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THESIS

THE ACQUISITION OF /r/-/l/ CONTRAST
BY NORTHERN THAI SPEAKING LEARNERS



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the Requirements of the Degree of
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This study aims to investigate the production of English /r/ and /l/ contrast in word-initial singletons by northern Thai speakers. Two hypotheses were formulated: (1) northern Thai speakers do not acquire English /r/ and /l/ contrast in word-initial singletons in any tasks and (2) the acquisition of English /r/ and /l/ contrast in word-initial singletons in less formal task implies the acquisition of English /r/ and /l/ contrast in word-initial singletons in more formal task. Ten non-English major undergraduate students studying at Chiangmai University were selected and asked to perform two tasks including the passage reading and the word list reading, respectively. The effect of different speech styles was also concerned when collecting the data.

The findings reveal that the data gathered from most northern Thai speakers in this study supports both hypotheses. With respect to the first hypothesis, it is valid by the production of most participants (80%). This can be explained by the effect of L1 transfer (Lado, 1957). Regarding the second hypothesis, the data obtained from all participants partially support this hypothesis; however, they do not really exhibit the implicational generalization.

Student's signature

Thesis Advisor's signature

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CHAPTER I

INTRODUCTION

This chapter provides an overview of this study. It begins with the statement of the problem followed by two research objectives. Next, the two hypotheses conforming to two research questions are presented. Then, the scope of the study, the significance of the study, and definitions of terms are provided respectively. Lastly, the organization of the study is described.

Statement of the Problem

Second Language Acquisition (SLA) is an interesting area in applied linguistics, which focuses on the process of learning a second language (L2) after acquiring the native language (NL). There are a number of aspects to consider in SLA including phonology, morphology, syntax, and semantics. However, L2 phonology is the primary area for this study. It attempts to describe the phonological patterns of L2 grammars produced by L2 learners. According to Lado (1957), it has been claimed that a first language (L1) always strongly influences the L2 in various ways. For example, if the phonological features between NL and target language (TL) are similar, the learners tend to transfer the similar phone in the NL into the TL. On the contrary, if the sounds in the two languages appear to be different, then this is going to be problematic for L2 learners to acquire the L2 sounds they are attempting to learn the TL.

Even though there are a number of studies examining the production of /r/ and /l/ by Thai speakers, they focused on the standard dialect only (Beebe, 1980; Chunsuvimol, 1993; Manoyen, 2011; Phootirat, 2012). In fact, Thai language has some regional dialects where /r/ does not exist in their phonological inventories. For instance, in the northern Thai, its speakers always use [l] or [h] instead of /r/ when they see the grapheme <ร> occurring in a word-initial singleton (Pankhuenkhat, 1982; Burutphakdee, 2004; Hatfield, 2005). Therefore, it is interesting to investigate the L2

data obtained from northern Thai speakers how they will pronounce the English liquids contrast when they learn English as a second language.

Besides the native dialect lacking the liquid^{*} contrast being mainly considered, the level of speech formality is another core in this study. According to Labov (1969) and Tarone (1979), it is known that the L2 production differs depending on their attention to the speech. In other words, in more formal settings, speakers have more awareness and; therefore, they tend to pronounce the standard form. On the other hand, in casual conversation, other deviant variants occur more frequently (Labov, 1969; Tarone, 1979).

Some studies investigating the L2 production of standard Thai speakers have taken the style-shifting into account (Beebe, 1980; Chunsuvimol, 1993; Phootirat, 2012); however, there are inconsistent results. The results obtained from Chunsuvimol (1993) and Phootirat (2012) supported the claim of Labov (1969) and Tarone (1979) that most participants pronounced the standard form in the TL in more formal context, while Beebe (1980) found different results. Her participants transferred the standard form in the NL when producing the L2 data in more formal context as well as created new variants which do not belong to the NL and TL. Therefore, it is additional interesting to look at the L2 liquid contrast produced by northern Thai speakers whether different speech styles will affect the L2 production of /r/ and /l/ contrast in English by northern Thai speakers.

* A liquid is a consonant produced when the tongue raises a point of articulation within the mouth the less obstruction of the airstream. There are two primary types of liquids, lateral /l/ where the air is directed toward the sides of the mouth, and rhotic /r/ where the flow of air is altered but still directed forward (Crystal, 2003).

Objectives of the Study

The two objectives of the study are as follows:

1. To examine the acquisition of English /r/ and /l/ contrast in word-initial singletons produced by northern Thai speakers across tasks.
2. To investigate the effect of different speech styles in the L2 production of English /r/ and /l/ contrast in word-initial singletons produced by northern Thai speakers.

Research Questions

The two research questions are established according to the objectives of the study as follows:

1. Do northern Thai speakers acquire English /r/ and /l/ contrast in word-initial singletons across tasks?
2. Do the tasks demonstrating the differences in speech styles have an impact on the acquisition of English /r/ and /l/ contrast in word-initial singletons?

Hypotheses

According to the research questions, there are two hypotheses formulated as follows:

1. Northern Thai speakers do not acquire English /r/ and /l/ contrast in word-initial singletons in any task.

Employing the 80% criterion of the acquisition pattern of the contrast (Eckman *et al.*, 2007), this claim will be supported when northern Thai speakers do not acquire the English /r/ and /l/ contrast in any task. On the other hand, this claim

will be invalid in two cases: (1) northern Thai speakers acquire the English /r/ and /l/ contrast in all tasks; or (2) northern Thai speakers acquire the English /r/ and /l/ contrast in at least one task.

2. The acquisition of English /r/ and /l/ contrast in word-initial singletons in less formal task implies the acquisition of English /r/ and /l/ contrast in word-initial singletons in more formal task.

With regard to stylistic variation generalization by Labov (1969), this claim will be supported in three cases: (1) northern Thai speakers acquire English /r/ and /l/ contrast in all tasks; (2) northern Thai speakers acquire English /r/ and /l/ contrast in more formal task only; or (3) northern Thai speakers do not acquire English /r/ and /l/ contrast in any task. However, this claim will be disproved when northern Thai speakers acquire English /r/ and /l/ contrast in less formal task only.

Scope of the Study

This study attempts to investigate the English /r/ and /l/ contrast in the word initial singletons in two tasks in both Thai and English produced by northern Thai speakers. Although there are two regional dialects of Thai language (northern Thai and northeastern Thai), which do not have this phonemic contrast in the inventory, this study pays attention only to the contrast of English /r/ and /l/ in northern Thai due to the convenience in data collection.

Next, I am interested in word-initial singletons because /r/ and /l/ are not allowed in word-final position in all dialects of Thai language, and no consonant clusters appear in northern Thai dialect. Therefore, this current work does not include the presence of the liquids in other positions other than in the simple onset.

Then, this study is designed to examine the nature of /r/ and /l/ contrast in both Thai (L1) and English (IL) produced by northern Thai speakers in two controlled tasks including long passage reading and word list reading. As far as the level of speech formality is concerned, these two tasks were purposively selected to

investigate the L2 production. Each task consists of similar twenty target words representing ten minimal pairs of /r/ and /l/ in word-initial position, for example ‘raw’ /rɔ:/ and ‘law’ /lɔ:/; therefore, we can determine the production of the same word in different contexts.

Lastly, this study is carried out at a phonemic level; therefore, the data will be analyzed by looking at the broad transcription rather than considering the narrow transcription examining the detailed pronunciation of the sounds.

Significance of the Study

Most research studies only look at the production of English by standard Thai speakers without consideration of different native dialects. Since dialects, in this case northern Thai, in the Thai language behave distinctively in terms of liquid contrast. That is a phoneme /r/ does not exist in northern Thai phonological inventory; its speakers always pronounce [l] or [h] instead of /r/ systematically in onset position (Pankhuenkhat, 1982; Burutphakdee, 2004; Hatfield, 2005). Therefore, this study will be another valuable work in the field of second language acquisition by specifically studying the English /r/ and /l/ production of northern Thai speakers rather than standard Thai speakers as many previous studies have been investigated.

Furthermore, this study may present another view of the acquisition pattern of English /r/ and /l/ contrast of L2 learners produced by northern Thai speakers. It may also help L2 teachers and practitioners in their region to understand the reasons for this particular group’s production of English /r/ and /l/ contrast in order to improve the production more accurately. It may review another insight about different pedagogical strategies when the teachers teach students in different regions, center and north of Thailand, to produce the contrast between English /r/ and /l/.

Definitions of Terms

First Language (L1) or Native Language (NL): The language that learners acquire as the first language, which refers to the Thai language in this study.

Interlanguage (IL): IL refers to L2 learners' construct of a unique linguistic system, which belongs to neither L1 nor L2. In this study, it means the version of English produced by Thai L2 learners.

Phonemic Contrast: Distinctive sounds in a language that cause distinct meanings when occurring in the same environment of a word. In this study, I focus on English /r/ and /l/ contrast produced by northern Thai speakers whose native dialect lacks the liquid contrast in order to examine whether or not their native dialect influences the L2 production.

Second Language (L2) or Target Language (TL): The additional language that learners acquire after their L1, which refers to English in this study.

Second Language Learners (L2 learners): Adult learners who attempt to acquire another language after they internalized their L1. In this study, L2 learners refer to adult Thai learners who learn English as a second language.

Speech Styles: Some certain characteristics in speech shifts depending on the contexts. In this study, there are two tasks representing different speech styles including the passage reading (PR) and the word list reading (WL). PR is considered as less formal than WL, because the target words are surrounded by other words; it is believed that the learners pay less attention in acquiring the L2 sound in PR.

Organization of the Study

This study is organized as follows: Chapter 2 provides the theoretical background and some key areas of research literature relevant to the study including phonological structures between Thai and English, Second Language Acquisition, and

previous studies. Chapter 3 contains the research methodology including participants, stimuli, recording, transcription, and scoring methods. Chapter 4 presents the results of the study according to two hypotheses. Then, the results are discussed and summarized, and the recommendations of further studies are included in Chapter 5.



CHAPTER II

LITERATURE REVIEWS

This chapter aims to present the theoretical background and some key areas of research literature relevant to the study. This chapter covers phonological structure between Thai and English focusing on the liquid contrast, second language acquisition, speech formality and previous studies.

Phonological Structures between Thai and English

An Overview of the Thai language

Linguists consider Thai language as an analytic, monosyllabic and tonal language in the Tai-Kadai family. Many polysyllabic words are foreign borrowings, particularly from classical Indian language Pali and Sanskrit (Smyth, 1987 cited in Panlay, 1997). Thai language has four main regional dialects, which are divided according to four main geographical areas as shown in Figure 1 (Kruatachue, 1960; Palikupt, 1983).

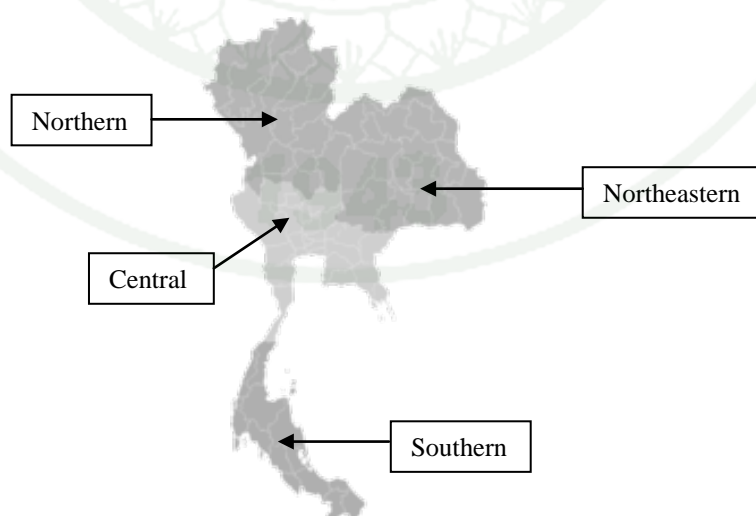


Figure 1 Four main geographical areas of Thailand

Source: Kruatachue (1960) and Palikupt (1983)

It generally includes central Thai dialect (or known as standard Thai dialect), northern Thai dialect, southern Thai dialect, and northeastern Thai dialect; however, this study considers only central Thai dialect along with northern Thai dialect as described below.

Central Thai Dialect

Central Thai is an official variety of Thailand, which is widely used throughout the country to communicate in the official capacity of organizations, schools, and mass media. Central Thai is mostly spoken in twenty-seven provinces in the central part of Thailand, including Angthong, Ayutthaya, Bangkok, Chachoengsao, Chai Nat, Chanthaburi, Chonburi, Kanchanaburi, Lobburi, Nakorn Pathom, Nakorn Nayok, Nakorn Sawan, Nonthaburi, Phetchaburi, Prachinburi, Pathum Thani, Ratchaburi, Rayong, Sa Kaeo, Samut Prakan, Samut Sakorn, Samut Songkram, Saraburi, Singburi, Suphanburi, Trat, and Uthai Thani. In fact, each dialect has its own subtle characteristics which demonstrate some differences but while still maintaining mutual intelligibility. However, when we mention “central Thai” in this study, it presents the concept of the Thai official dialect. In addition, there are several terms including “standard Thai” (Harris, 1972), or “Bangkok Thai” (Beebe, 1974; Chunsuvimol, 1993; Slayden, 2009) to refer to this official language of Thailand.

There are forty-four consonant graphemes in central Thai dialect, which all of them are allowed as a syllable-initial consonant. However, only twenty-one phonemes represent all pronunciation of these consonants as presented in Table 1.

Table 1 Central Thai consonant phonemes

Manner of articulation \ Place of articulation	Bilabial	Labio dental	Alveolar	Alveolar Palatal	Palatal	Velar	Glottal
Aspirated voiceless stops	p ^h พ ฟ ภ		t ^h ท ถ ฑ ฐ ฒ ฒ	c ^h ฉ ช ฌ		k ^h ข ฃ ฅ จ ฌ	
Unaspirated voiceless stops	p ป		t ต ฏ	c จ		k ก	ʔ อ
Voiced stops	b บ		d ด ฏ				
Nasals	m ม		n น ฌ			ŋ ง	
Fricatives		f ฟ ผ	s ส ษ ศ ษ				h ห ฮ
Liquids			r ร	l ล ฬ			
Semivowel	w ว				j ย ญ	(w) ว	

Source: Nacaskul (1998)

Next are the following details showing the distribution of Thai liquids, which are focused in this present study.

Distribution of Central Thai Liquids

There are two liquid sounds in central Thai phonemic inventory: /r/ and /l/, which are allowed to appear in the onset position only. Thai /r/ is produced by raising the tongue tip up to the alveolar ridge without touching it. The airstream causes the tongue tip to flap, and the vocal cord vibrates when pronouncing it. Thai /l/ is produced by touching the tongue tip with the alveolar ridge, and the airstream is released freely. They are contrastive in the initial singleton and in the second position of initial cluster (C2); while they do not appear in final position. In addition, these

phonemes are orthographically represented as <ร> and <ร>, respectively (Nacaskul, 1998).

It has been known that Thai /r/ and /l/ contrast in formal speech but these sounds are not distinguishable in colloquial speech that /r/ is realized as [l] (Harris, 1972; Treyakul, 1986; Tingsabadh and Abramson, 1993). As seen in (1), /râ:k/ ‘a root’ and /lâ:k/ ‘to pull’ are distinguishable in more formal contexts. Although, these two words are homophonous in informal contexts which Thais may pronounce /lâ:k/ instead of /râ:k/, they still can be understood by considering the surrounding context as presented in (2).

(1)	<u>Phonetic transcription</u>	<u>Gloss</u>			
	/râ:k/	‘a root’			
	/lâ:k/	‘to pull’			
(2)	tôn má:i	ní:	mī:	<u>lâ:k</u>	jā:w
	tree	this	have	root	long
	<i>‘This tree has long roots.’</i>				

According to Harris (1996), there are three common variants of /r/ in central Thai, i.e. [r], [r] and [ɾ]. A voiced apico-alveolar trill [r], which usually occurs in the formal contexts, such as in national radio, T.V. announcement, and in the Thai language classroom. Another variant is a voiced apico-alveolar flap [r] is considered as the most common variant in the word-initial position. Another variant is a voiced apico-alveolar approximant [ɾ], it appears only in the speech of speakers who are very fluent in English, and in the speech of southern Thai speakers.

As far as a lateral is concerned, there are two variants of /l/ including [l] and [ɭ]. The standard pronunciation is a voiced apico-alveolar lateral approximant or [l], which normally occurs only in the syllable initial position in Thai language as shown in (3) below. Another variant is a voiced dental-alveolar clear lateral or [ɭ], which is pronounced when /l/ precedes close front vowels: [i] and [i:] as presented in (4). Harris (1996) also noted that speakers may pronounce [l] with an alveolar nasal [n] in fast speech.

	<u>Phonetic transcription</u>	<u>Gloss</u>
(3)	[lɔ̌ɪy]	'to float'
(4)	[ɭiɪb]	'lean'

Because of this study considers central Thai dialect along with northern Thai dialect, the phonological feature of northern Thai is described below.

Northern Thai Dialect

Northern Thai is a regional dialect spoken in the eight-northernmost provinces of Thailand, including Chiang Rai, Phayao, Lampang, Phrae, Nan, Mae Hongson, Lamphun, and Chiang Mai (Renu, 2000 cited in Burutphakdee, 2004). The native speakers of northern Thai call their dialect as 'Kammuang', which mean a town language because they use this language to communicate with people in the town (Burutphakdee, 2004).

Northern Thai has many different linguistic features from central Thai including sound system, grammar, and vocabulary. Unlike central Thai, there are twenty initial consonants in northern Thai as presented in Table 2 (Hatfield, 2005).

Table 2 Northern Thai consonant phonemes

Manner of articulation \ Place of articulation	Bilabial	Labio dental	Alveolar	Alveolar Palatal	Palatal	Velar	Glottal
Aspirated voiceless stops	p ^h พ ฟ ฝ		t ^h ท ฐ ฑ ฒ ฒ ฒ	(c ^h) ฉ ช ฌ		k ^h ก ฌ ฌ ฌ ฌ	
Unaspirated voiceless stops	p ป		t ต ฏ	c จ		k ก	ʔ อ
Voiced stops	b บ		d ด ฏ				
Nasals	m ม		n น ฌ	ɲ ย ฌ		ŋ ง	
Fricatives		f ฟ ฝ	s ซ ฌ ฌ ฌ				h ห ฮ
Liquid			l ล ฬ				
Semivowel	w ว				j ย ฌ		

Source: Hatfield (2005)

According to Pankhuenkhat (1982), Burutphakdee (2004), and Hatfield (2005), there is no /r/ in all subdialects of northern Thai inventory. When <ร> in the onset is recognized, northern Thai speakers substitute /r/ with [h] or [l] systematically. They substitute [h] for /r/ in all inherited words in central Thai as shown in (5); whereas, [l] is substituted for /r/ found in all loan words from central Thai and other languages as shown in (6) (Pankhuenkhat, 1982).

(5) Central Thai /r/ becomes northern Thai [h]

<u>Central Thai</u>	<u>Northern Thai</u>	<u>Gloss</u>
[rá:k]	[há:k]	'to love'
[rim]	[him]	'edge'
[riən]	[hiən]	'house'

(Pankhuenkhat, 1982: 8)

(6) Central Thai /r/ becomes northern Thai [l]

<u>Central Thai</u>	<u>Northern Thai</u>	<u>Gloss</u>
[rô:k]	[lô:k]	'disease'
[raŋwan]	[laŋwan]	'reward'
[riəprǒj]	[liəprǒj]	'to finish'

(Pankhuenkhat, 1982: 8)

Furthermore, northern Thai does not have any consonant cluster as in central Thai. Therefore, it is worth examining whether this difference between the two dialects of the same language will affect the pronunciation of the English /r/ and /l/ contrast in the word-initial position.

An Overview of the English Language

English language is a stress-timed language, which belongs to the Indo-European language family. People around the world speak English as a first or second language using different vocabularies, grammars, and accents in the several varieties of English according to each particular group of people; for example, British English, Australian English, American English, African-American English, and so on (Viney, 2003).

In general, there are twenty four consonants in English as presented in Table 3, which twenty two phonemes can appear in onset position except /ʒ/ and /ŋ/, which /ʒ/ can appear in word medial position as in *measure* [mɛʒər], and /ŋ/ can appear in syllable-final position as in *sing* [sɪŋ] (Crystal, 2003).

Table 3 English consonant phonemes

Place of articulation Manner of articulation	Bilabial	Labio dental	Dental	Alveolar	Palatal	Velar	Glottal
Voiceless stops	p			t		k	
Voiced stops	b			d		g	
Nasals	m			n		ŋ	
Voiceless fricatives		f	θ	s	ʃ		h
Voiced fricatives		v	ð	z	ʒ		
Voiceless affricates					tʃ		
Voiced affricates					dʒ		
Rhotic				r			
Lateral							
approximant				l			
Semivowel	w				j		

Source: Roach (1991)

Distribution of English Liquids

English /r/ and /l/ are contrastive which are allowed to occur in syllable-initial in both singletons and clusters, in syllable-finally in both singletons and clusters. However, phonetically speaking, the /r/ is considered distinctive in different varieties of English. For instance, /r/ is not pronounced in post-vocalic and pre-consonantal position in Received Pronunciation (RP), Australian English, New Zealand English, South African English and most other varieties within England and Wales, while this sound exists in Scottish English, East Lancashire, West Country, Irish English and

General American English (GA) (Barber *et al.*, 2009; Culpeper *et al.*, 2009). In this study, I use the phonological system of GA English because this variety is considered as the standard pronunciation used in American English media and it is served as pronunciation model for L2 learners in Asia (Cruttenden, 2001 cited in Ball and Muller, 2005).

In GA English, /r/ is generally described as a voiced-alveolar approximant [ɹ]. The tongue tip is close to the alveolar ridge, while the air is passed slightly; it is possible for the tongue tip curled back or retroflexed (Crystal, 2003; Culpeper *et al.*, 2009). The distribution of GA English /r/ can be appeared in both pre- and post-vocalic position in the syllable, such as 'red' and 'door' respectively (Barber *et al.*, 2009; Culpeper *et al.*, 2009).

The /l/ in GA English is transcribed as a voiced-alveolar lateral approximant [l]. It is articulated by the tongue tip against centre of alveolar ridge, and the air can pass either or both sides of the tongue (Crystal, 2003). Two main types of lateral /l/ found in GA English; clear /l/ or [l] and dark /l/ or [ɫ]. Clear /l/ is pronounced before a vowel as in 'lip', 'lock', 'luggage'; while dark /l/ is pronounced after a vowel as in 'pull', 'cool', 'mental'. The articulation of both types is different; when pronouncing dark /l/, the back of the tongue is raised towards the velum rather than when pronouncing clear /l/.

In sum, although /r/ and /l/ are considered as separate phonemes in central Thai inventory, there is no contrast in northern Thai dialect. On the other hand, /r/ and /l/ contrast appear in word-initial position in all contexts of English, where the substitution of one phoneme will change the meaning of that word in many contexts. Therefore, it is appealing to explore the acquisition of /r/ and /l/ contrast in English by northern Thai speakers. However, this study focuses only on the phonological level without paying attention to the detailed transcription.

Second Language Acquisition

Second Language Acquisition (SLA) refers to the process of learners acquiring additional language regardless of the number of language being learnt previously after internalizing their NL. It has been studied since the second half of the twentieth century (Ellis, 1997). SLA is a variety of disciplinary field of study, which derives from and influences many areas of the study including linguistics, psychology, psycholinguistics, sociology, sociolinguistics, discourse analysis, conversational analysis and education. Therefore, there are various approaches to examine the L2 data which each one is appropriate for its objectives, data collection and methods (Gass and Selinker, 2008).

With respect to the notion of SLA, linguists have proposed a number of method of analysis; for instance, Contrastive Analysis Hypothesis or CAH (Lado, 1957), Error Analysis or EA (Corder, 1967). However, Interlanguage Analysis is a method used to analyze the L2 production as the actual knowledge in acquiring the TL rather than as an erroneous pattern of the TL. In the acquisition of the TL, L2 learners have a learning process from the NL toward the TL. In particular, more advanced learners can approach the TL rules more easily than beginners (Gass and Selinker, 2008).

Interlanguage

The term 'Interlanguage' was introduced into the literature when the focus of SLA has been changed from looking at teaching material into L2 learning problems. In particular, many researchers have believed that L1 interference is the main error in acquiring the L2 according to the CAH considering on the similarities and differences between the NL and TL. This claim was disproved when they found that the actual speech of learners may be influenced by neither the NL nor their learning (Nemser, 1971; Selinker, 1972; Corder, 1974; Tarone, 1979, 1985; Eckman, 1981; Beebe, 1984; Sato, 1984; Henderson, 1985; Phootirat, 2012; Eckman, Iverson, and Song, 2013).

Nemser (1971), Selinker (1972) and Corder (1974) hypothesized that L2 learners construct a unique linguistic system different from both native language and target language, namely ‘Interlanguage’. Moreover, the IL stimulates researchers to look beyond L2 learner’s errors by looking at the whole linguistic system that the learner used (Henderson, 1985). Since IL is considered as an individual process of acquiring the TL, the acquisition process of learners from the same linguistic background cannot be applied to overall group acquisition. Therefore, it is suggested that we should look at the IL system individually, rather than presenting group-based generalization (Kohn, 1986).

In fact, this idea was coined differently by different linguists. For instance, Nemser (1971) stated that a learner attempts to utilize the TL by employing the deviant linguistic system from his or her L1 and L2 as called “Approximative system”, which varies in accordance with proficiency level, learning experience, communication function, personal learning characteristic, etc. Similarly, Corder (1974) defined a phenomenon of L2 learners sharing characteristics of two languages rules as “Idiosyncratic dialects” or “Transitional dialects”. Learners do not follow the TL rules, but they construct their own rules; however, it is regular, systematic, meaningful, and also has its own grammar. Among several notions coined for this concept, the term ‘Interlanguage’ proposed by Selinker (1972) has been widely used in SLA to represent the internalized system of L2 learners when they are acquiring the TL.

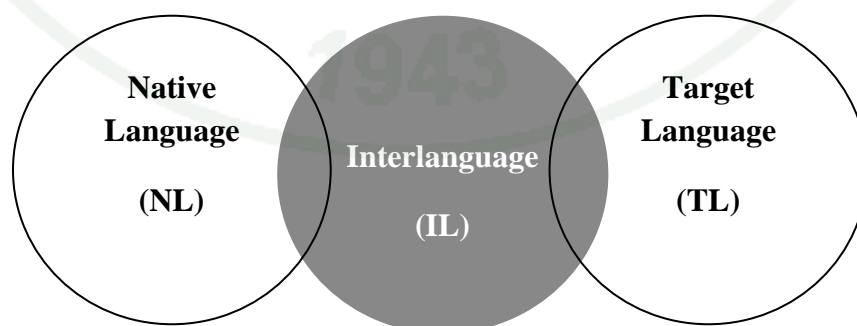


Figure 2 Interlanguage

Source: Corder (1974: 162)

IL analysis is adopted to analyze L2 learners when acquiring phonology, morphology, and syntax which has been supported by numerous studies (Tarone, 1979, 1985; Eckman, 1981; Beebe, 1984; Sato, 1984; Phootirat, 2012; Eckman *et al.*, 2013). Since this study focuses on examining the acquisition of English /r/ and /l/ contrast, the concept of L2 phonemic contrast is provided in the next section. Therefore, IL will be used to represent the L2 production of northern Thai speakers in the rest of this study.

L2 Phonemic Contrast

L2 phonology is one interesting area in SLA, which concerns how L2 learners learn to produce and perceive some new sounds when acquiring the L2 (Achibald, 1998). It can be distinguished between segmental and prosodic phonology. Segmental phonology involves consonants and vowels, while prosodic phonology involves phonological phenomena that affect more than a single segment, i.e. syllables and stress. However, this study focuses on segmental phonology - liquid sounds in particular.

While, there are various aspects in L2 phonology, a phonemic contrast is one intriguing aspect to investigate. A phonemic contrast is demonstrated by the existence of minimal pairs, which are pairs of words that vary only by the identity of segments at the same environment in the word, e.g. [mæt] and [kæt]. If two segments contrast in the same environment and they convey different meanings, then they are considered as different phonemes (Mannell, 2008).

The study of phonemic contrast is not new in this field. There are a number of studies investigating the production of phonemic contrast by L2 learners (Eckman *et al.*, 2007; Eckman *et al.*, 2013; Phootirat, 2012). Again, it is worth emphasizing that when we look at phonemic contrast with the IL analysis, the accuracy of the L2 phoneme is not taken into account. Rather, the actual production is being centered and the patterns of how the phonemes are acquired are analyzed.

There are various methods of data analysis, such as Contrastive Analysis Hypothesis, or Error Analysis. However, Interlanguage Analysis is adopted as a main framework to examine the data in this study. Before reviewing the related studies, the concept of language transfer and speech styles are provided next.

Language Transfer

Due to the absence of liquid contrast in northern Thai dialect, language transfer is taken into account in order to examine whether or not the native dialect system influences on the acquisition of liquid contrast in IL.

There are many studies pointed out that the L1 plays a major role in L2 acquisition (Gui, 1978 cited in Gass and Selinker, 2008; Beebe, 1980; Chunsuvimol, 1993; Ellis, 2003; Brooke, Wang, and Hirst, 2010; Zimmer *et al.*, 2009 cited in Osborne, 2010; Liu, 2011; Grami and Alzughaibi 2012).

Language transfer has long been an empirical issue in SLA. Lado (1957) mentioned that learners tend to transfer their NL system to the L2 system when learning a TL. There are two types of language transfer including a positive and negative transfer.

According to Lado (1957), if there is any similar sound between the L1 and L2; it can be assumed that learners will transfer that existing sound in the L1 into the L2. This process can be called a positive transfer as it facilitates their learning. For example, Castilian Spanish learners are able to pronounce English /θ/ and /s/, because they have these two phonemes in their L1 grammar (Lado, 1957: 24). On the other hand, if there is a sound in the L2 that is different from that in the L1, or it does not appear in the L1 sound system, L2 learners have a tendency to select the closest sound in their L1 to substitute that L2 sound, which causes an error. It can be called a negative transfer or interference. For instance, Spanish speakers attempt to substitute the similar sound [d], and also transfer their allophonic rule in producing English /ð/,

which [d] occurs between vowels and after /r/. Therefore, it causes errors when Spanish speakers produce *lather* instead of *ladder* (Lado, 1957: 14-15).

With respect to the Thai language, due to the northern Thai dialect not having /r/ in the inventory, it is fascinating to investigate the IL of northern Thai speakers to see whether they will transfer their non-distinctive liquid in their native dialect into their IL English when they pronounce the English /r/ and /l/ contrast in word-initial singletons or not.

Speech Styles

According to Yule (1996), speakers may speak differently due to various factors including social class, education, age, or gender. We cannot overlook the sociolinguistic influence which relates to the inter-relationship between language and social context. Labov (1969) stated that the utterance of speakers also differs depending on the level of speakers' attention. In other words, speakers pay more attention on their speech when they are in formal context, such as an interview or an experiment. On the other hand, they pay less attention in casual speech, such as talking with friends. Therefore, a researcher should design the proper experimental test to each speech situation, which reflects different styles of talking.

Also, texts with simple or vernacular themes are considered less formal than a word list. This means that researchers should provide stories written in casual speech as much as possible to ensure that learners can read smoothly; therefore, the learners pay less attention to their speech (Labov, 1969).

Tarone (1979) also supported Labov's (1969) view. She stated that learner's speech varies on the formality of the context as the chameleon changes color according to its surroundings. That is, the accuracy of the L2 production will increase when speakers pay more attention to the task; therefore, the formality of the task in a study should be defined.

In contrast, Sato (1985) pointed out that defining the formality of tasks is only a simple perspective of how the learners produce. Similar to the findings of Tarone (1985), which revealed that we cannot predict which forms will be used by looking at the type of task only, the function of each task within a discourse context needs to be considered as well.

Therefore, in this present study, there are two tasks including a passage reading (PR) and a word list reading (WL) which were used to collect the production of the same phonemic contrast in two different levels of task formality. According to Labov (1969), it can be assumed that WL is considered as more formal than the PR, because the WL yields the more awareness of speakers' attention to the target sounds when the participants are pronouncing words in isolation. On the other hand, PR is considered as less formal due to the target sounds being surrounded by other words; the speakers pay less attention when pronouncing the words in context.

Next section presents previous studies related to the current research.

Previous Studies

Studies of L2 Liquid Acquisition

Numerous research on English /r/ and /l/ production have been conducted for different L1 speakers; however, the L2 data obtained from Japanese learners is provided because the distribution of Japanese liquids has a single phoneme like the native dialect in this study.

Due to the fact that English language has two distinct phonemes /r/ and /l/ while Japanese language has a single phoneme [r], these differences are assumed to cause difficulties in both perception and production for Japanese speakers. DeVane (1990) found that most of eight Japanese subjects produced /r/ and /l/ as a single phoneme [r] in the word initial position across two tasks including a list of minimal pairs and sentence reading.

In Bada's (2001) work, the results showed that most speakers pronounce English /l/ as [ɾ], the only liquid in Japanese, in word initial position in sentence reading task according to the influence of L1 transfer. Conversely, /r/ was pronounced as [l], which he claimed that the training strategy which overemphasizes the production of non-existence phoneme /l/ causes this error.

Another study is by Aoyama *et al.* (2004). She investigated the perception and production English /r/ and /l/ by Japanese speakers. This study revealed that only Japanese children have more improvement in producing English [ɾ] than in producing English [l] over the course of one year, while the Japanese adults do not show significant improvement with either phoneme. They explained the different results between the same native speakers occurred due to the fact that all Japanese adults in their study had studied English whereas most of the Japanese children had not studied English yet before immigrating to the United State. The Japanese children also had many more opportunities to speak English at school; therefore, they received more target-like than the Japanese adults.

Moreover, there are some studies investigating the production of English /r/ and /l/ acquisition by Thai L2 learners (Beebe, 1980; Chunsuvimol, 1993; Manoyen, 2001).

Findings from Beebe's (1980) study of English /r/ production by Bangkok Thai learners showed that most of subjects pronounce a trill [r], considered as a normative Thai variants for English /r/ in the initial position in a more formal task (a word list) while they use a flap [ɾ] in less formal task (an interview conversation). This unexpected result of this study demonstrated that the characteristic of using the normative /r/ in word initial position in formal context does not appear in Thai context only, but it is also sociolinguistically transferred into the English context.

Chunsuvimol (1993) conducted his research based on the results of Beebe (1980). He interviewed Thai speakers in order to investigate relationship between the social variation of /r/ in Thai and /r/ in English. In spite of the fact that [ɾ] is

prestigious variants in both languages, the pattern of /r/ variants used in each language is different. In Thai, the subjects produce [l] much higher than [ɹ] and [r], whereas in English, they produce [ɹ] as much in word-initial position in the less formal context (interview). His results differed from the report by Beebe (1980) in the case of Thai speakers not transferring the flap [ɹ] into the English in conversation, which the subjects of this study produce [ɹ] in English conversation.

Another study is Manoyen (2011). She investigated the production of English /r/ and /l/ by Thai learners in all positions; word-initial, word-medial, and word-final position. With regard to the word initial position, this study showed different results from Beebe (1980) and Chunsuvimol (1993), mainly that most participants frequently substitute [l] for /r/ in word list task considered as a formal context in this study. The different result of this study may relate to the English proficiency of subjects, which the subjects of Beebe are adult Thai speakers who living in New York, and the subjects of Chunsuvimol (1993) are hotel personnel; while, the subjects of this study are Grade 12 students.

Based on my knowledge, only one study of English /r/ and /l/ contrast produced by Thai speakers is the study of Phootirat (2012). She investigated the contrastive phonemes /r/ and /l/ occurring in different speech contexts, which are word list reading, passage reading, picture naming, and interview in syllable-initial singletons, syllable-initial clusters, and syllable-final singletons. With respect to the results of initial /r/ and /l/ singletons, most of the subjects have acquired the contrast in more formal contexts, which are the word-list and picture naming tasks. This result accords with the general prediction that the contrast occurs in the more formal task rather than in the less formal task.

Studies in L2 Phonemic Contrast

There are a few studies that investigate the effect of English phonemic contrast on L2 learners' production. (Eckman *et al.*, 2007; Eckman *et al.*, 2013).

Eckman *et al.* (2007) examined English /s/ and /ʃ/ contrast by Japanese and Korean speakers in both perception and production tasks. In fact, these two segments have different natures in these two languages. In Japanese, these two phonemes are contrastive when they occur before the vowels [a, o, u]; however, only /s/ occurs before the vowel [e], and only /ʃ/ appears before the vowel [i]. In Korean, [s] and [ʃ] are in complementary distribution of the phoneme /s-/ ʃ/, [ʃ] occurs only before high front vowels, whereas [s] occurs elsewhere. Regarding the production task, all speakers pronounce sixty target words in either the basic environment (word-initial) or the derived environment (word-medial) relevant to three stages of acquisition: 'No contrast', 'Partially contrast', and 'Contrast'. The results found that most Japanese speakers pronounce the contrast in the derived environment only. However, Korean speakers acquire the English /s/ and /ʃ/ contrast in all stages of acquisition, most of them having the /s/ and /ʃ/ contrast in both basic and derived environments. Some speakers show the contrast in the basic environment but not in the derived environment, and some do not have the contrast in both environments. It is suggested that the different distribution and status of these sounds in both NL are main factors affecting their different performance of English /s/ and /ʃ/ contrast.

Later, Eckman *et al.* (2013) further investigated the production of English /s-/ /ʃ/, /p-/ /f/ and /f-/ /v/ contrast by Korean speakers. They paid attention to the NL transfer and hypercorrection error types found in the acquisition of three kinds of L2 phonemic contrasts: the splitting of NL allophones into phonemes, the learning of a TL segment not contained in the NL, and the acquiring of a contrast between two segments neither of which is found in the NL. Hypercorrection occurs when L2 learners do not apply their NL patterns when learning the TL sounds, which causes incorrect production in L2. The results showed three main points to be discussed. First, the phoneme /f/ and /v/ do not exist in Korean; they produce [p] and [b] respectively, which is considered as the NL transfer rather than the hypercorrections. Second, Korean learners produce hypercorrection on these new sounds: /p/ and /f/ as [f] in all positions where it should not occur in the TL. Finally, Korean speakers transfer their allophonic rule in producing English phoneme /s-/ /ʃ/, which cause hypercorrection errors in the environment that these two phonemes do not occur in the NL.

Yet, the production of English /r/ and /l/ contrast by Thai speakers whose native dialect does not have /r/ in the inventory has not been carried out. This present study attempts to address the shortcomings of the research in this field by determining how northern Thai speakers acquire the contrast of English /r/ and /l/ in word initial position.



CHAPTER III

METHODOLOGY

This chapter describes the overall methodology used in conducting this study, including participants, stimuli, transcription, and scoring methods.

Participants

The data was collected from ten northern Thai speakers who have grown up and lived in the northern region of Thailand. They are non-English major undergraduate students studying at Chiangmai University. They reported that they always speak northern Thai dialect in daily life with their families and friends.

Moreover, all participants have studied English as a second language for more than ten years in regular programs at local schools. They did not study in an English program or an international program, and they have never been abroad for the purpose of taking any special courses or dwelling overseas.

Stimuli

Before collecting the data, the demographic information is created to select the participants. The questionnaire includes information about name, age, gender, regional dialect, hometown, education background, faculty and major, years of studying English, their parent dialect, and some additional details (see Appendix A). Due to all participants being non-English major students, the questionnaire is created in Thai language in order to facilitate participants understanding the questions, and to receive genuine information from the participants.

There are two tasks including passage reading (PR) and word list reading (WL) in both Thai and English. Each task consists of similar twenty target words which are ten minimal pairs of <๓> and <๔> in Thai, and ten minimal pairs of <r> and

<l> in English. All target words in both languages focused on word-initial singletons only. The passage readings were presented before the word list readings in order to avoid the participants' awareness of the target words. Each participant performed Thai tasks in different dialects: central Thai and northern Thai in order to examine whether the participant pronounces similar target words differently. In addition, Thai tasks were presented before English tasks in order to investigate whether the native dialect affects the IL production.

For the passage readings (see Appendices B and D), there are five paragraphs in both Thai and English. The first two passages were drawn from the internet (Charle, 1697; Cheever, 1859; Aesop Fable, n.d.) that were presented before three target passages in order to reduce participants' nervousness of being tested. Only three target passages which consist of twenty target words were scored and analyzed. Thai target passages were created by the researcher, while English target passages were created by an American English teacher. The content of each passage was written in several topics, such as a fairy tale or a daily life. Each passage consists of 125-140 words. The participants read all passages presented via PowerPoint out loud, and they changed to the next page manually by themselves after finishing each passage.

For the word list readings (see Appendices C and E). There are 70 words including similar 20 target words as shown in the passage readings and 50 fillers in both Thai and English. All fillers were not scored or analyzed. In the slides, all words were shuffled and presented via PowerPoint, and each word stayed on the screen for three seconds and changed automatically. The participants read each word out loud.

Recording Process

All tasks were performed by the participants individually in a conference room at Chiangmai University. Each participant read all passages and word lists on the PowerPoint in northern Thai, central Thai, and English, respectively. I changed the tasks and monitor the recording program at the same room. The production of participants was recorded via Audacity 2.0.5 (Audacity team, 2013) with a

microphone attached to their shirt and stored in a researcher's laptop. The recording lasted approximately 30 minutes per participant. All of them received 200 baht for their contribution to this study.

Transcription and Scoring

I transcribed the recording data by using broad transcription. Only twenty target words from each task both in Thai and English were selectively transcribed and analyzed individually based on each participant. Each sound in each task was transcribed to find variants. In order to ensure the reliability of the results, I gave all of recording file to a male American teacher, who has trained in the phonetics and phonology courses when studying a master degree in Teaching English as a Foreign Language at Chulalongkorn University, and he is familiar with the Thai phonological system. Then, both results were checked thoroughly. The total number of target sound is 400 and 23 of them are inconsistent. The agreement results of both transcribers were calculated to yield a percentage, which is 95.75% agreement. Next, I listened to all unclear sounds as a third person for three times, two-thirds of the heard sound of each word was defined as that word's variant.

After receiving the results, each variant was tallied and converted into percentage according to the participant's number to characterize the pronunciation of the /r/ by northern Thai speakers in order to answer the first research question. With regard to the second research question, the acquisition of the phoneme distinction is determined by the 80% benchmark (Eckman *et al.*, 2007). In other words, if the participant is able to make a distinction between /r/ and /l/ at least 80% of the time, then it means that he or she has been acquired the sound. For example, if another participant produces [l] 81% of the time when pronouncing an English /r/, then this learner would be considered as having acquired the English /r/ as [l]. On the other hand, suppose that the participant produces a trill [r] 60% of the time, and other variants 40% of the time when pronouncing an English /r/, then this learner would be considered as not having acquired the /r/ in the TL.

After transcribing and categorizing the data, the acquired variants of /r/ and /l/ in the same task were compared to identify whether the contrast of /r/ and /l/ exists in each task by using a binary notation +/- to signify the distinction or non-distinction of /r/ and /l/ pronunciation according to the participant's number. If the learners acquired variants of /r/ and /l/ differ, then "+" is marked to designate the contrast between /r/ and /l/. On the other hand, "-" signifies three cases as following: (1) when the same variant is acquired for both liquid phonemes; (2) when the learners do not acquire any sound for both /r/ and /l/; or (3) when the learners show the acquisition of a variant for only one liquid phoneme, but variants for the other liquid phoneme are pronounced freely. Then, the acquisition pattern between two tasks was compared, and the individual acquisition pattern was summarized in terms of each participant.

All in all, this chapter provided the methodology used in this study including participants, tasks, recording process, transcription and scoring. The results of English /r/ and /l/ are presented in the next chapter.

CHAPTER IV

RESULTS

This chapter aims to present descriptive results of English /r/-/l/ contrast in word-initial singletons produced by northern Thai speakers. The results are divided into two main parts. Part 1 presents the acquisition of English /r/ and /l/ contrast in word-initial singletons by northern Thai speakers corresponding to the first hypothesis. Also, the production of liquid contrast in northern Thai and central Thai are provided. Part 2, with respect to Hypothesis 2, demonstrates whether speech styles affect English production of /r/ and /l/ contrast in word-initial singletons by northern Thai speakers.

Hypothesis 1: The Acquisition of English /r/ and /l/ Contrast in Word-initial Singletons

Before presenting the acquisition of English /r/ and /l/ contrast by northern Thai speakers, it is worth demonstrating the production of English /r/ and /l/ in word-initial singletons as shown in Table 4 below.

Three main columns are given in Table 4 including the participant (P), English /r/ production and English /l/ production, respectively. Under the production row presents the passage reading task (PR), and the word list reading task (WL). The actual liquid variants produced by the participants are provided according to the task. In particular, [r] represents standard Thai /r/; while [ɹ] represents English /r/. The cells in the row indicate the percentage of sounds produced by each participant; while, the shaded blank is given for the absent variant. Bold fonts represent the percentage of the acquired variants that reached 80% of the time.

The acquisition of the phoneme was considered if the participants are able to make a distinction between /r/ and /l/ more than 80% of the time (Eckman *et al.*, 2007). For example, if the participant produces a trill [r] 60% of the time, and other

variants 40% of the time when pronouncing an English /r/, then this participant would be considered as not having acquired the /r/ and thus the fact that the person has not yet acquired any sound is marked by blackening the table. However, if another participant produces [l] 81% of the time when pronouncing an English /r/, then this participant would be considered as having acquired [l] for English /r/.

Table 4 The production of English /r/ and /l/ by northern Thai speakers across tasks
(percentage)

Participant	/r/					/l/			
	PR		WL			PR		WL	
	[ɹ]	[l]	[r]	[ɹ]	[l]	[ɹ]	[l]	[dʒ]	[l]
P1	60	40		20	80		100		100
P2	60	40		50	50		100		100
P3	20	80		10	90		100		100
P4	20	80	10	20	70		100		100
P5	100			100			100		100
P6	100			100			100		100
P7	20	80		10	90		90	10	100
P8	50	50		40	60	20	80		100
P9	20	80		40	60	10	90		100
P10	10	90		10	90		100		100

This table illustrates the production of English /r/ and /l/ in word-initial singletons by northern Thai speakers across tasks. Regarding to English /r/ production, two variants were found in the passage reading task: English [ɹ] and [l]. Only two participants (P5 and P6) have acquired the standard variant [ɹ] for English /r/ with 100% of the time. Five out of 10 participants (P3, P4, P7, P9 and P10) have acquired [l] for /r/ that reached 80% criterion of acquisition; while, three out of 10 participants (P1, P2 and P8) have not acquired any particular phones in their process of acquiring an English /r/. In the word list reading task, three variants were found: [r], [ɹ] and [l]. Similar to the passage reading tasks, only two participants (P5 and P6) have acquired the standard variant [ɹ] for English /r/ with 100% of the time. The acquisition of [l] for /r/ is found in the IL production of four out of 10 participants

(P1, P3, P7 and P10). The other four participants (P2, P4, P8 and P9) have not yet acquired any particular phones for /r/.

With respect to English /l/ production, all participants have acquired [l] for English /l/ that reached 80% of the time in all tasks. Due to the fact that /l/ appears in their native dialect or northern Thai (NT), it is not surprising that they do not have any problems in acquiring /l/ in the IL.

According to the first hypothesis stating that northern Thai speakers have not acquired English /r/ and /l/ contrast in all tasks. The data gathered from the eight participants supports this claim as presented in Table 5 below.

Before reporting the results of acquiring the liquid contrast by northern Thai speakers, how the phonemic contrast is determined should be repeated again.

After scoring the acquired variants of /r/ and /l/, those variants were compared in the same task to identify whether the contrast of /r/ and /l/ exists in each task by using a binary notation +/- to signify the distinction or non-distinction of /r/ and /l/ pronunciation according to the participant's number. If the participants acquired variants of /r/ and /l/ differ, then "+" was marked to designate the contrast between /r/ and /l/ i.e., the participant acquires 'road' as /rəʊd/ and 'load' as /ləʊd/. Although the participants have acquired variants of /r/ as [l] and /l/ as [ɾ], it means that the acquisition the contrast of that minimal pair has occurred i.e., the participant has acquired 'rock' as /lɒk/ and 'lock' as /rɒk/. On the other hand, "-" signified three cases as following: (1) when the same variant was acquired for both liquid phonemes i.e., the participant acquires 'rate' and 'late' as /leɪt/; (2) when the participants have not acquired any phone for both /r/ and /l/ i.e., the participant pronounces 'rob' as /rɒb/ with 60% and /lɒb/ with 40%; and pronounces 'lob' as /lɒb/ with 70% and /rɒb/ with 30%; or (3) when the data showed the acquisition of only one liquid i.e., the participant acquires 'lip' as /lɪp/ with 90%, but pronounces 'rip' as /rɪp/ with 60% and /lɪp/ with 30%.

According to Table 5, four main columns are given including the characteristic of acquiring English /r/ and /l/ contrast according to Hypothesis 1, the participant (P), the passage reading task (PR), and the word list reading task (WL) respectively. Under the task row presents the target phoneme: /r/ and /l/, and whether there is a contrast (/r/-/l/) for each task. The cells under the /r/ and /l/ column indicate the sound that each participant had acquired for each phoneme (/r/ or /l/); while, the shaded blank is given when the participant pronounces that phoneme with free variant which does not reach 80% of the time. Under the contrast column (/r/-/l/), “+” or “-” is signified the distinction or non-distinction of /r/ and /l/ pronunciation according to each participant.

Table 5 The characteristic of acquiring English /r/ and /l/ contrast by northern Thai speakers across tasks

Participant		PR			WL		
		/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/
Support	P1		1	-	1	1	-
	P2		1	-		1	-
	P3	1	1	-	1	1	-
	P4	1	1	-		1	-
	P7	1	1	-	1	1	-
	P8		1	-		1	-
	P9	1	1	-		1	-
	P10	1	1	-	1	1	-
Disprove	P5	1	1	+	1	1	+
	P6	1	1	+	1	1	+

Table 5 shows the results of acquiring English /r/ and /l/ contrast according to the Hypothesis 1 stating that northern Thai speakers have not acquired the contrast of English /r/ and /l/ in word-initial singletons in all tasks. The data gathered from most participants (eight out of 10 participants) supports this hypothesis across tasks.

However, the production of only two participants (P5 and P6) disproves this hypothesis which they have acquired English /r/ and /l/ contrast in all tasks.

In addition, the production of /r/ and /l/ in northern Thai and central Thai are also collected for considering the current distribution of the /r/ and /l/ in Thai language. Even though the participants speak northern Thai as their native dialect, standard Thai or central Thai is the standard dialect used in school setting with their teachers or seen in media. Thus, it is worth considering if central Thai (CT) comes into play on northern Thai speakers' production when acquiring the IL, English.

Table 6 presents is formulated as Table 5; however, the acquisition of /r/ and /l/ contrast in northern Thai (NT) is also provided in order to compare with the characteristic of /r/ and /l/ contrast in central Thai (CT).

Table 6 The acquisition of the /r/ and /l/ contrast in northern Thai and central Thai by northern Thai speakers

Participant	NT						CT					
	PR			WL			PR			WL		
	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/
P1		1	-		1	-	1	1	-	1	1	-
P8		1	-	1	1	-	1	1	-	1	1	-
P9		1	-		1	-		1	-		1	-
P3		1	-		1	-		1	-	r	l	+
P4		1	-		1	-	r	l	+		l	-
P7		1	-		1	-		1	-	r	l	+
P2	1	1	-		1	-	r	l	+	r	l	+
P5		1	-		1	-	r	l	+	r	l	+
P6		1	-	1	1	-	r	l	+	r	l	+
P10		1	-		1	-	r	l	+	r	l	+

As shown in Table 6, there is no liquid contrast in their utterances when they speak northern Thai as expected. However, the production of /r/ and /l/ in central Thai varies depending on each individual as follows: (1) three out of 10 participants (P1, P8 and P9) do not make a distinction of liquid in any task; (2) three out of 10 participants (P3, P4 and P7) make a distinction of liquid in some task; and (3) four out of 10 participants (P2, P5, P6 and P10) clearly make a distinction in all tasks.

Next, the acquisition of liquid contrast in three systems including NT, CT and IL are presented.

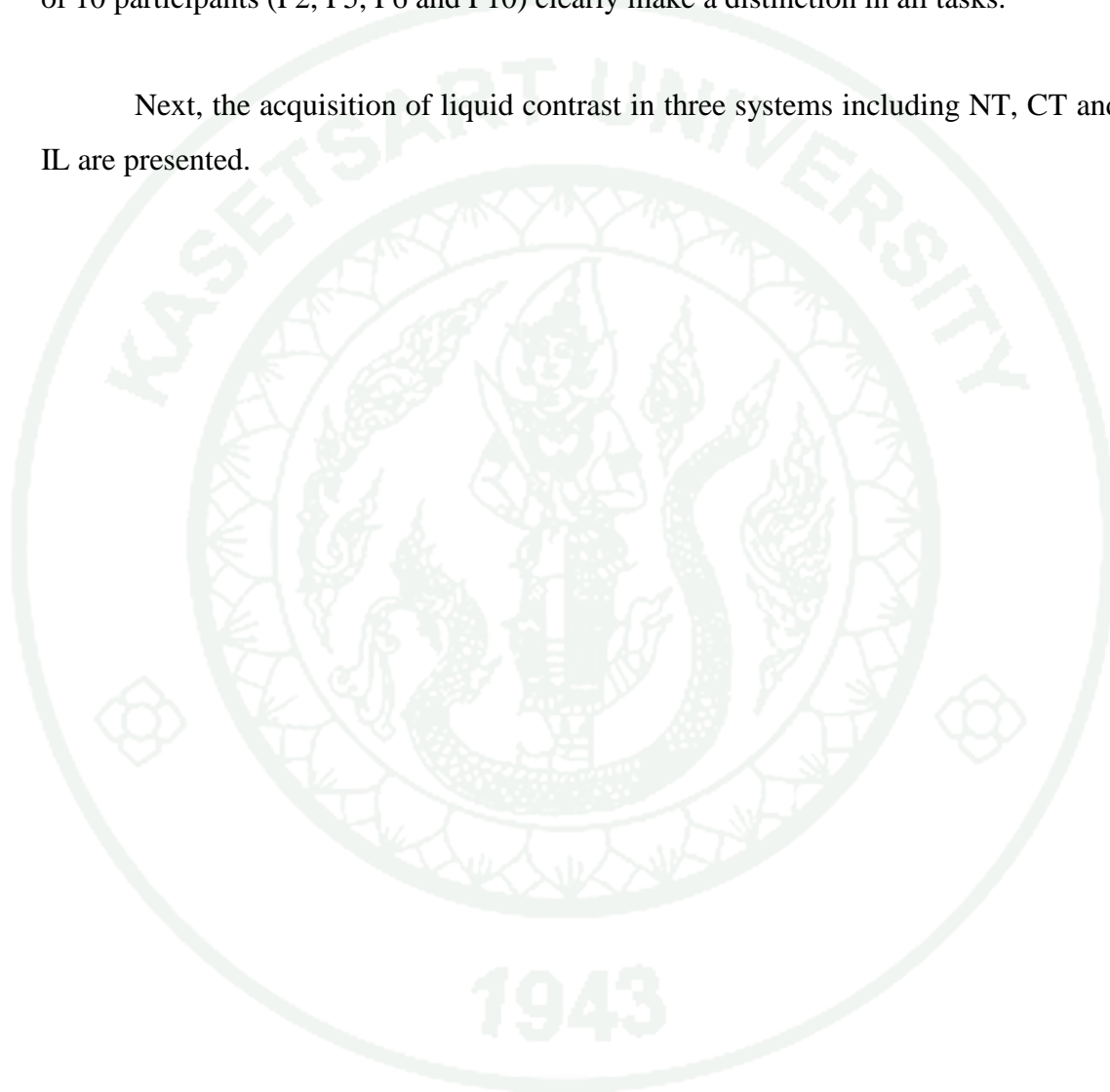


Table 7 The acquisition of the /r/ and /l/ contrast in northern Thai, central Thai and English by northern Thai speakers

Participant	NT						CT						IL					
	PR			WL			PR			WL			PR			WL		
	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/
P1		1	-		1	-	1	1	-	1	1	-		1	-	1	1	-
P8		1	-	1	1	-	1	1	-	1	1	-		1	-		1	-
P9		1	-		1	-		1	-		1	-	1	1	-		1	-
P2	1	1	-		1	-	r	1	+	r	1	+		1	-		1	-
P3		1	-		1	-		1	-	r	1	+	1	1	-	1	1	-
P4		1	-		1	-	r	1	+		1	-	1	1	-		1	-
P7		1	-		1	-		1	-	r	1	+	1	1	-	1	1	-
P10		1	-		1	-	r	1	+	r	1	+	1	1	-	1	1	-
P5		1	-		1	-	r	1	+	r	1	+	ɹ	1	+	ɹ	1	+
P6		1	-	1	1	-	r	1	+	r	1	+	ɹ	1	+	ɹ	1	+

After close examination, there are three categories of acquiring the liquid contrast by these ten northern Thai speakers. First, it seems that three out of 10 participants (P1, P8 and P9) do not make a distinction of liquid in all systems. Second, five out of 10 participants (P2, P3, P4, P7 and P10) do not make a distinction in IL, even though they occasionally pronounce liquid contrastively in CT. Third, only two participants (P5 and P6) pronounce the liquid contrast in CT and IL in all tasks. These results will be further discussed in Chapter 5.

**Hypothesis 2: The Effect of Different Speech Styles in Acquiring
The Contrast between English /r/ and /l/ in Word-initial Singletons**

This section focuses on the second hypothesis stating that the acquisition of English /r/ and /l/ in word-initial singletons in less formal task implies the acquisition of English /r/ and /l/ in word-initial singletons in more formal task. The IL data fully support this hypothesis as presented in Table 8 below.

Table 8 is revised from Table 5, which presents the acquisition of English /r/ and /l/ contrast with respect to different speech styles. The table description is similar to Table 5; however, the bold line separates two groups of participants. The participant number is rearranged according to each case that will be presented below.

Table 8 The acquisition of English /r/ and /l/ contrast by northern Thai speakers across tasks

Participant	PR			WL		
	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/
P3	l	l	-	l	l	-
P7	l	l	-	l	l	-
P10	l	l	-	l	l	-
P1		l	-	l	l	-
P4	l	l	-		l	-
P9	l	l	-		l	-
P2		l	-		l	-
P8		l	-		l	-
P5	ɹ	l	+	ɹ	l	+
P6	ɹ	l	+	ɹ	l	+

Table 8 illustrates that the data gathered from all participants support Hypothesis 2 which can be explained into two patterns. First, most participants (eight out of 10 participants) have not made any distinction between /r/ and /l/ contrast in word-initial singletons at all. Noticeably, all of them have not acquired the standard variant of English /r/ in any task, which can further categorize into three cases: (1) three out of eight participants (P3, P7 and P10) have acquired [l] instead of /r/ in all tasks; (2) three out of eight participants (P1, P4 and P9) have acquired [l] instead of /r/ in one task, and have not acquired any particular phones for /r/ in the other task; and (3) two out of eight participants (P2 and P8) have not acquired any specific phones for /r/ in any task.

Second, only two participants (P5 and P6) have already acquired English /r/ and /l/ contrast in word-initial singletons in all tasks. These two participants have the same production in acquiring the standard variant of [ɹ] and [l] in English in all tasks. These results will be discussed further in Chapter 5.

All in all, the IL data from these eight participants support the hypothesis which can be categorized into two cases: not acquiring the contrast between English /r/ and /l/ in any task, and acquiring the contrast between English /r/ and /l/ in all tasks. None of the participants' data is against the hypothesis by demonstrating the acquisition of English /r/ and /l/ contrast in word-initial singletons in less formal task, but non-acquisition in more formal task.

In conclusion, this chapter provides the results of the acquisition of English /r/ and /l/ contrast in word-initial singletons by northern Thai speakers. Hypothesis 1 is supported by most participants (80%), while the IL data fully supports Hypothesis 2. The discussion of the results will be interpreted in the next chapter.

CHAPTER V

DISCUSSION AND CONCLUSION

This chapter presents the critical analysis of the significant findings of the English /r/ and /l/ contrast in word-initial singletons produced by northern Thai speakers with respect to the hypotheses. The pedagogical implications are discussed. Also, recommendations for further research are provided.

Discussion of the Findings

Hypothesis 1: The Acquisition of English /r/ and /l/ Contrast in Word-initial Singletons

According to the first hypothesis stating that northern Thai speakers do not acquire English liquid contrast in word-initial singletons in all tasks, the production of most northern Thai speakers (eight out of 10 participants) supports this hypothesis.

For the objectives of this study, I focus on the investigation of the IL English liquid contrast obtained from northern Thai speakers, whose native dialect has only one liquid, /l/, in the phonological inventory. In order to see whether the native dialect (NT) affects on northern Thai speakers' production in acquiring the IL, I also collected the data in two dialects in Thai language including the native dialect or northern Thai (NT) and the standard dialect or central Thai (CT) as was described in Chapter 3.

I repeat Table 6, which presents the production of liquid contrast in three systems as seen in Table 9 below in order to take a closer look in details which system plays a major role in acquiring the liquid contrast in IL produced by these ten northern Thai speakers.

Table 9 The production of the /r/ and /l/ contrast in northern Thai, central Thai and English by northern Thai speakers
(repeated Table 6 for convenience)

Participant	NT						CT						IL					
	PR			WL			PR			WL			PR			WL		
	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/
P1		1	-		1	-	1	1	-	1	1	-		1	-	1	1	-
P8		1	-	1	1	-	1	1	-	1	1	-		1	-		1	-
P9		1	-		1	-		1	-		1	-	1	1	-		1	-
P2	1	1	-		1	-	r	1	+	r	1	+		1	-		1	-
P3		1	-		1	-		1	-	r	1	+	1	1	-	1	1	-
P4		1	-		1	-	r	1	+		1	-	1	1	-		1	-
P7		1	-		1	-		1	-	r	1	+	1	1	-	1	1	-
P10		1	-		1	-	r	1	+	r	1	+	1	1	-	1	1	-
P5		1	-		1	-	r	1	+	r	1	+	1	1	+	1	1	+
P6		1	-	1	1	-	r	1	+	r	1	+	1	1	+	1	1	+

It seems that the data gathered from most participants (eight participants or 80%) support the first hypothesis. Close analysis of the data reveals that there are two cases in non-acquisition of IL liquid contrast by these eight participants. First, it seems that a language transfer influences on the production of three out of eight participants (P1, P8 and P9), but I cannot presume that they transfer non-distinction of liquid from any particular system. Second, it is quite clear that five out of eight participants (P2, P3, P4, P7 and P10) transfer non-distinctive of liquid from their native dialect rather than CT when they pronounce English liquid contrast. In other words, it can be interpreted that their grammar does not have a liquid distinction at all.

This two cases can be explained by the effect of L1 transfer stating by Lado (1957), when learners are acquiring the L2, they are likely to transfer the pattern of the L1, which in this case they have carried over the non-contrastive liquid characteristic from their native dialect into their L1 and IL production. Several studies also revealed this similar phenomenon stating that L2 speakers tend to transfer the closest sound in their L1 when they are learning the L2 (Beebe, 1980; Schmidt, 1987; DeVane, 1990; Bada, 2001; Eckman *et al.*, 2007; Phootirat, 2012).

In addition, this present study aims to examine the production of English liquid contrast by northern Thai speakers, which derived from some aspects of the study of Phootirat (2012) focused on the liquid contrast by Thai and Lao speakers. Focusing on Lao-speaking group, it seems that the results from the present study are relatively similar to that from Phootirat's (2012) work that most Lao speakers in her study did not pronounce the liquids in the IL contrastively since there is only one liquid, /l/, in their phonological inventory as in northern Thai dialect. Therefore, this strengthens the influence of L1 transfer. In particular, the slight difference between these two studies is that most Lao speakers in Phootirat (2012) are influenced by their L1 transfer; while; only three participants in this study are affected by their native dialect transfer.

Interestingly, only two participants (P5 and P6) have acquired the contrast in IL system, and it seems that they transfer the liquid contrast from the CT. However, the data reveals that both of them treat these two systems (CT and IL) separately, because when we look at the pronunciation of English /r/, it was produced with an approximant [ɹ]. Therefore, it cannot be concluded that their standard dialect or central Thai dialect affects on the acquisition of liquid contrast in the IL, despite the fact that the data exhibits the liquid contrast.

Moreover, after the interview, I found that both participants show high interest in western media, they revealed that they like to imitate native speech when watching movies. This can be supportive by the Zone of Proximal Development (ZPD) proposed by Vygotsky (1978) explaining the relationship between learning and cognitive development. That is, learners are able to acquire skills that go beyond the limits of their actual capability through the assistance of an instructor. However, an instructor can be not only a person like parent or teacher, but also a tool like media. Vygotsky (1978) also exemplified that learners can learn a language from other people via dialogue, which they observe from their parents' behavior, their parents' speech, and that they then practice by imitation. This behavior enables their cognitive development, and they begin to control their own thought processes. Some studies have supported that the ZPD process enables learners in learning the L2 effectively as explained earlier (McCafferty, 2002; Schwieter, 2010; Rezaee and Azizi, 2012). It is possible that the imitation permits the learners to mimic the target-like pronunciation of liquids.

Hypothesis 2: The Effect of Different Speech Styles in Acquiring the Contrast between English /r/ and /l/ in Word-initial Singletons

With respect to the second hypothesis stating that the acquisition of English /r/ and /l/ in word-initial singletons in less formal task implies the acquisition of English /r/ and /l/ in word-initial singletons in more formal task. This claim is drawn from the stylistic variation generalization by Labov (1969) stating that a speaker tends to use standard form in more formal tasks. Also, Tarone (1979) positing the continuum

paradigm derived from Labov's (1969) exposition of "observer's paradox" proposed that the accuracy of the L2 production will increase when speakers pay more attention to the task.

As far as the style of speech is concerned, two tasks representing different speech formality – word-list reading and paragraph reading – were used to collect data in order to see whether the level of formality affects on the IL production of northern Thai speakers. The passage reading represents less formality than the word list reading as described in Chapter 2.

Thus, there are three possible interpretations following this claim: (1) a speaker have acquired English /r/ and /l/ contrast in both more formal and less formal tasks; (2) a speaker has acquired English /r/ and /l/ contrast in more formal task, but has not acquired in less formal task; and (3) a speaker has not acquired English /r/ and /l/ contrast in any task. The only disproof case is that a speaker has acquired English /r/ and /l/ contrast in less formal task, but has not acquired in more formal task.

Table 10, formulating as Table 8, demonstrates the acquisition of English /r/ and /l/ contrast in word-initial singletons across tasks in order to examine whether different speech styles impact on the IL production of northern Thai speakers.

Table 10 The acquisition of English /r/ and /l/ contrast by northern Thai speakers across tasks (repeated Table 8 for convenience)

Participant	PR			WL		
	/r/	/l/	/r/-/l/	/r/	/l/	/r/-/l/
P1		1	-	1	1	-
P2		1	-		1	-
P3	1	1	-	1	1	-
P4	1	1	-		1	-
P7	1	1	-	1	1	-
P8		1	-		1	-
P9	1	1	-		1	-
P10	1	1	-	1	1	-
P5	1	1	+	1	1	+
P6	1	1	+	1	1	+

Table 10 illustrates the acquisition of English /r/ and /l/ contrast in word-initial singletons across tasks by northern Thai speakers. The IL data in this study supported Hypothesis 2 stating that the acquisition of English /r/ and /l/ in word-initial singletons in less formal task implies the acquisition of English /r/ and /l/ in word-initial singletons in more formal task.

As speech style is concerned, most studies support Labov's (1969) and Tarone's (1979) statements claiming that the accuracy of speakers' production varies depending upon the level of speakers' attention (Dickerson, 1975; Ellis, 1985; Douglas and Selinker, 1985; Fulcher, 1995). These studies exhibit that the use of norm form in an informal setting implies the production of standard language in formal one. Even though the results of this study shows the support of the hypothesis being test, they do not fully reflect the implicational generalization by demonstrating only the cases where the contrast either occurs in all tasks or does not occur at all.

It seems that the occurrence of a norm variant of IL English /r/ in the data of most participants, except P5 and P6, is scarce even in the formal context. Beebe (1980) and Tarone (1985) revealed that the attention to speech does not always correlate with the accuracy of form. In other words, we cannot predict that speech formality will influence the accuracy of standard variant. It could be that L2 learners use the same sounds in all contexts.

In 1980, Beebe found that there is a sociolinguistic factor transferred from the L1 into the L2 as Thai ESL learners in her study adopted Thai initial [r] into English /r/ in more formal style due to the fact that this sound is sociolinguistically preferred in the Thai language. However, sociolinguistic transfer does not exist in the results of English liquid contrast in word-initial singletons in this current work, which accords with the study of Phootirat (2012). Thus, this implies that this feature in the language has been changed.

Pedagogical Implications

This section demonstrates the implications from the results of this current study. Two essential issues corresponding to the production of liquid contrast are provided as follows:

Firstly, the results of this current study provide an interesting issue that native dialect transfer also plays a major role in acquiring the IL liquid contrast. Five out of 10 participants have transferred their NT when pronouncing the liquid contrast in the IL, even though they can pronounce the contrast in their central Thai (CT). It seems that they treat CT and IL separate systems as seen in the data of liquid contrast in this study. Therefore, teachers or practitioners should consider native dialect system when teaching pronunciation, other than standard language system. Beside the liquid contrast, despite having a rhotic in both systems, CT and IL, teachers should carefully pinpoint the phonetic difference between /r/ in Thai and English. Since Thai /r/ is a voiced apico-alveolar trill [r]; while English /r/ is a voiced-alveolar approximant [ɹ].

Another implication is that we should observe the pronunciation of each student individually if possible. It would be beneficial for learners since even this group of participants is controlled by the level of English proficiency; the utterance of each speaker varies depending on different factors.

Conclusion

This present study primarily aims to investigate the acquisition of English /r/ and /l/ contrast in word-initial singletons produced by ten L2 learners whose native dialect is northern Thai. Due to the lack of /r/ in its phonological inventory, it is worth to see whether their native dialect plays a role on acquiring the liquid contrast in the IL. Another objective is to investigate whether the speech formality has an impact on the acquisition of English /r/ and /l/ distinction in different contexts. In order to test the effect of speech formality, I selected two tasks representing different speech styles, including passage reading and word list reading - the word list reading is considered as more formal than the passage reading.

Two hypotheses were formulated as follows:

1. Northern Thai speakers do not acquire English /r/ and /l/ contrast in all tasks.
2. The acquisition of English /r/ and /l/ in word-initial singletons in less formal task implies the acquisition of English /r/ and /l/ in word-initial singletons in more formal task.

The data were audio-recorded and broadly transcribed. I adopted an Interlanguage analysis as the framework to examine the actual individual production of IL data by northern Thai speakers. To analyze the data, I categorized the data according to the phone they produced and tallied them. Then, the frequencies were converted into percentages and the 80% threshold (Eckman *et al.*, 2007) is adopted to determine the acquisition. In other words, a certain phone will be identified as an acquired variant when learner produces that phone at least 80% of the time. After that,

the results of /r/ and /l/ were compared and the presence or absence of a phonemic contrast was noted.

The results are divided into two main parts corresponding to the two hypotheses. First, when considering on the acquisition of English liquid contrast, the results revealed that the production of most participants (eight out of 10 participants) supports Hypothesis 1. Close examination provide interesting evidence that only five out of eight participants have transferred the absence of the liquid contrast in their native dialect into their IL production. That is, there is non-existence of liquid contrast in their IL speech. The findings here accord with the production of novice learners in a number of studies presenting the similar findings (Lado, 1957; Gui, 1978 cited in Gass and Selinker, 2008; Beebe, 1980; Chunsuvimol, 1993; Ellis, 2003; Brooke *et al.*, 2010; Zimmer *et al.*, 2009 cited in Osborne, 2010; Liu, 2011; Grami and Alzughairi 2012). While the data gathered from three out of eight participants have shown that they do not make a liquid distinction at all in their grammar. Interestingly, the data obtained from only two participants disprove this hypothesis due to they have acknowledged the liquid contrast in both L1 and IL across tasks. In addition, their personal interest in western media may be the stimuli assisting their L2 learning development as they can produce different characteristic of /r/ between CT and IL. Many studies have suggested that this due to ZPD facilitating a learner in learning additional languages (McCafferty, 2002; Schwieter, 2010; Rezaee and Azizi, 2012).

As far as the second hypothesis is concerned, it is partially supported by the results of all participants in this study; however, the data do not really exhibit the implicational generalization as there are only two cases including acquiring the contrast in all tasks and non-acquiring at all. Although some participants can acquire the liquid contrast in their L1, producing a new phoneme in the IL seems difficult for them as revealed in the data of most Lao speakers of Phootirat's (2012) study. Lado (1957) mentioned that the differences between NL and TL cause difficulty in acquiring a new phoneme as seen from the data of eight participants who do not make a distinction of the liquid contrast in any task. However, the data obtained from two participants (P5 and P6), opposed to Beebe's (1980) study, reflects that they recognize the significance of liquid contrast in IL as the standard variants of liquids have been

acquired across tasks. In addition, a sociolinguistic factor with respect to speech formality does not have an impact on the acquisition of English liquid contrast produced by ten northern Thai speakers in this current study.

Recommendations for Further Studies

This present study investigates the production of English /r/ and /l/ contrast in word-initial singletons by northern Thai speakers. However, there are some aspects that need to be explored in the future as follows:

1. This study focuses on English /r/ and /l/ contrast in word-initial singletons only, it is recommended for other studies to investigate in other positions i.e., word-medial or word-final position.
2. Since the number of the participants in this study is small, it is recommended for other studies to collect data from bigger groups in order to provide more insight of the L2 production by northern Thai speakers.
3. As mentioned the northeastern Thai dialect does not have /r/ in the phonological inventory as in northern Thai; therefore, other studies could expand the investigation to this group of speakers, or compare the production of these two groups. Also, Lao speakers, whose L1 does not have /r/ in its phonological would be interesting participants to analyze.
4. Since this present study pays attention only to the production of liquid contrast, it is worth investigating further on the perception aspect in order to examine the relationship between perception and production of the L2 phonemic contrast.

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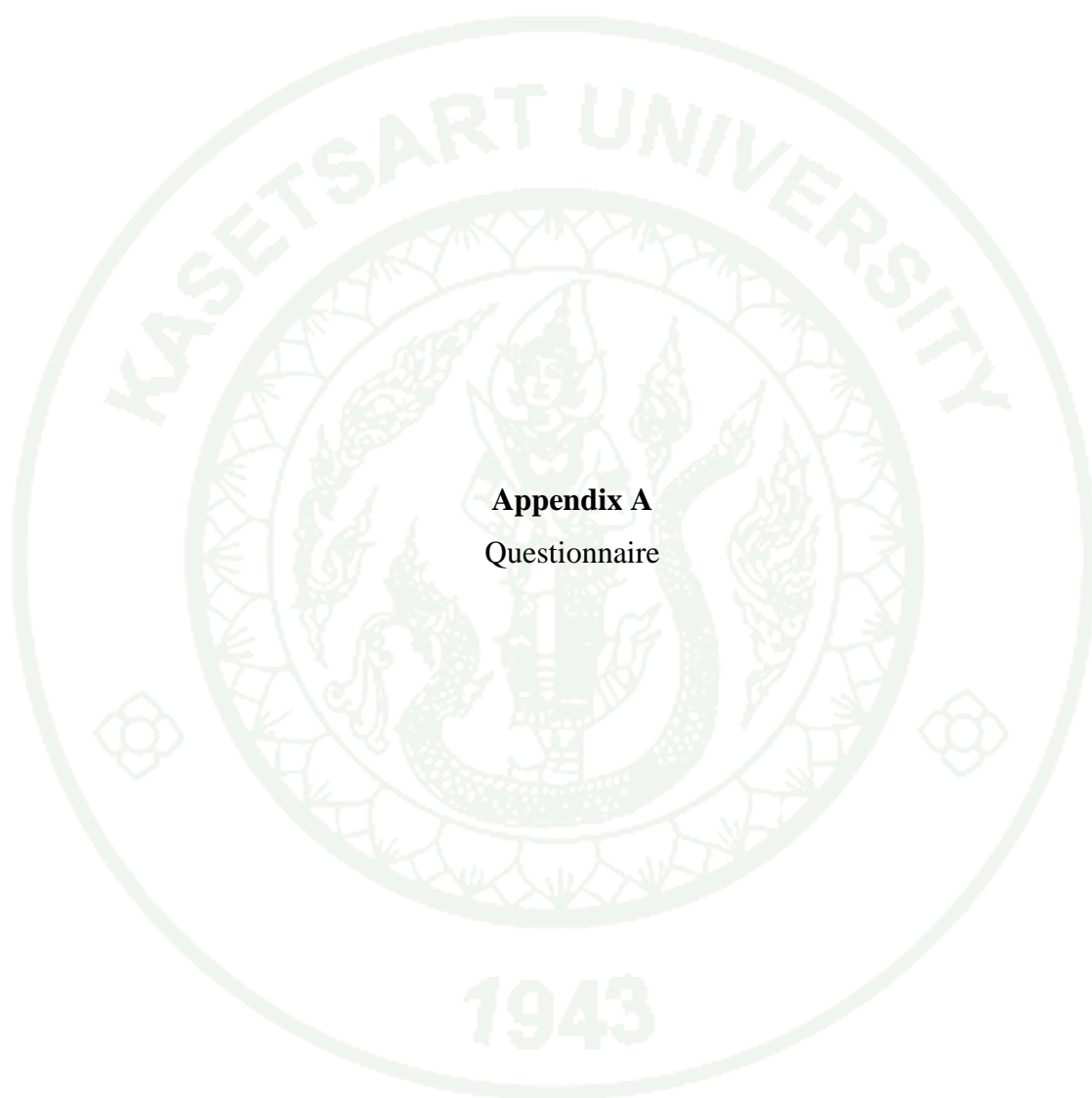
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APPENDICES



Appendix A
Questionnaire

แบบสอบถามนี้มีวัตถุประสงค์เพื่อใช้เป็นข้อมูลในการทำวิทยานิพนธ์ระดับบัณฑิตศึกษา
คณะมนุษยศาสตร์ สาขาภาษาอังกฤษเพื่อวัตถุประสงค์เฉพาะ มหาวิทยาลัยเกษตรศาสตร์

ผู้วิจัยจึงขอความร่วมมือจากท่านกรุณาตอบแบบสอบถามให้สมบูรณ์ ผู้ตอบแบบสอบถาม
จะไม่มีผลกระทบจากการตอบแบบสอบถามแต่ประการใด และการนำเสนอผลการวิจัยนี้จะเป็น
ภาพรวมเท่านั้น กรุณาตอบแบบสอบถามตามความเป็นจริงทุกข้อ

1. ประวัติส่วนตัว

ชื่อ..... นามสกุล.....

อายุ.....ปี เพศ ☐ ชาย ☐ หญิง

คณะ..... ภาควิชา.....

ชั้นปีที่..... ภาค ☐ ปกติ ☐ พิเศษ ☐ นานาชาติ

เรียนภาษาอังกฤษ จำนวน ชั่วโมงต่อสัปดาห์

2. ระยะเวลาในการเรียนภาษาอังกฤษ

☐ น้อยกว่า 10 ปี

☐ มากกว่า 10 ปี

3. เคยศึกษาในโครงการภาษาอังกฤษ (English Program) หรือไม่

☐ เคย (จบการตอบแบบสอบถาม)

☐ ไม่เคย (ข้ามไปข้อ 4)

4. เคยไปต่างประเทศหรือไม่

☐ เคย (จบการตอบแบบสอบถาม)

☐ ไม่เคย (ข้ามไปข้อ 5)

5. เคยไปศึกษาหรือไปกับโครงการแลกเปลี่ยนในต่างประเทศหรือไม่

☐ เคย (จบการตอบแบบสอบถาม)

☐ ไม่เคย (ข้ามไปข้อ 6)

6. ภูมิลำเนาเดิมของคุณ (โปรดระบุจังหวัด)

7. ภาษาถิ่นที่ใช้ในชีวิตประจำวัน

☐ ภาษาเหนือ (ข้ามไปข้อ 8)

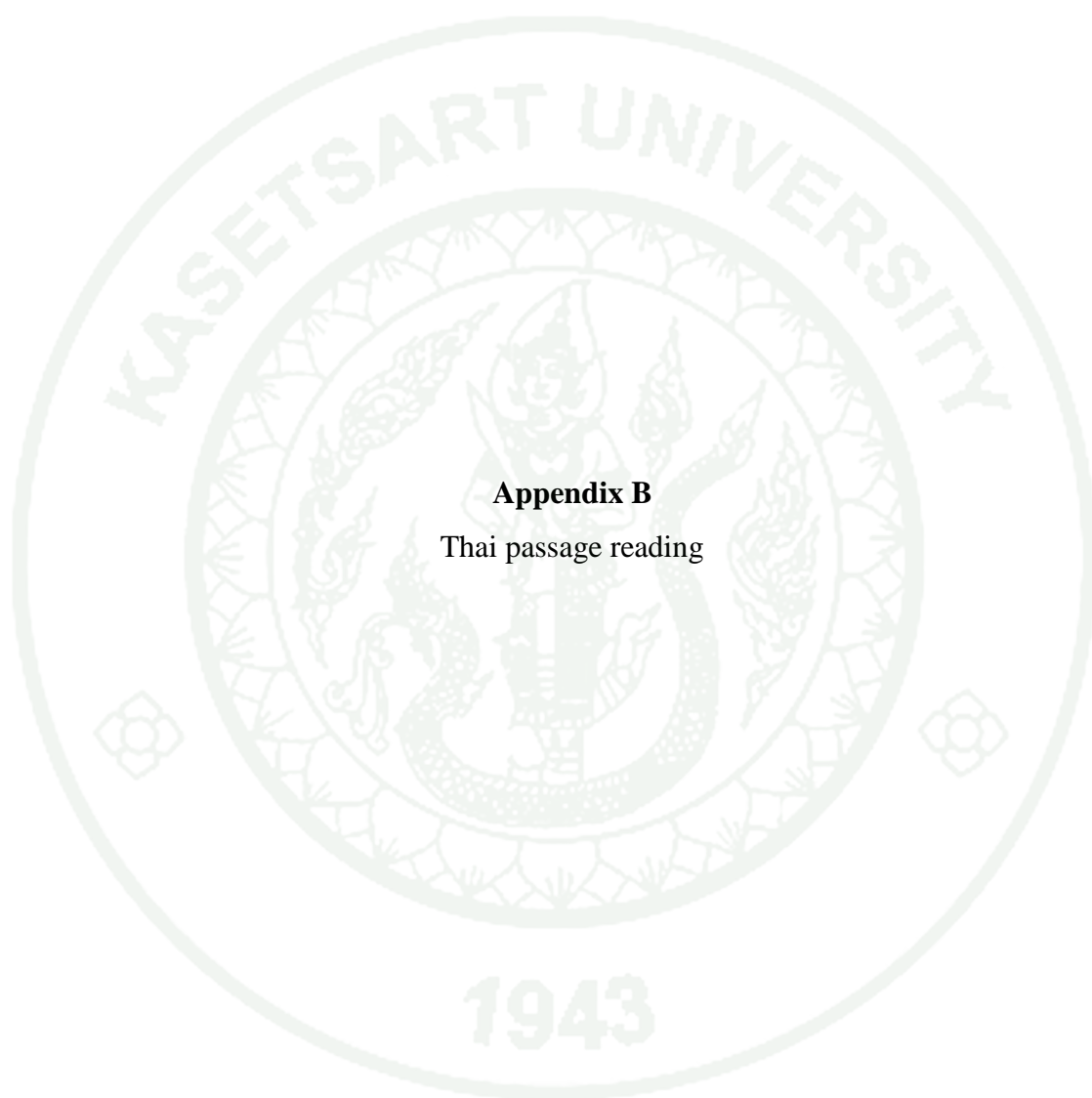
☐ ภาษาอีสาน (จบการตอบแบบสอบถาม)

☐ ภาษากลาง (จบการตอบแบบสอบถาม)

☐ ภาษาใต้ (จบการตอบแบบสอบถาม)

8. คุณใช้ภาษาเหนือในบริบทใด (ตอบได้มากกว่า 1 ข้อ)
- ☐ สนทนากับครอบครัว ☐ สนทนากับเพื่อน ☐ นอกห้องเรียน
- ☐ ในห้องเรียน ☐ อื่น ๆ โปรดระบุ.....
9. ภูมิถิ่นกำเนิดของ บิดา..... ภาษาถิ่นที่บิดาใช้ในชีวิตประจำวัน.....
10. ภูมิถิ่นกำเนิดของ มารดา..... ภาษาถิ่นที่มารดาใช้ในชีวิตประจำวัน.....
11. สัดส่วนการใช้ภาษาเหนือกับภาษากลางของคุณใน 1 วัน
- ☐ ใช้ภาษาเหนือมากกว่าภาษากลาง ☐ ใช้ภาษากลางมากกว่าภาษาเหนือ
12. คุณใช้ภาษาอังกฤษบ่อยแค่ไหน
- ☐ 1 วันต่อสัปดาห์ ☐ 2-3 วันต่อสัปดาห์
- ☐ 4-5 วันต่อสัปดาห์ ☐ ทุกวัน
13. คุณคิดว่า คุณมีความสามารถในการใช้ทักษะทางภาษาอังกฤษใดที่ดีที่สุด
- ☐ ฟัง ☐ พูด ☐ อ่าน ☐ เขียน
14. คุณคิดว่า ความสามารถทางการพูดภาษาอังกฤษของคุณอยู่ในระดับใด
- ☐ ดีเยี่ยม ☐ ดี ☐ ปานกลาง ☐ พอใช้ ☐ แย่
15. คุณคิดว่า ความสามารถทางการฟังภาษาอังกฤษของคุณอยู่ในระดับใด
- ☐ ดีเยี่ยม ☐ ดี ☐ ปานกลาง ☐ พอใช้ ☐ แย่
16. คุณเรียนรู้ภาษาอังกฤษผ่านช่องทางใดบ้าง (ตอบได้มากกว่า 1 ข้อ)
- ☐ โทรทัศน์ ☐ วิทยุ ☐ ภาพยนตร์
- ☐ อินเทอร์เน็ต ☐ อื่น ๆ โปรดระบุ.....
17. คุณเคยเรียนคอร์สฝึกการออกเสียงภาษาอังกฤษหรือไม่
- ☐ เคย ☐ ไม่เคย

ขอบคุณทุกท่านที่กรุณาให้ความร่วมมือในการตอบแบบสอบถาม



Appendix B
Thai passage reading

Thai passage reading

1. สำหรับชาวกรีกโบราณ โรงยิมเป็นสถานที่ของปรัชญาและวัฒนธรรม ผู้ชนะเลิศยิมนาสติกจะพยายามสุดฝีมือเพื่อความสมมาตรของร่างกายและจิตใจโดยสร้างความสมดุลของกายและสติปัญญา นักกีฬาบางคนมีความสามารถอย่างไม่น่าเชื่อ ใน ค.ศ. 393 จักรพรรดิทีโอโดซิอุสทรงสั่งห้ามการเล่นกีฬานี้ เพราะกลัวว่านักกีฬาจะตีเสมอสถานะคุณสมมุติเทพของพระองค์ นับเป็นการยุติธรรมที่จะกล่าวว่า นักยิมนาสติกสมัยใหม่ส่วนใหญ่ไม่ได้ตีเสมอสถานะคุณสมมุติเทพของผู้ใดก็ตามที่เป็นนักปรัชญา เมื่อนักข่าวโทรทัศน์ในกีฬาโอลิมปิกที่ปักกิ่งปี ค.ศ. 2008 ถามนักยิมนาสติกถึงประสบการณ์ในการแข่งขันที่ประเทศจีนซึ่งถูกกล่าวหาด้วยเรื่องการเมือง คำตอบของนักกีฬาเหล่านี้ครอบคลุมความหมายที่ลึกซึ้งมากมายตั้งแต่ “ยอดเยี่ยม” ไปถึง “สุดยอด”

For the Ancient Greeks, the gymnasium was a place of philosophy and culture. Gymnastic champions strived for symmetry of body and mind by balancing out the physical with the intellectual. Some gymnasts were so amazingly symmetrical that in AD 393, Emperor Theodosius had the sport banned, fearing they rivaled his immortal status. It's fear to say that most modern gymnasts won't be rivaling anyone's immortal status as a philosopher. When TV journalists at the 2008 Beijing Olympics asked gymnasts about their experiences of competing in a politically charged China, their answers spanned the spectrum of subtle nuance, from "Really good!" to "Awesome!"

2. วันหนึ่งในฤดูร้อน ผีเสื้อตัวหนึ่งรู้สึกกระหายน้ำจึงบินไปหาน้ำดื่มที่ริมลำธาร ด้วยความรีบร้อน มันจึงลื่นพลัดตกลงไปในลำธารแห่งนั้น น้ำในลำธารดูเหมือนจะเชี่ยวกราด ในความรู้สึกของผีเสื้อ มันพยายามตะกายหาที่เกาะยึดเพื่อให้รอดพ้นจากการจมน้ำตาย แต่ความพยายามไม่เป็นผล มันจึงปล่อยให้ตัวเองไหลล่องไปตามกระแสน้ำนั้น เวลานั้นมันเฝ้าดูตัวเองที่บินมาที่ลำธารเพื่อดื่มน้ำ ขณะจะบินโฉบลงดื่มน้ำ มันเฝ้าเห็นสิ่งกำลังกระเสือกกระสนอย่างโกลีจะหมดแรงลงเต็มที มันเฝ้าดูตัวเองที่รีบบินไปคาบใบไม้แล้วหย่อนลงไปในน้ำเพื่อให้ผีเสื้อเกาะ ผีเสื้อเกาะใบไม้ไว้ ก่อนที่จะพาตัวขึ้น มาอยู่บนใบไม้

One summer day, a little bee felt thirsty. It flew to a stream to drink water. In a hurry, it fell into the stream. The current in the stream was too strong for the bee. It tried to hold on something or it will get drown. The bee found nothing to hold on

and let itself flow with the current. At that moment, there was a dove flew to the stream to drink water. As she came down, the dove saw the bee wearily struggled in the stream. The king dove hurriedly flew to pick a leaf and dropped it into the river. The bee caught the leaf and climbed on it.

3. หลังจากที่ได้ เรียนจบ สาขาพืชไร่ใน ระดับปริญญาตรี เขาก็วางแผนที่จะใช้ความรู้ที่เรียนมาเพื่อพัฒนาไร่น้ำส้มซึ่งเป็นมรดกตกทอดจากบรรพบุรุษ เขาได้นำความรู้ในเรื่องวิถีเกษตรยั่งยืนตามแนวทางของพระบาทสมเด็จพระเจ้าอยู่หัวมาเผยแพร่ให้คนในครอบครัวและชาวบ้านใกล้เคียง โดยมีวิธีการเพิ่มรายได้ให้กับครอบครัวและคนในชุมชน ด้วยการนำเปลือกส้มจากผลส้มคุณภาพต่ำที่ขายไม่ได้ไปแปรรูปเป็นผงเปลือกส้ม ที่มีสรรพคุณช่วย ไถ่ และนำมาทาตามลำตัว เพื่อรักษา รอยไหม้ จากแสงแดดให้ เลือนหาย ไปได้อย่างรวดเร็ว นับว่าเป็นการสร้างทั้งอาชีพและความสามัคคีให้กับคนในชุมชน

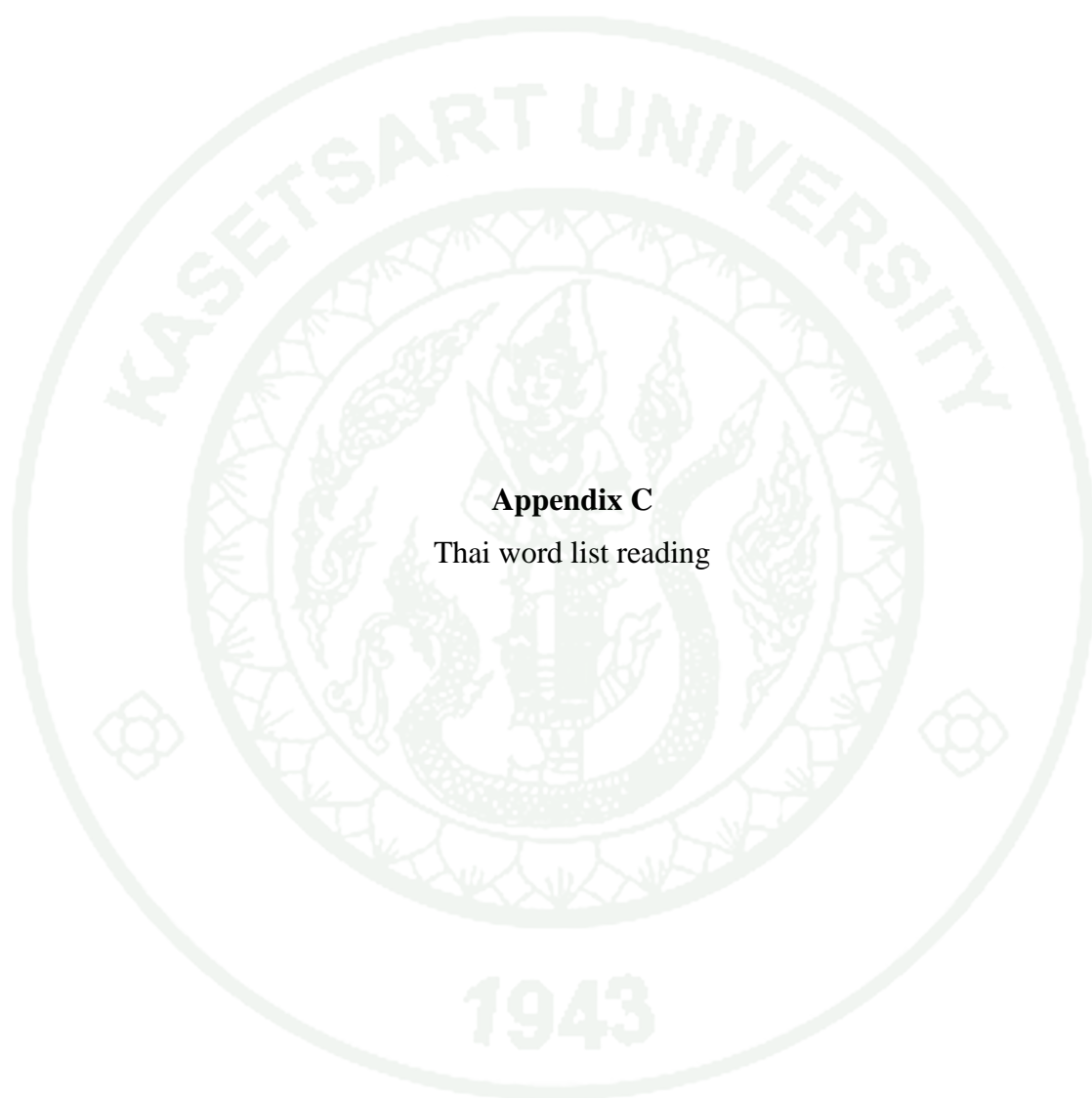
After Tum graduated the Bachelor degree in Agronomy, he plans to develop his orange fields which are his ancestor's property. He follows the sustainable agriculture of King Bhumibhol to teach his family and neighbors for improving their incomes. He brings orange peels which are low grade and cannot be sold, and transform them into powder. This new product can protect the mosquitoes, and apply the body to heal the burn from sunrise quickly. This agricultural process can make not only the occupation, but also the unity for the community.

4. จากปัญหาความขัดแย้งทางการเมืองของประเทศไทยในปัจจุบัน ทำให้ประชาชนเกิดภาวะตื่นตระหนก เนื่องจากการรับข้อมูลข่าวสารที่มีความขัดแย้งกันจากหลายฝ่ายที่ ถูกขึ้นมาสืบเกี่ยวกับประเด็นทางการเมืองมากขึ้น ในขณะนี้มีความคิดที่ต่างกันอย่างสิ้นเชิง หนึ่งในฝ่ายรัฐบาลและผู้สนับสนุนมีความปรารถนาที่จะ เลือกตั้ง อีกฝ่ายคือผู้คัดค้านรัฐบาลปรารถนาให้ รื้อ การปฏิรูปประเทศก่อนการเลือกตั้ง จึงทำให้เกิดเหตุปะทะกันหลายจุด ก่อให้เกิดความสูญเสียทั้งชีวิตและทรัพย์สินท่ามกลางเสียง ร่ำไห้ ของผู้ที่เกี่ยวข้องกับความสูญเสียนั้น จากรายงานข่าวพบว่าผู้กระทำความผิดเหล่านั้นยังคง ลอยนวล อยู่ เนื่องจากเจ้าหน้าที่ตำรวจต้องรวบรวมหลักฐานโดย ละเอียด เพื่อออกหมายจับและ ลากตัว คนร้ายมาดำเนินคดีให้ได้เร็วที่สุด

According to the political conflict of Thailand now, people feel seriously because they receive different news from many sources. Many people are awakened to the political issues. However, there are two main sides including the government and the supporters who want the election, other is the protester who want to reform the democracy before election. Therefore, the riots appear in many areas that causes the loss in human life and properties among their sadness. As the news report, the police officers cannot arrest the rioters; because they need to collect evidences thoroughly to charge the rioters quickly.

5. หนึ่งในสินค้าส่งออกอันเลื่องชื่อของคนไทยคือ ผ้าไหมไทย ซึ่งมี รากเหง้ามาจากการสืบทอดฝีมือของบรรพบุรุษไทย ในสมัยโบราณผู้ชายจะมีหน้าที่ออกไปดูแล เรือกสวน และค้าขาย ในขณะที่ผู้หญิงจะมีหน้าที่ดูแลบ้านและในเวลาว่างก็จะนั่งทอผ้าอยู่ใต้ถุน เรือนไทย การทอผ้าสมัยนั้นเน้นประโยชน์การใช้สอยมากกว่าการค้า ดังนั้น ลายปัก ที่นิยมจึงมักเป็นลวดลายพื้นฐานที่ไม่มีลูกเล่นมากนัก ต่างจากในสมัยปัจจุบันที่เทคโนโลยีการผลิตมีความทันสมัยมากขึ้น ทำให้สามารถคิดค้นลายใหม่ๆหรือเลียนแบบลายที่ลูกค้านิยมได้ จึงช่วยเพิ่มศักยภาพในกิจการส่งออกผ้าไหมไทยให้ล้ำค่ามากขึ้นในตลาดโลก

One of Thailand's export products is Thai silk, which origins from the succession of Thai ancestors. In the past, men go to the field and trade their products, while women do the housework and weave in their free time under their houses. Weaving the silk in the past does not concern about trading as in the present, so it is weaved in basic pattern. Due to there is high technology nowadays, there are many new patterns or we can imitate other patterns based on the customers' need; therefore, Thai silk becomes well-known in the world market



Appendix C

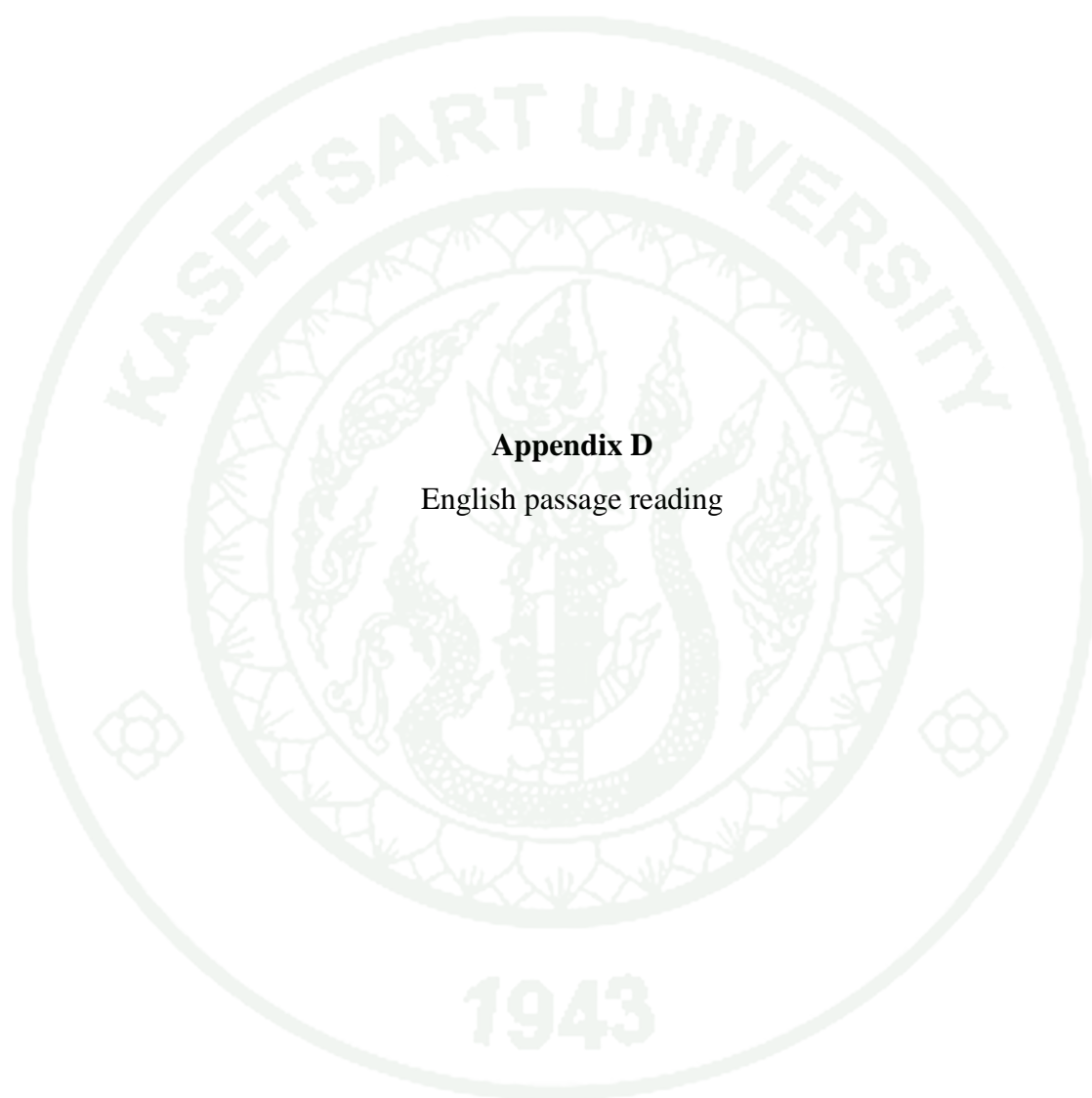
Thai word list reading

Ten minimal pair of /ร/ and /ล/

Thai words	Phonetic transcription	English gloss	Thai words	Phonetic transcription	English gloss
รายได้	[rā:j.dāj]	an income	ลายปัก	[lā:j.pāk]	an embroidery
รอยไหม้	[rō:j.māj]	a burn	ลอยนวล	[lō:j.nōn]	to be free
รากเหง้า	[râ:k.ŋâw]	an origin	ลากตัว	[lâ:k.tōw]	to drag
ระดับ	[ráʔ.dāb]	a degree	ละเอียด	[láʔ.ʔi:at]	thoroughly
เรียนจบ	[ri:an.cób]	to graduate	เลียนแบบ	[li:an.bè:b]	to imitate
รุกคืบ	[rúk.ktûb]	to advance	ลุกขึ้น	[lúk.ktûn]	to stand up
ร้องไห้	[râm.hāj]	to cry	ล้ำค่า	[lâm.sām]	the wealth
ไร้มัน	[rāj.sôm]	an orange field	ไล้ยุง	[lāj.jūŋ]	to repel mosquitoes
เรือนไทย	[rūn.tāj]	Thai house	เลือนหาย	[lūn.hāj]	to disappear
เรือกสวน	[rūk.sǎn]	a field	เลือกตั้ง	[lūk.tûŋ]	to elect

Fifty filler words

เดินเล่น อารุข ทำบุญ ทิศทาง จิตใจ ไปไม้ ศิริระ แม่น้ำ หนังสือ จับกุม
 เชิญชวน เจ็บปวด แจกกัน นักข่าว ว่ายนํ้า กางเกง นิยม สดใส ทักทาย สวยงาม
 ดินสอ หน้าต่าง สะอาด วางแผน ความคิด ชุมชน สูญเสีย ฝีมือ ได้ทุน ขัดแย้ง
 ทอผ้า แข่งขัน ส่งออก แนวทาง สินค้า ปัญหา รอยไหม้ ชีวิต กัดคำณ ผ้าไหม
 อาชีพ ปะทะ หมายถึง แสงแดด ข้อมูล สาขา การเมือง ข่าวสาร สามารถ คำตอบ



Appendix D
English passage reading

English passage reading

1. Once upon a time there lived an unhappy young girl. Her mother was dead and her father had married a widow with two daughters. Her stepmother did not like her one little bit. All her kind thoughts and loving touches were for her own daughters. Nothing was too good for them - dresses, shoes, delicious food, soft beds, and every home comfort. But, for the poor unhappy girl, there was nothing at all. No dresses, only her stepsisters' hand-me-downs. No lovely dishes, nothing but scraps. No rest and no comfort. She had to work hard all day. Only when evening came was she allowed to sit for a while by the fire, near the cinders. That's why everybody called her Cinderella.

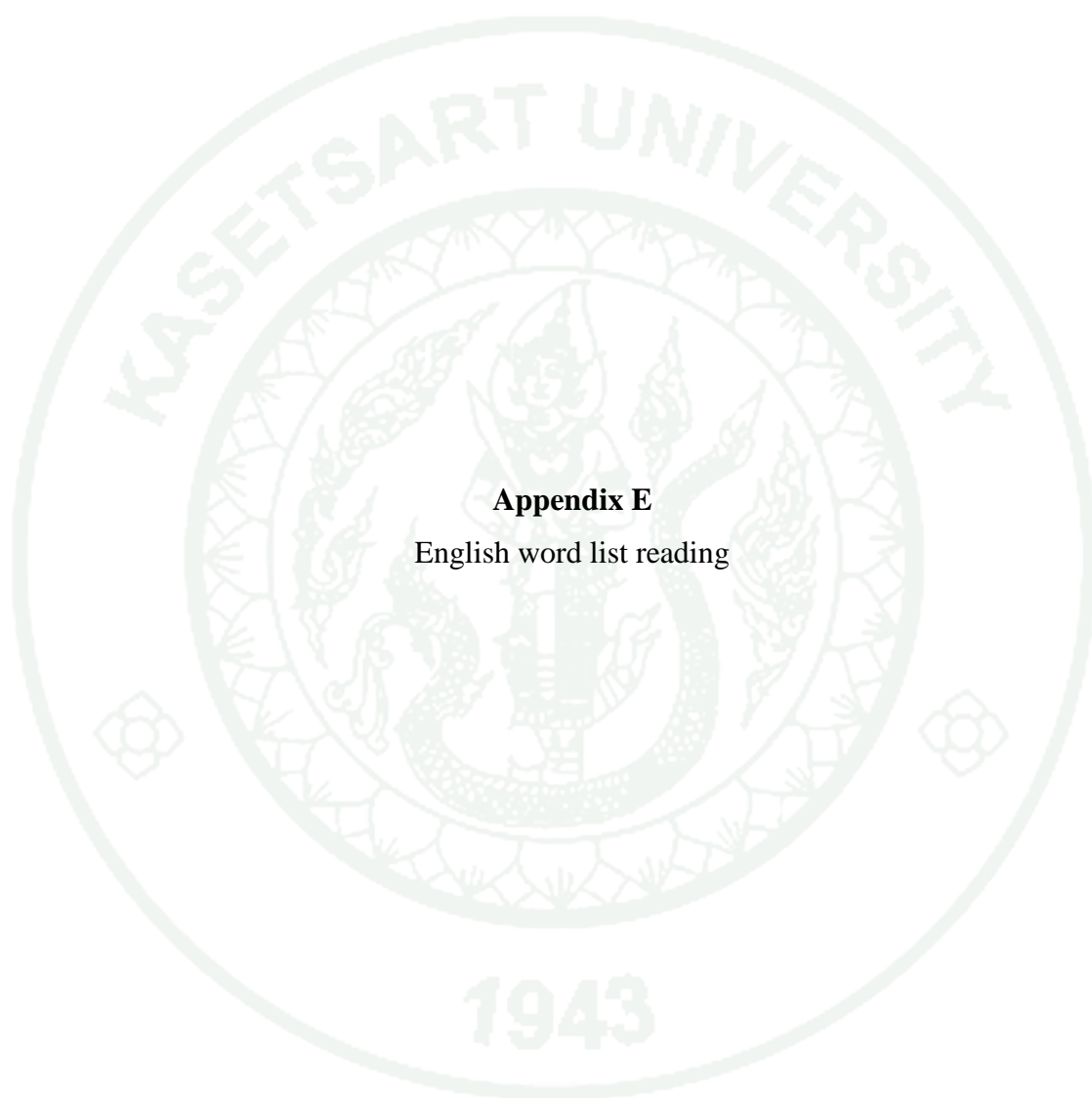
2. A bear came across a log where a swarm of bees had nested to make their honey. As he snooped around, a single little bee flew out of the log to protect the swarm. Knowing that the bear would eat all the honey, the little bee stung him sharply on the nose and flew back into the log. This flew the bear into an angry rage. He swatted at the log with his big claws, determined to destroy the nest of bees inside. This only alerted the bees and quick as a wink, the entire swarm of bees flew out of the log and began to sting the bear from head to heel. The bear saved himself by running to and diving into the nearest pond.

3. Tim was a frog that liked to eat ice cream. He lived in a swamp across the road from the ice cream shop. Tim looked at the happy children with ice cream on their lips, and wanted to share their joy. The only problem was Tim could not buy any ice cream, because he did not have any money. Tim sat on his rock dreaming of ways to get money. He could give tours of the swamp, and lead tourists around all the sites for a very low rate. Tim knew though that it would be difficult to get a job as a frog, and that he might be better to rob someone. But Tim was a good frog and did not want to break the law. He rather did what was right, and got his ice cream honestly.

4. It was a dark rainy night. The TV newscaster had read the weather forecast that the storm could last all night. As I went to lock the door, I heard a loud bang come from upstairs. I went there to see what made the noise, but before I could see

anything, the power went out leaving me in darkness. I went to the kitchen to get a candle. I now could see with my small orange light casting shadows everywhere. I again went upstairs, the floorboards creaking with my every step. I opened the bedroom door, and there was my reading lamp on the floor. I had left a window open, and the wind had blown it down. I picked up the lamp and cleaned the room. Then I lay on my bed, and drifted to sleep listening to the rain.

5. I work in a meat packing plant in the center of the town. Everyday I have to unload trucks for the factory. The job begins at 6 o'clock in the morning. I always leave my house by a quarter to six, so it is sure that I do not go to work late. When I drive down the small lane that leads to the factory, the first rays of sunshine can be seen. When I get to the load dock, I begin to rip open bags of raw chickens. Then I lob the carcasses to my co-worker who puts them on the assembly line, where the meat will be put into cans. And later those cans are shipped to the stores for customers to buy in the towns and country sides.



Appendix E

English word list reading

Ten minimal pair of /r/ and /l/

right	/raɪt/	light	/laɪt/
rain	/reɪn/	lane	/leɪn/
rate	/reɪt/	late	/leɪt/
read	/ri:d/	lead	/li:d/
rock	/rɒk/	lock	/lɒk/
raw	/rɔ:/	law	/lɔ:/
road	/rəʊd/	load	/ləʊd/
rip	/rɪp/	lip	/lɪp/
rob	/rɒb/	lob	/lɒb/
ray	/reɪ/	lay	/leɪ/

Fifty filler words

pain	band	fox	thin	six	cook	day	fear	talk	sock	come	girl
pin	van	fight	soft	cut	gap	tell	fate	core	gold	seed	bin
fan	gay	date	say	cap	gas	fat	sing	game	tip	pay	go
thing	vain	best	cash	dam	cold	two	bay	veil	song	think	do
good	tight										

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