Report on the Development of a Picture Dictionary for the Balan dialect of Lahu Shi

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Technical Paper # 21
February, 1997
Abstract

Lahu Shi Balan is a Tibeto-Burman language. This project is a basic application and test of a preliminary orthography for the language. The accompanying picture dictionary with 180 entries of common things in village life is the core of the project. The entries in the picture dictionary appear in four languages (Lahu Shi, Lahu Na, English, and Thai), reflecting the multi-lingual situation in which these people live.

A description of the orthography is included, particularly noting its relationship to the Lahu Na script. The orthography is used and tested to determine its adequacy for writing the language by compiling the picture dictionary.
บทคัดย่อ

ภาษาอังกฤษ ซึ่งถูกใช้เป็นภาษาตะกูลพิบรมศึกษาระดับต้น ตามที่ได้รับการจัดทำขึ้นในภาษาละติน แผนที่ความรู้ของโครงงานนี้คือพจนานุกรมอุปภูมิ ของลิงที่ทำการใช้งานในประเทศไทย และมีนักวิจัยจำนวน 180 อย่าง อีกทั้งในพจนานุกรมอุปภูมิจะปรากฏเป็น 4 ภาษาคือ ภาษาไทย ภาษาอังกฤษ ภาษาจีนและภาษาอินเดีย ซึ่งเป็นการสะท้อนให้เห็นถึงการกระจายทางภาษา (multi-lingual) ที่เกิดขึ้นกับเซนตุธน์นี้ ทั้งนี้ได้มีการจัดรายการเอกสารและอ้างอิงทางด้านภาษา ศิลปะ และวัฒนธรรมที่มีความสำคัญต่อการสร้างวัฒนธรรม หนังสือเกี่ยวกับSIONXYของภาษาอังกฤษที่มีบทบาทสำคัญในการพัฒนาระดับภาษาไทย อนาคต นอกจากนี้ยังมีการใช้เทคโนโลยีและสื่อการสอนเพื่อตรวจสอบความเพียงพอในการเข้าถึงภาษาไทยโดยการรวบรวมพจนานุกรมอุปภูมิ
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Acknowledgments

The research reported in this paper was conducted under the auspices of Payap University, Chiang Mai, Thailand. I wish to express my gratitude to the Payap University Research and Development Institute for sponsoring this research term under the Graduate Linguistics Department of Payap University. I am also indebted to the Government of Thailand, and in particular to the Governor of Chiang Rai Province and the District Officer of Mae Suai district for permitting me to live in that area while doing this field work. Special thanks must also be given to the Headmen and people of the villages of Nong Pham and Thung Phrao in Mae Suai district where the research was conducted.
Dedication

This picture dictionary project is dedicated to Acharn Suwit, my friend, who deeply loved God, the Lahu people, and wanted to develop and preserve his own language - Lahu Shi Balan.
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1. Introduction

1.1 The Lahu Shi Balan people and their language
The Lahu Shi Balan people live in a number of countries including Thailand, Burma, and Laos. In Thailand, where this picture dictionary was compiled, there are over 50 villages of Lahu Shi Balan people. Most of the villages are large, some having more than 100 houses. These figures suggest a population in Thailand of at least 15,000 people.

The two villages where this picture dictionary was compiled and tested are large, but typical of Thailand. More than 500 people live in each village. Most of these have migrated from Burma or are descended from those who migrated. There are also people originally from Laos in one village.

The Lahu Shi Balan language is a Tibeto-Burman language. More specifically, it is one of the Lahu languages in the Central Loloish branch of languages. Like many Tibeto-Burman languages, it is primarily mono-syllabic, having many words which are single syllables. However, this does not take into account that there are also many compound words which contain two or more syllables, so that most “words” in this lexicon are multi-syllabic.

1.2 A Multi-lingual Picture Dictionary for a Multi-lingual people
The accompanying picture dictionary contains 180 entries, each recorded in four languages. This reflects the multi-lingual situation in which these people live. Although the languages, Lahu Shi, Lahu Na, English, and Thai, are not all spoken regularly in the villages, each has value.

The Lahu Shi, as well as several other minority people groups living in the mountains of Thailand, Burma, and Southern China, have traditionally used Lahu Na (Black Lahu) as a trade language. This has predisposed the Lahu Shi to multi-lingualism. During the past thirty years, the Thai language (both Central and Northern varieties) has become an equally or more important trade language for those living
in Thailand. Even more significantly, Central Thai is the language of education and advancement. Both education and advancement are strong cultural values for the Lahu Shi Balan people.

English is equally part of the multi-lingual equation for the Lahu Shi. It is another language associated with education and advancement and is used in international affairs, development, and tourism. Although tourists rarely visit the villages in which this research was conducted, the Lahu Shi give communicating with tourists as an important reason for learning English. English is also taught in the Thai school system, even in the mountain villages of the Lahu Shi.

Another aspect of the multi-lingual society of the Lahu Shi is that they are beginning to see their language fade. Younger generations are using Thai and many try to assimilate into Thai society, discarding their Lahu Shi language and culture. Many Lahu Shi people, both old and young, see a place for their language. They want to change its course and develop and preserve it.

This multi-lingual picture dictionary is an application and test of a preliminary orthography developed in previous research. The orthography was designed based on a phonological analysis (Cooper & Cooper, 1996) with consultation from a committee of Lahu Shi people. This is the first published work in the Lahu Shi Balan language using the current orthography, though not the first application of it.

Using the orthography in the format of the picture dictionary gives limits to the task of preliminary testing. Applying the orthography to the lexicon entries is a testing ground for the characters representing the phonemic consonants, vowels, and tones. Other orthographic characters which relate to sentence and discourse functions are eliminated from testing because the lexicon entries are all smaller semantic units.

Beyond testing, using the orthography in this picture dictionary is also a start toward filling a felt need of the Lahu Shi Balan people, and an aid to them as they work to preserve and develop their language.
2. Methodology

Research for the picture dictionary centered around the collection of the lexical items represented in an existing picture dictionary\(^1\). The Lahu Shi Balan villages Thung Phrao and Nong Pham in Chiang Rai Province, Mae Suai district were selected as data collection sites. Both of these villages have a population greater than 500 people, most of whom came from or are descended from people who came from Burma to Thailand in the last 30 years.

All words were elicited using Lahu Shi as the medium of communication. Many people were consulted to find the correct word for each picture. Responses were recorded in phonetic script, then checked again when the word was repeated. Originally, a picture dictionary with three languages (Wa\(^2\), English, and Thai) was used to demonstrate the desired product, and to limit the possible entries. Later, one with Lahu Na, English and Thai was used with the lexical items hand written in Lahu Shi included. Many times, the Thai and Lahu Na entries helped people understand what the picture was intended to convey. In some instances, the Lahu Na entries added some confusion for those whose Lahu Shi is liberally mixed with Lahu Na words, as they searched for the 'right' word.

It was deemed best not to use the lexical item in Lahu Shi when eliciting from someone who was confused about a picture. Often the item was skipped, proceeding to the next entry, if either a demonstration of the word or a short explanation in Lahu Shi did not clear the confusion. In the cases when the lexical item was used, one of three responses occurred:

\(^1\)Word and picture books have been traditionally called picture dictionaries. It is perhaps more accurate to use the term lexicon because the books are merely a compilation of lexical glosses closely associated with the pictures. In the case of the picture dictionaries consulted for this project, each had entries in 3 languages (Thai, English, and either Lahu Na or Wa). No comments about the relationships between the entries is included. It is assumed that they all relate equally well to the picture under which they appear. The term thesaurus may also be accurate.

\(^2\)Wa is a language spoken in Burma. Lahu Shi helpers identified the language from contact in Burma. There was no documentation with the copy of the picture dictionary, so the origin of it remains unknown.
- ready agreement, repeating the researcher, even though others had given different lexical items
- agreement without repeating the word so that there was no opportunity for correction
- total bafflement with no idea what the picture could be nor what had been said.

After all the items were collected, a phonetic representation was recorded in the Wa picture dictionary for each item. One of the difficulties was deciding between varied recorded responses. The variations included variations of tone as well as lexical item. Responses given in a tone frame proved to be more accurately recorded for tone. The variation in lexical items often proved to be Lahu Na terms which were in use in the village, but which some people recognized as not 'real' Lahu Shi.

The entire set of responses was elicited several more times to check the phonetics. On this trial, the researcher read the phonetic transcription. A number of words were corrected on this trial, including a number of words which were changed to 'real' Lahu Shi.

A final trial was used to test the responses as well as the proposed orthography. All of the words were added to the Lahu Na picture dictionary using the Lahu Shi orthography. Words corresponding to the pictures were then elicited again in Lahu. The response was repeated, and the orthographic representation checked. Subjects who had begun to learn the script or who had ability in the Lahu Na script were encouraged to correct errors in spelling. Changes suggested which arose from not understanding the orthography were not adopted. No words were corrected to 'real' Lahu Shi at this stage. However, some vowels and tones were changed if several native speakers agreed about a change.

Vowels were subject to two kinds of desired changes. First, a few people who knew Lahu Na and the script associated with it at times wanted to use the same vowel in Lahu Shi as they would in Lahu Na. It was relatively easy to demonstrate that the vowels were different in these cases. Second, differences between the high front vowels ([i] [ɪ] [ε]) and between the back rounded vowels ([u] [o]) were difficult
to distinguish in some environments. Decisions on these were made based on native speaker intuition, and may change in the future.¹

3. Orthography Description

The proposed orthography for Lahu Shi Balan is largely based on the orthography used for Lahu Na.

Some of the distinctions between the two scripts have already been described below (see 4.2.2). Other distinctions will be covered in this section both to further describe the proposed orthography, and to aid those familiar with the Lahu Na orthography. In the followings sections, the symbols used in the proposed Lahu Shi orthography are listed by linguistic classification. Each sub-section contains a basic description of the differences between the Lahu Shi and Lahu Na orthographies.

3.1 Consonants

3.1.1 Stops

The stop consonants used in Lahu Shi are: p, ph, t, th, k, kh, b, d, g.

Lahu Shi does not have post-velar stops, therefore, does not use the apostrophe (') used in Lahu Na following velar consonants to denote post-velar stops, e.g. k', and kh'.

Aspiration is marked with a following ‘h’ in Lahu Shi instead of preceding as in Lahu Na. The other voiced and voiceless stops are marked the same as in Lahu Na.

3.1.2 Affricates

The affricate consonants used in Lahu Shi are: c, ch, j.

¹Spelling conventions were beyond the scope of this present research project. It is recognized that this application of the script will influence decisions on those conventions in the future.
The same set of characters is used for the alveo-palatal affricates in both orthographies, e.g., c, ch, and j.

It is noteworthy that aspiration is marked with an 'h' following the 'c' in Lahu Na instead of preceding as in all other cases of aspiration.

An apostrophe is also used in Lahu Na to mark a voiced post-velar affricate, e.g. g'.

### 3.1.3 Nasals

The nasal consonants used in Lahu Shi are: m, n, ng.

Lahu Na uses one more nasal character than Lahu Shi. The 'ny' is a palatal nasal, but is actually an allophone of the alveolar nasal 'n' (Lewis, 1986:6).

### 3.1.4 Fricatives/sibilants

The fricative and sibilant consonants used in Lahu Shi are: f, v, s, gh.

There are two distinctions between Lahu Shi and Lahu Na orthographies in regard to fricatives and sibilants. First, both 's' and 'sh' are used in Lahu Na, while only 's' is used in Lahu Shi. Lewis (1986:10) notes that they are allophones in Lahu Na, just as they are in Lahu Shi. Second, the voiced velar fricative in Lahu Shi is written 'gh'. In Lahu Na, a similar consonant (voiced post-velar fricative) is written 'g'.

### 3.1.5 Lateral

The lateral consonants used in Lahu Shi are: l, r.

Both the Lahu Na and Lahu Shi scripts employ an 'r' and 'l' though they are both phonetically [1]. There is a strong desire to retain the 'r' in the Lahu Shi orthography as it used in a few special loan words.

### 3.1.6 Other consonants

Lahu Na orthography has eight consonants which are allophones of other consonants, as listed in Figure 1. These occur only with the vowel 'uh'. None of these allophones are employed in the Lahu Shi orthography. In fact, the bilabial consonants do not have allophones in Lahu Shi. The other consonants
(c, ch, j, and y) show a similar phonetic modification in Lahu Shi (Cooper & Cooper, 1996), but the redundancy in the Lahu Na script is removed in the Lahu Shi script.

<table>
<thead>
<tr>
<th>Allophone</th>
<th>Consonant</th>
</tr>
</thead>
<tbody>
<tr>
<td>pf</td>
<td>p</td>
</tr>
<tr>
<td>hp</td>
<td>hp</td>
</tr>
<tr>
<td>bv</td>
<td>b</td>
</tr>
<tr>
<td>mv</td>
<td>m</td>
</tr>
<tr>
<td>tc</td>
<td>c</td>
</tr>
<tr>
<td>ts</td>
<td>ch</td>
</tr>
<tr>
<td>tz</td>
<td>j</td>
</tr>
<tr>
<td>z</td>
<td>y</td>
</tr>
</tbody>
</table>

*Figure 1
Consonant All phonemes used in Lahu Na orthography.*

### 3.2 Vowels

#### 3.2.1 Clear vowels

The clear vowels used in Lahu Shi are: i, e, eh, u, o, aw, a, uh.

Lahu Na has two vowels which do not occur in Lahu Shi. These vowels are represented by the symbols ‘ui’ and ‘eu’. The phonology of Lahu Shi does not include these central (high and mid) vowels. The phonetic values of the other vowels are similar, but not the same. In particular, the ‘uh’ (/ʌ/) is a lower vowel than in Lahu Na.

#### 3.2.2 Diphthongs

The vowel diphthongs used in Lahu Shi are: ai, ao, weh.

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*There is no IPA phonetic symbol available to accurately describe this vowel. It is an unrounded mid-low central vowel with extra pharyngeal or back velar constriction. The symbol /ʌ/ is used to represent this vowel, although it does not show the augmented constriction. Further descriptions of this vowel can be found in Cooper & Cooper 1996 and Cooper 1997. A similar vowel is found in Lahu Na. Some description is found in Lewis (1986) and Matisoff (1973).*
According to Lewis (1986:10) “there are three major diphthongs in Lahu [Na], all borrowed from other languages (especially Tai)”. These are ai, ao, and aweh in the Lahu Na orthography. He further states that the aweh is actually not a diphthong, but rather a vowel sequence. Lewis included it as a diphthong in his writings due to objections from Lahu people.

These same diphthongs occur in Lahu Shi. The ‘weh’ was shortened from ‘aweh’. It does not appear to be a true diphthong because the Lahu Shi people generally recognize it as separable two vowels in speech, unlike the other borrowed diphthongs. It may be that ‘aw-eh’ is a natural vowel sequence in Lahu Shi.

3.2.3 Vowel sequences
The vowel sequences used in Lahu Shi are: ia, ea, eo, eho, ela, ua, wa, uha.

The originally proposed orthography did not differentiate between diphthongs and vowel sequences. The Lahu Na orthography often employs a dash ("'") linking vowel sequences to mark vowel sequences.

In these tonal languages, the distinction between diphthongs and vowel sequences is particularly important. Diphthongs receive only one tone, while vowel sequences may receive two different tones. Difficulties in writing occur when this happens. It is even greater if there is a phonetic tone change due to the juxtaposition of vowels and tones.

Vowel sequences often occur in the Lahu Shi language as a clitic attached to a preceding syllable. If the vowels are written as a diphthong, sometimes the available tone marks do not accurately symbolize the resulting tone. However, since most of these sequences occur in the verb phrase, this problem was beyond the scope of this project. In the accompanying picture dictionary, vowel sequences were written as diphthongs unless separate tone marks were required.

3.3 Tones
One of the main differences between the Lahu Shi and Lahu Na orthographies is the representation of tone. Both languages have seven phonemic tones which are phonetically similar, but not the same. In
Figure 2 below, the tone marks for the Lahu Shi orthography are listed with a brief description of their phonetic values and the related tone mark for Lahu Na. Note that the tone marks for both languages are syllable final. The marks are represented with the preceding segments ‘ca’ to demonstrate their use.

<table>
<thead>
<tr>
<th>Lahu Shi</th>
<th>Pitch description</th>
<th>Lahu Na</th>
</tr>
</thead>
<tbody>
<tr>
<td>cad</td>
<td>high level</td>
<td>ca⁺</td>
</tr>
<tr>
<td>caz</td>
<td>high stopped</td>
<td>ca⁺</td>
</tr>
<tr>
<td>cax</td>
<td>mid rising</td>
<td>ca⁻</td>
</tr>
<tr>
<td>caq₅</td>
<td>mid falling</td>
<td>ca₅</td>
</tr>
<tr>
<td>car</td>
<td>low level</td>
<td>ca⁻</td>
</tr>
<tr>
<td>ca</td>
<td>mid</td>
<td>ca</td>
</tr>
</tbody>
</table>

*Figure 2: Tone Marks in Lahu Shi and Lahu Na*

3.3.1 Syllables

Although syllables are not represented by characters, the manner in which they are represented can be a major factor in an orthography. In the case of Lahu Na and Lahu Shi, there is a major difference in the treatment of syllables.

Lahu Na is written with each syllable as a separate unit. Since most semantic units in Lahu Na (and Shi) are single syllables, spaces between syllables often coincide with what could be called word breaks.

However, based on the desire of a number of Lahu Shi people, semantic units were written as single units (separated from the preceding/following unit), even when multi-syllabic. It was often difficult to decide which parts needed to be together, so native speakers were consulted for word divisions.

₅The symbol for this tone has changed a number of times. The most recent idea has been to use ‘j’ instead of ‘g’, but as this has yet to be tested, the present work uses ‘g’
4. Testing

Two kinds of testing were employed in this project. The first was applying the proposed orthography to determine its adequacy for writing Lahu Shi. The second consisted of gathering responses to the writing of the language and to specific distinctions between the Lahu Shi and Lahu Na orthographies.

4.1 Adequacy

The accompanying picture dictionary demonstrates that the proposed orthography is adequate for the writing of Lahu Shi. No specific problems were encountered in producing a written form of words. However, as suggested in section 4.2.2 below, some changes and spelling conventions may improve the acceptability of the orthography.

4.2 Responses

4.2.1 Writing Lahu Shi

The response to this application of the Lahu Shi orthography was positive. One reason for this was the format of the application. Many people have requested copies the finished picture dictionary. Some people saw the picture dictionary as an aid for learning the languages in it. Other people simply wanted to have a copy of a book with written in their own language. It is clear that the Lahu Shi people want to read and write their own language.

Another reason for the positive response was that many literate or semi-literate people were able to begin reading words after being instructed how to read the tone marks. Some of the most common responses to the orthography have been translated into English. These are listed below in order of the most to the least common. The last four occurred only one time, but bear recording because of the thoughts and attitudes they represent.

There is no known research on literacy rates among the Lahu people. Casual observation has led to the following divisions: adults over 30: 80% semi to highly literate in Lahu Na, adults 20-30: 20% semi literate in Lahu Na, 50% semi literate in Central Thai, youth 10-20: 5% semi literate in Lahu Na, 90% literate in Central Thai.
“It’s wonderful!”

“Teach me!”

“It looks great, easy to read.”

Several senior adults responded:

[Lahu Shi] “This is English right?”

[Researcher] “No, it’s Lahu Shi.”

[Lahu Shi] “It can’t be, it doesn’t have the Lahu (Na) tone marks. It’s English!”

“This is really hard to read. We Lahu Shi won’t be able to learn to read this.”

“How would you write this in English?” (i.e. Using the phonetic values associated with the English script, how would you write this Lahu Shi word?)

“I don’t like the ‘gh’, it’s not pretty.” (gh is the orthographic symbol used for /ɣ/)  

“These tone marks are much easier to see than the Lahu Na ones!”

“This is hard. There are too many final consonants.” (referring to the tone marks)

4.2.2 Orthography distinctions

Responses to the acceptability of four specific kinds of differences between the Lahu Shi and Lahu Na orthographies were examined. The four differences involve aspiration, vowels, tones, and over differentiation.

4.2.2.1 aspiration

The proposed orthography uses ‘h’ following consonants to mark aspiration. Lahu Na script marks aspiration preceding the consonant. There were no negative responses to this change. People literate in Lahu Na did not even seem to notice the difference. Some people did comment on the difference, but accepted it. This may be due to an inconsistency in Lahu Na. Aspiration on the alveo-palatal affricate ‘c’ is marked following the consonant, ‘ch’.

4.2.2.2 vowels

The proposed conventions for writing vowels present two problems stemming from decisions made for Lahu Na and adopted for Lahu Shi. Lahu Shi and Lahu Na have more vowels than single vowel symbols available in Roman script. Lahu Na has 10 vowels, five of which are written as two letter sequences. The
proposed orthography follows these choices, though only three are required for Lahu Shi: 'eh' (/æ/), 'aw' (/ə/), and 'uh' (/ə/). Both problems involve diphthongs containing these two symbol sequences.

Two diphthongs begin with the sequence 'aw'. The committee which developed the Lahu Shi script chose to shorten them by dropping the initial 'a': 'aweh' > 'weh' and 'awa' > 'wa'. These shortened diphthongs proved to be very acceptable, and even desirable to some people. Words were shorter, and reflected the existing labialization on the preceding consonant.

The second problem examined arose from three orthography decisions. First, the symbols 'w' and 'h' are used both as consonants and in vowel sequences as noted above. Second was the decision to allow concatenation of syllables in multi-syllabic words. The third decision affecting this problem was to not mark the mid level tone. Decoding problems occur when either diphthongs or concatenated syllables allow for more than one possible reading of a word.

The diphthong sequences 'eha', 'uha', and 'eho' all have two possible readings. The first reading is as the intended diphthong. The second is as two syllables in a word, the first syllable being a single symbol vowel with mid tone, and the second beginning with the consonant 'h': 'e-ha', 'u-ha', 'e-ho'. There are also vowel sequences due to single symbol vowel clitics.

The diphthong and vowel sequence problems rarely occurred, but proved to be unacceptable. Words containing theses kinds of sequences were often misread. Further, readers generally had difficulty re-reading them correctly without help.

It is possible that readers could be trained to use and read words written in this fashion, but spelling conventions would be required for correct decoding. Other solutions would be to mark mid tone, separate all vowel sequences with a hyphen, or use other symbols for the three two-symbol vowels².

²One possibility would be to use the apostrophe (') which is unused in Lahu Shi to mark the vowels: eh > e', aw > a', and uh > either o' or u'.
4.2.2.3 tones

In the proposed orthography, tone is marked using a syllable final consonant, except for the mid tone which is unmarked. In the Lahu Na orthography, tone is marked with a special series of underscores, carets, and hats (see Figure 2). Mid tone is also unmarked in the Lahu Na script. Generally, this was well received. As noted above (section 4.2.1), some people felt the change was not positive. The majority were willing to accept this change for the ease with which it can be typed, not requiring any special equipment.

In terms of use, some problems arose in reading. As stated above (section 4.2.2.2), the unmarked mid tone in vowel sequences is a potential problem. A greater problem involved the use of the symbol 'g' to mark the falling tone.

The symbol 'g' is used for the velar stop, the velar fricative, and falling tone in the proposed orthography. Therefore, it can fill either syllable initial or final positions. When syllables are written together, confusion can occur as to which syllable the 'g' belongs. This becomes a significant problem because velar stops, velar fricatives, and falling tones all occur frequently in Lahu Shi.

Many people also commented that the 'g' and 'q' tone marks were easy to confuse because of their similar shapes. This is particularly true in some computer fonts and handwriting. Substituting another symbol for marking this tone is advisable. The character 'j' is a good candidate, but it has not been tested.

4.2.2.4 over differentiation

The proposed Lahu Shi orthography avoids over differentiation, while the Lahu Na orthography is a complicated and inconsistent mixture of phonemic and phonetic values (see section 3 for a description of the differences). The response to this was positive. In fact, few people who could read Lahu Na even mentioned the lack of the over differentiated items. They also had no difficulty reading in relation to these items. People who had knowledge of another Roman based script could also read with a minimum of instruction. Those who did notice the difference were generally satisfied that their language could be
written in this way. These responses indicate that the closely phonemic nature of the orthography for Lahu Shi is acceptable.

5. The Picture Dictionary

The accompanying 180 picture dictionary entries have been grouped into sections. Each entry has a picture followed by four short descriptions of the picture in Lahu Shi, Lahu Na, English, and Thai as in Figure 3 below.

![Figure 3: Picture dictionary example entry](image)
5.1 Body Parts

- a kor
- o\-k'o\-
- head
- หัว

- yuhz kheh
- u\-hkeh mvuh
- hair
- ผม

- mehz sir
- meh^ shi_
- eye
- ตา

- nar khuhd
- na\_ hk'aw^'
- nose
- จมูก
mawq kaw
maw k’aw
mouth
ปาก

nar puh
na paw
ear
หู

kuhr tag
k’aw pe
neck
คอ

laq cuhd ku
la ngeh cu
elbow
ข้อศอก
laq kuhr
arm

laq ho
hand

laq nuh
finger

laq ma kor
thumb
phad ghuhd
pfuh₅ teh₂ k'u
upper leg
ขาอ่อน

khi ghuhd
hkui peh₅ k'u
lower leg
น่อง

khi ho
hkui sheh
foot
เท้า

nar khehr
hkui tcuh₅ k'u
knee
หัวเข่า
5.2 Actions

cad che
ca ve
to eat
กินข้าว

dawg che
daw ve
to drink
dื่มน้ำ

yuhq che
zuh ve
to sleep
นอนหลับ

huhg che
haw ve
to cry
ร้องไห้
ghig che
g'ui~ suh~eh~ te ve
to smile
ยิ้ม

liq ghaw che
li~ g'aw ve
to read
อ่าน

liq buhq che
li~ bvuh~ ve
to write
เขียน

beg ke chuhd che
maw~ tsuh~ ve
to wash clothes
ซักผ้า
5.3 Clothing and Adornment

<table>
<thead>
<tr>
<th>a poq</th>
<th>har</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-po</td>
<td>ha-htaw</td>
</tr>
<tr>
<td>shirt / blouse</td>
<td>pants</td>
</tr>
<tr>
<td>เสื้อ</td>
<td>ถุงเท้า</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>har poq toz loz</th>
<th>laq sax</th>
</tr>
</thead>
<tbody>
<tr>
<td>pa-lo-k'u-</td>
<td>mi-chaw</td>
</tr>
<tr>
<td>pockets</td>
<td>shoulder bag</td>
</tr>
<tr>
<td>กระเป๋าเสื้อผ้า</td>
<td>ยำม</td>
</tr>
</tbody>
</table>
theh
teh du
sarong

theh vawd lawd
hteh du vaw' law'
skirt

กรีเพง

khi nuz
hkui' nu'
shoes

ux cuhr
u' tcuh
hat

หมวก
<table>
<thead>
<tr>
<th>Image</th>
<th>English</th>
<th>Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Belt]</td>
<td>sehx hag</td>
<td>เข็มขัด</td>
</tr>
<tr>
<td>[Watch]</td>
<td>nar liq</td>
<td>นาฬิกา</td>
</tr>
<tr>
<td>[Glasses]</td>
<td>mehz ghiz cuhx tug</td>
<td>เลนท์</td>
</tr>
<tr>
<td>[Earrings]</td>
<td>nar puh ye</td>
<td>ต่างหู</td>
</tr>
</tbody>
</table>

**Note:** The Thai words are transliterations and may not be 100% accurate.
5.4 Nature

- Lightning: muhd theh che
- Rainbow: muhd naz seh ghig
da wg che
- Sun: muhd ni
- Moon: har pa

Thai:
- ไฟฟ้า: พายุ
- รAINBOW: จิว
- สUN: พระอาทิตย์
- พระจันทร์: พระจันทร์
a mir
a~ mi~
fire
ไฟ

muhd khuhd
mvuh~ hk’aw~
smoke
ควัน

haq ce
g’ui~ ce k’o~
waterfall
น้ำตก

lawg kax
i~ ka^ law~
river
แม่น้ำ
<table>
<thead>
<tr>
<th>hawx meh</th>
<th>ti mi</th>
</tr>
</thead>
<tbody>
<tr>
<td>ha-pui</td>
<td>ti mi</td>
</tr>
<tr>
<td>rock</td>
<td>fields</td>
</tr>
<tr>
<td>หิน</td>
<td>นา</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>mar paog cehg</th>
<th>pawd cehg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ma. pao. ceh.</td>
<td>a-.paw-.ceh.</td>
</tr>
<tr>
<td>coconut palm</td>
<td>banana tree</td>
</tr>
<tr>
<td>ต้นมะพร้าว</td>
<td>ต้นกล้วย</td>
</tr>
</tbody>
</table>
mar sar phawd cehg
hpo_m o ceh_m
papaya tree
ต้นมะระโค

a vad
va_ceh_m
bamboo
t้นไม้

awg kax - suhz kax
suh_k'a-
branch
กิ่ง

suhz phaq
suh_hpa_m
leaf
ใบไม้
5.5 Musical Instruments

tehd lehd ko-eg
  leh̩ lu
  flute

nuhr
  naw_
  reed pipes

a chud
a̩ chu̥
thorn

awg chi
suh̩̊ geu
roots

นิ้วม

ราก
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Pronunciation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>sin kur</strong></td>
<td>tin_shi k'oe_</td>
<td>Thai violin</td>
</tr>
<tr>
<td><strong>chehn</strong></td>
<td>hkwewh ma</td>
<td>little cymbals</td>
</tr>
<tr>
<td><strong>athad</strong></td>
<td>a hta</td>
<td>mouth harp</td>
</tr>
<tr>
<td><strong>cehg kor</strong></td>
<td>cehn k'oe_</td>
<td>long drum</td>
</tr>
</tbody>
</table>

**Note:** The Thai characters are phonetic representations.
5.6 Tools

- Guitar (tir thehz tug)
- Gong (yawd kor)
- Hand Plane (a suhz thu-er tug)
- Hand Saw (lix li)

- Tin (bo lo k’o)
- Psalm (เก้า)
- Knife (li- leu)

- Thai Words: กับ ใต้ไม้, เคลือบ
<table>
<thead>
<tr>
<th>Drill</th>
<th>Hammer</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>awg khuh loq tuq</code></td>
<td><code>khawg kor</code></td>
</tr>
<tr>
<td><code>aw_ hk’aw lo_ tu_</code></td>
<td><code>hta tu</code></td>
</tr>
<tr>
<td><em>สว่าง</em></td>
<td><em>มือน</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nail</th>
<th>Large Knife</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>so cud</code></td>
<td><code>a teh</code></td>
</tr>
<tr>
<td><code>sho cu˘</code></td>
<td><code>a˘ htaw</code></td>
</tr>
<tr>
<td><em>テーピ</em></td>
<td><em>มีดใหญ่</em></td>
</tr>
</tbody>
</table>

33
aw seh suhx tug
aw sheh suh tu
screwdriver
ไขควง

awg vehg suhx tug
aw sheh
screw
ตะปูควง

noz suhx tug
aw sheh suh tu
wrench
กี่ม

thaix so
la hpu k'aweh
plough
กินไก่
gaz laz
ka^ rake

ghiq kawx
law_ k’aw- sickle

cir ko
ci^ k’o^ hoe

a thawx
lo_ pe_ spade

จอป

เขี่ยม
caz keh
a-ca'hkeh
rope
เชือก

ta mehz
ce-ce'
axe
ซาน

la bawz cuh kehz
haw'-ma
slingshot
หนังสติ๊ก

par cuhz suhz tug
pa'tcuh' chi'tu'
razor
มีดโกน
<table>
<thead>
<tr>
<th>English</th>
<th>Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>a naz</td>
<td>la bawz</td>
</tr>
<tr>
<td>na^</td>
<td>hka^</td>
</tr>
<tr>
<td>gun</td>
<td>longbow</td>
</tr>
<tr>
<td>ปืน</td>
<td>ปืน</td>
</tr>
<tr>
<td>khaz ce</td>
<td>cheh ma</td>
</tr>
<tr>
<td>hka^-ce</td>
<td>cheh ma^-k'o^-</td>
</tr>
<tr>
<td>arrow</td>
<td>mortar</td>
</tr>
<tr>
<td>ลูกธนู</td>
<td>ครัก</td>
</tr>
<tr>
<td>Image</td>
<td>Word</td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td><img src="ter-tud.png" alt="Image" /></td>
<td>ter tud</td>
</tr>
<tr>
<td><img src="pha-chid-tug.png" alt="Image" /></td>
<td>pha chid tug</td>
</tr>
<tr>
<td><img src="geq.png" alt="Image" /></td>
<td>geq</td>
</tr>
<tr>
<td><img src="ber.png" alt="Image" /></td>
<td>ber</td>
</tr>
</tbody>
</table>
5.7 Home

- ngaz phu
- nga^ po k'o^
- bird cage
- กรงนก

- lawg khi
- ga^ yaw
- wheel
- ล้อ

- khaz
- hk'a^
- village
- หมู่บ้าน

- yehg
- yeh~
- house
- บ้าน
ghog chi
- go
- stairs
- บันได

ghaz mir
- yeх₃ mi⁻ lon⁻
- door
- ประตู

ghaz mir neh-ax
- yeх₃ mi⁻ eh⁻
- window
- หน้าต่าง

yehg beh
- yeх₃ hta₃
- roof
- หลังคา
5.8 Cooking and Food

saq khar
sha axe hka
rice steamer
ไทหนังข้าว

awr
aw
rice
ข้าว

ax pher
a axe hpe
peppers
พริก

awr ched
aw axe chi
vegetable dish
กับข้าว
awr kheh
hkao_saweh`
noodles
ข้าวซำย

ghaz pir
g’a^sha_pi`
roast chicken
ไก่ย่าง

a khi
ha hkui
cooking tripod
สามขา

kha cuhz luhz
ha_pui ha hkui
hearth stones
เชิงกราน
a cheh
ha tsuh
frying pan

mawq khu
mu₃ hk’u
pot

chaq kawx
kaw₃ la₃
teakettle

a jeq mawq khu
je₃ mu₃ hk’u
earthenware pot
<table>
<thead>
<tr>
<th>English</th>
<th>Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>chair</td>
<td>เก้าอี้</td>
</tr>
<tr>
<td>water jar</td>
<td>водяная бутыль</td>
</tr>
<tr>
<td>bucket</td>
<td>ถังน้ำ</td>
</tr>
<tr>
<td>bottle</td>
<td>ขวด</td>
</tr>
</tbody>
</table>
awr ched khed
awr ch gir hkeh
bowl

awr khehd
hkeh pe le
plate

khehd pe le
hkeh hpu ma
basin

a kaz kheh
i-ka-kaw
drinking glass

กาน มาน
ghig sur khehd
la~ hkeh~
teacup
ถ้วย
cawng kor
lu~ k'un
spoon
ช้อน
a kaz khehd
kaw~
mug
ถ้วยใบใหญ่
cu kan
a~ cu ka
chopsticks
ตะเกียบ
mi tehnd
a- hte
knife

a phud
i- mo k’o
water gourd

ha ma
ha ma
winnowing tray

ha khind
ha keu
sifting tray
tawnd bawx
aw~ baw~
tin can
กระป๊อง

hu yez
gu~ ye~
mat
เสีย

mi siz
mi~ shi^
broom
ไม้กวาด

pehd huhr tag
nga~ chu ta~
candle
เทียน
amir khehd
kaw^ faï"
lamp
ตะเกียง

amir daw
da^ mi~
flashlight
ไฟฉาย

a cawr
cawn_
umbrella
ร่ม

mind ngid thu-i tug
maw^ htu-i_ tu~
iron
terîk
beg ke giz cuh tug
mawʻ tsuhʻ tuʻ
brush
แปรง

liq koz
liʻ kʻoʻ
book
หนังสือ

liq buhq tug
hkehʻ tanʻ
pencil
dินสอ

naq meq tag
naʻ meuʻ taʻ
pen
ปากกา
a ghoq
needle

cehd cuh
scissors

beg ke tawx tug caq
sewing machine

kiq kheh
thread
ghoq kuhq luhq
safety pin
เข็มกลัด

g’o k’aweh

caz kheh
string
เชือก

sawd nir
key
ลูกกุญแจ

shaw

sawd sir
padlock
แม่กุญแจ
<table>
<thead>
<tr>
<th>English</th>
<th>Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>son caz</td>
<td>โซน คาซ</td>
</tr>
<tr>
<td>sho ca^</td>
<td>ชอ ก้า^</td>
</tr>
<tr>
<td>chain</td>
<td>ญัช</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>faid khir sehr</td>
<td>ไฟด์ ขิร เสียร</td>
</tr>
<tr>
<td>fai~ hki_</td>
<td>ไฟ่ ฮกิ_</td>
</tr>
<tr>
<td>matches</td>
<td>มึจิค</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>sar peh dig</td>
<td>สาร เพห ดิ้ง</td>
</tr>
<tr>
<td>sha peh_</td>
<td>ช่า เพห_</td>
</tr>
<tr>
<td>soap</td>
<td>ซูป</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>sar pehr mia</td>
<td>สาร เพหร มี亚</td>
</tr>
<tr>
<td>sha peh_ meu-e</td>
<td>ช่า เพห_ มีเอ-เอ</td>
</tr>
<tr>
<td>laundry detergent</td>
<td>ลัมไน ดีเทอร์เจนต์</td>
</tr>
<tr>
<td>ผงซักฟอก</td>
<td></td>
</tr>
</tbody>
</table>
apir ga li  
puį̂̂_ ka^  
comb  
หวี

laq sir khuhd noz tug  
la_ shi_ k’u_ nu^ tu_  
fingernail clippers  
ที่ตัดเล็บ

a suhz  
suh^ tu^ tu^  
firewood  
พืน

suhz kor buhg  
ri_ di_ o_  
radio  
วิทยุ
5.10 Numbers

1

- ted
- te
- one
- หนึ่ง

2

- nid
- nyi
- two
- สอง

3

- seh
- sheh
- three
- สาม

4

- uhd
- aw
- four
- สี่
<table>
<thead>
<tr>
<th>Number</th>
<th>Thai Word</th>
<th>English Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>kuhd</td>
<td>nine</td>
</tr>
<tr>
<td></td>
<td>k'aw</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>teq chi</td>
<td>ten</td>
</tr>
<tr>
<td></td>
<td>te' chi</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>teq chi ted</td>
<td>eleven</td>
</tr>
<tr>
<td></td>
<td>te' chi te'</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>teq chi nid</td>
<td>twelve</td>
</tr>
<tr>
<td></td>
<td>te' chi nyi'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>----</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>teq chi suhr</td>
<td>teq chi hix</td>
</tr>
<tr>
<td></td>
<td>te̝ chi suh</td>
<td>te̝ chi hi</td>
</tr>
<tr>
<td></td>
<td>seventeen</td>
<td>eighteen</td>
</tr>
<tr>
<td></td>
<td>สิบเจ็ด</td>
<td>สิบแปด</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>teq chi kuhd</td>
<td>ni chi</td>
</tr>
<tr>
<td></td>
<td>te̝ chi k’aw</td>
<td>nyī̝ chi</td>
</tr>
<tr>
<td></td>
<td>nineteen</td>
<td>twenty</td>
</tr>
<tr>
<td></td>
<td>สิบเก้า</td>
<td>ยี่สิบ</td>
</tr>
</tbody>
</table>
References


