds for Thai learners. Since there are nine fricative sounds including /f/, /v/, /θ/, /ð/, /s/, /z/, /ʃ/, /ʒ/, and /h/, These three fricative sounds /f/, /s/, and /h/ in the initial position are not problematic for Thai learners because they exist in Thai. /v/, /θ/, /ð/, /z/, /ʃ/, and /ʒ/ are difficult to pronounce since they are nonexistent in the Thai phonological system. Thai learners tend to replace /v/ with /w/ when this sound is in the initial position. Dentals in English are problematic for Thai learners because they are replaced by /t^h/ or /d/ (Makamthong & Hesmatantya, 2022; Wei & Zhou, 2002). For example,

Words	Correct pronunciation	Thai learners' pronunciation
think	/θɪŋk/	/t ^h ɪŋk/
three	/θriː/	/t ^h riː/
then	/ðen/	/den/

Some Thai learners cannot differentiate /z/ from /s/, so they pronounce /s/ instead of /z/. When /ʃ/ and /ʒ/ occur at the beginning of a word, Thai learners have fewer problems with the sounds of /ʃ/ at the initial position, while /ʒ/ imposes great challenges for them. They replace the sound /ʒ/ with the sound /dʒ/.

Words	Correct pronunciation	Thai learners' pronunciation
genre	/ˈʒɒnrə/	/dʒɒnrə/
gigolo	/ˈʒɪɡələʊ/	/ˈdʒɪɡələʊ/

Affricates

The two affricates in English are /tʃ/ and /dʒ/ which are similar to /tɕ^h/ and /tɕ/ in Thai. /tʃ/ in English is voiceless, but /tɕ^h/ in Thai is voiceless and aspirated, while /dʒ/ in English is voiced, but /tɕ/ is voiceless. Hence, “Thai aspirated affricate /tɕ^h/ is normally substituted for the English /tʃ/” (Ronakiat, 2002 cited in Kanokpermpoon, 2007, p.59). Thai learners replace the sound /dʒ/ with the Thai unaspirated affricate /tɕ/, creating a distinct contrast in voicing between the two sounds.

Nasals

Nasals are not problematic for Thai learners when they are at the beginning of a word. On the other hand, when /m/ and /n/ become syllabic (these consonant sounds act as a vowel /ə/), Thai learners face challenges in mastering this aspect because such a function does not exist in the Thai language. "They are pronounced without any vowel in pronunciation" (ibid, 2007, p.60).

Initial position

Syllabic

nerve /nɜ:v/ /'bʌtən/ ['bʌtn̩] (/n/ becomes a syllabic consonant.)

mime /maɪm/ /'bɒtəm/ ['bɒtm̩] (/m/ becomes a syllabic consonant.)

This symbol [̩] is called a diacritic, and it is used to show that a consonant is a syllabic consonant.

Approximants

There is no problem for Thai learners to pronounce approximants or semi-vowels correctly, as the two approximants (/w/ and /j/) in both English and Thai are the same. However, /r/ seems to impose some challenges for Thai learners in pronouncing it correctly. Sometimes /r/ is replaced by /l/. For example,

Words	Correct pronunciation	Mostly replaced
write	/raɪt/	/laɪt/ lite
wrong	/rɒŋ/	/lɒŋ/ long
rook	/rʊk/	/lʊk/ look
right	/raɪt/	/laɪt/ light
rhyme	/raɪm/	/laɪm/ lime

Additionally, the /r/ can be silent, as in the word 'iron' /'aɪən/, which can lead to mispronunciation by Thai learners. In British English, the /r/ sound is not pronounced at the end of a word or before a consonant, as in 'near' /nɪə/ and 'alarm' /ə'lɑ:m/. However, the /r/ is pronounced in these words in many other English accents (Roach, 2009).

In order to tackle the aforementioned problems, raising awareness of the distinctions between English and Thai consonant sounds, practicing with minimal pairs to differentiate similar sounds, and exposing learners to native speakers' accents, along with practicing imitation, can help reduce these issues."

When there are two or more consonants together, they form a consonant cluster (Roach, 2009). Comparing the characteristics of consonant clusters between English and Thai, it is evident that there is a big difference between English and Thai. In English, consonant clusters exist both at the beginning and end of words (CCV, CCCV, VCC, VCCC, and VCCCC), as in words like 'fly', 'strength', and 'attempts'. Thus, consonant clusters in English are more complex than those in Thai due to the structural complexity of syllables.

Initial consonant clusters

English has initial two-consonant clusters (CCV), initial three-consonant clusters (CCCV), and final consonant clusters. There is “the possibility of up to four consonants at the end of a word” (Roach, 2009, p.59). Two-consonant clusters are classified into two types. The first one is /s/ followed by one of the consonants and the other one is one of the consonants followed by /ʌ/. /r/, /w/, or /j/. The possibility of these combinations is illustrated in Tables 6, 7, and 8.

Table 6 Two-consonant clusters with pre-initial /s/

		English
/s/	/sp-/	/sp-/: sport, speak,
	/st-/	/st-/: start, stop
	/sk-/	/sk-/: scan, score
	/sf-/	/sf-/: sphere
	/sv-/	/sv-/: svelt
	/sm-/	/sm-/: smart, smell
	/sn-/	/sn-/: snore, snooze
	/sl-/	/sl-/: slow, sleep
	/sw-/	/sw-/: swim, sway
	/sj-/	/sj-/: suit, sue

In Thai the initial two-consonant clusters that start with /s/ do not exist. For example, ‘สว่าง’/sawa:ŋ/ (bright) and ‘เสนอ’/sanɔ:/ (present) are not the initial two-consonant clusters, as /s/ is followed by a vowel /a/. There is a tendency for Thai learners to insert /ə/ or /ʌ/ after /s/ when they pronounce this type of initial two-consonant clusters in English. /sj/ may be the most problematic for them owing to the non-existence of this combination

Table 7 Two-consonant clusters with post-initial /l, r, w, j/

	/p/	/t/	/k/	/b/	/d/	/g/	/f/	/v/
/l/	plus plumber	Tlingit	clay Klingon	block blabber	-	glad gland	flash floor	vlog Vladivostok
/r/	Press proud	trade translate	krill cry	broccoli branch	drag drift	grace grab	fresh friend	-
/w/	-	twitter twin	queen queasy	-	dwarf dwell	Gweilo	-	voyeur
/j/	pure puma	tuition tutor	cue cute	bureau beauty	due dual	-	future futile	view

Table 7 (Cont)

	/θ/	/ʃ/	/h/	/m/	/n/	/l/
/l/	-	-	-	-	-	-
/r/	throat through	shrinks shroud	-	-	-	-
/w/	thwart	-	-	Mwah /mwa:/	noir /nwa:(r)/	-
/j/	-	-	huge	music mute	nuance nutrition	lure

Adapted from (Roach, 2009)

In Thai, the second consonant sound can be /r/, /l/, and /w/. Thai people likely have a problem pronouncing the Thai consonants ‘ร’ /r/ and ‘ล’ /l/. They often substitute the sound /l/ for /r/ (Sangka, 2021). This could affect the pronunciation of /r/ in English, often replaced by the sound /l/. Furthermore, /l/, /r/, and /j/ are probably omitted. The following examples are a good illustration of the omission.

black	/blæk/	back	/bæk/
pray	/preɪ/	pay	/peɪ/
true	/tru:/	to	/tu:/

This is certainly true that the omission of /l/, /r/, and /j/ affects the meaning of a word. Among /l/, /r/, /w/, and /j/, the problem may occur when the /j/ sound serves as a secondary consonant cluster in British English (Nakin & Inpin, 2017).

Table 8 Initial three-consonant clusters

/s/	/p/	/ʌ/	splendid, splash, splay
	/r/		spray, spring, spread
	/w/		-
	/j/		spume, sputum
	/t/	/ʌ/	-
	/r/		stress, strong, strength
	/w/		-
	/j/		stupid, student, steward, stew
	/k/	/ʌ/	sclera, sclerosis
	/r/		script, scratch,
	/w/		squeeze, squiggle, squadron, squad, squid
	/j/		skewer

In Thai, consonant clusters consist of only two consonant sounds (CCVC) at the beginning of words, such as in words like ‘ปลา’ (/pla:/-fish), ‘พริก’ (p^hrik- chilli), and ‘กว้าง’ (/kwa:ng/-wide). Thus, these initial three-consonant clusters seem to be quite difficult for Thai learners to pronounce correctly. The most common types of consonant cluster modifications used by Thai learners are omission, substitution, and epenthesis (insertion) (Jenkins, 2000).

Final consonant clusters

Thai learners encounter more difficulties in pronouncing consonant clusters in English at the end of words than at the beginning. Two to four consonants can be together at the end of a word in English. In contrast, there are no final consonant clusters in Thai. Only a single consonant sound can occur in the final position. Thai learners may substitute Thai consonant cluster patterns for English ones. Previous studies have shown that Thai learners often employ deletion and substitution techniques to address issues with pronouncing consonant clusters (Le and Boonmoh, 2020; Panichkul, 2018; Patibat and Cochran, 1997). The deletion technique could be shown in this instance. Thai learners probably pronounce the word ‘nine’ /naɪn/ in English without /n/ at the end of a word which is similar to the pronunciation of the word ‘นาย’ (Mister) /nai/ in Thai. It seems possible that Thai learners simplify final clusters, often by omitting the final segment, though occasionally the first segment may also be dropped (Iadkert and Chantarangkul, 2023; Nakin and Inpin, 2017).

Clements (1992) also noted that speakers tend to delete the second consonant of the cluster while retaining the first. For instance,

Correct pronunciation	Mispronunciation
‘task’ /tɑːsk/	/tɑːs/, (The final /k/ is omitted.)
‘link’ /lɪŋk/	/lɪŋ/. (Pronounce it without /k/.)
‘cold’ /kəʊld/	/kəʊ/ or /kəʊ/. (Either /d/ or /ld/ is

deleted.)

These pronunciation adjustments are observed as strategies to cope with the complexity of English consonant clusters. (Iadkert and Chantarangkul. 2023; Le and Boonmoh, 2020; Panichkul, 2018).

Apart from the consonant cluster at the beginning and the end of a word, English also has consonant clusters in the middle of a word, and up to three consonants can be together such as ‘construct’ /kənˈstrʌkt/, ‘discipline’ /ˈdɪsɪplɪn/, ‘problem’ /ˈprɒbləm/, and ‘contusion’ /kənˈtjuːʒən/. Thai learners tend to drop the second or the third sound. Their pronunciation might be /kənˈstrʌkt/, /ˈdɪsɪplɪn/, /ˈprɒbləm/, and /kənˈtuːʒən/. In Thai two consonants can be together in the middle of a word such as ‘ครอบครัว’ /kʰrɔːbkʰruːa/ (family), and ‘เปลี่ยนแปลง’ /pliːanplɛːŋ/ (change). The second sound of the medial two-consonant clusters in Thai is /l/, /r/, or /w/, while in English most consonants can be together. However, Sangka (2021) points out that in Thai people often pronounce /r/ as /l/, do not pronounce the consonant clusters correctly, and mispronounce /kw/ and /kʰw/ as /f/. For example,

Correct pronunciation	Mispronunciation
‘รัก’ /raːk/ (love)	/laːk/ (Pronounce /r/ as /l/.)
‘ครอบครัว’ /kʰrɔːbkʰruːa/ (family)	/kʰɔːbkʰuːa/ (Do not pronounce /r/.)
‘ขว้าง’ /kʰwaːŋ/ (throw)	/faːŋ/ (Pronounce /kʰw/ as /f/.)

Thus, the pronunciation of the consonant clusters in the middle of a word in English appears to be ignored by Thai learners.

3. Problematic pronunciation of English final sounds

In English, twenty-one consonants can occur as final consonants, except /h/, /w/, and /j/, and each is pronounced. In contrast, in Thai, only eight consonant sounds can occur as final consonants, and they are not pronounced as they are in their initial forms. For instance, the word ‘kin’ in English is pronounced /kɪn/ (/n/ is also pronounced) while the letter

'น' /n/ in the word 'กิน' /kin/ is silent but serves as a spelling character. This distinction can cause problems for Thai learners when they pronounce the final sound in English. Final consonants in Thai are called 'Matra' System which consists of 1) Mae Kop or 'ป' /p/, 2) Mae Kot or 'ต' /t/, 3) Mae Kok or 'ก' /k/, 4) Mae Kom or 'ม' /m/, 5) Mae Kon or 'น' /n/, 6) Mae Kong or 'ง' /ŋ/, 7) Mae Koew or 'ว' /w/, and 8) Mae Koej or 'ย' /j/ (Noss, 1964 cited in Le and Boonmoh, 2020). Table 9 illustrates these eight sounds.

Table 9 Final consonants in Thai

	Bilabial		Alveolar		Palatal		Velar
Plosive	/p/ ป, ฝ, พ, ฟ, ฝ		/t/ จ, ช, ซ, ฅ, ฏ, ฐ, ฑ, ฒ, ฑ, ฒ, ฏ, ฐ, ฑ, ฒ, ฏ, ฐ, ฑ, ฒ		/k/ ก, ข, ค, ฆ		
Nasal		/m/ ม		/n/ ณ, ณ, น, ฌ, ฌ, ฌ			/ŋ/ ง
Approximant		/w/ ว				/j/ ย	

Adapted from (Naruemon, 2013, p. 369)

Previous studies have postulated that pronouncing the final sound in English is challenging for Thai learners (Kanokpermpoon, 2007; Makamthong & Hesmatantya, 2022; Nakin & Inpin, 2017). Kanokpermpoon (2007, p.59) concluded that "Thai speakers who learn English voiceless plosives in final syllable tend to pronounce the final plosives with inaudible release." Moreover, /b/, /d/, and /g/ pose difficulties for Thai learners when they appear in a final position, as these sounds cannot occur as final consonants in Thai phonology. Thai learners also face the biggest challenge of pronouncing fricatives and affricates in the final position. They are likely to replace these sounds with either other English consonants, their Thai final consonant equivalents, or omit them altogether (ibid.). For example,

Correct pronunciation

ridge /rɪdʒ/

teeth /ti:θ/

sing /sɪŋ/

Mispronunciation

/rɪd/ (/dʒ/ is replaced with /d/.)

/t^hi:t/ (replace with a Thai final)

/sɪŋ/ (/ŋ/ is omitted.)

Thai learners are prone to having difficulty pronouncing /ʌ/ in the final position, as /ʌ/ in the word ‘law’/lɔː/ is pronounced differently from that in ‘feel’ /fiːʌ/. /ʌ/ in the word ‘law’ is called clear /ʌ⁴ whereas /ʌ/ in ‘feel’ is called dark /ʌ⁵.

Conclusion

Making a comparison between Thai and English phonological systems and identifying problematic areas of Thai learners’ pronunciation can help predict the challenges that Thai learners might face when trying to learn how to pronounce specific sounds in English accurately. Some consonants in English demonstrate a range of phonological differences that make English distinct from Thai, making it harder for Thai learners to pronounce English consonant sounds correctly. Thai learners also face some challenges when they pronounce English consonant sounds which do not exist in Thai. They probably replace them with Thai consonant sounds. Additionally, omission, substitutions, or insertion are frequently used to tackle problematic sounds.

It is not essential to speak English like a native speaker, but intelligible pronunciation is required. It cannot be denied that learners’ mother tongue, less exposure to English, the distinction between English and Thai phonological systems and incomplete knowledge of the English sound system are likely to influence their pronunciation of English. However, raising learners’ awareness may help resolve the problems. The emphasis on the distinction between English and Thai, and not only introducing IPA transcriptions but also including them in English lessons, might minimize these problematic sounds.

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⁴ Clear /ʌ/ is produced by placing the tip of the tongue against the alveolar ridge.

⁵ Dark /ʌ/ is pronounced by raising the back of the tongue towards the soft palate or velum.
/ɰ/ is the phonetic symbol for this sound.

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