

CHAPTER 3

OVERVIEW OF THE LANNA ORTHOGRAPHY

3.0 Introduction

This chapter will provide an overview of the Lanna orthography. There are three sections in this chapter. The first one deals with Kammuang and the Lanna sound system: consonants, vowels, and tones. The second section is a brief overview of the Lanna script consonant classes. The third and perhaps most important section in this chapter describes some of the problems Kammuang speakers experience when they are learning to read and write the Lanna script.

3.1 Consonant sounds

There are twenty consonant phonemes in the Lanna script. Table 1 shows the consonants with their corresponding letters in the Lanna script and the Thai script (the Lanna script is on the left, Thai on the right). One consonant phoneme that appears in the Lanna script but does not occur in the Thai language is the palatal nasal /ŋ/. However the Lanna script lacks two consonant phonemes /t^h/ and /r/ that appear in Thai (Kobkan and Messenger, 1995: 10). Several phonemes are represented by more than one letter (e.g. /p/, /t/, /c/, /k/), due to tonal constraints that will be discussed in section 3.4.1. In addition, many Lanna letters are pronounced differently from the Central Thai letters with which they are typically transcribed in scholarly works, as will be discussed in section 3.5.1.

	Bilabial	Labiodental	Alveolar	Palatal	Velar	Glottal
Stops						
Voiced	/b/ ບ ບ		/d/ ຂ ດ			
Voiceless Unaspirated	/p/ ປ ປ ຜ ພ		/t/ ຜ ງ ຕ ຕ ທ ທ	/c/ ຈ ຈ ຊ ຈ	/k/ ກ ກ ກ ດ	/ʔ/ ອ ອ
Voiceless Aspirated	/p ^h / ຜ ຜ ກ ກ		/t ^h / ຜ ງ ຕ ຕ ທ ທ ດ ດ		/k ^h / ກ ກ ກ ດ ພ ພ	
Fricative		/f/ ຜ ຜ ຜ ຜ	/s/ ສ ສ ຊ ຈ ຊ ຈ ຊ ຈ ຊ ຈ ຊ ຈ			/h/ ຮ ຮ ຮ ຮ

Nasal	/m/ ม น		/n/ น ญ	/ɲ/ ญ ³ ย	/ŋ/ ง	
Lateral			/l/ ล ล			
Semivowel	/w/ ว			/j/ ย		

Table 1: Consonants represented in the Lanna script

3.2 Vowel sounds

The Lanna script has eighteen phonemic vowels and six diphthongs. (Renu, 2000: 10).

3.2.1 Single vowels

The Lanna script recognizes eighteen vowel sounds. The inventory of these vowel sounds is the same as in Thai. The single vowels have phonemically distinct short and long forms and can be divided into two groups: nine short vowels and nine long vowels (Table 2) (Renu, 2000: 10).

³ ญ is Thai script that represent the Kammuang consonant phoneme /ɲ/ even though its pronunciation is different from /ŋ/. Normally if Northern Thai people pronounce /ɲ/, they will think of the Thai consonant ญ.

	Front		central		back	
	Short	long	short	long	short	long
High	/i/	/i:/	/ɨ/	/ɨ:/	/u/	/u:/
	ᨧ	ᨧ	ᨧ	ᨧ	ᨧ	ᨧ
	ᨧ	ᨧ	ᨧ	ᨧ	ᨧ	ᨧ
Mid	/e/	/e:/	/ə/	/ə:/	/o/	/o:/
	ᨧ-ᨧ	ᨧ-	ᨧ-ᨧ	ᨧ-ᨧ	ᨧ-ᨧ, ᨧ	ᨧ-, ᨧ-ᨧ
	ᨧ-ᨧ	ᨧ-	ᨧ-ᨧ	ᨧ-ᨧ	ᨧ-ᨧ	ᨧ-
Low	/ɛ/	/ɛ:/	/a/	/a:/	/ɔ/	/ɔ:/
	ᨧᨧ-ᨧ	ᨧᨧ-	-ᨧ, ᨧ	-ᨧ	ᨧ-ᨧ	ᨧ-ᨧ, ᨧ
	ᨧ-ᨧ	ᨧ-	-ᨧ, ᨧ	-ᨧ	ᨧ-ᨧ	-ᨧ

Table 2: Single vowels represented in the Lanna script

3.2.2 Diphthongs

The Lanna script recognizes six diphthongs⁴: three short diphthongs and three long diphthongs, as shown in Table 3 (Renu, 2000: 11).

⁴Most linguists believe that there are three diphthongs because the short and long varieties occur in complementary distribution. This paper, however will separate long and short diphthongs in order to make the explanation clearer, and because all six are represented in the orthography.

Front		Central		Back	
short	Long	short	long	short	long
/ia/	/i:a/	/ia/	/i:a/	/ua/	/u:a/
๑-๓	๑-๓, -๓-	๑-๓ ๕๓,๓	๑-๓ ๕๓,	๑-๓	๑-๓
๑๕๓	๑๕๓	๑-๓ ๕๓ ^๕	๑-๓ ๕๓ ^๖	๑๕๓	๑๕๓
		๑๕๓	๑๕๓		

Table 3: Diphthongs represented in the Lanna script

3.2.3 Hybrid symbols

There are four hybrid sounds represented in the Lanna script, as shown in Figure 6. The first two examples are vowel-nasal consonant combinations. The third and fourth examples are vowels followed by semivowels.

⁵ This diphthong is used by Chiang Mai scholars because they try to adjust the vowel to be similar to the corresponding Central Thai vowel.

⁶ This diphthong is used by Chiang Mai scholars because they try to adjust the vowel to be similar to the corresponding Central Thai vowel.

- 1) Mid-level (3-3). There is no symbol used to express this tone. /a/
- 2) Low-falling (2-1). The symbol of this tone is /à/
- 3) High-falling (4-2). The symbol of this tone is /â/
- 4) High-rising (4-5). The symbol of this tone is /á/.
- 5) Low-rising (2-4). The symbol of this tone is /ǎ/. There are two varieties of this tone. The first variety begins at level 2 and stays level until near the end of the syllable, when it rises to level 4. This kind occurs in the word *kʰǎ:ŋ* 'to stretch out' for example. The second variety starts at level 2 and rises immediately up to the level 4. This kind of tone occurs in the word *cǐ?* 'to touch,' for example.
- 6) High-level with glottal closure. This tone does not occur in Central Thai. The sound level from the beginning until the end of the syllable will be at level 4 but at the end of the syllable the sound will fall slightly and the glottis will close. An example of this kind of tone is *kʰǎ:w* 'rice'. The symbol for this tone is /ã/ (Renu, 2000: 13-14)

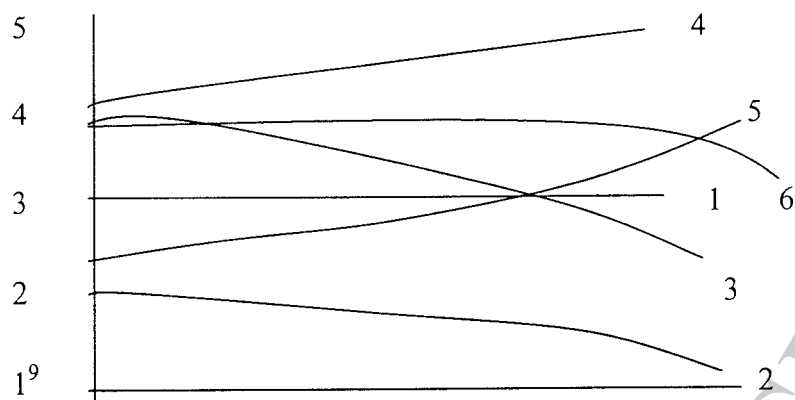


Figure 7: Tones of Kammuang (Chiang Mai) (Renu 2000: 14)

3.3.1 Tone in the Lanna script

The Lanna writing system is different from the Thai writing system because the Lanna writing system has only two tone marks, the ones equivalent to Thai *máj ʔè:k* and *máj tʰo:*, as shown in Table 4. The first tone may be referred to by any of three names.

⁹ The number 5,4,3,2 and 1 indicate the tone level.

Tone Mark	Name	Thai Equivalent	Function
'	/máj jǝʔ/ ¹⁰	ไม้เอก /máj ʔè:k/	low-falling or high-falling (depending on initial consonant) for example, ຊູ່ນ <i>kʰù:aj</i> 'area, open field', ລ່ວງ <i>ŋâ:w</i> 'stupid', or ອູ່ງ <i>cú:aj</i> 'to help'.
✓	/máj kʰǝ: cá:ŋ/	ไม้โท /máj tʰo:/	high-falling, high-rising or high-level with glottal closure (depending on initial consonant), for example, ດຽງ <i>ká:n</i> 'to lose', ຊີ້ດຽງ <i>kʰi: kʰá:n</i> 'lazy', or ແຂ້ວ <i>kʰāw</i> 'rice'.

Table 4: Lanna tone marks

The realization of Lanna tones is determined by several factors, including initial consonant, tone mark (if any), vowel length, and final consonant (if any). Actually, the rules for combining the tone marks and letters in Lanna are quite similar to those for Thai (Kobkan and Messenger, 1995: 35).

Nonetheless, it will be noted that the tone marks above only account for four tones (low-falling, high-falling, high-rising and high-level with glottal closure). The mid-level and low-rising tones are not indicated by tone marks, but rather by the inherent

¹⁰ /máj jǝʔ/ is the common name for this tone. Two other possible names are /máj jǎk/ and /máj jǝ:t/. Kobkan and Messenger (1995) and Udom Rungruengsri (1985) mention all three names in their books.

qualities of the class of word initial consonant (see section 3.4). Thus the six contrasting tones can be demonstrated as follows:

ก	ก๋	กั	กั๋	กั๊	กั๊ว
กา	ก่า	กา	ก้า	ก้า	กา
/ka:/	/kà:/	/kâ:/	/kã:/	/ká:/	/kǎ:/

3.4 Consonant classes

Both the Central Thai and Lanna orthographies have three classes of consonants. However, the consonants in each class are not exactly the same. Table 5 shows the consonant classes of Lanna, the Lanna script consonants in each class, the name of each consonant, and the Thai equivalent. (Kobkan and Messenger, 1995: 27)¹¹

15 High (Inherent Tone: Rising)	4 Mid (Inherent Tone: Level)	23 Low (Inherent Tone: Level)
ຄ ຂ ຈ ນ ບ kǎ? k ^h ǎ? cǎ? sǎ? latǎ? ก ข จ ฦ บ	ງ ບ* ຈ ຈ dǎ? bǎ? jǎ? ?ǎ? ด บ ฦ ฦ	ຄ ດ ງ ດ** ຄ ká? k ^h á? k ^h á? ṅá? cá? ค ด ฦ ง ฦ
ລ ຕ ຕ ປ ບ lat ^h ǎ? tǎ? t ^h ǎ? pǎ? p ^h ǎ? ล ต ฦ ป ฝ		ຄ ງ ງ ງ ຄ sá? sá? ṅá? lat ^h á? laná? ฦ ฦ ฦ ฦ ฦ
ຈ ຈ ງ ງ ຄ fǎ? sǎ? sǎ? sǎ? hǎ? ฝ ฦ ฦ ฦ ฦ		ຄ ຄ ດ** ຄ ຄ tá? t ^h á? ná? pá? fá? ฦ ฦ ฦ ฦ ฦ

¹¹ It should be noted that the actual phonemic values of some of the Lanna letters differs from the phonemic values of their Thai equivalents. This will be discussed further in section 3.5.1.

		๖ ๗** ๘** ๙** ๑** p ^h á? má? ńá? lá? lá? ๖ ๗ ๘ ๙ ๑
		๐** ๑ ๒ wá? lá? há? ๐ ๑ ๒
Notes: * when the consonant ๖ is used in the words borrowed from the Pali or Sanskrit languages, it will be pronounced /p/ rather than /b/ and has an inherent rising tone. ** These seven low class consonants can be made to behave as high class consonants when they are preceded by the consonant /h/ ๑, as is the rule for the Central Thai ๖. In such cases, the /h/ ๑ is silent, impacting only tone.		

Table 5: Lanna consonant classes

3.4.1 The corresponding phonemes of Lanna high class and low class letters

Table 6 shows the corresponding high and low class Lanna letters. It will be noted that the same phoneme may be represented by several letters. However, the low and high class letters carry a different inherent tone in the writing system (see Table 5). There are six low-class Lanna letters that can be made to behave as if they were high-class Lanna letters having the consonant /h/ ๑ (Central Thai ๖) precede them. In such cases, the /h/ ๑ is silent, impacting only tone.

High class			Phoneme	Low class		
(ဂ)	က	/kǎʔ/	/k/	(ဂ)	က	/káʔ/
(ဈ)	ခ	/kʰǎʔ/	/kʰ/	(ဈ)	ခ	/kʰáʔ/
				(ဈ)	ဃ	/kʰáʔ/
(ခ)	င	/cǎʔ/	/c/	(ဈ)	င	/cáʔ/
(ဋ)	ဃ	/latǎʔ/	/t/	(ဈ)	ဃ	/táʔ/
(ဋ)	တ	/tǎʔ/				
(ဋ)	ထ	/latʰǎʔ/	/tʰ/	(ဈ)	ဃ	/latʰáʔ/
(ဂ)	ဒ	/tʰǎʔ/		(ဈ)	တ	/tʰáʔ/
(ပ)	ပ	/pǎʔ/	/p/	(ဈ)	ပ	/páʔ/
(မ)	ဖ	/pʰǎʔ/	/pʰ/	(ဂ)	ဖ	/pʰáʔ/
(မ)	ဗ	/fǎʔ/	/f/	(ဈ)	ဗ	/fáʔ/
(ခ)	စ	/sǎʔ/	/s/	(ဈ)	စ	/sáʔ/
(ဇ)	ဆ	/sǎʔ/				
(ဃ)	ဇ	/sǎʔ/		(မ)	ဆ	/sáʔ/

(ค)	๘	/sǎʔ/				
(ก)	๘	/hǎʔ/	/h/	(ข)	๘	/háʔ/
(กก)	๘	/ŋǎʔ/	/ŋ/	(ง)	๘	/ŋáʔ/
(กข)	๘	/náʔ/	/n/	(น)	๘	/náʔ/
				(ณ)	๘	/lanáʔ/
(กม)	๘	/mǎʔ/	/m/	(ม)	๘	/máʔ/
(กล)	๘	/láʔ/	/l/	(ล)	๘	/láʔ/
				(ล)	๘	/láʔ/
				(ฬ)	๘	/láʔ/
(กย)	๘	/ŋǎʔ/	/ŋ/	(ย)	๘	/ŋáʔ/
				(ญ)	๘	/ŋáʔ/
(กว)	๘	/wǎʔ/	/w/	(ว)	๘	/wáʔ/

Table 6: High class and low class Lanna letters

3.4.2 Middle class

Only three tones can be represented with the mid-class consonants (ด) ๘ /dǎʔ/, (บ)

๘ /bǎʔ/, (จย) ๘ /jǎʔ/ and (จ) ๘ /ǰǎʔ/. Thus the three tones of the mid-class

consonants can be demonstrated as follows (Lamoon, 1999):

ຂາວ	ຂ້າວ	ຂ້າວ
ອາ	ອ້າ	ອ້າ
/ʔaː/	/ʔàː/	/ʔãː/

3.5 Problems Kammuang speakers experience when they learn the Lanna script

Since the purpose of this thesis is to examine language attitudes, it is important to know how difficult it is for Kammuang-speaking youth to learn the Lanna script. If the Lanna script is exceedingly difficult to learn, it could contribute to negative attitudes to the Lanna script. Conversely, if Kammuang-speaking youth find it easy to read the Lanna script, their attitudes should be more positive.

3.5.1 Lanna letters which do not correspond to their Central Thai equivalents

One of the difficulties of Kammuang speakers is dealing with nine Lanna letters ອ, ຄ, ຕ, ນ, ຈ, ກ, ສ, ພ and ງ, which are pronounced differently from the Central Thai letters with which they are typically transcribed in scholarly works, including all current Lanna textbooks. Table 7 gives some examples.

Lanna letters and values	Central Thai transcriptions and values	Example
1) ອ /k/	ค /k ^h /	ອ້າວ /ká:n/ ≠ คำาน /k ^h á:n/
2) ຄ /c/	ช /tʃ ^h /	ຂ້າວ /cá:/ ≠ ช้า /tʃ ^h á:/
3) ຕ /t/	ท /t ^h /	ຕ້ອນ /tó:ŋ/ ≠ ท้อง /t ^h ó:ŋ/

4) ຕ /p/	พ /p ^h /	ຕົງ /pít/ ≠ พิษ /p ^h it/
5) ສ /s/	ศ /tʃ ^h /	ສີ /sĩ:k/ ≠ ศึก /tʃ ^h ĩ:k/
6) ວ /s/	ฉ /tʃ ^h /	ວາບຣ /sa: pà? nâ?/ ≠ ฉาปนະ /tʃ ^h a: pà? nâ?/
7) ຣ /l/	ร /r/	ຣາວາ /la: ka:/ ≠ ราก /ra: k ^h a:/
8) ພ /ŋ/	ย /j/	ພູ້ /ŋáŋ/ ≠ ย้ง /jáng/
9) ງ /ŋ/	ญ /j/	ງາວົ /ŋâ:t/ ≠ ญาติ /jâ:t/

Table 7: Lanna letters pronounced differently from their Central Thai equivalents

Kammuang speakers may have difficulty dealing with these consonants when they learn to read or write the Lanna script. This is because the most widely used system for transcribing Lanna into Central Thai was developed by scholars for precise technical works in which it is important to be able to represent the original Lanna letters. However, this technical system does not correspond to the intuitions of Northern Thai people. For example, Central Thai has one letter for /k/, ก. Lanna has two: ຕ and ຕ. The scholarly transcription writes the first as ก /k/ and the second as ก - a Thai letter which is pronounced /k^h/. Thus when Kammuang speakers want to learn the Lanna script using existing Lanna study books (all written by scholars using the scholarly transcription), they have to forget many things about Central Thai. This problem could easily be solved by using a more phonemic, practical orthography in Lanna textbooks. Many scholars, however, are unwilling to abandon the technical script.

3.5.2 Initial consonant clusters in the Lanna script

Many words are written in the Lanna script with two initial consonants. However, in spoken Kammuang the word is pronounced with a single initial consonant (Kobkan and Messenger, 1995: 12). Thus when Kammuang speakers are asked to write these words, they may write them without the cluster. They have to learn which words are written with initial consonant clusters. In his handbook of comparative Tai, Fang Kui Li (1977) posits complex consonant clusters for Proto-Tai. Modern Tai languages have simplified these clusters. Perhaps Kammuang had complex consonant cluster when the Lanna orthography was developed, and lost them in the future development of the spoken language. Table 8 contains examples of words that are written with initial clusters but pronounced with single consonants.

Phonetic transcription of Modern spoken Kammuang	The Lanna script	IPA transliteration of the Lanna script	Translation
<u>k</u> ^h um	ᨧ᩵ᩁᩬ᩵ᨦ	<u>k</u> ^h lum	to cover
pɔ̃:m	ᨧ᩵ᩁᩬ᩵ᨦ	<u>p</u> lɔ̃:m	to counterfeit, to forge
<u>p</u> ^h ɛ̃:	ᨧ᩵ᩁᩬ᩵ᨦ	<u>p</u> ^h lɛ̃:	a wound, a sign of damage
<u>k</u> ǎ:ŋ tón	ᨧ᩵ᩁᩬ᩵ᨦ	<u>k</u> lǎ:ŋ tón	the middle of a field

Table 8: Words written with initial clusters but pronounced as single consonant

From these examples, we can see that spoken Kammuang and written Lanna are different in terms of the use of clusters. The word ᨧ᩵ᩁᩬ᩵ᨦ is transliterated *p^hlɛ̃:* 'a wound' with a cluster, but in Kammuang it is pronounced without the cluster *p^hɛ̃:*. Another word ᨧ᩵ᩁᩬ᩵ᨦ is transliterated as *klǎ:ŋ tón* 'the middle of a field' but it is

pronounced *kǎ:ŋ tóŋ*. Thus when Kammuang speakers try to write the word they pronounce ຄອຽງ as *p^hě:*, they may write it incorrectly as only ຄອຮ *p^hě:*. Similarly,

the word ຄູ່ໂຕ້ *klǎ:ŋ tóŋ*, may also be incorrectly written as ຄູ່ໂຕ້ *kǎ:ŋ tóŋ*.

Spoken Kammuang has no true consonant clusters other than ones in which /w/ is the second element. (Kobkan and Messenger, 1995: 13) There are eleven such consonant clusters in the more conservative Kammuang dialects: /tw/, /cw/, /kw/, /k^hw/, /ʔw/,

/nw/, /ñw/, /ŋw/, /sw/, /lw/, and /jw/. Table 9 gives some examples:

Phonetic transcription of modern spoken Kammuang (conservative dialects)	The Lanna script	IPA transliteration of the Lanna script	Translation
k ^h wam	ຄູ່ວ	k ^h wam	substance, essence, (noun-maker)
ŋwá:j	ຮຸ່ວຽງ	ŋwá:j	to turn back
ʔwàj nǎ:	ຮຸ່ວຽງນ້າ	ʔwàj nǎ:	to turn one's face

Table 9: Words with initial consonant clusters

Nonetheless, some dialects appear to be losing the /w/ element of those clusters. As Ruengdet notes "In consonantal clusters with /w/, except /kw-/ and /k^hw-/, pronunciation of /w/ may be lost and some words are found to occur with some modification. For example, *swà:y* 'to swing' becomes *sà:y*, etc. in some localities" (Ruengdet, 1982: 5). Smalley (1994: 76) notes a similar phenomenon, although he claims that the clusters tend to remain intact following /s/ and /ŋ/. In any event,

modern speakers who have lost the /w/ may find it difficult to include the /w/ when writing Lanna.

3.5.3 The use of ᨧ as a final consonant

Many Kammuang words end with the alveolar nasal /n/. The consonants ᨧ and ᨩ correspond to /r/ and /n/ in word initial location like the Thai ร and น. There are two letters in the Lanna script that correspond to final /n/, ᨧ and ᨩ¹². The problem for Kammuang speakers is choosing which consonant ᨧ (ᨧ), or ᨩ (ᨩ) should be used in which word. According to Aj. Manop Panyo, words that end with /n/ should be written in the Lanna script using ᨧ (ᨧ), because the ancient Lanna people had this convention. However, there are rules that account for deciding which consonant should be used in the Lanna script between ᨧ (ᨧ) or ᨩ (ᨩ). Aj. Manop suggested that when there is nothing (no consonant, vowel or any symbol) below the word that is pronounced with final /n/, these words will be written by the use of ᨩ (ᨩ) below the preceding consonant. If there is some consonant, vowel, or symbol written under the consonant already, these words will be written by the use of ᨧ (ᨧ). For example, the

words มอ๓ หมอ *mò:n* 'father of grandfather' and หือ๓ ھر *hi:an* 'house, home' occur in Thai as well, but in Thai these two words are written by the use of น e.g. หมอ๓ *mò:n* not หมอ๓ *mò:r* and ھر๓ *hi:an* not ھر๓ *hi:ar*. In Lanna, these two words have to use ส (ร) as the final consonant because the preceding consonant already has another letter below it. An exception to this rule is ก๓๓๓ อาก๓ *ʔa:kǎ:n* 'symptom' where the ส is itself written below the word. Two more examples of differences between the Lanna script spelling and Thai script spelling follow:

1. หือ๓ ھر (final *r*) *hi:an* 'to study, to learn'
2. หือ๓ ھے๓ (final *r*) *kʰi:an* 'to whip.'

In Thai, these two words are written as ھر๓ *ri:an* and ھے๓ *kʰi:an*. Thus new Lanna learners may be confused as to which consonant they should use ส (ร) or ๓ (น). If they know the rule it will be easier for them to decide which consonant should be used with certain words. Table 10 gives more examples of this problem:

¹² The phonetic values of these letters in syllable initial position are /r/ and /n/, respectively. In syllable final position, however, they are both realized as /n/.

Kammuang using Thai script	Phonetic transcription of modern spoken Kammuang	The Lanna script	Thai transliteration of the Lanna script	IPA transliteration of the Lanna script	Translation
เขี่ยน	k ^h i:an	ຂັຍ	เขียร	k ^h i:ar	to whip
เมื่อลุน	mî:a lun	ເມື່ອລຸນ	เมื่อลฺร	mî:a lur	afterwards, after, later on
ย็อนจານัน	ຸວ່:ນ ca: nán	ຍັອຽຈານັນ	ย็อรรชานัน	ຸວ່:r ca: nán	for that reason
ย็อนจายัน	ຸວ່:ນ ca: ໃ້ນ	ຍັອຽຈາຍັນ	ย็อรรชายัน	ຸວ່:r ca: ໃ້ນ	for that reason
สูน	sũ:n	ສູນ	สูร	sũ:r	mix
หม่อน	mò:n	ມ່ອນ	หม่อร	mò:r	father of grandfather
เฮียน	hi:an	ເຮຍ	เรียร	ri:ar	to study, to learn
เฮียน	hi:an	ເຮືອນ	เรื่อร	ri:ar	house, home

Table 10: Words that are spelled with ຮ or ຣ

Aj. Mongkhon Thuknuk has proposed a more complicated set of rules for the use of ຮ (r) or ຣ (n) as a final consonants. He says every word that is pronounced /n/ at the end of a syllable will be written by using the consonant ຮ (r) at the end of the syllable and ຮ (r) will be written beside the last vowel or consonant of the word as shown in Table 11.

Kammuang using Thai script	Phonetic transcription of modern spoken Kammuang	The Lanna script	Thai transliteration of the Lanna script	IPA transliteration of the Lanna script	Translation
เขี่ยน	k ^h i:an	เขี่ยน	เขี่ยน	k ^h i:ar	to whip
เมื่อลุน	m ^h i:a lun	เมื่อลุน	เมื่อลุน	m ^h i:a lur	afterwards, after, later on
เขี่ยน	hi:an	เขี่ยน	เขี่ยน	ri:ar	to study, to learn
ลุน	s ^h i:n	ลุน	ลุน	s ^h i:r	mix
เขี่ยน	hi:an	เขี่ยน	เขี่ยน	ri:ar	house, home

Table 11: Words that are spelled only with ส

However there are still some words that are pronounced /n/, but are not written using ส (s) at the end of the syllable. In the Lanna script, there are two ways of writing the final consonant: beside the last vowel or second to last consonant, or below the last vowel or second to last consonant. Aj. Mongkhon claims that words containing any of the fourteen vowels shown in Table 12, will take ๓ (n) (n) as the final consonant instead of ส (s) (r)¹³.

¹³ In Lanna, there is no exact rule that can apply in every case. The rules that Aj. Mongkhon mention are considered only general rules that the scholars accept and use in general.

/a/	/a:/	/i/	/i:/	/ɪ/	/i:/	/e/	/e:/
- 3	- 3	- 3	- 3	- 3	- 3	- 3	- 3
·							
	/ɛ/	/ɛ:/	/o/	/o:/	/ə/	/ə:/	
	3-3	3-	3-3	3-	3-3	3-3	
			·	3-3		3-3	

Table 12: Fourteen vowels that cause the change of final consonant ʂ into ʐ

Table 13 shows some examples that use these vowels and the consonant ʐ (14) as the final consonant instead of ʂ (7).

Kammuang using Thai script	Phonetic transcription of modern spoken Kammuang	The Lanna script	Thai transliteration of the Lanna script	IPA transliteration of the Lanna script	Translation
ย็อนจ่าอั้น	ŋó:n ca: ʔǎn	ย็องจ่าอั้น	ย็องจ่าอั้น	ŋó:r ca: ʔǎn	for that reason
ย็อนจ่านัน	ŋó:n ca: nán	ย็องจ่านัน	ย็องจ่านัน	ŋó:r ca: nán	for that reason

Table 13: Examples of vowel from Table 12 with the consonant ๑ as the final consonant instead of ๓

(๑) (r).

However, there are exceptions to this rule. Even though some words use the above vowels, they are not written with ๑ (n) (n) at the end of the syllable. These words are written with silent ๓ (h) (h) at the beginning of the word and have another consonant following it. These words will have ๓ (r) (r) as the final consonant e.g. หมั้น

๓ hmàn 'work hard'. This word uses the vowel /a/ - ˊ but it is written with the consonant ๓ (r) as the final consonant because it has ๓ (h) (h) at the beginning of the word and has another consonant following it.

In summary then, modern Kammuang speakers may find it difficult to know whether to use ๓ (r) (r) or ๑ (n) (n) word finally. They must memorize rules to determine proper usage.

3.5.4 The use of ᨧ as an initial consonant

Another problem is the use of the consonant ᨧ (ʁ) (r) as an initial consonant in the Lanna writing system. Such words are pronounced /h/ or /l/. The Thai phoneme /r/ which corresponds to the consonant ᨧ (ʁ) (r) does not occur in Kammuang. It is always replaced by the phoneme /h/ or /l/. Therefore, it corresponds to the phonemes /h/ and /l/ in the Lanna script under the conditions discussed below.¹⁴ This is a problem for learners because when they pronounce the words in Table 14, they may write the consonant ᨧ /h/ following the way they speak instead of ᨧ (ʁ) (r) as in the written Lanna script. Thus the word ᨧᨶᨶ *ráj* will be changed to ᨧᨶᨶ *háj*, following the spoken language. Therefore, the words in Table 15 also have the same problem as the words in Table 14. When the learners pronounce them, they may write the consonant ᨧᨶ (l) following the way they speak instead of ᨧ (ʁ) (r) as in the written Lanna script. Thus the word ᨧᨶᨶ *ra: ka:* would be changed to ᨧᨶᨶ *la: ka:*, following the spoken language.

¹⁴ Following Ruengdet (1982: 7-8)

In all cognate words, the phoneme /r/ in Thai that represents the consonant ร (r)

in Lanna becomes the phoneme /h/ in corresponding words in Kammuang. (See Table 14)

Kammuang using Thai script	Phonetic transcription of modern spoken Kammuang	The Lanna script	Thai transliteration of the Lanna script	IPA transliteration of the Lanna script	IPA of written Thai	Translation
กำไร	kǎm hǎj	คံวไร	กำไร	kam rǎj	kam raj	profit
รักษา	hák sǎ:	รคฺจว	รักษา	rǎk sǎ:	rák sǎ:	care for, to treat, to look after, to look out for
ร้าย	háj	รจว	ร้าย	rǎj	ráj	bad, evil, harmful
ริม	him	คคฺจ	ริม	rim	rim	edge, rim, side, by the side of, close by
รู	hu:	คค	รู	ru:	ru:	hole
รู้	hú:	คคฺ	รู้	rú:	rú:	to know, be acquainted with
รูป	hû:p	คคฺ	รูป	rû:p	rû:p	picture, image
เรา	haw	รจว	เรา	raw	raw	we, us
เรียน	hi:an	จจ	เรียน	ri:ar	ri:an	to study, to learn
เรือ	hi:a	คคฺจ	เรือ	ri:a	ri:a	boat

Table 14: Examples of cognate words

Note: The letter ร is pronounced as the sound /h/ ร.

Modern Kammuang has been influenced by Central Thai. However in these recent loan words Central Thai /r/ is realized as Kammuang /l/, as shown in Table 15. This could cause problems for new learners. Thus, some older words have fallen out of use, being replaced by similarly sounding Central Thai words.

Phonetic transcription of modern spoken Kammuang	The Lanna script	IPA transliteration of the Lanna script	IPA of written Thai	Translation
cǎm lə:n	ຈໍ່າລ໌ຍ	cǎm rə:n	cǎm rə:n	to prosper, to grow
bə: lí bu:n	ບໍ່ອບູ	bu:a rà? mu:ar	bə: rí bu:n	complete, perfect, absolute, to the full
bə: l̥i sūt	ບໍ່ອສູ່	bu:a rì sūt	bə: r̥i sūt	virgin, pure, innocent
bə: l̥a:n	ບໍ່ອລ໌	bu:a ra:n	bə: r̥a:n	old, ancient, antiquated
l̥a: ka:	ລາດ	ra: ka:	r̥a: k ^h a:	price, cost

Table 15: Examples of loan words

Note: The letter ຣ is pronounced as the sound /l/ ອ.

3.5.5 Other difficulties

There are some words that Kammuang speakers will find difficult to write correctly because spoken Kammuang does not follow the way of written Lanna. Table 16 shows two examples of this problem.

Phonetic transcription of modern spoken Kammuang	The Lanna script	IPA transliteration of the Lanna script	Translation
kăm pi:	ᨧᩢ᩠ᨦ᩠᩵	kam p ^h i:r	scripture, textbook
k ^h i: t̄âw	ᨧᩢ᩠᩠᩠᩵᩵᩵	k ^h i: t̄ ^h âw	ash

Table 16: Two words in which spoken Kammuang does not follow Lanna spelling

These two words cause problems for Kammuang speakers because when these words are written in the Lanna script, the first word uses the consonant ᨧ, pronounced /p^h/, so this word will be pronounced *kam p^hi:* 'scripture, textbook'. In contrast to the spoken form, Kammuang speakers pronounce this word *kăm pi:*. When they are asked to write this word, they write it using the consonant ᨧ (w) (p) writing ᨧᩢ᩠ᨦ᩠᩵ *kăm pi:* 'scripture, textbook.'

The second word uses the consonant ᨧ (n) (t^h) and is pronounced /t^h/ so this word is pronounced it *k^hi: t̄^hâw* 'ash'. When Kammuang speakers say this word, they pronounce it *k^hi: t̄âw* so they would probably use the consonant ᨧ (n) (t) when they write this word, writing ᨧᩢ᩠᩠᩵᩵ *k^hi: t̄âw* 'ash' instead.

3.5.6 The changing pronunciation of the Lanna script and Kammuang

As with all languages, the pronunciation of the written and spoken forms changes over time. This is another problem that Kammuang speakers may have when they learn to write the Lanna script. These changes occur in only some words, and there are no readily apparent rules to explain the changes shown in the examples in Table 17.

The Lanna script pronunciation	Modern spoken Kammuang	English
căk	căʔ	used to express simple futurity in the manner of <i>shall</i> after the first person or <i>will</i> after the second or third person
cak kàʔ wât tìʔ	căk kàʔ p ^h ăt	an emperor
táʔ le:	tăʔ le:	sea
bu:a láʔ mu:an	bo: lí bu:n	complete, perfect, absolute, to the full
bu:a lì sŭt	bo: lí sŭt	virgin, pure, innocent
bu:a la:n	bo: la:n	old, ancient, antiquated
sàʔ mâ:t ^h àʔ	să: mâ:t	able, capable (of)
ʔon tà la:j	ʔan tà la:j	danger
ʔa: sǎʔ lǎ:j	ʔa: sǎj	to dwell, to inhabit, to live
ʔŭt sǎ: hǎʔ	ʔŭt sà:	to take the trouble to, to go out of one's way, to try
căm lə:n	căm lə:n	to prosper, to grow
kam haj	kăm haj	profit

Table 17: Pronunciation differences between some Lanna and Kammuang words

Some of the words are pronounced differently in terms of the tone. For example, the word ຈົ່ວເຮືອງ 'to prosper, to grow' is written as *căm lə:n* in the Lanna script, in spoken Kammuang, however, this word is pronounced *căm lə:n*. Some words are

different in terms of a vowel. For example, the word ບູ້ລາໂນ 'Old, ancient, antiquated' in the Lanna script is written *bu:a la:n*, but in modern spoken Kammuung it is pronounced *bo: la:n*.

While the examples above do not appear to be rule-based, there are some words that have a rule to explain the changes. The consonant /nw/ in the Lanna script is changed into /n/ in modern spoken Kammuung, as in Table 18. This change is explained by Smalley (1994: 76), as many such clusters are gradually disappearing and the speakers may fluctuate between pronunciations with and without /w/.

The Lanna script pronunciation	Modern spoken Kammuung	English
t ^h am nwa:j	t ^h am na:j	to predict, to foretell
nwâ:p tô:t	nâ:p tô:t	to blame

Table 18: Rule bound consonant changes

3.5.7 Conclusion

Despite Aj. Mongkhon's view that 'you must forget Central Thai before learning Lanna', the difficulties the Kammuung speaker faces in learning the Lanna script are not great. If a Kammuung speaker is literate in Standard Thai, they will find that the structure, word pattern, tone and parts of the orthography of the Lanna script are similar to Standard Thai. By contrast, those who have no knowledge of Kammuung or Standard Thai may have many difficulties in learning the Lanna script. Both Lanna and Standard Thai have their own spelling rules. Time needs to be spent in class on learning the Lanna rules and noticing exceptions to the rules. The challenge to Lanna learners who know Kammuung will be learning irregular forms and exceptions to the rules.