The Production and Perception for English Final Consonant Sounds of Thai Students

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Abstract

The objectives of this research were to analyze the production and perception for English final consonant sounds and to analyze the relationship between the production and perception for English final consonant sounds; fricative, affricate, and lateral sounds of Thai students. The samples of this research were 350 Suratthani Rajabhat University's students. 33 English words with fricative, affricate, and lateral final consonants were the instrumentation for data collection. The samples pronounced and perceived 33 English words. The production results showed that the samples pronounced English final consonants correctly less than 50 percent. The most correctly pronounced is the final consonant /s/ (47.4 percent) and the least correctly pronounced is the final consonant /ð/ (0.7 percent). The perception results showed that the samples perceived English final consonants correctly more than 50 percent. The most correctly perceived is the final consonant /z/ (95.4 percent) and the least correctly perceived is the final consonant /ð/ (53.4 percent). The result of the relationship between the production and perception for English final consonants' analyze showed that their relationship is an inverse relationship. The most Thai can perceive the English final consonants correctly but a few of them can pronounce the English final consonants correctly. They tend to use the variant of the English final consonants which appear in Thai consonant sound system. It indicated a phenomenon of interference and interlanguage.

Keywords: Pronunciation, Perception, English final consonants, Interference, Interlanguage

Introduction

English is an international language used by the world's population as a tool for communication. Nowadays, English is becoming increasingly important for Thai people when Thailand is one of the ten ASEAN Economic Community (AEC) countries. Onwimon (2011) stated that the working language of ASEAN shall be English. However, most Thais are still unsuccessful at learning English. One important problem that hinders learning English is language interference. Prasithrathsint (1989) defined that "interference" here refers to the speaker's mother tongue influencing the second language or a foreign language that the speaker learns later in life, making speakers of a second language unable to use that second language as well as native speakers, because they are interfered by their mother tongue. Thomason & Kaufman (1988) discussed about language interference that it often begins with sound and grammar interference first, while vocabulary interference is the last occurring phenomenon.

English and Thai are different in many ways, be it consonant, vowel, tone, accent, and sentence structure, etc. The influence of Thai as a native language is transferred to English as the target language, causing Thai learners to make mistakes while using English. The Royal Institute (2010) defined that the meaning of "error" refers to the use of spoken or written language of a second language learner or a foreign language learner that a native speaker or an expert of that language would see as defective or incomplete. Such errors can be classified as vocabulary errors, grammatical errors and pragmatic errors.

Corder (1967) noted that some foreign language learners' errors are similar to those found in native language learners, as both the former and the latter share a similar language learning process. That is, there are assumptions which are like trial and error, while learning a language. Therefore, that learners cannot form a grammatically correct sentence is not because the learners do not possess language ability, but rather they form sentences according to their own self-constructed assumptions. Selinker (1972) called the language of learners of a foreign language or a second language as an "interlanguage", which refers to the language that learners of a foreign language or a second language use while learning a new language. It is the language system that learners develop while learning a second language or a foreign language.

Many research studies, such as the research by Rongwiriyaphanich, H & Charunrochan, J. (2008), Atthaphonphiphat (2015) and Nimphaibule (1996) found that Thai learners tend to adopt some traits in Thai, which is mother tongue, to use in the target language, resulting in a negative transfer. The Royal Institute (2010) defined that a negative transfer is the adoption of some characteristics or rules in the mother tongue into in the second or target language, causing language errors or improper language variations.

This article is interested in studying the differences in the final consonant sound system between English and Thai, because Thai is a language with 9 final consonants that are /p, t, k, m, n, ŋ, j, w, ʔ/. The final consonants with plosive sounds are /p, t, k, ʔ/. The final consonants with nasal sounds are /m, n, ŋ/. And the final consonants with approximant sounds are /j, w/. In addition, some English final consonants do not appear in Thai. Such English final consonants are the ones with fricative sounds which are /f, v, θ, ð, s, z, ʃ, ʒ/, the ones with affricate sounds which are /tʃ, dʒ/ and the one with lateral sound which is /l/. Table 1 and 2 showed the English consonant sound system and Thai consonant sound system. The researcher used a solid color bar in the table 1 to show the English final consonant sounds that do not exist in Thai final consonant sound system.

Table 1
English consonant sound system)Adapted from Ladefoged, 2011)

Manner of Articulation	Place of Articulation							
	Bilabial	Labio-dental	Dental	Alveolar	Palato-alveolar	Palatal	Velar	Glottal
Plosive	p b			t d			k g	
Affricate					tʃ dʒ			
Fricative		f v	θ ð	s z	ʃ ʒ			h
Nasal	m			n			ŋ	
Lateral				l				
Approximant	w			ɹ		j		

Table 2
Thai consonant sound system (Adapted from L-Thongkum & Graduate Students, 2011)

Manner of Articulation	Place of Articulation					
	Bilabial	Labio-dental	Alveolar	Palatal	Velar	Glottal
Plosive	p b ph		t d th	c ch	k kh	ʔ
Fricative		f	s			h
Nasal	m		n		ŋ	
Trill			r			
Lateral			l			
Approximant	w			j		

Research Questions

1. Can Thai students pronounce and perceive English final consonant sounds which are not appear in Thai consonant sound system correctly?
2. What is the relationship between the production and perception for English final consonant sounds of Thai students?

Objectives

The objectives of this research were to analyze the production and perception for English final consonant sounds; fricative, affricate, and lateral sounds of Thai students and to analyze the relationship between the production and perception for English final consonant sounds of Thai students.

Methodology

This research collected pronunciation data of English final consonant sounds of 350 Thai undergraduate students who enrolled in English for Applications (GED1004) in the first semester of the academic year 2015 at Suratthani Rajabhat University. The tool used to collect the data from the sample group in this research was a list of English vocabulary with the final consonant sounds that are fricative (/f, v, θ, ð, s, z, ʃ, ʒ/), affricate (/tʃ, dʒ/) and lateral (/l/). The researcher has selected in total 11 English final consonant sounds, three words for each sound, so totaling 33

words, as shown in Table 3 used for analysis. However, Word lists used for data collection were shuffled and the researcher added 7 words with other English final consonant sounds which exist in Thai final consonant sound system such as lip, meet, back, name, rain, sing, and key for concealing the objectives of this research.

The researcher collected the production or pronunciation data of the English final consonant sounds from the verbal style used in reading the list of words given. That is, the sample students would read aloud all the vocabulary twice for the researcher to listen. The researcher would record the data on an English final consonant sound pronunciation form, and at the same time the researcher would use a voice recorder while all the sample students were pronouncing the words. The recorded sound files would be analyzed and determined whether the sample students could pronounce English final consonant sounds correctly or not, and if not, how they pronounced these consonants. For this, the researcher recorded the data in a room without any noise, thus making the information clear and reliable.

Table 3
Word lists used for analysis

English Final consonant sounds	No.	Word lists	
/f/	1	wife	/waɪf/
	2	beef	/bif/
	3	cuff	/kʌf/
/v/	4	five	/faɪv/
	5	cave	/keɪv/
	6	have	/hæv/
/θ/	7	path	/pæθ/
	8	both	/boʊθ/
	9	math	/mæθ/
/ð/	10	with	/wɪð/
	11	breathe	/brið/
	12	smooth	/smuð/
/s/	13	kiss	/kɪs/
	14	bus	/bʌs/
	15	nice	/naɪs/
/z/	16	rose	/roʊz/
	17	cheese	/tʃiz/
	18	quiz	/kwɪz/
/ʃ/	19	wash	/wɑʃ/
	20	cash	/kæʃ/
	21	fish	/fɪʃ/
/ʒ/	22	beige	/beɪʒ/
	23	rouge	/ruʒ/
	24	massage	/məsɑʒ/
/tʃ/	25	watch	/wɑtʃ/
	26	match	/mætʃ/
	27	beach	/bitʃ/

	28	age	/eɪdʒ/
/dʒ/	29	charge	/tʃɑrdʒ/
	30th	judge	/dʒʌdʒ/
	31	tool	/tul/
/l/	32	mile	/maɪl/
	33	roll	/roʊl/

In terms of collecting data of perception of English final consonant sounds, the tool used was 33 questions with multiple choices for the sample students to choose after listening to the list of English vocabulary with final consonant fricative, affricate and lateral sounds pronounced by an English native speaker. For example, for an English vocabulary with the final consonant fricative sound like "bus", the sample students must choose whether they hear a. "but" b. "bus" or c. "bud" and for an English vocabulary with the final consonant affricate sound like "watch", the sample students must choose whether they hear a. "what" b. "wash" or c. "watch". This is to determine whether the sample students can recognize English final consonant sounds that do not exist in Thai or not, and how so. For the data analysis, percentage was used for both production and perception.

Findings and Discussion

The results of the data analysis which used percentage for both production and perception showed that the sample students could pronounce the English final consonant sounds that do not appear in Thai correctly less than 50%. The final consonant sound /s/ was the final consonant sound of English language that the sample students could pronounce correctly the most (47.4%), while the final consonant /ð/ was the least (0.7%) as shown in Table 4. The frequency of variants in each English final consonant sounds were 1,050 owing to 350 sample students had to pronounce 3 words in each English final consonant sound.

The researcher analyzed that the fact that the sample students could pronounce /s/ correctly the most was probably because they are familiar with the final consonant sound /s/ more than the other English final consonant sounds, and because the final consonant sound /s/ is a voiceless alveolar fricative sound which appears in the Thai consonant sound system, too, only that in Thai it appears in the beginning. However, there are some transliterations, such as the word "gas", which has a final consonant sound /s/ appearing at the end of the syllable. Moreover, most of the sample students had studied English for many years since kindergarten, and the final consonant sound /s/ which represents plurality is regarded a basic pronunciation that students are always emphasized by their instructors. For the final consonant sound /ð/, which was the sound that the sample students could pronounced correctly the least, the researcher analyzed that this may be because of the fact that the consonant /ð/ is a voiced dental affricate sound and it was difficult for pronunciation among Thai student as in Thai language sound system, there is no consonant with such sound.

Table 4

Frequency of variants in English final consonant sounds production of Thai students

English final consonant sounds	Variants and Frequency of variants in English final consonant sounds production of Thai students																			Total
	[f]	[v]	[θ]	[ð]	[s]	[z]	[ʃ]	[ʒ]	[tʃ]	[dʒ]	[l]	[t]	[p]	[k]	[n]	[ŋ]	[w]	[d]	[ø]	
/f/	317	-	-	-	-	-	-	-	-	-	-	98	459	-	-	-	-	-	176	1050
/v/	302	42	-	-	-	-	-	-	-	-	-	58	431	-	-	-	-	-	217	1050
/θ/	-	-	16	-	-	-	-	-	-	-	-	1034	-	-	-	-	-	-	-	1050
/ð/	-	-	-	7	-	-	-	-	-	-	-	1043	-	-	-	-	-	-	-	1050
/s/	-	-	-	-	498	-	-	-	-	-	-	552	-	-	-	-	-	-	-	1050
/z/	-	-	-	-	-	239	-	-	-	-	-	539	-	-	-	-	-	272	-	1050
/ʃ/	-	-	-	-	-	-	216	-	-	-	-	834	-	-	-	-	-	-	-	1050
/ʒ/	-	-	-	-	-	-	-	14	-	-	-	966	-	-	-	-	-	70	-	1050
/tʃ/	-	-	-	-	-	-	-	-	316	-	-	726	-	-	-	-	-	-	8	1050
/dʒ/	-	-	-	-	-	-	-	-	-	21	-	864	-	45		106	-	-	14	1050
/l/	-	-	-	-	-	-	-	-	-	-	138	-	-	-	144	-	52	-	716	1050
Total	619	42	16	7	498	239	216	14	316	21	138	6714	890	45	144	106	52	342	1131	11550

Considering the table 4 that shows the variants and the appearance frequency of the consonant variants of the English final consonant sounds, we will find that the variants of the most common English final consonant was the [t], which appeared as the variant of the final consonant sound of every English sound, except for /l/.

The researcher analyzed that because the sample students could not correctly pronounce the English final consonant sounds that do not appear in Thai consonant sound system; they therefore pronounced other final consonant sounds as a substitute for those English words. The symbols [t,p,k,n,ŋ,w] are the final consonant sounds that appear in Thai consonant sound system, which was the mother tongue of the sample students, while the symbol [t] appeared the most frequently. From Table 4, we can see that the sample students pronounced /t/ as a substitute for /tʃ,dʒ/ which are affricate sounds, and /θ, ʒ, s, z/which are fricative sounds, except for /f/ and /v/ which were founded with the highest appearance frequency of [p]. The researcher analyzed that /f/ and /v/ are the sound with the place of articulation on the lips, which is the same position for /p/. When the sample students could not pronounce /f/ and /v/, the [p] was therefore found as the highest variant that appeared. The data analysis matches with the research studies of Leewamoh (2001), Roungtheera (2009) and Nimpaiboon (1996), which found that the cause of incorrect foreign language pronunciation was due to the influence of the mother tongue of the speaker. The final consonant sounds /t/ and /p/ were familiar by the sample students because they exist in Thai consonant sound system. Nevertheless, the variant [ø] was at the second highest frequency of appearance, showing that the second highest way the sample students used to produce a substitute sound, apart from substituting the final sounds /t/ and /p/ that exist in Thai consonant sound system into English words, was to omit or delete such English final consonant sounds. In other words, they did not pronounce them.

Table 5

Frequency of variants in English final consonant sounds perception of Thai students

English final consonant sounds	Variants and Frequency of variants in English final consonant sounds perception of Thai students																		Total
	[f]	**[v]**	**[θ]**	**[ð]**	**[s]**	**[z]**	**[ʃ]**	**[ʒ]**	**[tʃ]**	**[dʒ]**	**[l]**	**[t]**	**[p]**	**[n]**	**[ŋ]**	**[w]**	**[d]**	**[ø]**	
/f/	715	-	-	-	-	-	-	-	-	-	-	95	240	-	-	-	-	-	1050
/v/	-	705	-	-	-	-	-	-	-	-	-	120	225	-	-	-	-	-	1050
/θ/	-	-	578	-	-	-	-	-	-			472	-	-	-	-	-	-	1050
/ð/	-	-	-	561	-	-	-	-	-	-		489	-	-	-	-	-	-	1050
/s/	-	-	-	-	926	-	-	-	-	-	-	124	-	-	-	-	-	-	1050
/z/	-	-	-	-	-	1002	-	-	-	-	-	38	-	-	-	-	10	-	1050
/ʃ/	-	-	-	-	-	-	970	-	11	-	-	69	-	-	-	-	-	-	1050
/ʒ/	-	-	-	-	-	-	-	700	-	-	-	294	-	-	-	-	56	-	1050
/tʃ/	-	-	-	-	-	-	7	-	867	-	-	176	-	-	-	-	-	-	1050
/dʒ/	-	-	-	-	-	-	-	-	-	689	-	357	-	-	4	-	-	-	1050
/l/	-	-	-	-	-	-	-	-	-	-	626	-	-	227	-	143	-	54	1050
Total	**715**	**705**	**578**	**561**	**926**	**1002**	**977**	**700**	**878**	**689**	**626**	**2234**	**465**	**227**	**4**	**143**	**66**	**54**	**11550**

Considering Table 5, which shows the variations of all the variants resulting from the perception of English consonants of the sample Thai students, it was found that the variants of the consonants that appeared in substitution of the English final consonants were [t,p,n,ŋ,w,d,ø]. When comparing the frequency of the appearance with the final consonant sounds in English which are the fricative, the affricate and the lateral ones, it was found that, the sample students were capable of correctly recognizing all of the English final consonant sounds more than 50%. However, the appearance frequency rate of the variation of the other English final consonants was all due to the influence of Thai language as a mother tongue, and due to the familiarity of the sample students themselves as mentioned above.

This article concludes that majority of the sample students perceived the English final consonant sounds correctly more than 50%, but they could not pronounce the English final consonant sounds that do not exist in Thai language. That is to say the result of the relationship between the production and perception for English final consonants' analyze showed that their relationship is an inverse relationship. The most Thai can perceive the English final consonants correctly but a few of them can pronounce the English final consonants correctly. The variants appearing in the English final consonant pronunciation of the sample students were inclined to the mother tongue. It was a phenomenon that showed the interference of language and interlanguage. It might be concluded that a mother tongue has a huge influence on learning a foreign language or a second language. Each learner usually takes the form or the meaning in their mother tongue to their foreign or second language, so the instructor should focus on teaching the correct pronunciation in order for the learners to be able to pronounce, recognize, and interpret correctly, as it boosts the confidence of the learners' too.

Acknowledgements

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