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A Tonal System of Northeastern Thai dialect of Suwannakhuha District, Nong Bua Lam Phu Province

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Abstract

This article was aimed to examine tonal system of northeastern Thai dialect of Suwannakhuha District, Nong Bua Lam Phu Province. The researcher collected data from 8 sub-districts from an informant in each sub-district, totaling 8 persons. The analysis of tonal system was conducted based on the concept of tone box of Gedney (1972) to investigate tone splits and coalescences by listening and word lists of Akharawatthanakun (2003) was used to study phonetic features of tones with acoustic method by transforming fundamental frequency from Hertz to semitone. The findings reveal that tonal system of northeastern Thai dialect in Suwannakhuha District, Nong Bua Lam Phu Province could be categorized by tonemes into 2 groups. The 1st group included 5 tonemes and was found in 6 sub-districts: Ban Khok Sub-district, Dong Mafai Sub-district, Na Dan Sub-district, Na Si Sub-district, Boonthan Sub-district and Suwannakhuha Sub-district. The characteristics of tonal splits and coalescences in column A were divided into 3 sub-groups including 1) A123-4, 2) A1-234 and 3) A12-34. The second group consisting 6 tonemes was found in 2 sub-districts: Kud Phueng Sub-district and Na Dee Sub-district with only form of tone splits and coalescences in column A which was A1-23-4.

Keywords: Tonal variation, Thai dialect, dialectology, sociolinguistics

Introduction

Nong Bua Lam Phu is a province where northeastern Thai is substantially used for communication. It is located in Northeastern Region with administrative division as 6 Districts including Mueang Nong Bua Lam Phu District, Non Sang District, Si Boonrueang District, Na Klang District, Suwannakhuha District and Na Wang District. It is an ancient town that has been established for 900 years. The language employed for communication in Nong Bua Lam Phu Province is northeastern Thai with different usage especially dialects communicated in each locality. For example, in Suwannakhuha District lexicons and sounds or accents were outstandingly distinct from other districts. The accent is like how Loei people speak. These persons defined themselves as “Northern Lao” and defined others speaking northeastern Thai in Nong Bua Lam Phu Province in Mueang District as “Southern Lao”.

According to history of the villages, some persons migrated from Loei Province to avoid draught and settled in Nong Bua Lam Phu Province. Moreover, there is another different accent that is the accent of residents in Ban Khok Sub-district, Suwannakhuha District. According to the inquiry, the first group of people establishing a village in Suwannakhuha District immigrated from Xaignabouli District, Laos and they called themselves as “Lao Dan”

Aforesaid data shows varieties of language use with local sounds that indicate identity of that area and result in diversity of accents in Suwannakhuha District. Additionally, there are no research studies investigating northeastern Thai tonal system in Suwannakhuha District, Nong Bua Lam Phu Province. The researcher is interested in various language usages regarding characteristics of linguistic use and speech accent by examining Thai dialects in order to study tonal system in northeastern Thai in Suwannakhuha District, Nong Bua Lam Phu Province.

Therefore, the objective of this article was aimed to examine tonal system of northeastern Thai dialect of Suwannakhuha District, Nong Bua Lam Phu Province.

Literature Review

In Thailand, languages are variously used depending on ethnic groups. Premsirat (2006 : 5) stated that Thailand is the land of linguistic variety and different ethnicities with 70 language groups. Standard Thai or Central Thai is the main language for education and communication followed by regional Thais including Northern Thai, Northeastern Thai and Southern Thai. From abovementioned statement, linguistic varieties widely existed especially in local groups or ethnic groups. Local Thais were divided by northern, central, northeastern and southern regions.

Such local languages were originated from different sources with numerous reasons. Siriakornsart (2011: 26-27) explained the origination of local languages that Northern, Central, Northeastern and Southern Thais were created from Tai language family of which there were a number of speakers spreading in southern China, Burma, Vietnam, Laos and Thailand down to Malaysia because the groups speaking the same language, when migrating, were separated because of warfare, plagues and draught etc. They were in remote and separated locations and they used their own language. Meanwhile, these people were influenced by new languages and varieties of each group would continuously develop and change. However, these languages are systematically similar resulting in the fact that sounds can be compared and it is possible that such languages are related and used as the same language.

Northeastern dialects had long histories in connection with people in Northeastern Region of Thailand. There were evidences and history of immigration or war fleeing and those northeastern dialects were originated variously. This is consistent with Pankhueankhat (1989: 135-136) explaining that northeastern dialects included Thai-Lao dialect which was mostly spoken by people in Northeastern Region of Thailand. This dialect is referred by Thai people as “Northeastern Thai or Lao Dialect”. Northeastern Thai language comprises a number of dialects with different accents such as Luang Phrabang Accent, Vientiane Accent, and Northeastern Accent. Apart from aforesaid accents, there are other dialects categorized in a group of Thai-Lao language such as Tai Puan Dialect, Phutai Dialect, Tai Kaleng and Tai Yor etc.

Methodology

Theoretical Framework

The theoretical framework of tonal analysis was based on *the checklist for determining tones in Tai dialects* or the concept of tone box of Gedney (1972) as shown in Table 1. Variation theory is also applied for the data analysis. According to variation theory, linguistic forms are varied depending on social factors, such as region, educational background, and social class (Snyder, 1995). In this paper, tonal variation is conditioned by regions. That is to say that; region is independent variable that conditions linguistic variation.

Table1
Tone box of Gedney's Word List Contained 60 Words

A	B	C	DL	DS
<i>huu</i> หู	<i>khaj</i> ไช้	<i>sia</i> เสื่อ	<i>niak</i> เหงือก	<i>suk</i> สุข
<i>hua</i> หัว	<i>khaw</i> เข่า	<i>haa</i> ห้า	<i>haap</i> หาบ	<i>phak</i> ผัก
<i>khaa</i> ขา	<i>phaa</i> ผ่า	<i>khaaw</i> ข้าว	<i>khat</i> ขาด	<i>mat</i> หมัด
<i>taa</i> ตา	<i>kaj</i> ไก่	<i>kaw</i> แก้ว	<i>piik</i> ปีก	<i>kop</i> กบ
<i>kin</i> กิน	<i>tw</i> ต่อ	<i>tom</i> ต้ม	<i>twok</i> ดอก	<i>tap</i> ตับ
<i>pui</i> ปี่	<i>paa</i> ป่า	<i>paa</i> ป้า	<i>pow</i> ปอด	<i>cep</i> เชื้อ
<i>dæŋ</i> แดง	<i>baaw</i> บ่าว	<i>baan</i> บ้าน	<i>dæt</i> แด	<i>pet</i> เป็ด
<i>daaw</i> คาว	<i>daa</i> คำ	<i>ʔaa</i> อ้า	<i>ʔaap</i> อาบ	<i>dip</i> ดิบ
<i>bin</i> บิน	<i>baa</i> บ่า	<i>baa</i> บ้า	<i>dwok</i> ดอก	<i>ʔok</i> ออก
<i>mi</i> มือ	<i>mæ</i> แม่	<i>now</i> น้อง	<i>miit</i> มีด	<i>mok</i> นก
<i>naa</i> นา	<i>phw</i> พ่อ	<i>maj</i> ไม้	<i>luuk</i> ลูก	<i>mat</i> มัด
<i>khaan</i> คาง	<i>laj</i> ไล่	<i>maa</i> ม้า	<i>liat</i> เลือด	<i>lep</i> เล็บ

Areas of Data Collection

The researcher collected data in Suwannakhuha District, Nong Bua Lam Phu by using criteria of inclusion that only a community in each sub-district would be selected. In case of various villages, the researcher would select a village representing language of that area. An informant from each sub-district was required for data collection, totaling 8 persons. There are 8 sub-districts in following details.

1) Kud Phueng Village in Kud Phueng Sub-district, 2) Dong Mafai Village in Dong Mafai Sub-district, 3) Na Dan Village in Na Dan Sub-district, 4) Na Dee Village in Na Dee Sub-district, 5) Na See Village in Na See Sub-district, 6) Ban Khok Village in Ban Khok Sub-district, 7) Boonthan Village in Boonthan Sub-district and 8) Phanom Phattana Village in Suwannakhuha Sub-district. Such spatial data are shown in below map.

Informant

The informants in this research were Northeastern Thai speakers in Suwannakhuha District, Nong Bua Lam Phu Province with following qualifications:

- 1) Female informants were aged from 40-60 years.
- 2) The informants had domicile in that location.
- 3) The informants graduated not over grade 6.
- 4) The informants had perfect condition of articulating organs for clear articulation.
- 5) The informants should have occupation not usually relating to non-local persons or not leaving the areas such as rice farmers, orchard farmers, and field crop farmers for true retention of their dialect.

Instrument for Data Collection

- 1) An instrument for data collection in this research was a voice recorder.
- 2) Word list set1 was Gedney's word list contained 60 words (Gedney, 1972) which were used for data analysis by listening in order to examine tonal system and features of tone. The words are shown in Table 1.

3) Word list set2 was analogous set. It was adapted from the word list of Akharawatthanakun (2003) which was the word list for accurate phonetic feature analysis because the word list in set 1 was not suitable with phonetic feature analysis of tones with acoustical method because each word contained different initial consonants and vowels, totaling 20 words as shown in Table 2.

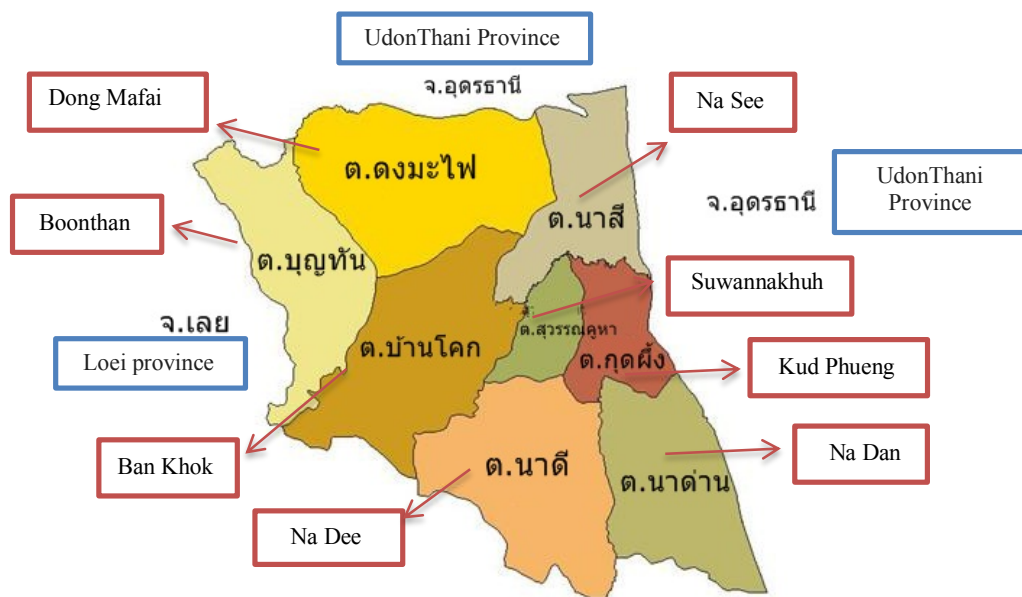


Figure 1. Map of Suwannakhuha District, Nong Bua Lam Phu Province

Table2
Analogous Set

	A	B	C	DL	DS
1.	<i>khaa</i> ขา	<i>khaa</i> ข่า	<i>khao</i> ข้าว	<i>khat</i> ขาด	<i>khat</i> ขัด
2.	<i>paa</i> ปา	<i>paa</i> ป่า	<i>paa</i> ป้า	<i>paat</i> ปาด	<i>pat</i> ปัด
3.	<i>baan</i> บาน	<i>baa</i> บา	<i>baa</i> บ้า	<i>baat</i> บาท	<i>bat</i> บัด
4.	<i>khaa</i> คา	<i>khaa</i> ค่า	<i>khaa</i> ค้า	<i>khaat</i> คาด	<i>khat</i> คัด

Data Collection

1. The researcher surveyed areas to collect field data and contact personnel to ask cooperation and advices about determination of informants according to the specified qualifications such as sub-district headman, village headman or community leader.

2. Construct familiarity with informants and explaining the informants about how to answer questions.

3. Collect data from single word list in Table 1 for 60 words in Gedney's Tone Box (Gedney, 1972) for data analysis by listening in order to examine tonal system by employing pictures and objects as well as gestures for the informants to pronounce at least 3 words. During data collection, the researcher listened and analyzed tone splits and coalescences and made a note and recorded voices with a recorder. After that, the researcher investigated and listened to the interview tape if data were complete and then the voices were segmented for individual analysis.

4. Collect data from analogous set including 20 words in specified tone box by applying pictures, objects and gestures for the informants to pronounce a word in 5 consecutive times. During data collection, the researcher recorded voices with a tape recorder and examined and listened to the interview tape whether data were complete. Then, the voices were segmented for analyzing phonetic features of tones with acoustic phonetic method.

Data Analysis

The first part of analysis was to analyze voices from data collection in set1 containing 60 words in the tone box of Gedney (Gedney, 1972). Data were analyzed by listening to study tonal system.

The second part was to analyze word list in set2 containing 20 words. The informants were instructed to pronounce a word for 5 times and the researcher would select the 2nd, 3rd, and 4th times of pronunciation. Therefore, the number of the words from 8 informants pronouncing each word for 3 times, to be analyzed by the researcher, was $20 \times 3 \times 8 = 480$ test words. After that, data were analyzed and processed in terms of phonetic features of tones by employing Praat Program version 6.0.39 with acoustic phonetic method. The analysis was to find fundamental frequency (F0) and when the fundamental frequency of each tone was obtained, the researcher would convert fundamental frequency as Hertz (Hz) to Semitone (ST) $ST = 12 \cdot \log(Hz_{trans}/Hz_{ref})/\log(2)$

Result

The result of studying northeastern Thai in Suwannakhuha Sub-district, Nong Bua Lam Phu Province revealed that the tone phonemes could be categorized into 2 groups: group 1 consisting of 5 tone phonemes and group 2 containing 6 tone phonemes in following details.

Group 1 containing 5 tone phonemes was found in 6 sub-districts including Ban Khok Sub-district, Dong Mafai Sub-district, Na Dan Sub-district, Na See Sub-district, Boonthan Sub-district and Suwannakhuha Sub-district. For such tone phonemes, tonal segmenting and blending was detected based on the principle of splits and coalescences in space A because the features of splits and coalescences in B C DL and DS of tones were the same in every sub-district. Therefore, the characteristics of tonal splits and coalescences in space A in group 1 could be divided into 3 patterns as follows.

Pattern 1) A123-4 was found in Ban Khok Sub-district, Na Dan Sub-district, and Boonthan Sub-district with vertical splits and coalescences of A123-4 B1234 C1-234 DL123-4 and DS123-4 and horizontal splits and coalescences of A123=DS123 in Ban Khok Sub-district and Boonthan Sub-district. Meanwhile, in Na Dan Sub-district, horizontal splits and coalescences was A4=DS123. The characteristic of horizontal splits and coalescences of C234=DL4=DS4 was detected in Ban Khok Sub-district while C1=DL123 C234=DS4 and B1234=DL4 existed in Nadan Sub-district. Speaking of Boonthan Sub-district, horizontal splits and coalescences of C1=DL123 was as same as Na Dan Sub-district while those in C234=DL5 and B1234=DS4 could show phonetic features of tonal phonemes in below Table.

Table3

Phonetic features of tones in pattern of 1) A123-4

A	B	C	DL	DS
T.1 [212]	T. 3 [434]	T.4 [23]	T. 2 [212]	T. 1 [213]
		T. 5 [341]		
T.2[213]			T.5 [321]	T.5 [32]

Ban Khok Sub-district

A	B	C	DL	DS
T. 1 [11]	T. 3 [321]	T.4 [121]	T. 4 [32]	T. 2 [121]
T.2 [323]		T. 5 [22]		
			T.3 [543]	T.5 [55]

Na Dan Sub-district

A	B	C	DL	DS
T. 1 [212]	T. 3 [33]	T.4 [21]	T. 4 [21]	T. 1 [212]
T.2 [341]		T. 5 [341]		
			T.5 [231]	T.3 [33]

Boonthan Sub-district

Pattern 2) A1-234 was found in Dong Mafai Sub-district and Na See Sub-district with vertical splits and coalescences of A1-234 B1234 C1-234 DL123-4 and DS123-4 and horizontal splits and coalescences of A1=DS123 C1=DL123 and C234=DL4. They were the same in 2 sub-districts but the difference was B123=DS4 which was detected in Dong Mafai Sub-district and A234=DS4 found in Na See Sub-district. The phonetic features of tone phonemes are shown in Table 4.

Table4

Phonetic Features of Tones in Pattern 2) A1-234

A	B	C	DL	DS	A	B	C	DL	DS
T.1 [213]	T. 3 [44]	T.4 [453]	T. 4 [454]	T. 1 [213]	T.1 [212]	T. 3 [213]	T.4 [313]	T.4 [32]	T. 1 [212]
T. 2 [143]		T. 5 [34]			T. 2 [323]		T. 5 [321]		
							T.5 [321]		T.2 [33]

Dong Mafai Sub-district

Na See Sub-district

The pattern 3) A12-34 was found only in Suwannakhuha Sub-district with vertical splits and coalescences of A12-34 B1234 C1-234 DL123-4 and DS123-4 and horizontal splits and coalescences of A12=DS123 B1234=DS4 C1=DL123 and C234=DL4. The phonetic features of tone phonemes are shown in Table 5.

Table5

Phonetic Features of Tones in Pattern 3) A12-34

A	B	C	DL	DS
T. 1 [212]	T. 3 [33]	T.4 [21]	T. 4 [21]	T. 1 [212]
T. 2 [231]		T. 5 [321]		

Suwannakhuha Sub-district

Group 2, 6 tone phonemes were found in 2 sub-districts including Kud Phueng Sub-district and Na Dee Sub-district. Tonal splits and coalescences in A in group 2 contained 1 pattern which was A1-23-4. Vertical splits and coalescences were A=1-23-4 C1-234 DL123-4 and DS123-4 while horizontal splits and coalescences in Na Dee Sub-district was A1=DS123 B1234=DS4 C1=DL123 and C1234=DL4. However, horizontal splits and coalescences in Kud Phueng Sub-district were A23=DL123 C1=DS123 and C234=DL4=DS4. Phonetic features are shown in Table 6.

Table6

Phonetic Features of Tones in Pattern 4) A1-23-4

A	B	C	DL	DS
T.1 [423]	T. 4 [43]	T.5 [421]	T. 2 [545]	T. 5 [21]
T. 2 [434]		T. 6 [432]		
T.3 [323]			T.6 [54]	T.6 [54]

Kud Phueng Sub-district

A	B	C	DL	DS
T.1 [123]	T. 4 [44]	T.5 [451]	T. 5 [342]	T. 1 [12]
T. 2 [131]		T. 6 [22]		
T.3 [213]			T.6 [33]	T.4 [22]

Na Dee Sub-district

Conclusion and Discussion

This study aims to examine tonal system in northeastern Thai dialects in Suwannakhuha District, Nong Bua Lam Phu Province. The analysis of tone box and vocabulary list application for testing tones was as follows. The first set of tone box contained 60 words of Gedney (Gedney, 1972) and they were divided by tone phonemes

into 2 groups including the first group consisting of 5 tones which were found in 6 sub-districts: Ban Khok Sub-district, Dong Mafai Sub-district, Na Dan Sub-district, Na See Sub-district, Boonthan Sub-district and Suwannakhuha Sub-district. Meanwhile, the second group contained 6 tone phonemes which were found in 2 sub-districts including Kud Phueng Sub-district and Na Dee Sub-district. This is consistent with the study of Akharawatthanakun (1998) categorizing tonal system of Lao people in Nakhon Phanom Province. That work indicated that there were 5-6 tone phonemes. Additionally, the result is in line with Siriaksornsart (2011) classifying tone phonemes in northeastern Thai as 6 phonemes and Urachai (1980) dividing tone phonemes in northeastern Thai into 6 phonemes. To conclude, Northeastern Thai contained 5-6 tone phonemes which were in agreement with Pankhueankhat (1988) stating that there were 4-6 tone phonemes in Northeastern Thai.

Tonal splits and coalescences based on the criteria in space A could be categorized based on phonemes of such tone. Tonal splits and coalescences could be in 4 patterns as follows:

Pattern 1) A123-4 was found in Ban Khok Sub-district, Na Dan Sub-district and Boonthan Sub-district with tone splits and coalescences characteristic of A123-4. It was categorized as authentic Lao in Lao Wiang Group. This was consistent with Akharawatthanakun (2003) grouping and explaining that authentic Lao in group 1/2 contained Lao tonal splits and coalescences of B1234 C1=DL123 C234=DL4 and B≠DL. The characteristics of tone splits and coalescences in Boonthan Sub-district were in accordance with Lao language as above mentioned. For Ban Khok Sub-district and Na Dan Sub-district, some tonal patterns were not corresponding with such criteria, that is, in Ban Khok Sub-district tone of C1 ≠ DL123 was detected and in Na Dan Sub-district, C234 ≠ DL4 existed. This was influenced by spatial different and potential exposure to languages in similar settlements. Area of Na Dan Sub-district and Ban Khok District adjoined to other districts in Nong Bua Lam Phu and speakers were possibly influenced by main dialects of Nong Bua Lam Phu Province. Meanwhile, most areas of Boonthan Sub-district adjoined Loei Province.

Pattern 2) A1-234 was found in Dong Mafai Sub-district and Na See Sub-district with splits and coalescences in pattern 2 which was consistent with the study of Akharawatthanakun (2003) categorizing it in authentic Lao language group 1/2. The findings in Lao language in Champasak consisted of congruent characteristics which were splits in column A pattern A1-234 and Lao tonal splits and coalescences in pattern of B1234 C1=DL123 C234=DL4 and B≠DL. Such features appeared in Dong Mafai Sub-district and Na See Sub-district. After inquiry about village history, people migrated from many provinces such as Loei, Phetchabun and Lao. Therefore, language features were similar to Loei language and Lao language.

Pattern 3) A12-34 was found only in Suwannakhuha Sub-district with Lao tonal splits and coalescences of B1234 C1=DL123 C234=DL4 and B≠DL. This was in agreement with Akharawatthanakun (2003) but the characteristics in column A of tones were different with splits and coalescences of A12-34 which did not appear in Lao language but existed in Northern Thai dialect. Thinchai (2015) examined tonal variation of Thai dialects in Phrae Province and found that tonal splits and coalescences existed in tonal box of A12-34 B123-4 C123-4 DL123-4 and DS123-4 north. Additionally, the findings were in accordance with the study result of tonal change, case study of Lao Language. Akharawatthanakun(2003) mentioned that Yuan language spoken in Chiang Khong District and Wiang Kaen District, Chiang Rai Province contained vertical tonal segmenting and blending in patterns of A12-34 B123-4 and C123-4 which was different from splits and coalescences of A12-34 in Suwannakhuha Sub-district. However, it was

not consistent with the findings in Lao language but outstanding features of Lao language appeared in tonal column of B1234 C1=DL123 C234=DL4 and B≠DL. Conclusively, languages used in Suwannakhuha Sub-district were Lao with tonal variation in column A containing same splits and coalescences as Northern dialect. It was possibly because Suwannakhuha Sub-district was the District in which people immigrated from different areas to seize lands and do businesses and these people were not originally locals. According to the inquiry, immigration to settle down in Suwannakhuha Sub-district was because an announcement was made that any persons who did not have land could capture areas for constructing a house. Accordingly, a number of people moved to Suwannakhuha to stay without lands for agriculture and most residents were merchants.

Pattern 4) A1-23-4 was found in Kud Phueng Sub-district and Na Dee Sub-district. The characteristics of splits and coalescences of A1-23-4 were consistent with the study of Ornsiphrai and Buakaw (2015) examining total system in Loei Province which appeared in tonal system in pattern 3 A1-23-4. Additionally, it was in line with the findings of a study on tonal system of Akharawatthanakun (2003) grouping characteristics of authentic Lao. Group 1/1 contained tonal phone splits and coalescences in column A in pattern of A1-23-4. From the study results, splits and coalescences of Isan Lao in Non Sang District, Nong Bua Lam Phu Province (Isan Lao) was in pattern of B1234 C1=DL123 C234=DL4 and B≠DL. Such abovementioned characteristics were found in Na Dee Sub-district, Suwannakhuha District, Nong Bua Lam Phu Province. Areas of Nadee District adjoin to other districts in Nong Bua Lam Phu Province and mostly used language was Isan Lao. In the meantime, the appearance of Kud Phueng Sub-district was different from aforesaid data in term of C1≠DL123 because areas of Kud Phueng Sub-district were not adjoined to other districts in Nong Bua Lam Phu Province but were adjoined to Udon Thani Province which may be influenced by dialects of other locations.

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