THE PHONOLOGICAL CHARACTERISTICS OF
CHINESE DIALECTS IN THAILAND

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY (LINGUISTICS)
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY
2010

Thesis
entitled

THE PHONOLOGICAL CHARACTERISTICS OF
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ACKNOWLEDGEMENTS

THE PHONOLOGICAL CHARACTERISTICS OF CHINESE DIALECTS IN THAILAND

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ABSTRACT

This dissertation presents the phonological characteristics of Chinese dialects in Thailand and the distribution of Chinese dialects in Thailand. In addition, this study describes the migration patterns of Chinese descendants in Thailand. The data were collected from 136 informants in 50 provinces of Thailand.

The result found that there are 8 Chinese dialects which can be classified into 4 groups, group 1: Mandarin Chinese made up of Yunnanese; group 2: Hakka Chinese group composed of Hakka; group 3: Yue or Cantonese made up of Cantonese and Guangsai; and group 4: Min Chinese group composed of Teochew, Hainanese, Hokkien, and Fuzhou or Hokchew. The phonology for each Chinese dialect can be divided into three parts: consonants, vowels and tones. The differences and similarities between Chinese dialects in Thailand depend on their regional language variations which can be summarized as follows:

1) The consonants of Chinese dialects in Thailand can be divided into three groups: 17 consonants, 18 consonants, and 19 consonants.

2) The vowel phonemes of Chinese dialects in Thailand - despite different vowel phonemes depending on each dialect - three vowel phonemes: /i, a, u/ found in all dialects.

3) The tonemes can be divided into 4 groups: 4 tones, 5 tones, 6 tones, and 7 tones.

The migration of Chinese dialects to Thailand occurred during two important periods as follows:

The first period stated from the seventeenth century up to World WarII (1939-1949), during which Chinese groups such as Hokkien, Teochew, Hakka, Fuzhou or Hokchew, Hainan or Hailam, and some Cantonese migrated from southern China.
The second period was during the Chinese Civil War (1945 – 1949), when mostly Yunnanese from southwestern China fled to Thailand and elsewhere in southeast Asia.

KEY WORDS: PHONOLOGY/ CHINESE DIALECTS / THAILAND / CHINESE MIGRATION PATTERN

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ลักษณะของระบบเสียงภาษาจีนถิ่นต่าง ๆ ในประเทศไทย
THE PHONOLOGICAL CHARACTERISTICS OF CHINESE DIALECTS IN THAILAND

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บทคัดย่อ

วิทยานิพนธ์ฉบับนี้เป็นการศึกษาระบบเสียงภาษาจีนถิ่นต่าง ๆ ในประเทศไทย และแสดงการกระจายของภาษาจีนถิ่นต่าง ๆ รวมทั้งแสดงรูปแบบของการอพยพของคนไทยเชื้อสายจีนถิ่นต่าง ๆ ในประเทศไทย การวิจัยนี้ได้เก็บข้อมูลจากผู้บอกภาษาทั้งหมด 50 จังหวัด จำนวน 136 คน ซึ่งอาศัยอยู่ในจังหวัดต่าง ๆ ในประเทศไทย

ผลการศึกษาพบว่า ภาษาจีนถิ่นในประเทศไทยประกอบไปด้วย 8 ถิ่น ซึ่งสามารถรวมกลุ่มตามภาษาจีนกลุ่มใหญ่ได้ 4 กลุ่ม คือ กลุ่มที่ 1 กลุ่มแมนดาริน ได้แก่ ภาษาจีนหยุนหนาน กลุ่มที่ 2 กลุ่มฮากกา ได้แก่ ภาษาจีนฮากกา(แคะ) กลุ่มที่ 3 กลุ่มเย่ว์หรือกวางตุ้ง ได้แก่ ภาษาจีนกวางตุ้ง และภาษาจีนกวางไส กลุ่มที่ 4 กลุ่มมิน ได้แก่ ภาษาจีนแต้จิ๋ว ภาษาจีนไหหลำ ภาษาจีนฮกเกี้ยน และภาษาจีนฮกจิว ระบบเสียงของภาษาจีนถิ่นแต่ละถิ่นซึ่งประกอบไปด้วย พยัญชนะ สระ และวรรณยุกต์มีความแตกต่างและคล้ายคลึงกันตามถิ่นที่มาของแต่ละภาษา สามารถสรุปได้ดังนี้คือ พยัญชนะของภาษาจีนถิ่นในประเทศไทยแบ่งออกเป็น 3 กลุ่ม คือ 17 หน่วยเสียง 18 หน่วยเสียง และ 19 หน่วยเสียง สระจะมีหน่วยเสียงที่แตกต่างกันไปตามแต่ละภาษา แต่สระ /i, a, u / พบในทุกภาษา สำหรับหน่วยเสียงวรรณยุกต์สามารถแบ่งได้เป็น 4 กลุ่ม คือ 4วรรณยุกต์ 5วรรณยุกต์ 6วรรณยุกต์ และ 7วรรณยุกต์

การอพยพโยกย้ายของชาวจีนถิ่นต่าง ๆ เข้ามายังประเทศไทย แบ่งออกเป็น 2 ช่วงเวลา คือ ช่วงที่ 1 ระยะเวลาระหว่างศตวรรษที่ 17-สงครามโลกครั้งที่ 2 กลุ่มนี้ส่วนใหญ่จะเป็นชาวจีนที่อาศัยอยู่ทางใต้ของจีน คือ ฮกเกี้ยน แต้จิ๋ว ฮากกา ฮกจิว ไหหลำ กวางตุ้งและกวางไส ช่วงที่ 2 ระยะเวลาระหว่างสงครามกลางเมืองในประเทศจีน(1945-1949) กลุ่มนี้ส่วนใหญ่จะเป็นชาวจีนหยุนหนานที่อาศัยอยู่ทางตะวันตกเฉียงใต้ของจีน

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CHAPTER I
INTRODUCTION

1.1 Background of the study

Language is a means used by humans to transfer knowledge, thoughts, feelings, and desires from one person to another. There are many languages all over the world. The Chinese is one of the languages of the world used by Chinese people. The Chinese language belongs to the Sino-Tibetan family of language. Chinese is composed of seven major dialects: Mandarin, Wu, Hsiang or Xiang, Kan or Gan, Hakka, Yue or Cantonese, and Min. Each dialect has subdialects such as Mandarin and Min.

According to the geographical areas of Mandarin speaking people in China, Mandarin is divided into four subdialects: Northern, Northwestern, Southwestern, and Lower Yangtze dialects. Min dialect is divided roughly into two subgroups: Northern Min (Mǐnběi fāngyán: 閩北方言) and Southern Min (Mǐnnán fāngyán: 閩南方言) (Li 1937, Yuan 1960).

Although trade is the main reason that Chinese and Thai people have been related to each other since the Sukhothai period, this is not the reason why Chinese people decided to settle in Thailand. Presently, there are many Chinese descendants of those who immigrated to Thailand because of the economic and /or political crises in China.

Regarding preliminary survey, there are six Chinese groups of four major Chinese dialects found in Thailand as follows:

1. Standard Chinese (Mandarin) and Yunnanese (Yunnanese is in Southwestern Mandarin sub-dialect)
2. Hakka
3. Yue or Cantonese
4. Teochew (Teochew is in Southern Min dialect)

5. Hokkien (Hokkien is in Southern Min dialect) and Taiwanese
    (Taiwanese Hokkien is the Hokkien dialect)

6. Hainanese (Hainanese is in Southern Min dialect)

Although Chinese people have been living in Thailand for ages, they have preserved their culture and passed it on to their descendants. Their language is a part of their culture, which is still alive in Chinese communities. They use it to communicate within their group.

Previous studies of the six dialects spoken in Thailand focus mainly on the phonology and social aspects of these Chinese dialects in a particular area. There have been no studies providing an overall picture of the distribution of Chinese dialects spoken in Thailand. Recent researches on Chinese dialects display uncompleted jigsaws. Therefore this study aims to present an overview picture of Chinese dialects spoken in Thailand, focusing on the distribution and phonological characteristics of Chinese dialects. This research will be useful for people who are interested in further Chinese related research. Moreover, the presence of dialects is a source of valuable evidence of historical linguistics as dialect differences are commonly a result of changes taking place in different periods and in different places.

1.2 Objectives of the study

There are three objectives of the study:

1.2.1 To study the phonological feature of Chinese dialects in Thailand.

1.2.2 To study the distribution of Chinese dialects displayed in the Chinese dialect map

1.2.3 To study settlement patterns which affect the distribution of Chinese dialects in Thailand.

1.3 Expected outcomes

There are five expected outcomes of the research:

1.3.1 This study will present an overview of the distribution and phonological characteristics of Chinese dialects.

1.3.2 This study will explain the phonological features of Chinese dialects in Thailand.

1.3.3 This study will show the distribution of Chinese dialects in Thailand displayed on Chinese dialect map.

1.3.4 This study will explain how the settlement pattern affects the distribution of Chinese dialects in Thailand.

1.3.5 This study will be helpful for further Chinese related studies.

1.4 Scopes and Limitation of Study

1.4.1 This study focuses on the phonology (consonant, vowel and tone) of six Chinese dialects in Thailand: Yunnanese, Cantonese, Hakka, Hainanese, Hokkien, and Teochew. It does not include syllables of six Chinese dialects because they are usually the same: V, VC, CV, and CVC as shown in chart below:
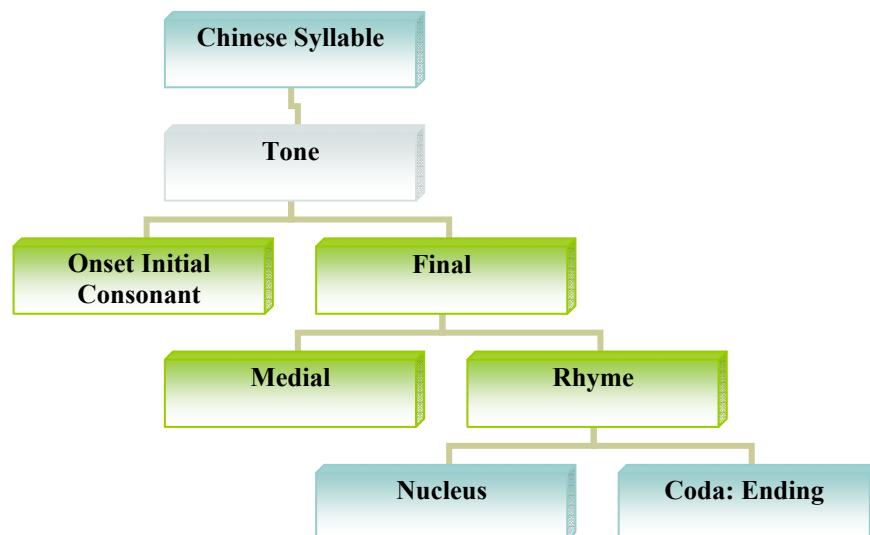
Chart 1.1   The syllables of six Chinese dialects

1.4.2 This study focuses on monosyllabic words.

1.4.3 This study is not composed of tone sandhi.

1.4.4 The data were elicited from informants who are Yunnanese, Cantonese, Hakka, Hainanese, Hokkien, and Teochew descendants living in Thailand and able to communicate in Chinese language.

1.4.5 This study focuses on the informants whose ages are more than forty years old because they can speak their language well and better than speakers of new generation.

1.4.6 This study composes the provinces of Thailand where Yunnanese, Cantonese, Hakka, Hainanese, Hokkien, and Teochew descendants have been living.

1.4.7 This study focuses on the provinces where the Chinese shrines of Yunnanese, Cantonese, Hakka, Hainanese, Hokkien and Teochew communities are located. These shrines represent the center of Chinese communities.

1.4.8 This study focuses on the district which is the center of Chinese communities, where most of Chinese people work as merchants, as stated by Smalley (1994, p. 203-209) that "Chinese language in Thailand is in the languages of towns and cities group which are spoken by Chinese descendants such as Teochew, Hainanese, Cantonese, Hokkien and Hakka, so they usually live in the center or Muang district in each province".

1.5 Theoretical Orientation

The theoretical framework of the study is based on Phonemic approach which is the study of phonology as a hierarchy of ranks. Phonology has been defined as the study of sound systems which is the study of how speech sounds structure and function in languages. Phonological hierarchy describes a series of increasingly smaller regions of a phonological utterance. The three ranks in this study are phonological word, syllable and phoneme as shown in the diagram below:

Function

Phonological Word

Syllable
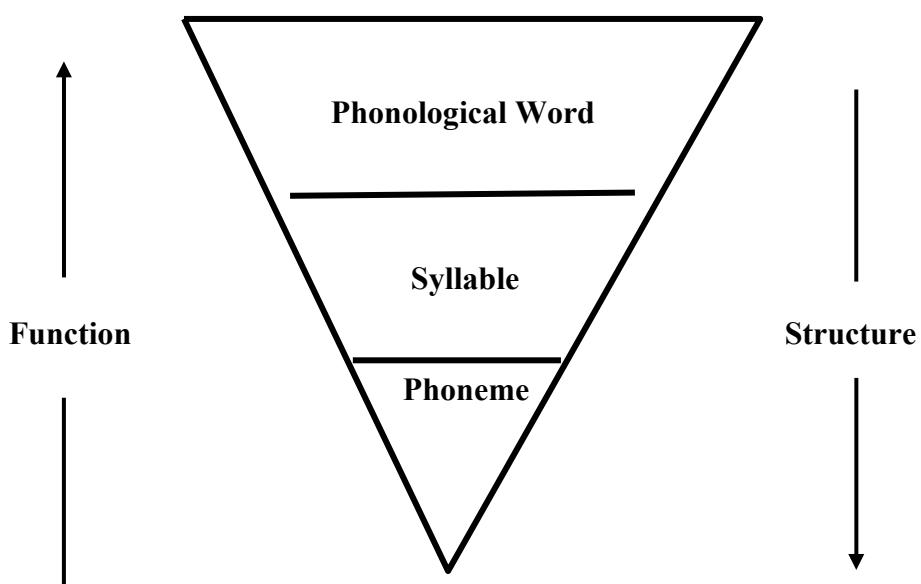
Phoneme

Structure

There is structure stated each rank in terms of units of the rank below (except the lowest, the Phoneme) and there is function in the structure of the rank above (except the highest, Phonological word).

This study started with the syllable which summarized in Chapter 1.7; Syllable structure of Chinese dialect to the Phoneme (lowest). This study used the phonetic symbols by following the International Phonetic Alphabet system (I.P.A. system)

1.6 The information of Chinese language

1.6.1 Chinese language family

As China has many minority nationalities, so there are many languages. Chinese language is spoken at least 96 % of people in China (Crystal, 1991).

Chinese language is in The Sino-Tibetan language family as in chart 1.2 below (Benedict, 1972). The "Sino" or " Sinitic" name refers to various Chinese languages which often referred to "dialect". The "Tibetan" part refers to Tibeto – Burman languages. Tibeto – Burman comprises hundreds of languages beside Tibetan and Burmese, spreading over a vast geographical area, that is China, India, the Himalayan region, and peninsular Southeast Asia.
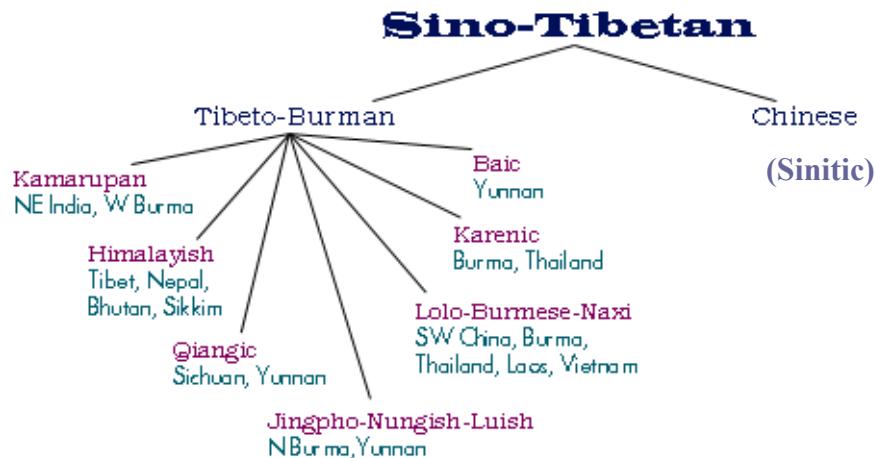
Chart 1.2   The Sino-Tibetan family by Berkeley University (n.d.)

The classification of the Sino - Tibetan language family is highly controversial. Most scholars in China take a broader view of the Sino – Tibetan language family (called Hàn-Zàng in Mandarin), including not only the Sinitic and the Tibeto – Burman languages, but also Tai (= Daic) and Hmong-Mien (= Miao-Yao) branches.
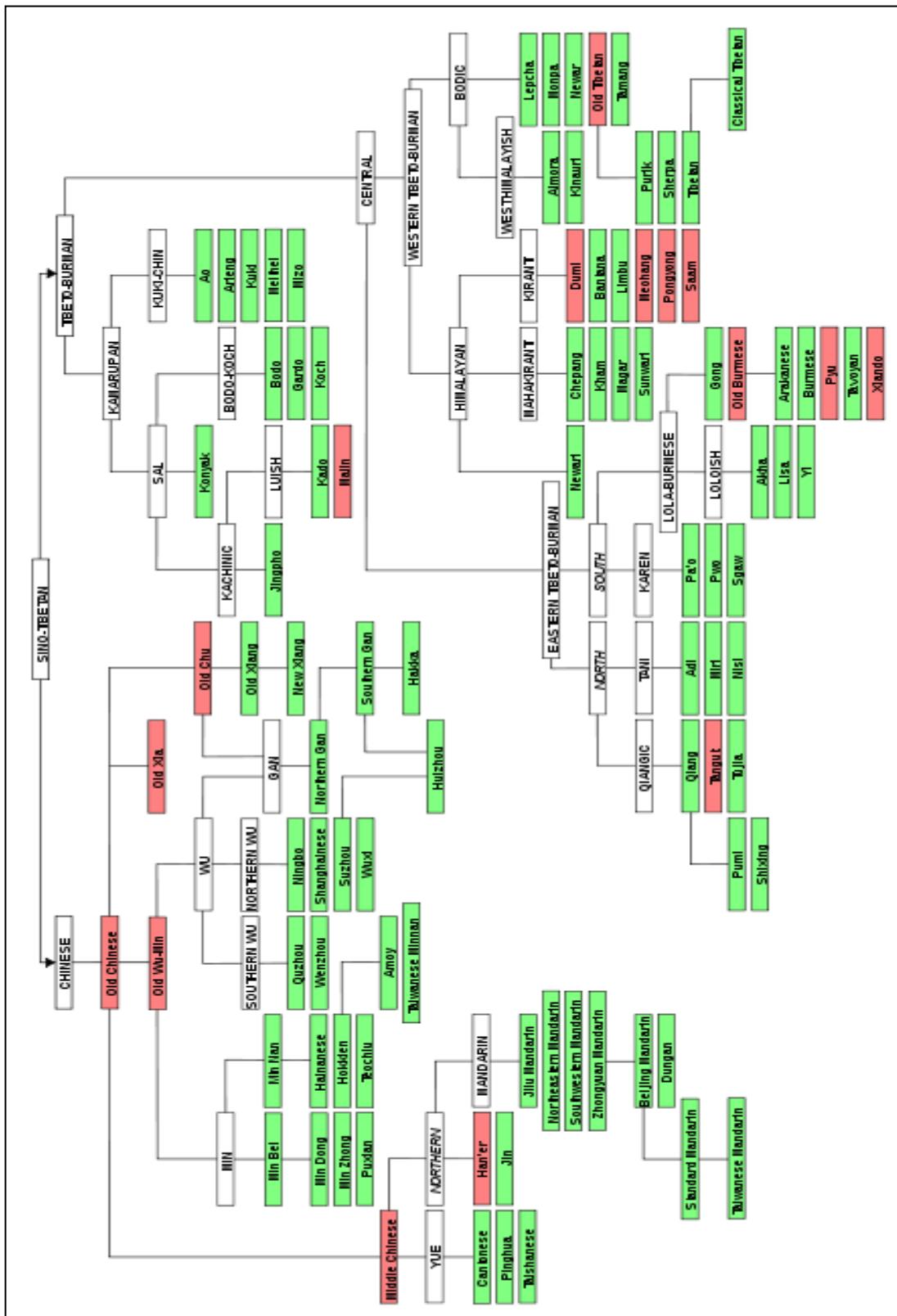
Chart 1.3   Sino-Tibetan language family by Wikipedia (n.d.)

Map 1.1   Chinese linguistic groups from the University of Texas at Austin (n.d.)

The map 1.1 shows the languages which are spoken in China. Of which most people in China spoke Chinese language that is in Sino-Tibetan language family. In addition, yellow and green colors show they are the languages belonging to Sinitic or Chinese language.

Sinitic which refers to Chinese languages which are divided into seven major dialects (Yuan, 1989), (Rattanakul, 1994), (Yan, 2006), (Wikipedia, 2006) as follows:
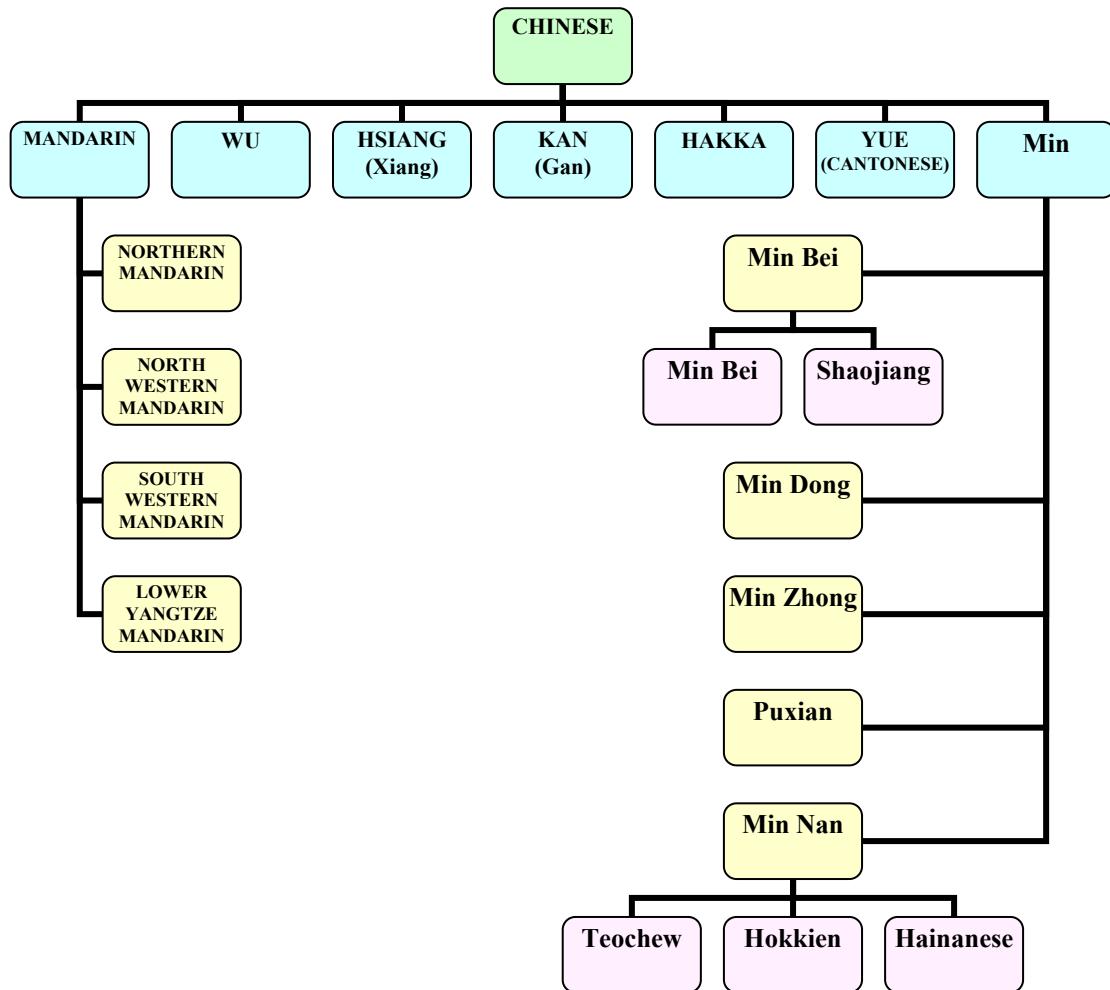
Chart 1.4   Chinese language family charts

The above chart 1.4 shows Chinese languages could be divided into seven dialects. Moreover they can be divided themselves into sub-dialect of which this thesis will be described. The maps 1.2 and 1.3 below show the areas where each Chinese dialect is spoken.

THE SINITIC LANGUAGES

Mandarin · 836 million (worldwide)
Wu   77 million
Cantonese   71 million (worldwide)
Min (incl. Taiwanese)   60 million
Jin (usu. grouped with Mandarin) · 45 million
Xiang (contains Wu substratum) · 36 million
Hakka · 34 million (worldwide)
Gan · 31 million
Hui (usu. grouped with Wu) · 3.2 million
Ping (usu. grouped with Cantonese)   2 million

Map 1.2   The Sinitic Languages from Wikipedia (n.d.)
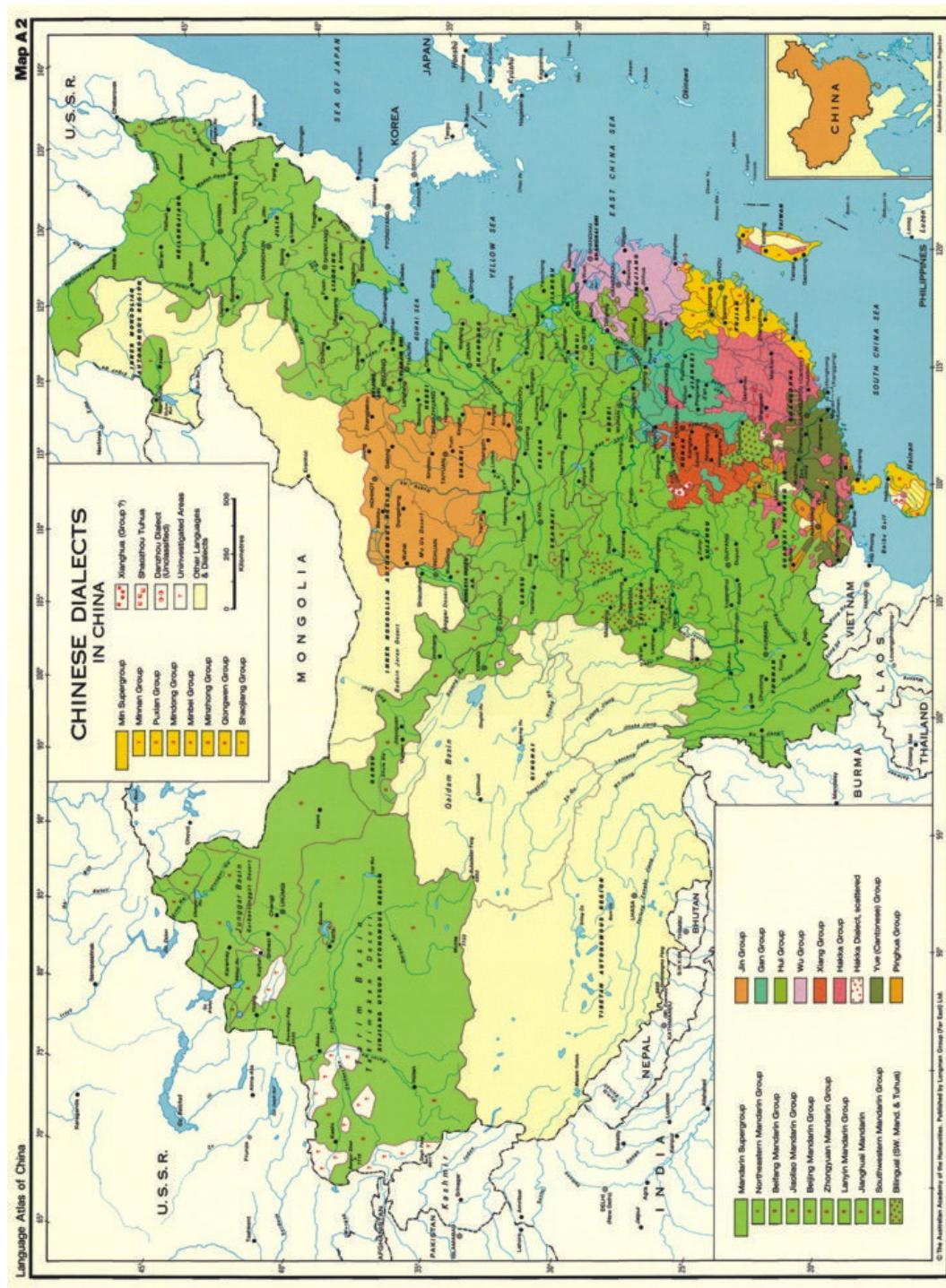
Map 1.3   Chinese dialects in China from Glossika Linguistics (2008)

The map 1.3 shows the areas where Mandarin is spoken in green color and the others as shown in other colors.

1.6.2 Seven Chinese dialects

The seven dialects of Chinese language is described as follows:

1.6.2.1 Mandarin (Guān Huà: 官话) or (Běifāng Huà: 北方话)

Rattanakul (1994) stated that the name "Mandarin" is in English. It was adapted from the word "muntri" of Portuguese. "Muntri" means civil servant. In the past, China had civil servants who spoke Mandarin or Guān Huà (means civil servant language). Nowadays there are no civil servants and the term of Guān Huà is no longer used, it has been replaced by the term Kuóyǔ which means national language. Mandarin is spoken more than 70% of Chinese people in China. It is also called the northern dialect spoken in the areas above Yangtze Kiang river and below Yangtze Kiang river, such as Jiangxi (Jiāngxī: 江西), Jiangsu (Jiāngsū: 江蘇), Hubei (Húběi: 湖北), Sichuan (Sìchuān shěng: 四川省), Yunnan (Yúnnán: 云南), Guizhou (Guìzhōu: 贵州), and the northwest of Guangxi (Guǎngxī: 广西), and Hunan (Húnán: 湖南).

Moreover she divided Mandarin into four subdialects as follows:

a)   Northern Mandarin is spoken in Beijing (Běijīng: 北京), Hubei (Húběi: 湖北), Hunan (Húnán: 湖南), Shandong (Shāndōng: 山东), and Manchuria (Mǎnzhōu: 满洲).

Mandarin used in Beijing is the modern standard language which has 22 consonants and 4 tones.

b)   Northwestern Mandarin is spoken in Shanxi (Shānxī: 山西), Shexi (Shèxī: 社溪), Gansu (Gānsù: 甘肃), Qinghai (Qīnghǎi shěng: 青海省) and Ningxia (Níngxià: 宁夏).

c)   Southwestern Mandarin is spoken in Sichuan (Sìchuān: 四

川), Yunan (Yúnnán: 云南), Guizhou (Guìzhōu: 贵州), northwestern of Guangxi (Guǎngxī: 广西), northwestern of Hunan (Húnán: 湖南) and whole Hubei (Húběi: 湖北) except northeastern.

       d)　　　Lower Yangtze Mandarin is spoken in Anhui (Ānhuī:安徽), Jiangsu (Jiāngsū: 江蘇) and the southern of Yangtze Kiang river from Jiujiang (Jiǔjiāng: 九江) to Zhenjiang (Zhènjiāng: 镇江).

       The dialect of Mandarin can be subdivided into eight categories: Standard Mandarin (Běijīnghuà: 北京话), Northeastern Mandarin (Dōngběi huà: 东北话), Ji Lu Mandarin (Jìlǔguānhuà: 冀鲁官话), Jiao Liao Mandarin (Jiāoliáo guānhuà: 胶辽官话), Zhongyuan Mandarin (zhōngyuán guānhuà: 中原官话), Lan Yin Mandarin (Lányínhua: 兰因话), Southwestern Mandarin(Xǐnánhuà:西南话), and Jianghuai Mandarin (Jiānghuáihua: 江淮话). Jin dialect (Jìn Yǔ: 晋语) is sometimes considered the ninth category of Mandarin. The eight subdialects of Mandarin are shown in the map 1.4 below.
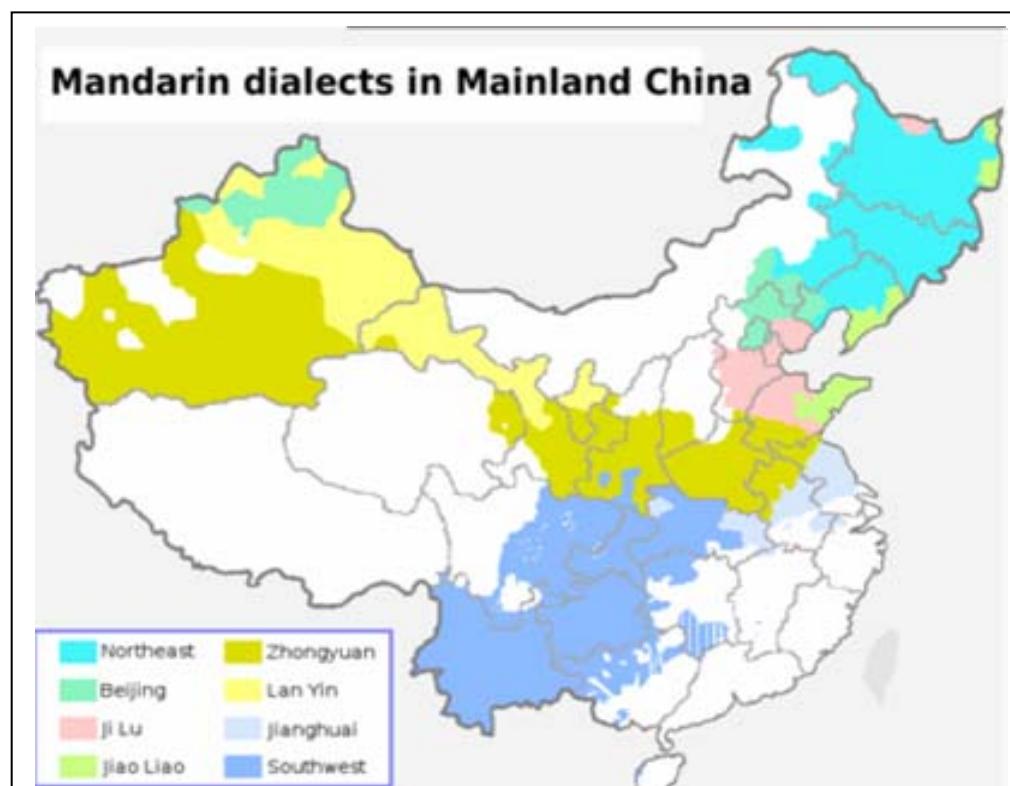
Map 1.4　　Mandarin dialects in Mainland China by Moszczynski (2008)

Yan (2006) said that there are 9 subdialects of Mandarin dialect, 8 subdialects of Mandarin dialect (Wurm et al., 1988) plus Jin dialect (Jìn Yǔ: 晋语) as follows:

    a) Beijing Mandarin Group (Běijǐng: 北京语言)

- Jingshi subgroup
- Huaicheng subgroup
- Chaofeng subgroup
- Shike subgroup

    b) Northeastern Mandarin (Dōngběi: 东北语言)

- Jishen subgroup
- Hafu subgroup
- Heisong subgroup

    c) Northern Mandarin Group (Běifāng: 北方语言)

This Beifang Mandarin has been renamed as Jilu Mandarin (Jìlǔguānhuà: 冀鲁官话).

- Baotang subgroup
- Shiji subgroup
- Canghui subgroup

    d) Jiaoliao Mandarin Group (Jiāoliáo: 脚镣语言)

- Qingzhou subgroup
- Denglian subgroup
- Gaihuan subgroup

    e) Central Pains Mandarin Group (Zhōngyuán: 中原语言)

- Zhengcao subgroup
- Cailu subgroup
- Luoxu subgroup
- Xinbeng subgroup
- Fenhe subgroup
- Guanzhong subgroup

- Qinlong subgroup

- Longzhong subgroup

- Nanjing subgroup

f) Lanyin Mandarin Group (Lányín: 兰因语言)

- Jincheng subgroup

- Yinwu subgroup

- Hexi subgroup

- Tami subgroup

g) Southwestern Mandarin Group (Xǐ'nán: 西南语言)

- Chengyu subgroup

- Dianxi subgroup

- Qianbei subgroup

- Kungui subgroup

- Guanchi subgroup

- Ebei subgroup

- Wutian subgroup

- Cenjiang subgroup

- Qiannan subgroup

- Xiangnan subgroup

- Guiliu subgroup

- Changhe subgroup

h) Jianghuai or Xiajiang Mandarin Group (Jiānghuái: 江淮语

言,or Xiàjiāng: 下江语言)

- Hongchao subgroup

- Tairu subgroup

- Huangxiao subgroup

i) Jin Dialect (Jǐn: 晋语)

- Bingzhou subgroup

- Luliang subgroup

- Shangdang subgroup

- Wutai subgroup

- Dabao subgroup

- Zhanghu subgroup

- Hanxin subgroup

- Zhiyan subgroup
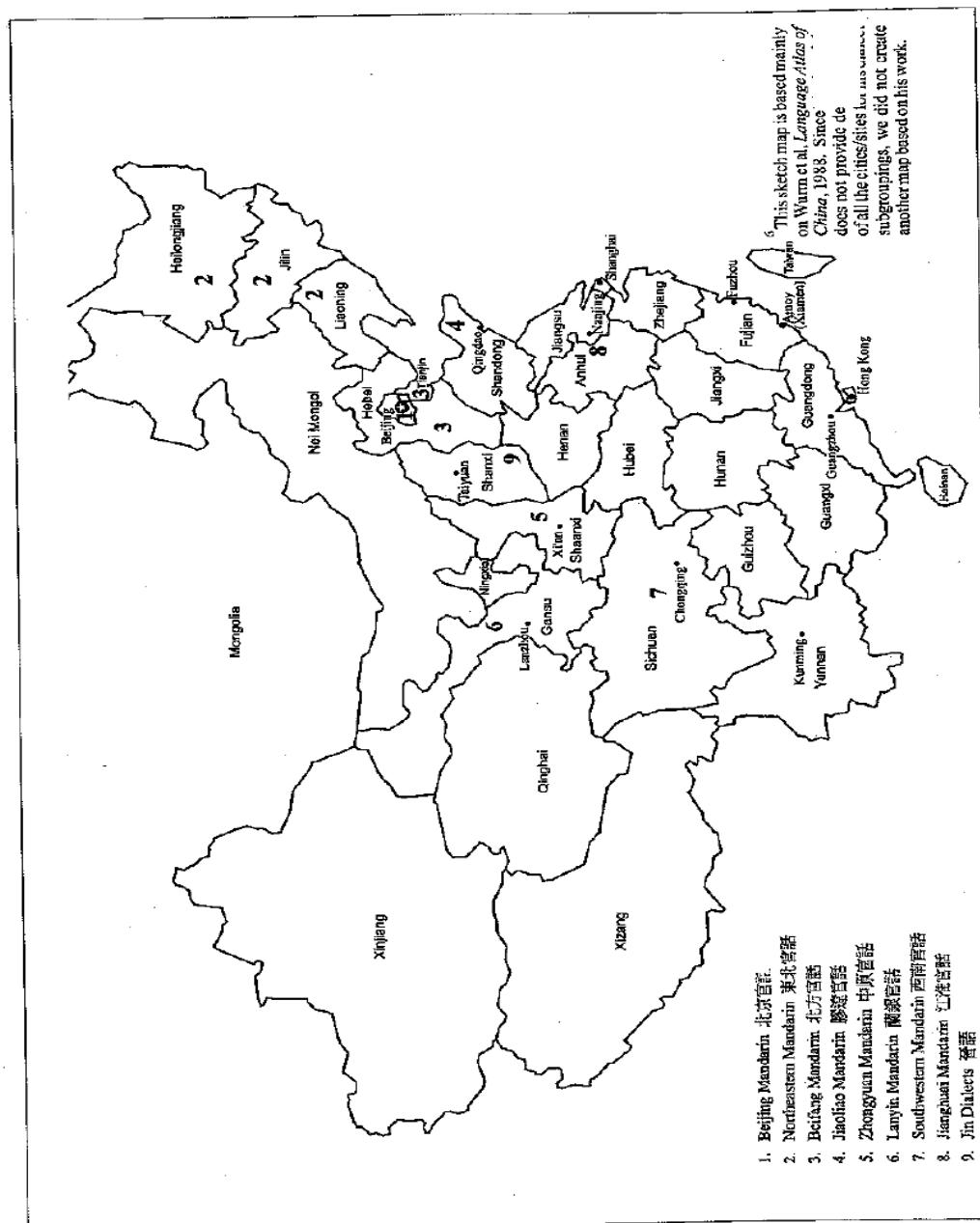
Map 1.5   Mandarin and Jin dialects by Yan (2006)
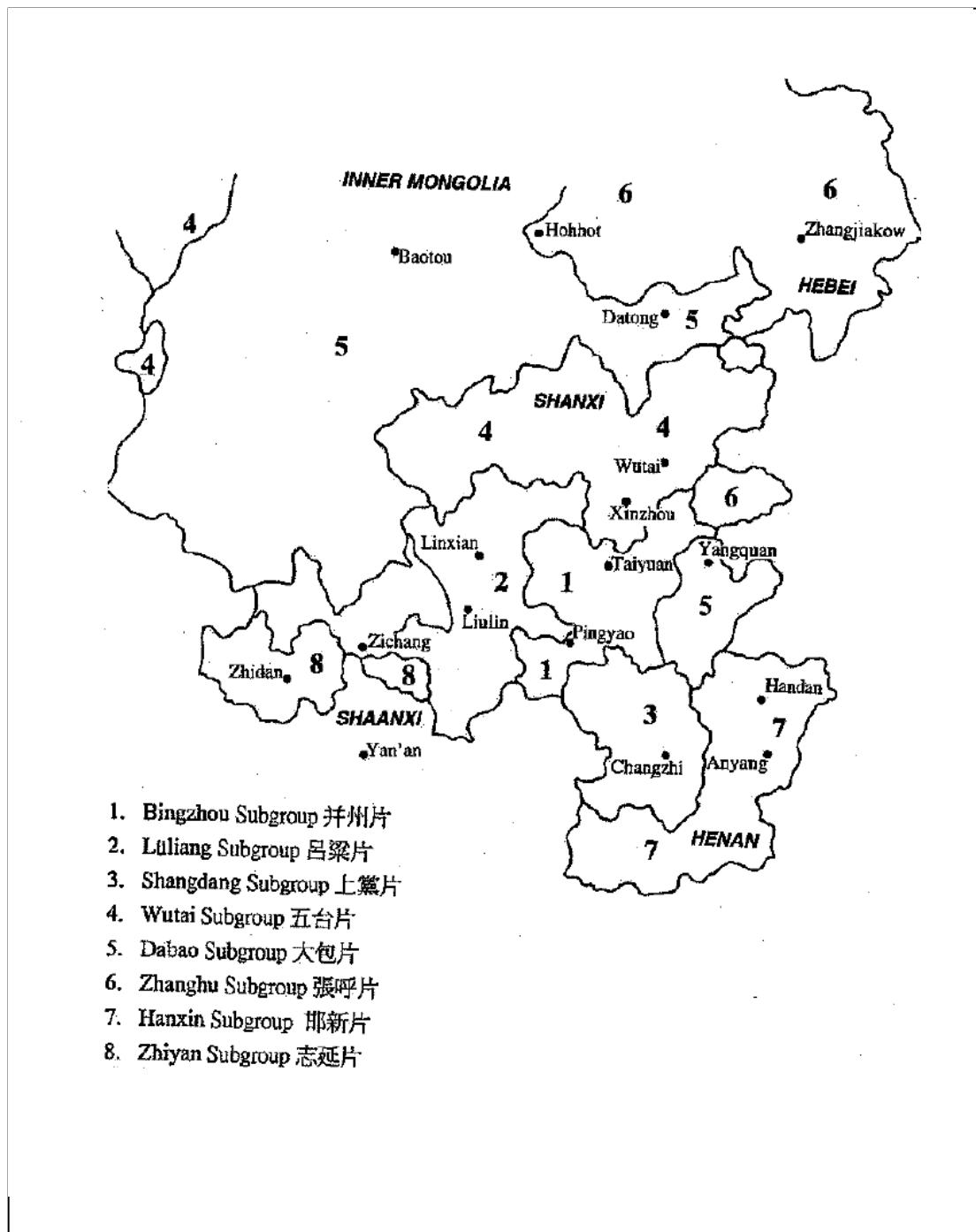
Map 1.6   The Jin dialect by Wurm et al. (1988)

1.6.2.2 Wu (Wú Yǔ: 吴语)

Rattanakul (1994) stated that Wu is spoken in Jiangsu (Jiāngsū: 江蘇), Zhejiang (Zhènjiāng: 镇江) and some areas of Anhui (Ānhuī: 安徽). 8 % of Chinese people in China use this dialect. Wu in Suzhou (Sūzhōu: 苏州) has 27 consonants and 7 tones and in the middle of Zhejiang (Zhènjiāng: 镇江) has 35 consonants and 8 tones.

Wu dialect includes Shanghai (Shànghǎi: 上海),   Suzhou (Sūzhōu: 苏州) , Wenzhou (Wēnzhōu: 温州), Hangzhou (Hángzhōu: 杭州), Shaoxing (Shàoxīng: 绍兴), Jinhua (Jīnhuá: 金华), Yongkang (Yǒngkāng: 永康), and Quzhou (Qúzhōu: 衢州). The traditional prestige dialect of Wu is the Suzhou dialect (Sūzhōu: 苏州), though due to its large population, Shanghainese (Shànghǎihuà:上海话) is today sometimes considered the prestige dialect.

Map 1.7   Wu in China from Wikipedia (2009)

According to Yan (2006), Wu is divided into six dialect areas:

a) Taihu (Tàihú: 太湖) spoken over much of southern part of Jiangsu province (Jiāngsū: 江蘇), including Suzhou (Sūzhōu: 苏州), Wuxi (Wúxī: 无锡), Changzhou (Chángzhōu: 常州), the southern part of Nantong (Nántōng: 南通), Jingjiang (Jìngjiāng: 靖江) and Danyang Dānyáng Shì: 丹阳市); the municipality of Shanghai (Shànghǎi: 上海); and the northern part of Zhejiang province (Zhènjiāng: 镇江), including   Hangzhou (Hángzhōu: 杭州), Shaoxing (Shàoxīng: 绍兴), Ningbo (Níngbō: 宁波), Huzhou (Húzhōu: 湖州), and Jiaxing (Jiāxīng: 嘉兴). This group makes up the largest population among all Wu speakers. The subdialects of this region are Shanghainese (Shànghǎihuà: 上海话), Suzhou dialect (Sūzhōuhuà: 苏州话), Hangzhou dialect (Hángzhōuhuà: 杭州话), Ningbo dialect (Níngbōhuà: 宁波话）, Changzhou dialect (Chángzhōuhuà: 常州话), Jiangyin dialect (Jìngjiānghuà: 靖江话), Qihai dialect (Qíhǎihuà:齐海话), Jinxiang dialect (Jǐnxiāng: 金厢话).

b) Taizhou (Tāizhōu: 台州): spoken in and around Taizhou (Tāizhōu: 台州), Zhejiang province (Zhènjiāng: 镇江). Taizhou Wu is among the southern dialects the closest to Taihu Wu, also known as North Wu, and can communicate with speakers of Taihu Wu. This subdialect calls "Taizhou dialect".

c) Oujiang (Ōujiāng: 瓯江) or Dong'ou (Dōngōu: 东瓯片): spoken in and around Wenzhou (Wēnzhōu: 温州), Zhejiang province (Zhènjiāng: 镇江). This dialect is the most distinctive and mutually unintelligible among all the Wu dialects. Some dialectologists even treated it as a dialect separate from the rest of Wu dialect. This subdialect calls "Wenzhounese".

d) Wuzhou (Wúzhōu: 梧州): spoken in and around Jinhua (Jīnhuá: 金华), Zhejiang province (Zhènjiāng: 镇江). Like Taizhou Wu dialect, it is mutually intelligible with Taihu Wu dialect at least to some degree.

e) Chuqu (Chùqú: 处衢): spoken in and around Lishui (Lìshuǐ: 丽水) and Quzhou (Qúzhōu: 衢州) in Zhejiang (Zhènjiāng: 镇江) as well as in Shangrao County (Shàngráo: 上饶) and Yushan County (Yùshān: 玉山) in Jiangxi

province (Jiāngxī:江西). This region can be divided into three subdialects are Quzhou dialect (Qúzhōuhuà: 衢州话), Jiangshan dialect (Jiāngshānhuà: 江山话), and Qingtian dialect (Qīngtiánhuà:青田话).

f) Xuanzhou (Xuānzhōu: 宣州): spoken in and around Xuancheng (Xuānchéng: 宣城), Anhui province (Ānhuī: 安徽). This part of Wu is becoming less spoken since the campaign started by Taiping Rebellion and is being slowly replaced by the immigrants' mandarin dialect from the north of Yangtse river.
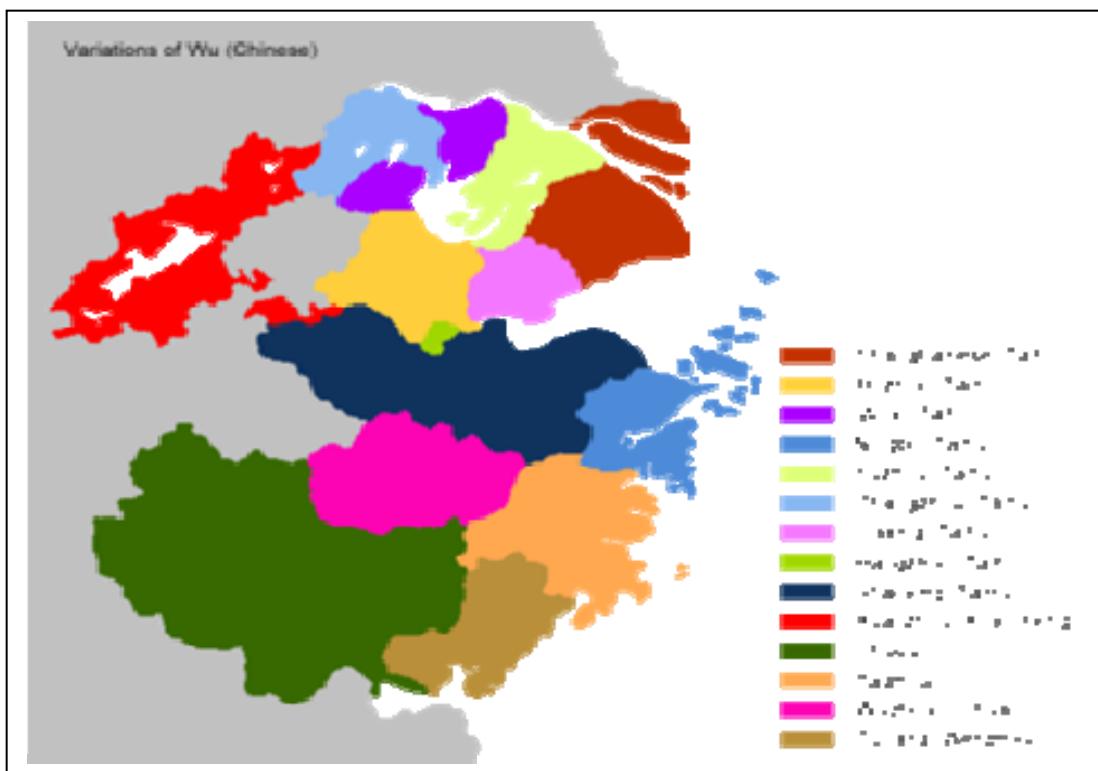
Map 1.8   Variations of Wu dialect in China by ASDFGH (2008).

1.6.2.3 Hsiang or Xiang (Xiāng Yǔ: 湘语)

Rattanakul (1994) stated that Xiang also known as Hunanese (Húnánhuà: 湖南话), is a Chinese language spoken mainly in Hunan province (Húnán: 湖南), but also in Sichuan (Sìchuān: 四川) and Guangxi provinces (Guǎngxī: 广西). 5 % of Chinese people in China use this dialect. Xiang has 2 sub - dialects, Old Xiang and New Xiang. Old Xiang dialects are of immense interest to Chinese dialectologists

and historical phonologists because they, along with dialects of Wu Chinese, still exhibit the three-way distinction of Middle Chinese obstruents, preserving the voiced stops, fricatives and affricates. However, Xiang has been heavily influenced by Mandarin, which adjoins three of the four sides of the Xiang speaking territory. New Xiang, which has lost the voiced obstruents, is to a certain extent intelligible to speakers of Southwestern Mandarin.The Old Xiang in Shuangfeng (shuāngfēnghuà: 双峰话) has 28 consonants and 5 tones. New Xiang is spoken in Changsha (Chángshā: 长沙), Xiangtan (Xiāngtán: 湘潭), Hengyang (Héngyáng: 衡阳), and Shaoyang (Shàoyáng: 邵阳). It has voiced stops that become voiceless unaspirated. The New Xiang in Changsha (Chángshā: 长沙) has 23 consonants and 6 tones.

Map 1.9   Xiang dialect in China from Wikipedia (2009)

Map 1.10   Hunan province in China by Joowwww (2008)

According to Wurm et al (1988), the Xiang dialects (Xiāng Yǔ: 湘语) have been divided into the following three subgroups as follows:

a)   Changyi (Chángyǐ or Chángyì: 長益) subgroup including 32 cities and counties: Changsha city (Chángshāshì:长沙市), Changsha (Chángshā: 长沙), Xiangtan city (Xiāngtánshì: 湘潭市), Xiangtan (Xiāngtán: 湘潭), Zhuzhou city (Zhūzhōushì: 株洲市), Zhuzhou (Zhūzhōu: 株州), Pingjiang (Píngjiāng: 平江), Liuyang (Liúyáng: 浏阳), Ningxiang (Níngxiāng: 宁乡), Wangcheng (Wàngchéng: 望城), Xiangyin (Xiāngyīn: 湘陰), Yiyang city （Yìyángshì：益阳市）, Yiyang (Yìyáng: 益阳), Taojiang (Táojiāng: 桃江), Yuanjiang (Yuánjiāng: 沅江), Miluo (Mìluó: 汨罗), Yueyang city (Yuèyángshì:岳阳市), Yueyang (Yuèyáng: 岳阳), Nanxian (Nánxiàn: 南县), Anxiang (Ānxiāng: 安鄉), Anhua (Ānhuà: 安化), Hengyang (Héngyáng: 衡阳), Hengyangyang (Héngyángyáng: 衡阳阳), Hengnan

(Héngnán: 衡南), Hengdong (Héngdōng: 衡东), Hengshan (Héngshān: 衡山), Shaodong (Shàodōng: 邵东), Xinshao (Xīnshào: 新邵), Qianyang (Qiányáng: 黔阳), Hongjiang city Hóngjiāngshì: 洪江市), Huitong (Huìtóng: 会同), Suining (Suíníng: 遂宁).

b) Loushao (Lóushào: 娄邵) subgroup including 21 cities and counties:

- Hunan province (Húnán: 湖南): Loudi city (Lóudǐ: 娄底), Xiangxiang (Xiāngxiāng: 湘鄉), Shuangfeng (shuāngfēng: 双峰), Lianyuan (Liányuán: 涟源), Lengshuijiang city (Lěngshuǐjiāng: 冷水江市), Xinhua (Xīnhuà: 新化), Anhua (Ānhuà: 安化), Shaoyang city (Shàoyángshì: 邵阳市), Shaoyang (Shàoyáng: 邵阳), Dongkou (Dòngkǒu: 洞口), Longhui (Lōnghuí: 隆回), Wugang (Wǔgāng: 武冈), Qidong (Qídōng: 祁东), Qiyang (Qíyáng: 祁阳), Chengbu (Chéngbù: 城步), Xinning (Xīnníng: 新宁) and Mayang (Máyáng: 麻阳).

- Guangxi province (Guǎngxī: 广西): Quanzhou (Quánzhōu: 泉州), Guanyang (Guànyáng: 灌阳), Ziyuan （Zīyuán: 资源）and Xing An (Xīng'ān: 兴安).

c) Jixu (Jíxù: 吉溆) subgroup including 8 cities and counties: Jishou (Jíshǒu: 吉首), Baojing (Bǎojìng: 保靖), Huayuan (Huāyuán: 花垣), Guzhang (Gǔzhàng: 古丈), Luqi (Lúqī: 泸溪), Chenxi (Chénxī: 辰溪), Xupu (Xùpǔ: 溆浦), Yuanling (Yuánlíng: 沅陵).
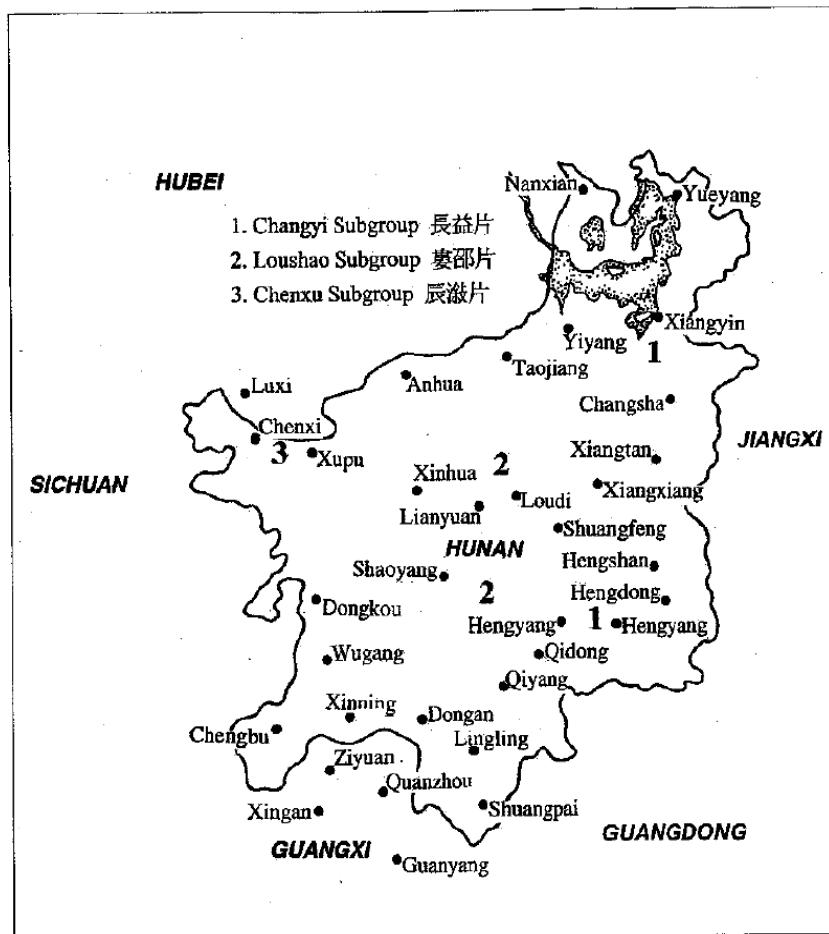
Map 1.11   The Xiang dialects adapted from Wurm et al. (1988), Zhou & You
(1985), Yan, (2006)

1.6.2.4 Kan or Gan (Gàn Yǔ: 赣语)

Rattanakul (1994) stated that Gan is a geographic short form
for   Jiangxi province (Jiāngxī: 江西). Gan dialects are found mainly within Jiangxi
province (Jiāngxī: 江西), but also in the southeastern of Hubei province (Húběi: 湖北),
eastern and southwestern part of Hunan province (Húnán: 湖南), and northwestern
(small) part of Fujian province (Fújiàn: 福建). 2% of Chinese people in China use this
dialect. Gan has voiced stops that become voiceless aspirated like Hakka. The words
are similar to Wu, Lower Yangtze Mandarin and Xiang. Gan has 19 consonants and 6
tones.

The relationship of Gan dialect with other Chinese dialects is shown in the table below:

Relationship between Gan and other Chinese languages	Hakka	Hui	Wu	Xiang	Yue	Min
	11.6	9.7	8.8	8.2	5.5	5.1

Table 1.1   The relationship between Gan and other Chinese languages (李如龙, 2001)

Relationship between Gan and other Chinese languages in phonology	Min bei	Xiang	Min nan	Wu	Hakka	Mandarin	Yue
	0.778	0.775	0.727	0.708	0.689	0.676	0.647

Table 1.2   The relationship between Gan and other Chinese languages in phonology
(Glossika, n.d.)

Cognate words between Gan and other Chinese languages	Xiang	Wu	Yue	Hakka	Mandarin	Min
	88	84	78	77	76	64

Table 1.3   The cognate words between Gan and other Chinese languages
(徐通鏘, 1991)

Map 1.12   Gàn dialects in China from Wikipedia (n.d.)

According to Wurm et al (1988), the Gan dialects have been
divided into nine subdialects as follows:

Subdialect	Representative	Provinces	Cities
Changjing Subgroup (Chang Du)	Nanchang dialect	North western Jiangxi	(Jiangxi) Nanchang City (Nánchāngshì:南昌市), Nangchang (Nánchāng: 南昌), Xinjian (Xīnjiàn: 新建), Anyi (Ānyì: 安逸), Yongxiu (Yǒngxiū:永修), Xiushui(Xiūshuǐ:秀水), De'an (DéĀn:德安), Xingzi (Xīngzǐ: 星子), Duchang (Dūchāng: 都昌), Hukou (Hùkǒu: 户口), Gao'an (Gāo'ān: 高安), Fengxin (Fèngxīn: 奉新), Jing'an(Jìng'ān: 靖安), Wuning (Wǔníng: 武宁), Tonggu (Tóng gǔ: 铜鼓); (Hunan) Pingjiang (Píngjiāng: 平江).
Yiliu subgroup	Yichun dialect	Central and western Jiangxi	(Jiangxi) Yichun City(Yīchūn:宜春), Yichun (Yīchūn: 宜春), Yifeng (Yífēng:宜丰),Shanggao (Shànggāo: 上高), Qingjiang (Qīngjiāng: 清江), Xingan(Xīngān:新干), Xinyu City(Xīnyú:新余),
Yiliu subgroup	Yichun dialect	Central and western Jiangxi	Fenyi (Fēnyí: 分宜), Pingxiang City (Píngxiāng: 萍乡), Fengcheng (Fèngxīn:奉新), Wanzai (Wànzài:万载); (Hunan) Liuyang (Liúyáng: 浏阳), Liling (Lǐlíng:醴陵).
Jicha subgroup	Ji'an dialect	Central and southern Jiangxi, eastern Hunan	(Jiangxi) Ji'an (Jí'ān: 吉安), Ji'an (Jí'ān:吉安), Jishui (Jíshuǐ:吉水),Xiajiang (Xiájiāng: 峡江), Taihe (Tàihé: 泰和), Yongfeng (Yǒngfēng:永丰), Anfu (Ānfú:安福), Lianhua (Liánhuā: 莲花), Yongxin (Yǒngxīn: 永新), Ninggang (Níng gāng: 宁冈), Jianggangshan (Jiānggāngshān: 江冈山), Wan'an (Wàn'ān:万安), Suichuan (Suíchuān:遂川); (Hunan) Youxian(Yōu Xiàn:攸县), Chaling (Chálíng:茶陵), Linxian (Línxiàn:邻县).

Table 1.4   Gan subdialects in China (Wurm et al, 1988)

Subdialect	Representative	Provinces	Cities
Fuguang subgroup	Fuzhou dialect (撫州, not to be confused with 福州)	central and eastern Jiangxi, south western Fujian	(Jiangxi) Fuzhou City (Fúzhōu:副州), Linchuan (Línchuān:临川), Chongren (Chóngrén:崇仁), Yihuang (Yíhuáng: 宜黄), Le'an (Lè'ān: 乐安), Nancheng (Nánchéng:南城), Lichuan(Línchuān:临川), Zixi (Zīxī:资溪), Jinxi (Jǐnxī:金溪),Dong xiang (Dōngxiāng:东乡), Jinxian(Jìnxián: 进贤), Nanfeng (Nánfēng: 南丰), Guangchang (Guǎng chāng: 广昌); (Fujian) Jianning (Jiànníngxiàn: 建宁县), Taining (Tàiníng:泰宁).
Yingyi subgroup	Yingtan dialect	Northeastern Jiangxi	(Jiangxi) Yingtan City (Yīngtán: 鹰潭), Guixi (Guìxī:贵溪), Yujiang (Yújiāng:余江), Wannian (Wànnián: 万年), Leping (Lèpíng: 乐平), Jingde zhen (Jǐngdézhèn:景德镇), Yugan (Yúgān:余干), Poyang (Póyáng: 鄱阳), Pengze (Péngzé: 彭泽), Hengfeng (Héngfēng: 横峰), Yiyang (Yìyáng: 益阳), Chuanshan (Chuánshān: 船山).
Datong subgroup	Daye dialect	Southeastern Hubei, eastern Hunan	(Hubei)Daye (Dàyě:大冶), Xianning City (Xián níng: 咸宁), Jiangyu (Jiāngyù:江郁), Puxin (Pǔ xīn:浦新), Chongyang (Chóngyáng: 重洋),Tong cheng (Tōngchéng: 通城), Tongshan (Tōngshān: 通山), Yangxin (Yángxīn: 阳新), Jianli(Jiānlì: 监利); (Hunan)Linxiang (Línxiāng: 临湘) , Yue yang (Yuèyáng:岳阳), Huarong(Huáróng:华容).
Leizi subgroup	Leiyang dialect	Eastern Hunan	(Hunan) Leiyang (Lěiyáng: 耒阳), Changning (Chángníng: 常宁), Anren (Ānrén: 安仁), Yong xing (Yǒngxìng: 永兴), Zixing (Zīxīng: 资兴).
Dongsui subgroup	Dongkou dialect	South western Hunan	(Hunan) Dongkou (Dòngkǒu: 洞口), Suining (Suíníng: 遂宁), Longhui (Lōnghuí: 隆回).

Table 1.4   Gan subdialects in China (Wurm et al, 1988) (cont.)

Subdialect	Representative	Provinces	Cities
Huaiyue subgroup	Huaining dialect	South western Anhui	(Anhui) Huaining (Huáiníng: 怀宁), Yuexi (Yuèxī:岳西), Qianshan (Qiánshān: 潜山),Taihu (Tàihú: 太湖), Wangjiang (Wàngjiāng: 望江), Susong (Sùsōng: 宿松), Dongzhi (Dōngzhì: 东至), Shitai (Shítái: 石台), Guichi (Guìchí: 贵池).

Table 1.4   Gan subdialects in China (Wurm et al, 1988) (cont.)
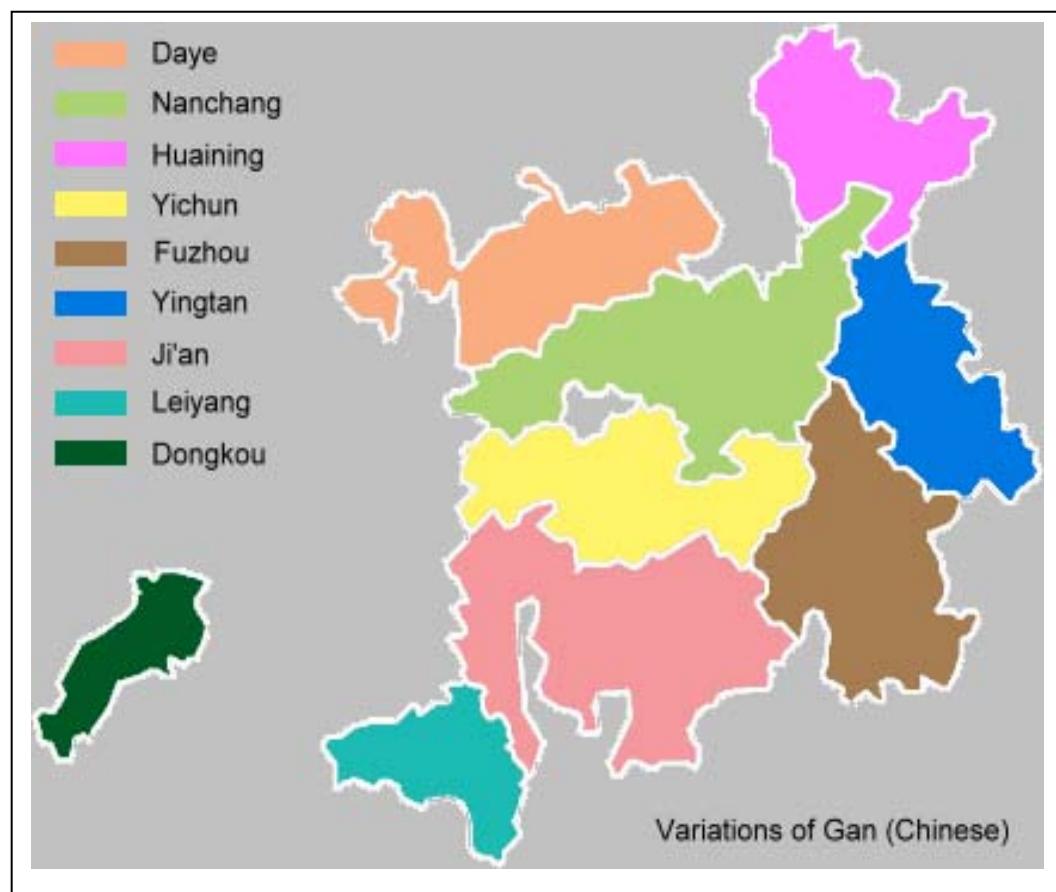
Map 1.13   Variations of Gan dialects in China by ASDFGH (2008)

1.6.2.5 Hakka or Kejia (客家话: Kèjiāhuà)

Rattanakul (1994) stated that Hakka or Kèyǔ （客语）means "guest language". Hakka is spoken mostly in the eastern and the northern parts of Guangdong and some other areas in Fujien (Fújiàn: 福建), Jiangxi (Jiāngxī:江西), Guangxi (Guǎngxī: 广西), Hunan (Húnán: 湖南) and Szechwan (Sìchuān: 四川) in Taiwan (Táiwān: 台湾) . 4 % of Chinese people in China use this dialect. As the Chinese people who spoke Hakka migrated to Malaysia and Singapore, the Chinese language used in Malaysia and Singapore, is Hakka. Hakka used in Meihsien (Měixiàn: 梅县) of Guangtung (Guǎngdōng: 广东) has only 17 consonants and 6 tones. Voiced stops and affricates become voiceless aspirated.

Map 1.14   Hakka or Kejia dialects in China (Wikipedia, 2009)

There are many dialects of Hakka depending on the provinces or district where they are located. Hashimoto (1973) classified Hakka dialects into three groups as follows:

1. Ng-yan group. There is Moi-yan plus the six dialects: Hsiang-ning, Chiao-ling, Cha'ang-le, Wu-hua, Chen-p'ing and P'ingyüan. Moi-yan (Mei-hsien or Mei-Xian, in Mandarin) is recognized as the standard Hakka dialects.

2. Ngiau-p'in group (Jao-p'ing, in Mandarin). This group is located in the coastal region of eastern Guangdong.

3. Hoi-liuk fung group. This group is divided into two subgroups: Hoi-fung (Hai-fung in Mandarin) and Liuk-fung (Lu-feng in Mandarin). The word "Hoi" in Hakka means 'sea', the word "Liuk" means 'half blue and half green' and the word "Fung" means 'wind'. This group is located in the coastal region of eastern Guangdong.

According to Wurm et al (1988), Hakka or Kejia dialect can be divided into seven subgroups as follow:

a) Yuetai subgroup (Yuètáipiàn: 粤台片)

- Jiaying cluster (Jiāyǐngxiǎopiàn: 家蝇小片)

- Xinghua cluster (Xǐnghuáxiǎopiàn: 兴化小片)

- Xinhui cluster (Xǐnhuǐxiǎopiàn: 新惠小片)

- Shaonan cluster (Shàonánxiǎopiàn: 绍南小片)

b) Yuezhong subgroup (Yuèzhōngpiàn: 粤中片)

c) Yuebei subgroup (Yuèběipiàn: 粤北片)

d) Huizhou subgroup (Huǐzhōupiàn: 惠州片)

e) Tingzhou subgroup (Tīngzhōupiàn: 汀州片)

f) Ninglong subgroup (Nínglóngpiàn: 宁龙片)

g) Yugui subgroup (Yúguǐpiàn: 于桂片)

HUBEI
Xiushui.
.Anyi
HUNAN

8   Tonggu
.Yifeng

1. Yuetai Subgroup 粵台片
     1a. Jiaying Cluster 嘉應小片
     1b. Xinghua Cluster 興華小片
     1c. Xinhui Cluster 新惠小片
     1d. Shaonan Cluster 韶南小片
2. Yuezhong Subgroup 粵中片
3. Yuebei Subgroup 粵北片
4. Huizhou Subgroup 惠州片
5. Tingzhou Subgroup 汀州片
6. Ninglong Subgroup 寧龍片
7. Yugui Subgroup 于桂片
8. Tonggu Subgroup 銅鼓片

.Duchang
.Yugan
JIANGXI
Yiyang.

.Xinyu
Nancheng.
Shaowu.

.Jianning
Ningdu.
Ninghua

7   Yudu.
Gan Xian.
6
Changting.
5
FUJIAN
5

GUANGXI
Dayu.
6
3
Liannan
Shaoguan 1d
1a
.Meixian
3
Wengyuan   2
1d
1c
1b
GUANGDONG
(Zhaoan)
Xiuzhuan.
Heyuan
1b
Jiexi
1c
4
Qingxi   Huizhou
Nanlang
Hong Kong

Map 1.15   The Hakka dialects in Guangdong, Jiangxi, Fujian and Guangxi
                   (Wurm et al, 1988)

1.6.2.6 Yue or Cantonese (Yuèyǔ: 粤话)

Rattanakul (1994) stated that Yue dialect is also known as Cantonese. Yue is spoken in the southern part of Guangsi (Guǎngxī: 广西) in Hongkong (Xiānggǎng: 香港) and Makau (Àomén: 澳门). 5 % of Chinese people in China use this dialect. Yue spoken at Seiyap (Sì-Yì: 西邑) has 20 initial consonants and 9 tones and at Po-Pei 11 tones (Po-Pei is the name of a group of Yi people which the older name is 'Lolo'').

According to Yuan et al (1960) divided the Yue dialects into five subgroups based on the geographical distribution of Yue dialect speakers. The five subgroups are shown below.

a) Yuehai group (Yuèhǎixì: 粤海系): includes most of the Pearl Delta area and Xi River (Xijiāng: 西江) area.

b) Qinlian group (Qīnliánxī: 钦廉希): includes Qinzhou (Qīnzhōu: 钦州), etc.

c) Gaolei group (Gāoléixì: 高雷系): includes Gaozhou (Gāozhōu: 高州) and Leizhou (Léizhōu: 雷州) area.

d) Siyi group (Sìyìxì: 西邑系): includes Taixhan (Táishān: 台山), Xinhui (Xǐnhuǐ: 新会), Kaiping (Kāipíng: 开平), and Enping (Enpíng: 恩平).

e) Gui Nan group (Guǐnánxì: 桂南系): includes the locales in the southwest part of Guangxi province (Guǎngxī: 广西), such as Wuzhou (Wúzhōu: 梧州), Rongxian (Róngxiàn: 容县), Yulin (Yùlín: 玉林), Bobai (Bóbái: 博白), etc.

According to Wurm et al (1988), Yue dialect can be divided into five subgroups as follows:

a) Guangfu subgroup (Guángfǔpiàn:广府片)

b) Siyi subgroup (Sìyǐpiàn: 四邑片)

c) Gaoyang (Gāoyángpiàn: 高扬片)

d) Goulou (Gōulòupiàn: 勾漏片)

e) Wuhua (Wúhuàpiàn: 吴化片)
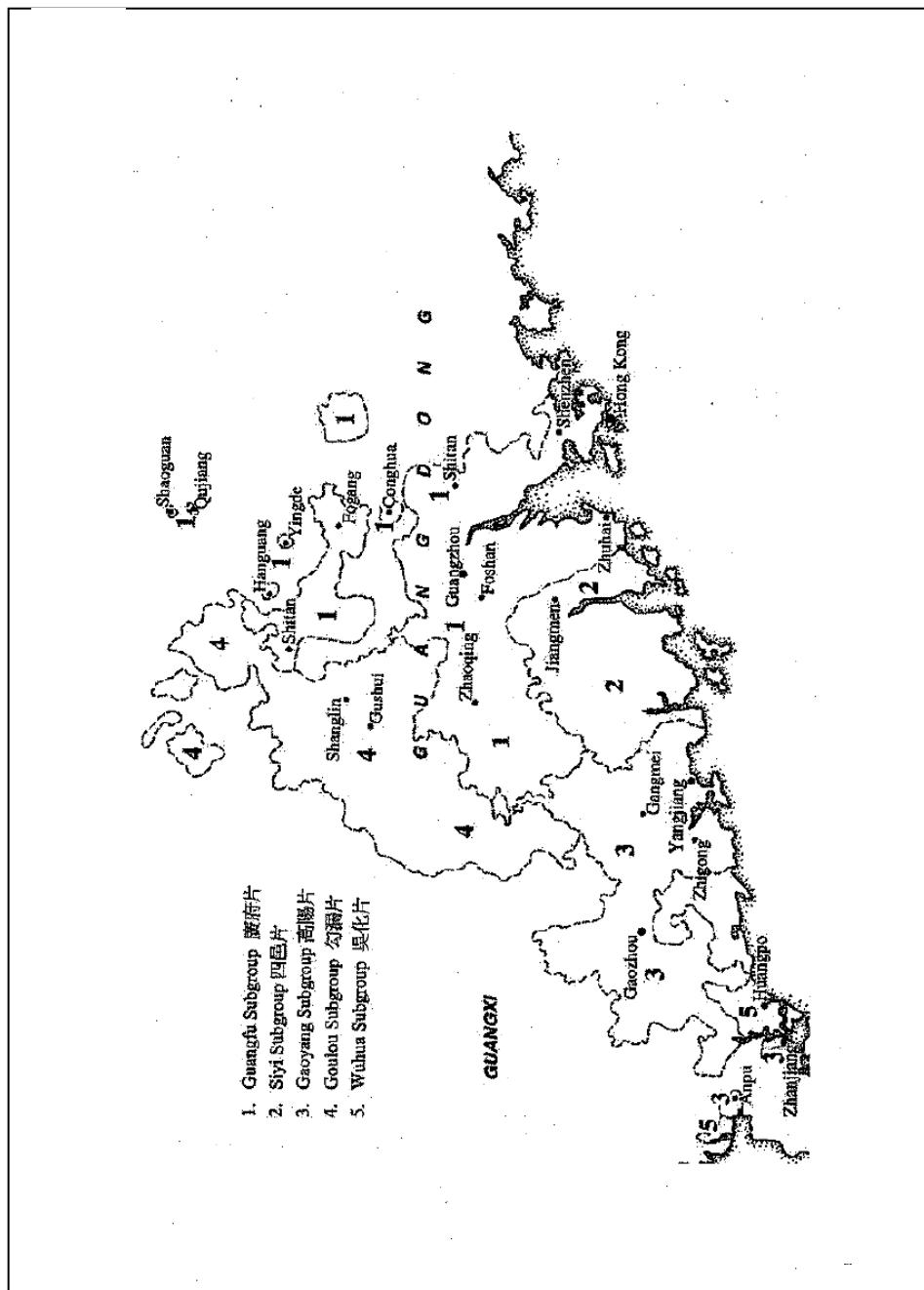
Map 1.16   The Yue dialects (Wurm et al, 1988)

According to wikipedia (n.d.), the variations of Yue can be explained in the chart 1.5 below:

Guangfu	Cantonese proper (Stndard Cantonese, Guangzhou, Hong Kong Cantonese)	
	Danjia dialect	
Sanyi (Nanpanshun)	Nanhai dialect	
	Jiujiang dialect	
	Xiqiao dialect	
	Panyu dialect	
	Shunde dialect	
Zhongshan	Shiqi dialect	

Yuehai — Guangfu, Sanyi (Nanpanshun), Zhongshan

Yue

Guanbao
- Dongguan dialect
- Bao'an (Weitou) dialect

Siyi (Seiyap)
- Taishanese
- Siqian dialect

Luoguang dialect

Gaoyang
- Gaozhou dialect
- Yangjiang dialect

Wuchuan dialect (Wuzhou)

Yongxun (Jungcam)
- Nanning dialect
- Yongning dialect

Goulou (Ngaulau)

Guilin dialect, Yulin

Qinlian (Jamlim)
- Qinzhou dialect
- Lianzhou dialect (Beihai)

Hainan (Hai)
- Danzhouhua
- Mai dialect

Pinghua (Ping)
- Guibei dialect
- Guinan dialect

Chart 1.5   The variation of Yue dialects (Wikipedia, n.d.)
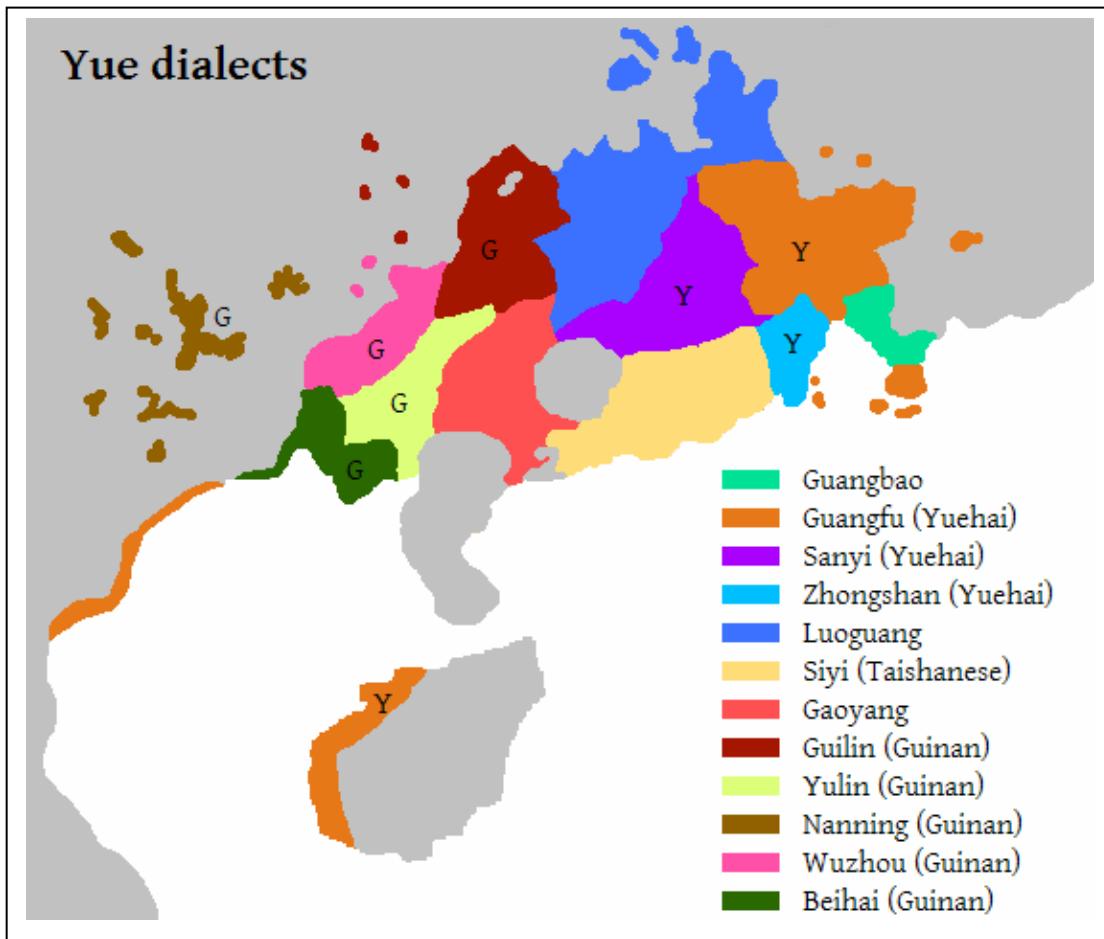
Map 1.17   The variations of Yue or Cantonese dialects in China (Wikipedia, 2008)

1.6.2.5 Min (闽语: Mǐn yǔ)

Rattanakul (1994) stated that Min or Mǐn is the name of Chinese language which is spoken by Chinese people around 60 million people in the southeastern Chinese province of Fujian (Fújiàn: 福建) as well as by migrants from this province in Guangdong (Guǎngdōng: 广东) (around Chaozhou-Swatou (Cháozhōu: 潮州 – Shàntóu: 汕头), or Chaoshan area (Cháoshàn: 潮汕), and the Leizhou peninsula (Léizhōu: 雷州)), Hainan (Húnán: 湖南), three counties in southern Zhejiang (Zhèjiāng: 浙江), and Zhoushan (Zhōushān: 舟山) archipelago off Ningbo (Níngbō: 宁波), and Taiwan (Táiwān: 台湾).

Map 1.18   Min dialects in China (Wikipedia, n.d.)

The Min dialect group is divided roughly into two subgroups: Northern Min (Mǐnběi fāngyán: 閩北方言) and Southern Min (Mǐnnán fāngyán: 閩南方言) (Li 1937, Yuan 1960).

- Northern Min (Mǐnběi fāngyán: 閩北方言), used in Fuzhou (Fúzhōu: 福州).

- Southern Min (Mǐnnán fāngyán: 閩南方言), has 3 sub types:

1. Teochew (Cháozhōuhuà: 潮州话) spoken in the western part of Guangtung (Guǎngdōng: 广东).

Wannachok (2524) described Teochew (Cháozhōuhuà: 潮州话） which is spoken in ten districts of Guangtung (Guǎngdōng: 广东): Kik Io (Jiēyáng: 揭阳), Hongsung (Fēngshùn: 丰顺), Huilai (Huìlái: 惠来), Swatow or Shantou (Shàntóu: 汕头), Phouleng or Puning (Pǔníng: 普宁), Nam-Or or Nan'ao (Nán'ào: 南澳), Jiao-Pheng or Raoping (Ráopíng: 饶平), Theng-Hai (Chénghǎi or Thěng Hài: 澄海), Tio Io (Cháoyáng: 潮阳), Tie-Ang or Tio-Ang (Cháo'ān: 潮安).

According to wikipedia (n.d.) described that the classification of Teochew or Chaozhou language into 3 sub-groups:

a) Shantou sub-group, including Shantou (Shàntóu: 汕头), Chaozhou (Cháozhōu: 潮州), Jieyang (Jiēyáng: 揭阳), Chenghai (Chénghǎi or Thěng Hài: 澄海), Nan'ao (Nán'ào: 南澳), and Raoping (Ráopíng: 饶平).

b) Chaopu sub-group, including Chaoyang (Cháoyáng: 潮阳), Puning (Pǔníng: 普宁), Huilai (Huìlái: 惠来).

c) Luhai (Lùhǎi: 陆海) sub-group, including Shanwei (Shànwěi:汕尾), Lufeng (Lùfēng:陸丰) and Haifeng (Hǎifēng:海丰).

2. Hokkien spoken in Amoy (Xiàmén: 厦门), Fukien (Fújiàn: 福建)of Taiwan (Táiwān: 台湾).

3. Hainanese spoken in Hainan (Hǎinán: 海南) (Egerod, 1975).
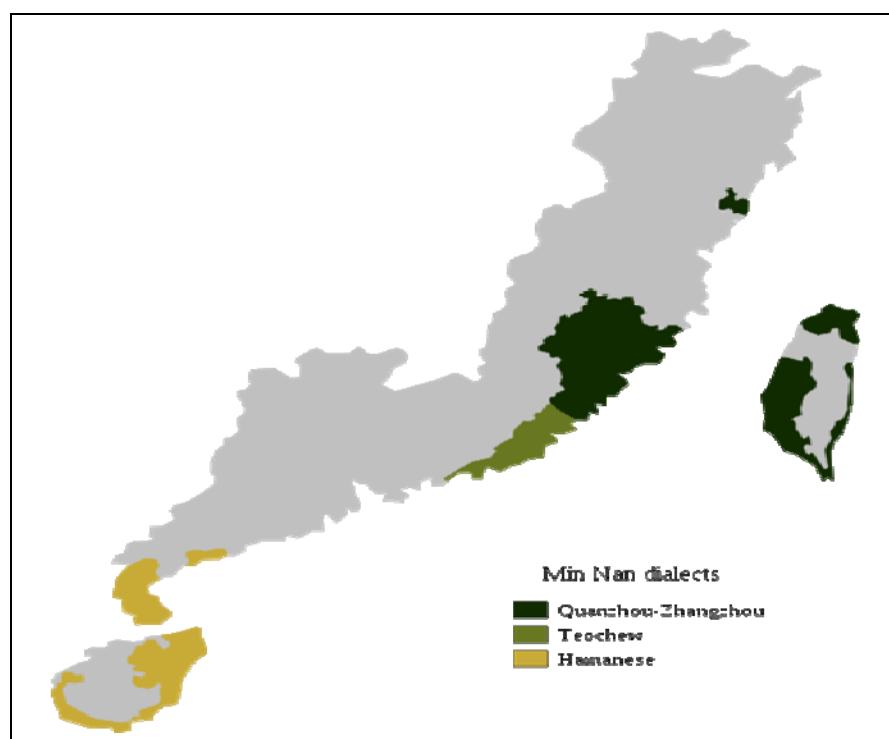
Map 1.19   Min Nan dialects in China (Luuva, 2008)

Norman (1991, p. 348) has given a precise definition for a Min sub dialect as: "a Min dialect is a Chinese dialect which contains evidence for an earlier in two-way distinction of voiced stops; this evidence may be in the consonant themselves, as in the case of the Eastern and Northwestern Min dialects, or it may be tonal, as in the case of Jingle (Jìnglè: 静乐) and Shaowu (Shàowǔ: 邵武). This is both a necessary and sufficient criterion for a Min dialect." He has proposed the following reclassification of the Min dialects spoken in Fujian (Fújiàn: 福建):

1. Eastern Min (or coastal group) which includes: NE Min (Fuzhou, Fúzhōu: 福州 and others), Xianghua (Xīnghuá: 兴化), S Min (Xiamen, Xiàmén: 厦门 and others).

2. Western Min (or inland group) which includes: NW group, Central group, and Far Western group.

Branner (2000), Jerry Norman's student, has also proposed a similar sub classification of Min dialects as follows:

1. Inland   A. Northern Min (Mǐnběi: 闽北)

1. Jianyang (Jiànyáng: 建阳), Jian'ou (Jiàn'ōu: 建瓯), etc.

2. Shaowu (Shàowǔ: 邵武), etc.

B. Central Min (Mǐnzhōng: 闽中) Yong'an (Yǒng'ān: 永安), etc.

2. Coastal   A. Eastern Min (Mǐndōng: 闽东)

1. Fuzhou (Fúzhōu: 福州), etc.

2. Xinghua (Xīnghuá: 兴化), Putian (Pútián: 莆田), etc.

B. Southern Min (Mǐnnán: 闽南) Amoy (Xiàmén: 厦门), Teochew (Cháozhōu: 潮州), Taiwan (Táiwān: 台湾), etc.

According to wikipedia (n.d.) Min has greater dialectal diversity than any other division of Chinese. It is typically divided, on the basis of

mutual intelligibility, into five to nine languages, such as Eastern Min (Mǐndōng: 闽东) and Southern Min (Mǐnnán: 闽南）. Eastern Min is centered around the city of Fuzhou (Fúzhōu: 福州）(Fuzhou dialect is the standard dialect of eastern Min), capital of Fujian province, while southern Min is dominant in the south of Fujian (Fújiàn: 福建) and into Guangdong (Guǎngdōng: 广东). Qiongwen (Qióngwén: 琼文), spoken in Hainan (Hǎinán: 海南), is sometimes classed as a separate language, but it is in fact a dialect of Southern Min.

Southern Min is also called by the name of its regional variants in the places it is spoken, especially Taiwanese. The Amoy dialect of Xiamen is the prestige dialect of southern Min in mainland China and Taiwan, with Teochew also being an important variety.

Campbell (n.d.) devides the Min languages into eight: Northern Min (Mǐnběi: 闽北) in Nanping (Nánpíng: 南平) prefecture in Fujian (Fújiàn: 福建), but Jianou dialect (Jiàn'ōu: 建瓯) is the standard dialect of northern Min (Mǐnběi: 闽北), Shaojiang (Shàojiāng: 邵将) is on eastern Nanping (Nánpíng: 南平) and surrounding areas; in broader classifications treated as a dialect of northern Min (Mǐnběi: 闽北), Eastern Min (Mǐndōng: 闽东) is in Fuzhou and Ningde prefectures (Níngdé: 宁德), Central Min (Mǐnzhōng: 闽中) is in Sanming prefecture (Sānmíng: 三明), Puxian Min (Púxiān huà:莆仙话) in Putian prefecture (Pútián:莆田), Southern Min (Mǐnnán: 闽南) is in Zhangzhou (Zhāngzhōu: 漳州), Quanzhou (Quánzhōu: 泉州), and Xiamen or Amoy prefectures (Xiàmén: 厦门) and on Taiwan (Táiwān: 台湾) (Hokkien dialect), and in eastern Guangdong province (Guǎngdōng: 广东) (Teochew dialect); Hokkien and Teochew are sometimes considered separate languages), Leizhou (Léizhōu: 雷州) on the Leizhou Peninsula in Guangdong (Guǎngdōng: 广东), and Hainanese (on Hainan Island; in broader classifications Leizhou and Hainanese are treated as a Qiongwen language or as dialects of southern Min (Mǐnnán: 闽南).

The Southern Min language in Guangdong is known as *Hoklo*, in Hainan as Qiongwen (Qióngwén: 琼文) or Qiongzhou hua (Qióngzhōu: (though some class Qiongwen (Qióngwén: 琼文) as a separate sub-group). Southern Min (Mǐnnán: 闽南) is the dominant Chinese dialect spoken by the Chinese minority in the Philippines, where it is known as Lan-nang Lán-nâng-ōe: 咱人話). In Taiwan, southern Min is known as *Hō-ló-oē* and is spoken by the majority of the population as their native language. In Singapore, Malaysia, Indonesia and other areas in Southeast Asia, southern Nan is known as Hokkien, in addition to the Teochew variant, originating in the Chaoshan (Cháoshàn: 潮汕) region, which is the ancestral home of many ethnic Chinese in Singapore.

Min
 ├─ Min Bei (Nanping prefecture)
 │   └─ Shaojiang
 ├─ Min Dong (Fuzhou and Ningde prefecture)
 ├─ Min Zhong (Sanming prefecture)
 ├─ Puxian (Putian prefecture)
 └─ Min Nan
     ├─ Quanzhou
     ├─ Zhangzhou
     ├─ Amoy
     ├─ Hokkien
     ├─ Teochew (eastern Guangdong)
     ├─ Leizhou
     └─ Hainanese
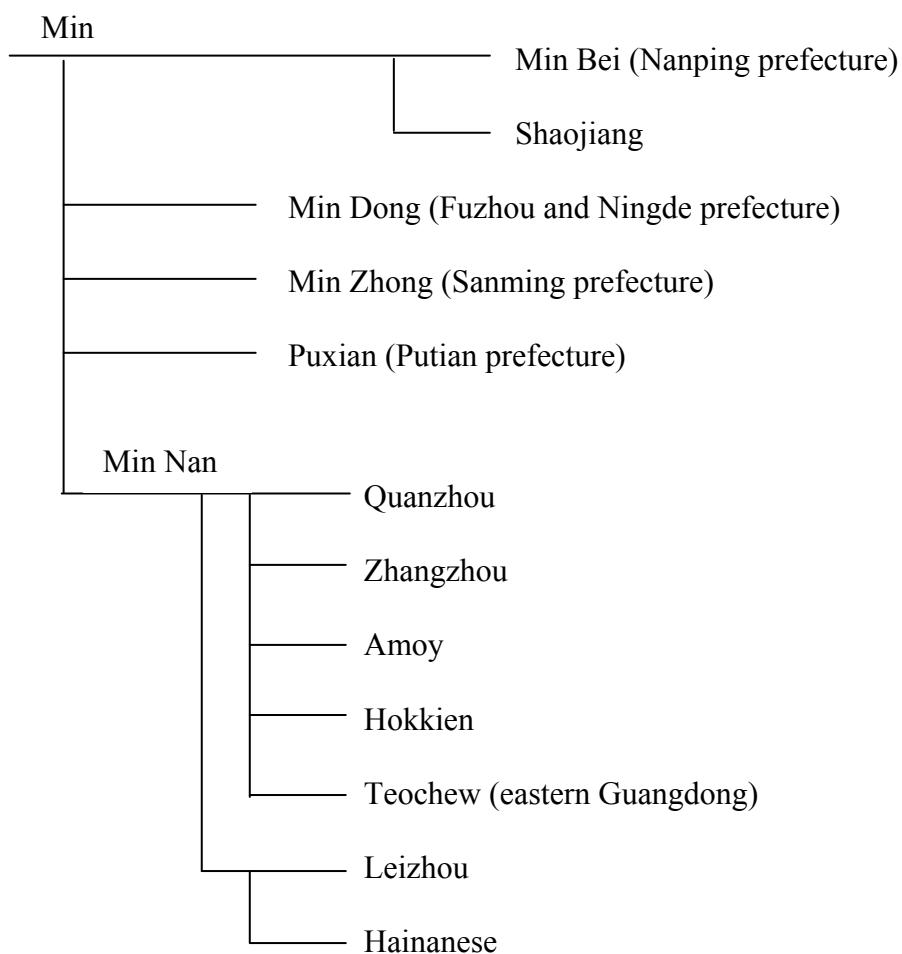
Chart 1.6   The variations of Min dialect (Wikipedia, n.d.)

Varieties of Min Chinese

- Hokkien Minnan
- Teochew Minnan
- Leizhou Minnan
- Hainanese Minnan
- Puxian
- Min Dong
- Min Zhong
- Min Bei
- Shaojiang Minbei
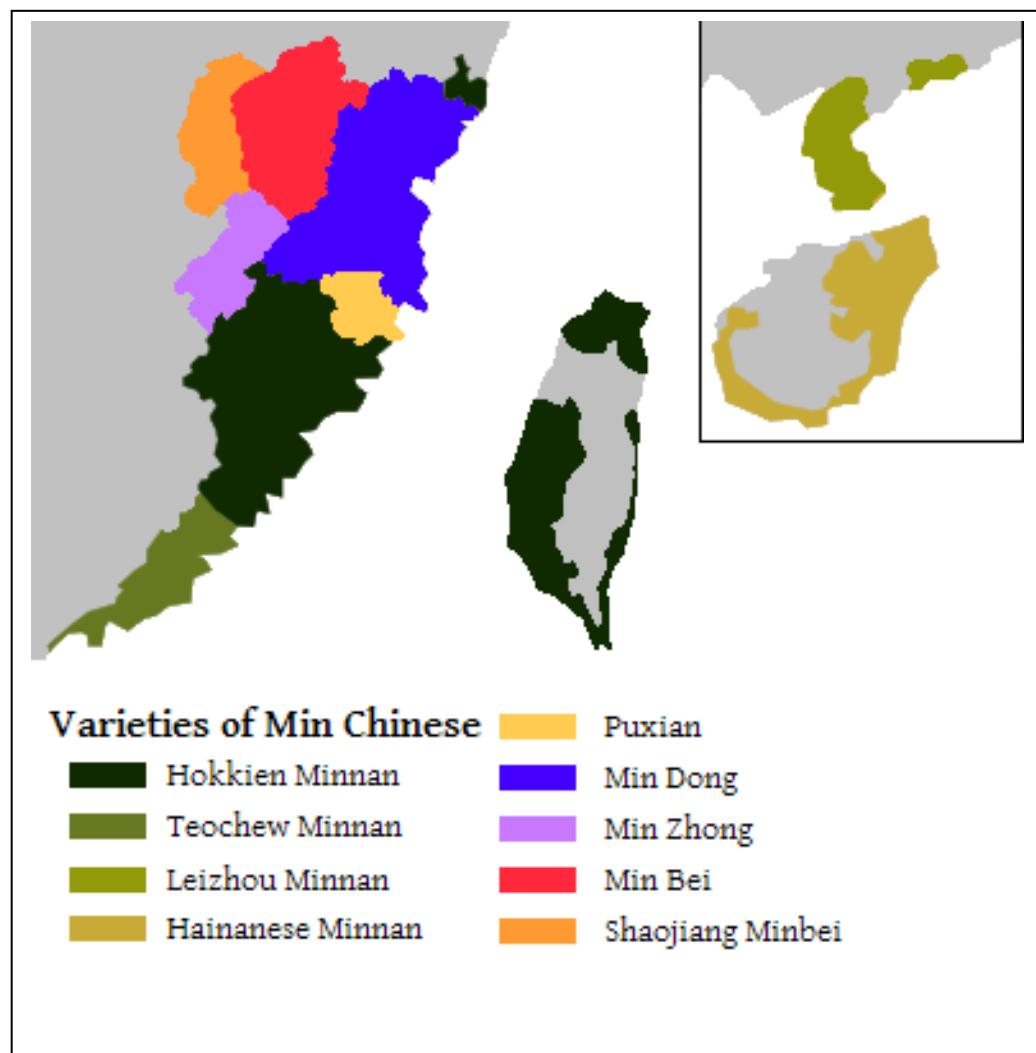
Map 1.20   The varieties of Min Chinese (ASDFGH, 2009)

1.6.3   Syllable Structures of Chinese language

According to Baxter (1996, p.6-7), Chinese syllable structure in general can be divided into three parts:

1. The initial (shēngmǔ: 圣母), the initial consonant of the syllable.

2. The final (yùnmǔ: 云母) consisting of all segments after the initial. The final can be subdivided into:

a) the medial (jièyīn: 介音), segments of the final which precede the main vowel.

b) the main vowel (zhǔyào yuányīn: 主要元音), the nucleus of the syllable.

c) the coda (yùnwèi: 韵尾), segments of the final which follow vowel.

3. The tone (shēngdiào: 声调), a tone contour superimposed over the whole syllable.

These three parts are summarized in the diagram below:
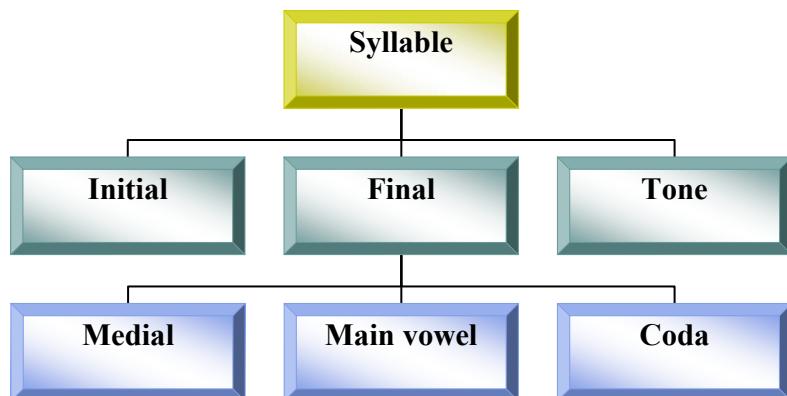
Chart 1.7   The Chinese syllable structure by Baxter (1996, p. 6)

Zhang (n.d.) described the syllable structures that two thousands years ago, during Han dynasty, traditional Chinese philologists understood the syllable can be divided into two parts – the initial and the final, and they used two commonly used characters (syllable) to denote the pronunciation of a new character using the initial consonant of the first syllable and the final part of the second syllable. In fact the traditional phonological system of Chinese – the initials, the finals and the tones is still being used in Chinese phonetic transcription and language teaching, because it is easy to learn and more suitable to Chinese syllable structures.

From the phonetic point of view, there are four basic syllable structures: V, VC, CV and CVC in Chinese as in other stress languages. Some special rules are described follows.

a. There is no consonant clusters in spoken Chinese. Only single consonant appears at the initial or / and final position of a syllable.

b. In Standard Chinese (*Putonghua)*, just nasals /n/ and /ŋ/ can appear at the final position of syllables, but in addition to the nasals, the plosives [p], [t], [k] are possible in Guangdong and Fuzhou dialects.

c. Generally no more than four speech sounds exist in a Chinese syllable, and no more than three phones in the final, so only single vowel and diphthong can be with nasal coda.

d. The back nasal [ŋ] is never used as initial.

e. Each syllable has certain lexical tones, in standard Chinese there are five: level, rising, dipping, falling and atonic.
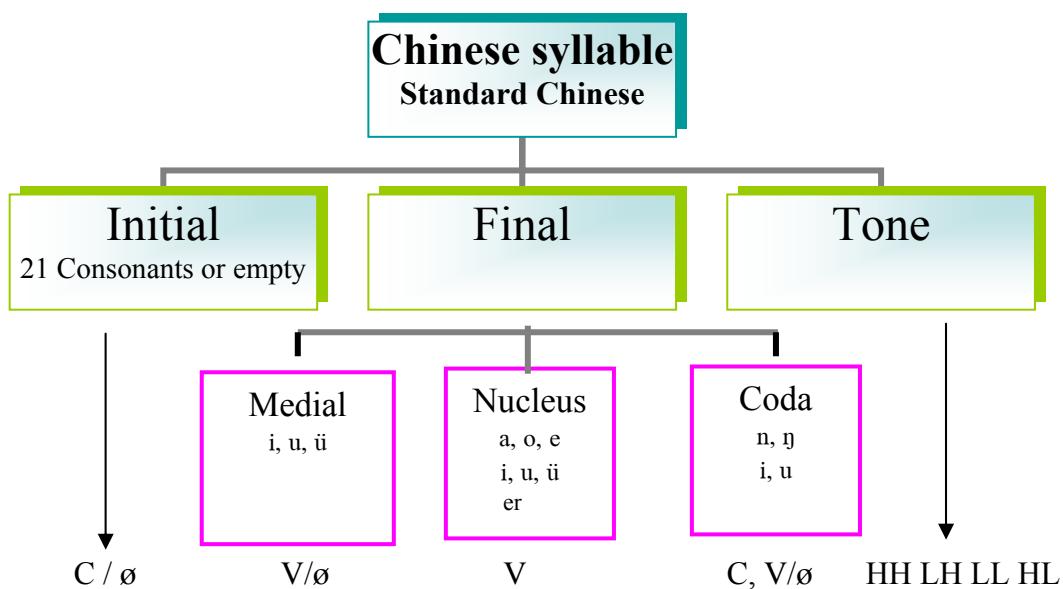
Chart 1.8   The syllable structures of Standard Chinese by Zhang (n.d.)

The Structure of Chinese syllable is summarized in chart 1.9 below:
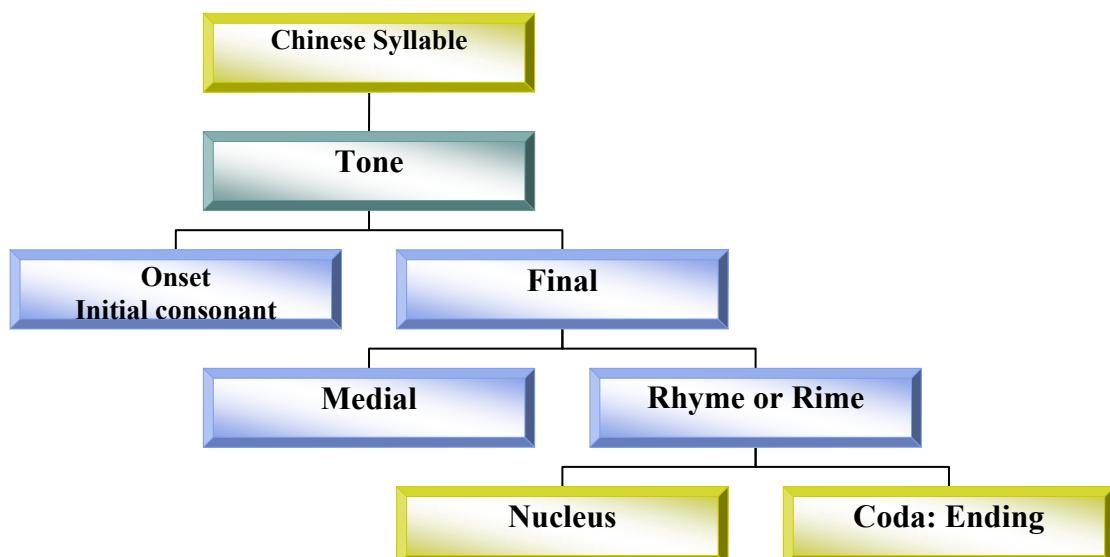
Chart 1.9   The syllable Structure of Chinese dialect

1.6.4   The information of Chinese in Thailand

Overseas Chinese (huáqiáo: 华侨, huábāo: 华胞, qiáobāo: 侨胞, huá yǐ: 华裔) are the Chinese descendants who live in the outside China which cover mainland China, Hong Kong, Macaw, and Taiwan.

The Thai Chinese are overseas Chinese (huáqiáo: 华侨) who live in Thailand. At present, Central Intelligence Agency stated that Thai Chinese constitute an estimated 14% of the population, though due to intermarriage with ethnic Thais.

According to Skinner (1957), the relationships between Chinese and Thai people have been started since Sukhothai period. Many Chinese people have been related with Thai people as traders. Then, in Ayutthaya period Chinese has settled in every town. Chinese resident in Ayutthaya consisted of merchants, traders, industry, mining, fisher and agriculture, etc. Chinese traders in Thailand, mostly from Fujian and Guangdong, began arriving in Ayutthaya by at least the thirteen century. Ayutthaya was under almost constant Burmese threat from the 16th century, and Qianlong, the Emperor of Qing was alarmed by the Burmese military might. From 1766-1769, Qianlong sent his armies four times to subdue the Burmese, but all four invasions failed. Ayutthaya fell to the Burmese in 1767. The Chinese efforts diverted the attention of Burma's Siam army, King Taksin, whose father was a Chinese immigrant from Teochew which is a district in the Eastern part of the Guangdong province, took advantage of the situation by organizing his force and attacking Burmese. Before Krungthonburi period, most of Chinese in Thailand were Hokkien. As their homelands were nearest the coast and they were expert at sailing, so they were easier immigrant than another.

Moreover, Skinner (1957, p. 20-27) said that after King Taksin enthroned himself as the King in Krungthonburi, he greatly favoured and supported his Teochew compatriots. Moreover, his policies doubtless attracted many Teochews to Bangkok and they were known as *jin-luang*, "royal Chinese", therefore the number of Teochew people had grown up and much more other Chinese dialect groups. Because of the lack of crop caused by the civil war and natural disasters, Chinese

people had to immigrate to Thailand. On the other hand, Thailand lacked of labor, so they welcomed Chinese to come. During Ayutthaya period in 1759 to the early Rattanakosin period in the nineteen century, Thailand faced with the prolong war with neighboring states, which caused to lose a large number of man force who was the backbone of labor force. Thus the Chinese acted as the fulfill part for this gap. The corruption of the Qing dynasty and the massive population increase in China, along with very high taxes, caused many men to leave China for Thailand in search of work.

In the late 1800s, when Thailand was busy defending its independence from the colonial powers, Chinese bandits from Yunnan Province began raids into the country in the Haw wars. Thai nationalist attitudes at all levels were accordingly colored by anti-Chinese sentiment. Members of the Chinese community had long dominated domestic commerce and had served as agents for the royal trade monopolies. With the rise of European economic influence, however, many Chinese shifted to the opium traffic and tax collecting, both of which were despised occupations. In addition, Chinese millers and rice traders were blamed for an economic recession that gripped Siam for nearly a decade after 1905. Accusations of bribery of officials, wars between the Chinese secret societies, and use of violent tactics to collect taxes served to turn foster Thai resentment against the Chinese at a time when the community was expanding rapidly due to immigration.

The economic of Thailand after Bowring Treaty (1855) released from the royal trade monopoly and had entered modern world trade. In this period, Chinese in Thailand became entrepreneurial class of Chinese rice trader. Some enter the noble class of Thai social system by bided to become tax-farmers. As tax-farmers they were ranked and titled similar to those noblemen who were Thais (Chunsuvimol, n.d.). The attitude of the Thais living in Thailand toward Chinese settlers was favorable until King Rama VI (1910-1925) and after.

By 1910, nearly 10 percent of Thailand's population was Chinese. Moreover, the new arrivals frequently came in families and resisted assimilation. Chinese nationalism, encouraged by Sun Yat-sen, the leader of the Chinese revolution, had also begun to develop, parallel with Thai nationalism. The Chinese community even supported a separate school system for its children.

King Rama VI (1910-1925) was the first of Thai's leaders who propounded anti-Sinicism. In this time, he required an adoption of Thai surnames in Chinese community. Thai Chinese had to choose between forsaking their Chinese identity or being regarded as foreigners. The law of Thai Nationality Act of 1913/14 defined that anyone born in Thailand, they will receive Thai nationality. As in the past, Chinese communities in Thailand strength stemmed from close ties with China. They saw Thailand as a temporary abode and planned to return to their homeland after retirement.   In contrast, after World War I and II, the nationalistic movement was strengthened. The government in Prime Minister Plaek Pibulsonggram regime limited the number of Chinese immigrants to only 200 a year, and reduced the number of Chinese schools which forced the remaining one to teach in Thai language and provided Thai education. Moreover, he banned Chinese newspapers and reduced from nine to only one because of the fear of communism. Phibul government enacted the bill to restrict the Chinese from occupying Thai rice trade economy and aliens from prohibited area for the security reasons, and the bill to preserve profession for local Thai only. These situations made Chinese who decided to stay in Thailand began to assimilate themselves into Thai society and became Thai.

Moreover, the emigration usually took place during or after World War II (1939 – 1945). There are two main reasons for this emigration of Chinese people to Thailand and other countries in Southeast Asia. First is the poor economic situation in China, especially in South China. The most of Chinese emigrants were from the South of China; Fukien, Guangtung, and Hainan. Second is the political situation. From the nineteenth century to the middle century in China, there were a lot of bandits, gangsters, secret societies, and continuous wars such as the Opium War (1839 – 1842), Taiping rebellion (1847 – 1864), Boxer rebellion (1899 – 1902) , World War II (1939 – 1945), and the Civil War (1945 – 1949) between two Chinese parties, Communist party and Kuomintang party. These reasons made the Chinese people, especially in the Southern part, found it is so unbearable. Thus they decided to emigrate from their homeland to Thailand and other countries in Southeast Asia.

Early Chinese immigration consisted almost entirely of Chinese men who married Thai women. Children of such intermarriage were aptly called **Sino-Thai** or known as **Luk-jin** in Thai. This tradition of Chinese-Thai intermarriage declined when large numbers of Chinese women began to immigrate into Thailand in the early 20th century.

At present, most Chinese people are well integrated into Thai society. A lot of Chinese men or women marry Thai people and become Thai. Most Thai people now have blood – relation with Chinese people. Young generation becomes more Thai and some young people cannot read Chinese ideograms. The integration of Chinese immigrants into Thai society is contrary to Indonesia and Malaysia where Chinese people remain apart from the Islam society. When there are riots, Chinese people are always the first to be accused of all economic problems.

Different groups of ethnic Chinese live in Thailand and can be classified by their dialects. Most ancestors of the ethnic Chinese in Thailand came from the South of China, especially from Guangdong. The Chinese in Thailand can be identified by the following six dialects:

1. Teochew

Today Teochew is the largest Chinese dialect group in Thailand. The Teochew usually live in Bangkok or the larger cities. They represent the most important group both in political and economic circles. They are sometime referred to as Swatow people.

2. Hakka

Hakka is unlike the Teochew. Today Hakka is the second largest group in Thailand. A majority of this group lives in the south of Thailand rather than Bangkok, especially in Phuket province.

3.   Hainanese

Hainanese or Hailam dominates Hainan Island, which is also part of Guangdong province. The mostly Hainanese people live in the northern and southern part of Thailand and in Southeast Asia appear to have originated in two rural districts in the northeastern part of Hainan Island in China.

4.   Cantonese

The largest language group in South China is the Cantonese. They dominate Guangdong province and parts of southeastern Kwangsi province and are centered in the city of Guangzhou. In Thailand, they live in northern and southern part of Thailand.

5.   Hokkien

Hokkien or Fujian dialect group is similar to Teochew, but it differs enough to be regarded as a distinct language. Hokkien in Thailand live in the southern part.

6.   Yunnanese

Yunnanese is the one of Chinese dialect group live in   the Yunnan province of southern part of China. They migration to Thailand by overland and mostly settled in the northern part of Thailand as Chiang Mai, Chiang Rai and Mae Hong Son etc. Thai people have known Yunnanese as 'Haw' or 'Chin Haw' who work as traders.

In the eighteenth century, there were Chinese people who spoke Hokkien more than other Chinese groups. But in the nineteenth century, there were more speakers of Teochew than speakers of other dialects. The change took place during the reign of Krungthonburi. After that there were some changes in a ratio of Hokkien and Teochew population in 18 – 19 century. The table below shows the estimates of Chinese population in Thailand by Skinner (1957) and Vatikiotis (1998).

Chinese Dialects	Skinner 1957	Vatikiotis 1998
Teochew	60 %	40%
Hakka	16%	16%
Hainanese	11%	18%
Cantonese	7%	26%
Hokkien	4%	
Mandarin and a little Taiwanese	2%	

Table 1.5   The estimates of Chinese population in Thailand by Skinner (1957)
            and Vatikiotis (1998)

        The Department of Statistics, Ministry of Interior (2001) published the
percentage of ethic Chinese groups in Thailand in 1998 as shown in table 1.6 below:

        Chinese as percentage of total population = 12 percent of 60.74 million =
8.09 million.

Chinese Dialect	Percentage of Total Population
Teochew	56 %
Hakka	16%
Hainanese	12%
Cantonese	7%
Hokkien	7%
Other	2%

Table 1.6   Percentage of Ethnic Chinese population in Thailand in 1998 by the
            Department of Statistics (2001)

        Table 1.7 shows that from 1969 to 1975 the number of the Chinese in Thailand
declined because the Thai government reduced the number of the Chinese emigrants
and naturalized to Thai citizenship.

Year	Chinese Population
1969	336,704
1970	333,879
1971	322,426
1972	321,966
1973	319,464
1975	316,235

Table 1.7   The Chinese population in Thailand from 1969 to 1975 by the Department
of Statistics (2001)

Table 1.8 shows that the numbers of Chinese people lived in Thailand in
various regions in 2001.

Total Population	Bangkok	Central	North	Northeast	South
60.74	3.565	0.953	0.751	0.459	0.336

Table 1.8   The numbers of Chinese population who lived in Thailand in various
regions in 2001(millions) by the Department of Statistics (2001)

Premsrirat (2004) researched about Ethnolinguistic Maps of Thailand and
presented the areas where the Sino-Tibetan Language is spoken in Thailand as shown
in the map 1.21.

The map 1.21 presents where Chinese people are in Thailand. The pink
circle is representative of Chinese language (five dialects except Yunnanese) and the
square green-yellow color is representative of Yunnanese in Thailand.
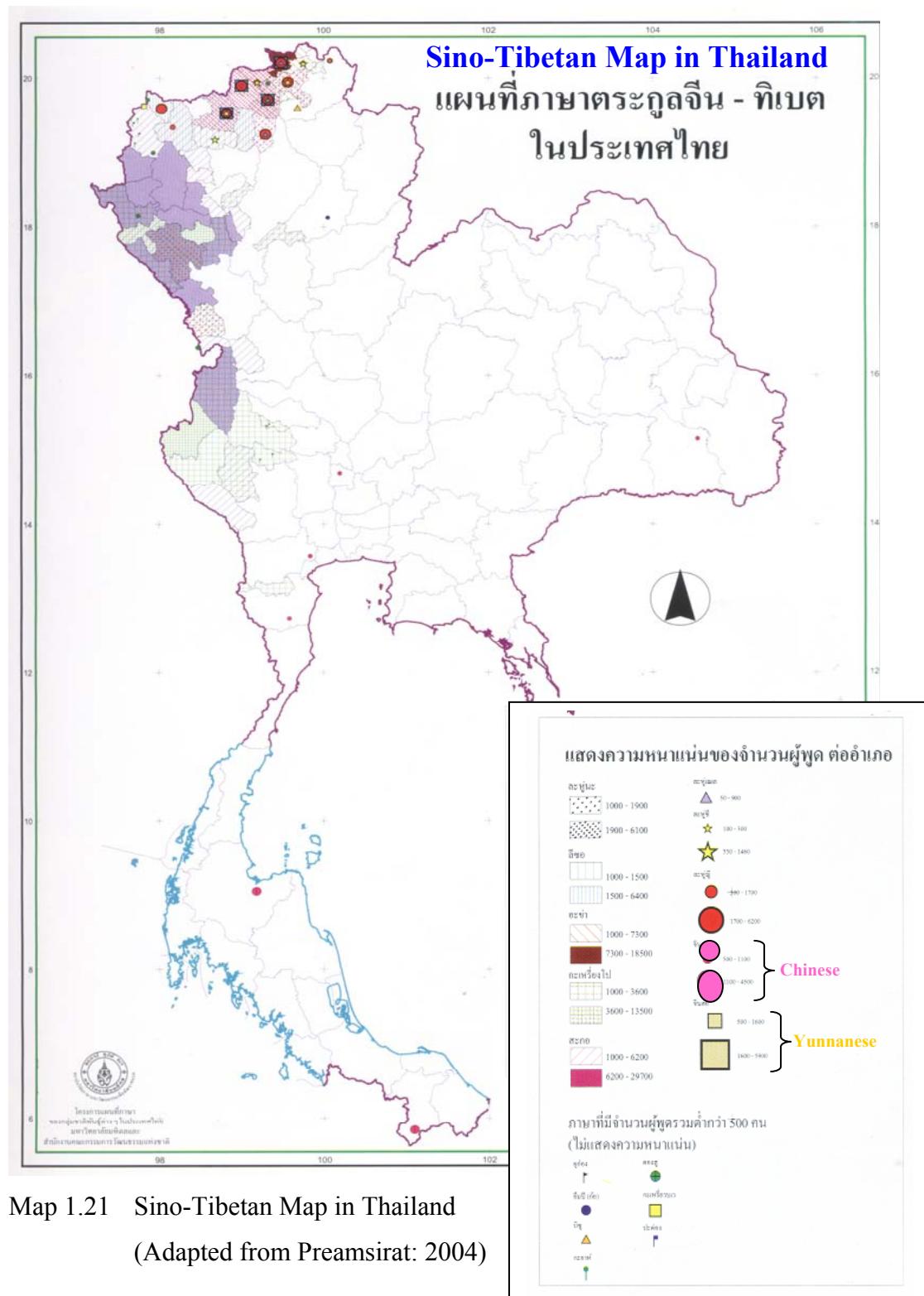
Map 1.21   Sino-Tibetan Map in Thailand

(Adapted from Preamsirat: 2004)

CHAPTER II
LITERATURE REVIEW

The objective of this study is to study the distribution and phonological characteristics of Chinese dialects in Thailand. The literature review in this chapter is divided into three parts; Part 1 (section 2.1) is the phonology of Chinese dialects which is related to Chapter 4. This part describes six dialects; Yunnanese, Hakka, Teochew, Hainanese, Hokkien and Cantonese. Part 2 (section 2.2) is the language distribution and language map which are related to Chapter 5. Part 3 (section 2.3) is the summary of the literature review and the contribution of this study.

2.1 Literature Review on the phonology of Chinese dialects

The literature review on the phonology of Chinese dialects includes six Chinese dialects below:

2.1.1 Yunnanese dialect

Norman (1988, p. 1) described the name "Yunnanese as an all encompassing name by scholars nationally and internationally, representing the dialectal variations and versions of different historical eras of the Chinese language spoken in the area of Yunnan, in southwest China.

Gui (1990, p. 5) described Yunnanese as a member of the Southwestern branch of Mandarin, also known in Chinese as *Xinan Guanhua 'Southwestern Court Language'* or *Shangjiang Guanhua 'Upper Yangtze River Court Language'*. Southwestern Mandarin in turn is a subgroup of the Northern Mandarin Family, and it includes varieties in Sichuan, Yunnan, Guizhou, Guangxi, and some areas of Hunan and Hubei Provinces. Northern Mandarin itself is one of the seven stocks of the Han

(i.e. "Chinese") language group, and it has been further divided into four subgroups: Northern Mandarin, Northwestern Mandarin, Southwestern Mandarin, and Jiang-huai Mandarin. Each of these developed over time into a unique manifestation of the world's largest language.

Gui explained that Yunnanese has four major branches which are classified according to their geographical locations: the Central Yunnan Region, the Southern Yunnan Region, the Western Yunnan Region, and the Northeastern Yunnan Region. The Classification of the Mandarin is shown in the chart 2.1 below:
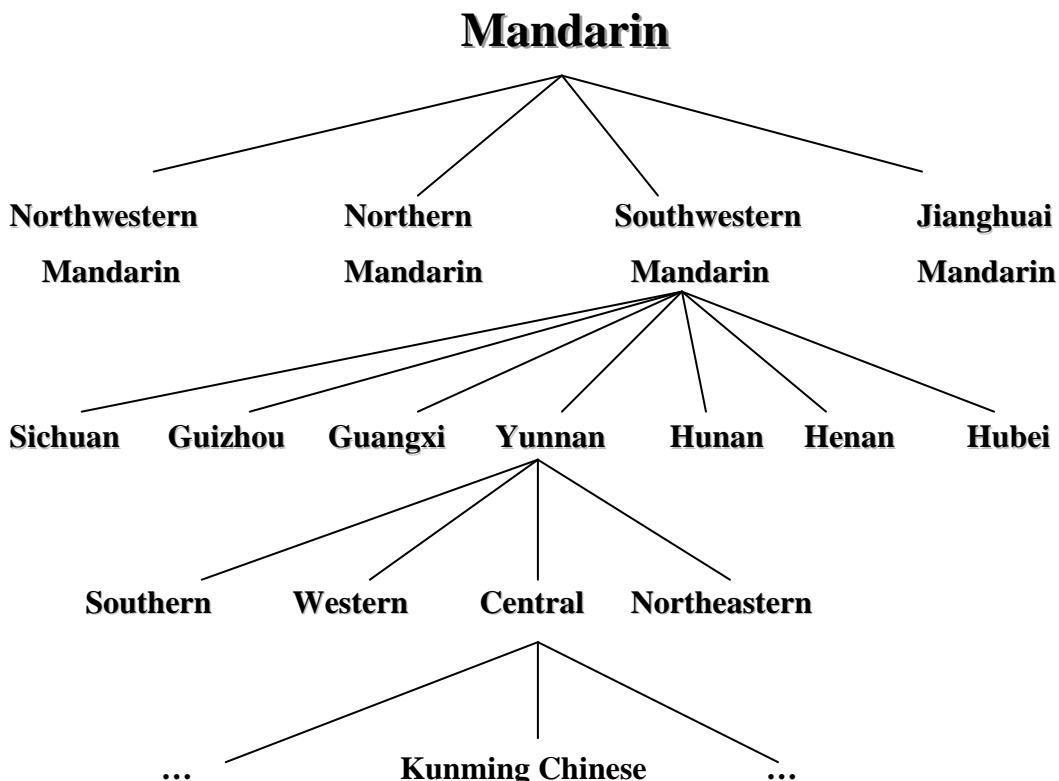
Chart 2.1   Classification of Mandarin language adapted from Gui (1990, p. 118)

In Thailand, Yunnanese is one of the minority groups living in the northern part of Thailand. They migrated to Thailand 50 years ago and their status was "illegal immigrant". They did not have Thai nationality until the agreement between Thailand and Taiwan was made in November 1969. Since then Thailand has been responsible for appropriately taking care and managing this ethnic group. Moreover, Thailand had a policy to set the three projects: the joint volunteer protection,

nationality transferring and agricultural training. The cooperating of Thailand and Taiwan brought the peace and security to Yunnanese in the North of Thailand.

Burusphat (1972, p. 245), described Yunnanese as the Chinese people living in Yunnan in the southern part of China and these people migrated from China because of the Communist Government and the Civil War (1945 – 1949) between two Chinese parties, Communist party and Kuomintang party. The Yunnanese in Thailand are divided into two groups, the Yunnanese Chinese refugees and the former soldiers of the 93rd division of the Kuomintang or the KMT.

Poonwathu (1984) stated that Yunnanese migrated and settled in the northern part of Thailand. They are scattered in three provinces: Mae Hong Sorn, Chiang Mai, and Chiang Rai. He studied Yunnanese Chinese Phonology of Baan Paang Saa, Mae Chan district, Chiang Rai province.

The syllable structures are divided into 2 types; an open syllable and a closed syllable. An open syllable structure is $C_1 V_1 (V_2) (V_3) T$ and a closed syllable structure is $C_1 V_1 (V_2) N T$.

There are 20 single consonant phonemes of Yunnanese Chinese: /p, pʰ, t, tʰ, k, kʰ, ʔ, $\widehat{ts}$, $\widehat{t\int}$, $\widehat{t\mathc}$, $\widehat{t\mathc^h}$, $\widehat{dz}$, $\widehat{d\mathz}$, f, h, m, n, l, w, j /. The vowels of Yunnanese Chinese language consist of 6 pure vowels, 8 diphthongs, and 2 triphthongs. They are /i, e, ɯ, a, u, o, ia, iu, ɯi, ɯu, ai, au, ui, ua, iau, uai/.

The Yunnanese Chinese language has a tonal system which consists of four contrastive tones: three level tones and one contour tone. All of four tones are /1/ the mid level tone [33], /2/ the high level tone [44], /3/ the low level tone [22], and /4/ the low – rising tone [24].

Gui (2000) described Kunming Chinese which is one of the groups from Central Yunnan Region. According to Gui, the phonology of Kunming Chinese has 25 consonants; / p, ph, t, th, k, kh, f, s, z, ɕ, ʂ, x, tɕ, tɕh, tʂ, tʂh, ts, tsh, m, n, ŋ, r (/r/ occurs only as coda), l, w, j /. There are eight vowels of Kunming Chinese: /i, e, ə, ɛ, u, o, ɔ, ɑ / and ten diphthongs or rhymes which excludes nasal rhymes: /əi, əu, iɑ, io, ie, iɔ, iu, ua, uɛ, ui /. Kunming Chinese does not have tripthongs. Kunming Chinese has four tones. They are Tone 1 (Yin Ping): upper level tone [44], Tone 2 (Yang Ping): lower level tone [31], Tone 3 (Shang Sheng): rising tone [53], and Tone 4 (Qu Sheng): departing tone [212].

Cheloh (2009) made a comparative study of   the phonology of Yunnanese Chinese spoken at Doi Mae Salong, Chiang Rai Province, Thailand and Standard Chinese Phonology. The phonology of Yunnanese Chinese spoken at Doi Mae Salong, Chiang Rai Province, Thailand will be used in this study. Yunanese Chinese has 18 consonant phonemes: /p, ph, t, th, k, kh, m, n ts, tsh, tɕ, tɕh, f, s, z, ɕ, x, l /. The phonetic [ŋ] is the allophone of /n/. Doi Mae Salong (DSM) Yunnanese does not contrast between long and short vowels. There are three types of vowels: monophthongs, diphthongs, and triphthongs. There are 5 monophthongs: /i, u, ə, a, ɔ/ and [ɨ] and [o] are the allophones of /i/ and /ɔ/ respectively. There are twelve diphthongs and four triphthongs as /iu, ui, uə, iɛ, iɔ, uɔ, ia, ua, əi, əu, ai, au, iau, uai, iəu, uəi/ and the diphthongs [ie] and [io] are the allophones of /iɛ/ and /iɔ/. DSM Yunnanese has four tones as follows: Tone 1 (Ying Ping) is a mid level tone [33], Tone 2 (Yang Ping) is a mid to low falling [31$^{?}$], Tone 3 (Shang Sheng) is a high falling tone [42], and Tone 4 (Qu Sheng) is a low rising tone [23].

In summary the phonological researches of Yunnanese dialects consist of only one research in China and two researches in Thailand. A comparison of these researches shows that consonants and vowels are varied as shown in tables 2.1 and 2.2:

	Poonwathu, Panchai (1984) Mae Chan district Chaing Rai Thailand	Gui, Ming Chao (2000) Kunming China	Cheloh, Amenah (2009) Doi Mae Salong Chiang Rai Thailand
	20 consonants	25 consonants	18 consonants
Labial	p, ph, m, f, w	p, ph, m, f, w	p, ph, m, f
Alveolar	t, th, t͡s, d͡z, t͡ʃ, d͡ʒ, n, l	t, th, ts, tsh, n, ŋ, r, l, s,	t, th, ts, tsh, s, z, n, l
Retroflex		ʂ, z̢, tʂ, tʂh	
Lamino-prepalatal	t͡ɕ, t͡ɕʰ, j	tɕ, tɕh, ɕ, j	tɕ, tɕh, ɕ
Velar	k, kh	k, kh, x	k, kh, x
Glottal	ʔ, h		

Table 2.1   Comparison of Yunnanese consonant phonemes of three reviewed

researches

	Poonwathu, Panchai (1984) Mae Chan district Chaing Rai Thailand	Gui, Ming Chao (2000) Kunming China	Cheloh, Amenah (2009) Doi Mae Salong Chiang Rai Thailand
	6 monophthongs, 8 diphthongs, and 2 triphthongs	7 monophthongs, and 10 diphthongs	5 monophthongs, 12 diphthongs and 4 triphthongs
Monophthongs	i, e, ɯ, a, u, o	i, e, ə, ɛ, u, o, ɔ, ɑ	i, u, ə, a, ɔ
Diphthongs	ia, iu, ɯi, ɯu, ai, au, ui, ua	əi, əu, iɑ, io, ie, iɔ, iu, ua, uɛ, ui	iu, ui, uə, iɛ, iɔ, uɔ, ia, ua, əi, əu, ai, au
Triphthongs	iau		iau, uai, iəu, uəi

Table 2.2   Comparison of Yunnanese vowel phonemes of three reviewed researches

A tonal comparison of three reviewed researches shows that there are the same four tones, although they are not the same phonetically. The tonal comparison of three researches is shown in table 2.3:

	Poonwathu, Panchai (1984) Mae Chan district Chaing Rai Thailand	Gui, Ming Chao (2000) Kunming China	Cheloh, Amenah (2009) Doi Mae Salong Chiang Rai Thailand
Tone 1	mid level tone [33]	upper level tone [44]	mid level tone [33]
Tone 2	high level tone [44]	lower level tone [31]	mid to low falling [31$^{?}$]
Tone 3	low level tone [22]	rising tone [53]	high falling tone [42]
Tone 4	low – rising tone [24]	departing tone [212]	low rising tone [23]

Table 2.3   Comparison of Yunnanese tones of three reviewed researches

2.1.2 Hakka dialect

There are twelve studies of Hakka language of which seven researches were studied in China and five researches were done in Thailand. They describe the phonology of Hakka dialects which are Meixian, Jie Yang, and Hsing Ning. All of Hakka dialects will be reviewed below:

Guangdong Provincial Education Department (1960) published about Meixian dialect of Hakka. This dialect has eighteen initial consonants: / p, pʰ, t, tʰ, ts, tsʰ, k, kʰ, ø, m, n, ɲ, ŋ, l, f, v, s, h / with three extras in Pinyin form because the three consonant and vowel combinations: / zi, si, ci / have the vowel / ɯ /. There are six final consonants: / p, t, k, m, n, ŋ/. There are seven pure vowels: / i, ɯ, u, a, ɛ, ə, ɔ /. The rhymes of Meixian Hakka dialect include seventy four rhymes and six tones as shown in chart 2.2 and table 2.4 respectively.

```
⌉   i    ɛ    a         ɔ    u                      aŋ            ɔŋ   uŋ
    iɛ   ɛu   ai        ɔi   ui        iaŋ                             uaŋ
    ia                  uɛ        iɔŋ                                  uɔŋ
    iɔ                  ua        iuŋ
    iu                  uɔ        ip   ɛp   ap   əp
    iai                           iap
    iui                 uai       it   ɛt   at   ət   ɔt   ut
    im   ɛm   am   əm             iat                      uat
    iam                           iɛt                      uɛt
    in   ɛn   an   ən   ɔn   un   iɔt                      uɔt
    ian                 uan       iut
    iɛn                 uɛn            ak        ɔk   uk
    iɔn                 uɔn       iak                      uak
    iun                           iɔk                      uɔk
              m̩         ŋ̍         iuk
```

Chart 2.2   Rhymes of Meixian Hakka dialect from Guangdong Provincial Education
             Department (1960)

Traditional Categories	Yin Ping	Yang Ping	Shang	Qu	Yin Ru	Yang Ru
Tone Number	1	2	3	4	5	6
Tone Value	/44/	/11/	/31/	/52/	/1/	/5/

Table 2.4   Six tones of Meixian Hakka dialect form Guangdong Provincial Education
             Department (1960)

Beijing University, Department of Chinese Language (1962) [汉语方音
字汇:北京大学中国语言文学系], describes Meixian Hakka has eighteen initial
consonants: /p, pʰ, t, tʰ, ts, tsʰ, k, kʰ, ø, m, n, ɲ, ŋ, l, f, v, s, h /. The final consonants
include the final stops and nasals: / t, p, k, m, n, ŋ/. Meixian Hakka has 66 rhymes as
shown in chart 2.3:

i	ɨ	ε	a	ə	ɔ	u
i	ɨ	ε	a		ɔ	u
ia		εu	ai		ɔi	ua
iu			au			
iai						uai
iau						
im		em	am	əm		
in		εn	an	ən	ɔn	un
			aŋ		ɔŋ	uŋ
iam						
ian		iεn			iɔn	iun
		uεn	uan			
iaŋ			uaŋ		iɔŋ	iuŋ
					uɔŋ	
ip		ep	ap	əp		
it		εt	at	ət	ɔt	ut
			ak		ɔk	uk
iap						
iat		iεt			iɔt	iut
uat		uεt				
				iak	iɔk	iuk
				uak	uɔk	

Chart 2.3   Meixian Hakka rhymes by Beijing University, Department of Chinese
             Language (1962) [汉语方音字汇: 北京大学中国语言文系]

There are 6 tones as follows:

Tone 1	High level	[44]
Tone 2	Low level	[11]
Tone 3	Mid Falling tone	[31]
Tone 4	High falling tone	[42]
Tone 5	Low falling	[21]
Tone 6	High short tone	[4]

Hashimoto (1973) analyzes the Moi-yan (Meixian) Hakka phonological system. According to this study, Moi-yan (Meixian) Hakka has fifteen initial consonants: / p, p^h, t, t^h, ts, ts^h, k, k^h, m, n, ŋ, l, f, s, h /.   There are six final consonants including the final stops and nasals: / t, p, k, m, n, ŋ/ and two syllabic consonants: [m̩] , [ŋ̍]. Meixian Hakka has five single vowels: / i, e, a, u, o /, eight diphthong vowels: /ie, ia, iu, io, eu, ai, au, oi / and a triphthong vowel /iau/. There are six tones as shown below:

Tone 1	Mid level	Tone 2	Low level
Tone 3	Mid falling (legato)	Tone 4	High level
Tone 5	Mid falling (staccato)	Tone 6	High rising

Based on the system of Hakka tones, Hashimoto classifies Hakka dialects into three groups as shown below:

1. Ng-yan group has six tones as shown in table 2.5:

Tone	Yin Ping 阴平 1	Yang Ping 阳平 2	Shang 上 3	Qu 去 5	Yin Ru 阴入 7	Yang Ru 阳入 8
Moi-yan (Meixian)	Tone 1 33	Tone 2 11	Tone3 31	Tone 4 55	Tone 5 31	Tone 6 44

Table 2.5   Tone categories and values of some Ng-yan groups of Hakka dialect

2. Liuk-Hoi group has seven tones, because of the splitting of Qu tone as shown in table 2.6:

Tone / Dialect	Yin Ping 阴平 1	Yang Ping 阳平 2	Shang 上 3	Yin Qu 阴去 5	Yang Qu 阳去 6	Yin Ru 阴入 7	Yang Ru 阳入 8
	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6	Tone 7
1	53	55	13	31	22	55	32
2	41	55	13	21	11	45	32
3	543	555	334	321	111	554	1234

Table 2.6   Tone categories and values of some Liuk-Hoi groups of Hakka dialect

3. Ngiau-phin group has five tones because of the merger of the Shang and Qu tones as shown in table 2.7:

Tone⧵Dialect	Yin Ping 阴平 1	Yang Ping 阳平 2	Shang + Qu 上 + 去 3	Yin Ru 阴入 7	Yang Ru 阳入 8
	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5
1	21	33	51	31	45
2	11	44	41	3	4
3	11	44	41	31	44

Table 2.7   Tone categories and values of some Ngiau-phin groups of Hakka dialect

Wongwantanee (1984) describes Jie Yang Hakka, a Chinese variety spoken in Tambol Phra Pathom, Amphor Muang, Nakhon Prathom Province, Thailand. According to Pratoom, there are twenty one initial consonants: / p, pʰ, t, tʰ, k, kʰ, ʔ, ts, tsʰ, tɕ, tɕʰ, f, s, ʃ, h, m, n, ŋ, l, w, j / and six final consonants: / p, t, k, m, n, ŋ/. There are six pure vowels: /i, ɯ, u, ɛ, a, ɔ /, eight diphthongs: /iə, ai, ui, iu, au, ɔi, iɔ, ɛu / and one triphthong /iəu/. There are four tones: (1) Low level [22], (2) High falling [42], (3) High level [44], (4) Low rising [24]. All four tones may occur in smooth syllables, but only two of them: Low level and High level, can occur in checked syllables.

Beijing University, Department of Chinese Language (1985) [汉语方音字汇-第二版: 北京大学中国语言文学系], describes Meixian Hakka has eighteen initial   consonants: /p, pʰ, t, tʰ, ts, tsʰ, k, kʰ, ø, m, n, ɲ, ŋ, l, f, v, s, h /.   The   final consonants include the final stops and nasals / p, t, k, m, n, ŋ/. Meixian Hakka has 76 rhymes and 6 tones as shown in chart 2.4 and table 2.8:

ɨ	i	ɛ	a		ɔ	u			aŋ	ɔŋ	uŋ
	ia	ɛu	ai	ɔi	ua		iaŋ				uaŋ
	iɛ		au			uɛ		iɔŋ			uɔŋ
	iɔ					uɔ		iuŋ			
	iai					uai		ip	ɛp	ap	əp
	iu					ui		iap			
	iui							it	ɛt	at	ət	ɔt	ut
	iau							iat			uat
	im	ɛm	am	əm				iɛt			uɛt
	iam							iɔt			uɔt
	in	ɛn	an	ən	ɔn	un		iut			
	ian					uan				ak	ɔk	uk
	iɛn					uɛn		iak			uak
	iɔn					uɔn		iɔk			uɔk
	iun							iuk			
								m̩		ŋ̩	

Chart 2.4   Meixian Hakka initial consonants by Beijing University, Department of Chinese Language (1985) [汉语方音字汇-第二版: 北京大学中国语言文学系]

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'going'	入 Ru 'entering'
阴 Yin	Tone 1 44 Mid-High level	Tone 3 31 Mid falling	Tone 4 52 High falling	Tone 5 1 Low
阳 Yang	Tone 2 11 Low level			Tone 6 5 High

Table 2.8   Meixian Hakka tones by Beijing University, Department of Chinese Language (1985) [汉语方音字汇-第二版: 北京大学中国语言文学系]

Ramsey (1987) mentions that Meixian Hakka dialect has seventeen initial consonants: / p, pʰ, t, tʰ, k, kʰ, ts, tsʰ, f, s, h, v, m, n, (ɲ), ŋ, l, j (y)/. The consonant /ɲ/ occurs only before the vowel /i/. The consonants /ɲ/ and /ŋ/ can be regarded as the same phoneme because they are not contrastive even though they are pronounced quite differently. There are six vowels: /i, ə, e, a, o, u / and two monosyllabics: /m̩, ŋ̍/ which sometimes function as vowels of other Southern dialects. There are three final consonants: /p, t, k/ and two off glides: /-i/ and /-u/. There are six tones, but Ramsey does not show the tone descriptions.

Norman (1988) describes that Meixian Hakka has seventeen initial consonants: / p, pʰ, t, tʰ, k, kʰ, ts, tsʰ, (ʔ), f, s, h, v, m, n, ɲ, ŋ, l, (j)/. The consonant /v/ in Meixian Hakka is described as a liquid not a voiced fricative, because there is no contrast between voiced – voiceless fricatives. There are six nuclear vowels: /i, ï, u, e, (ə), a, o/ and the ending of both vocalics: /i/ and /u/ and six final consonants: / p, t, k, m, n, ŋ/. Meixian Hakka has six tones as shown in table 2.9:

	平 **Ping** 'level'	上 **Shang** 'rising'	去 **Qu** 'going'	入 **Ru** 'entering'
阴 **Yin**	Tone 1 44 High level	Tone 3 31 Mid falling	Tone 4 42 High falling	Tone 5 21 Low falling
阳 **Yang**	Tone 2 12 Low rising			Tone 6 <u>44</u> High

Table 2.9   Meixian Hakka tones (Norman, 1988)

Huang and Li (1998) describes that Meixian Hakka has sixteen consonant phonemes: / p, pʰ, t, tʰ, k, kʰ, ts, tsʰ, f, s, h, v, m, n, ŋ, l /. There are seventy three rhymes as shown in chart 2.5:

ɨ	a	e	o	m	n	ai	oi	ui	au	eu	iu
i	ia	ie	io			iai		iui	iau		
u	ua		uo			uai					
əm	am	em	ən	an	en	on	un	aŋ	oŋ	uŋ	
im	iam		in	ian	ien	ion	iun	iaŋ	ioŋ	iuŋ	
			uan	uen	uon		uaŋ	uoŋ			
əp	ap	ep	ət	at	et	ot	ut	ak	ok	uk	
ip	iap		it	iat	iet		iut	iak	iok	iuk	
			uat	uet			uak	uok			

Chart 2.5   Meixian Hakka rhymes of Huang and Li (1998)

Meixian Hakka has six tones: Tone 1; High Level tone [44], Tone 2; Mid Falling tone [31], Tone 3; High Falling tone [53], Tone 4; Low [1], Tone 5; Low Level [11], Tone 6; High [5].

SoBha (2001) studies the phonology of Hsing Ning Hakka at Muang district, Ratchaburi province. She says that Hakka people of Ratchaburi classify their own people and language into two main groups as follows:

a) Pan San Khak group.

In China, this group lives half way up a mountain. The word "Pan" means 'half' and the word "San" means 'mountain'. The word "Pan San" is used by Hakka people to refer to their language which is a mixture of Hakka and Teochiu. Chieh Yang dialect belongs to this group.

b) Chim Khak group.

In China, this group lives further up the mountain. The word "Chim" means 'deeply' and is used by Hakka people to refer to their language which is more classical than the Pan San Khak group. Hsing Ning dialect which is studied in Jurairat's study belongs to this group.

She states that the Hsing Ning Hakka in Ratchaburi has 21 consonant phonemes: /p, ph, t, th, k, kh, ʔ, ts, tsh, tʂ, tʂh, f, v, s, ʂ, ʐ, h, m, n, ŋ, l/. All of them can occur in the initial position. The phonemes /t, k, n, ŋ/ can occur in the final

position. There are 6 single vowel phonemes: /i, ɛ, a, ɯ, ɔ, ʊ/, 7 diphthongs: /ia, iɔ, iʊ, ai, aʊ, ɔi, ʊi/, and 1 triphthong: /iaʊ/. The Hsing Ning Hakka language has four contrastive tones: Tone 1; Mid Level tone [33], Tone 2; High Falling tone [42], Tone 3; High level [44], Tone 4; Low level [11].

Saengtummachai (2003) studies the phonology of Mei Xian Hakka in Bangkok, Thailand compared with Hashimoto's. She states that the Meixian Hakka in Bangkok has 18 consonant phonemes: /p, ph,t, th, c, ch, k, kh, ʔ, f, s, h, m, n, ŋ, l, w, j/, 2 consonant clusters: /kw, khw/ and 6 final consonants: /p, t, k, m, n, ŋ/. Meixian Hakka in Bangkok has 6 single vowel phonemes: /i, e, a, o, u, ɯ/, 8 diphthongs: /ia, ai, ui, iu, au, oi, io, eu/ and 1 triphthong: /iau/. Meixian Hakka in Bangkok has 4 tones: /1/ Mid level tone [33], /2/ Low level tone [11], /3/ High falling tone [53] and /4/ High level tone [55].

Ungsitipoonporn (2007) describes that Hakka living in Thailand speak different Hakka dialects depending on the areas in China they came from. Moreover, she says that Hakka dialects in Thailand can be divided into two groups: deep Hakka or pure Hakka, and superficial Hakka or "Pan San Khak" which means half mountain.

a) Deep Hakka or Pure Hakka group can be divided into several dialects such as dialects of Meixian area, Tai Pu area, Hsiang-Ning area, Wu Hua area and Pin Yen area. The deep Hakka people of these areas, especially Meixian area, live in the Southern part of Thailand mostly in Hatyai, Songkhla province and Betong, Yala province. Most of them are traders.

b) Superficial Hakka or "Pan San Khak" group comes from Hong Sun and Jie Yang areas. The "Pan San Khak" group lives in Central part of Thailand: Ratchaburi, Khanchanaburi, Nakhon Pathom, and Petchburi provinces and the Northern part of Thailand: Uttaradit, Phrae, and Nan provinces. Most of them are agriculturists.

She studies phonological and acoustic analyses of the tone system of Hakka as spoken in Bangkok. She chose informants who were descendants of Hakka from Meixian Hakka in China because Meixian Hakka represents Standard Hakka. The components of the Hakka syllable are consonant, vowel, and tone. The consonant phonemes of Bangkok Hakka have eighteen consonants. All of them can occur in the initial consonants, but only eight consonants: /p, t , k, m, n, ŋ, w, j/ can occur in the final consonants. The consonant phonemes of Bangkok Hakka are /p, p^h, t, t^h, ts, ts^h, k, k^h, ʔ, m, n, ŋ, l, f, s, h , w, j /.

Bangkok Hakka vowel system has six contrastive single vowel phonemes: /i, e, ɨ, a, u, o/ and 66 rhymes which are composed of (1)single vowels, (2)the onglide vowel plus nuclear vowel and (3) the nuclear vowel plus the ending the eight final consonants. The 66 rhymes are summarized in table 2.10:

Composition of final part	Rhyme						
Nuclear vowel or single vowel	i	ɨ	e	a	o	(ɔ)	u
Onglide vowel + Nuclear vowel	ie ia iɔ						ui ua uo
Nuclear vowel + Semi-vowel	iw		ew	aj aw	oj		uj
Onglide vowel + Nuclear vowel + Semi-vowel	iaj iew						uaj
Nuclear vowel + Nasal ending	im in	ɨm ɨn	em en	am an aŋ	on oŋ		un uŋ
Onglide vowel + Nuclear vowel + Nasal ending	iun inŋ		iem ien ieŋ	uan		iɔn iɔŋ	uon uoŋ
Nuclear vowel + Stop ending	ip it	ɨp ɨt	ep et	ap at ak	ot ok		ut uk
Onglide vowel + Nuclear vowel + Stop ending			iep iet uet iek	uat		iɔk	iut iuk

Table 2.10 The distribution of vowels on the rhyme system of Bangkok Hakka from

   Ungsitipoonporn (2007, p. 58)

Bangkok Hakka has six tones which can be divided into two categories according to the kind of syllable: live and dead syllables as follows:

a) Four tones on live syllable are:

Tone 1   Mid Level tone [33]   Tone 2   Mid-Low Falling tone [21]

Tone 3   Mid Falling tone [31]   Tone 4   Mid-High Level tone [44]

b) Two tones of dead syllable are:

Tone 5   Short Mid Falling tone [32]   Tone 6   Short High Level tone [4]

Shiwaruangrote (2008) made a phonological description of Jie Yang Hakka dialect spoken in Thailand. The area of his study is Pathumthani province. He describes that there are 18 consonant phonemes in the Jie Yang Hakka phonology: /p, ph, t, th k, kh, ʔ, ts, tsh, f, v, s, h, m, n, ŋ, j, l/. Six of them: /p, t, k, m, n, ŋ/ can occur in the final position. There are six monophthongs: /i, ɛ, ɨ, a, u, ɔ/, eleven diphthongs: /iu, ui, iɔ, ɔi, ia, ai, uɛ, ɛi. uɔ, ua, au / and three triphthongs: /iau, uai, iui/. There are seven tone phonemes as shown in table 2.11:

Tone category	Tone contour	Tone value	Length	Syllable type
Yin Ping /1/	High falling	[52]	Long	Live
Yang Ping /2/	Mid rising	[35]	Long	Live
Yin Shang /3/	Low rising	[14]	Long	Live
Yin Qu /5/	Mid falling	[31]	Long	Live
Yang Qu /6/	Low	[11]	Long	Live
Yin Ru /7/	Mid rising	[35]	Short	Dead
Yang Ru /8/	High	[55]	Short	Dead

Table 2.11 Jie Yang Hakka Tone phonemes by Shiwaruangrote (2008, p. 80)

In summary the review of Hakka dialects shows that there are seven researches on Meixian in China and two researches on Meixian in Thailand: Saengtummachai (2003) and Ungsitiponporn (2007). Other studies in Thailand focus on two Jie Yang phonologies: Wongwantanee (1984) and Shiwaruangrote (2008), and one on Hsing Ning: SoBha (2001).

The comparison of previous Hakka studies shows that there are variations among three dialects: Meixiang, Jie Yang, and Hsing Ning in terms of consonants, vowels, and tone values. Tables 2.12 and 2.13 show a comparison summary of Hakka dialects from previous studies.

No.	Sources of Hakka spoken in China (Meixian)	Initial consonants	Vowels	Final consonants	Rhymes	Tones and their values
1	Guangdong Provincial Education Department (1960) [GPED]	18 phonemes p, p^h, t, t^h, ts, ts^h, k, k^h, ø, m, n, ɲ, ŋ, l, f, v, s, h	7 phonemes i,], u, a, ε, ə, ɔ	6 phonemes p, t, k, m, n, ŋ	76 rhymes	6 tones 44, 11, 31, 52, 1, 5
2	Hanyu Fangyin Zihui (Beijing University, 1962)	18 phonemes Similar to GPED	6 phonemes i, ɨ, ε, a, ɔ, u	6 phonemes Similar to GPED	67 rhymes	6 tones 44, 11, 31, 42, 21, 4
3	Hashimoto (1973)	15 phonemes p, p^h, t, t^h, ts, ts^h, k, k^h, m, n, ŋ, l, f, s, h	5 phonemes i, e, a, u, o	6 phonemes Similar to GPED	75 rhymes	6 tones 33, 11, 31, 55, 31, 44
4	Hanyu Fangyin Zihui book 2 (Beijing University, 1985)	18 phonemes Similar to GPED	6 phonemes Similar to Beijing 1962	6 phonemes Similar to GPED	76 rhymes Similar to GPED	6 tones Similar to GPED
5	Ramsey (1987)	17 phonemes Similar to GPED except /ɲ/ and /ŋ/ can be regarded as the same phoneme.	6 phonemes i, ə, e, a, o, u	5 phonemes p, t, k, m, ŋ	Did not mention	6 tones did not mention tone values
6	Norman (1988)	19 phonemes p, p^h, t, t^h, k, k^h, ts, ts^h, (ʔ), f, s, h, v, m, n, ɲ, ŋ, l, (j)	6 phonemes Similar to Ramsey except ə, but it has ˙i	6 phonemes Similar to GPED	Did not mention	6 tones 44, 12, 31, 42, 21, 44
7	Huang & Li (1998)	16 phonemes Similar to GPED Except do not have /ø/, and /ɲ/	6 phonemes i, ɨ, e, a, o, u	6 phonemes Similar to GPED	73 rhymes	6 tones Similar to GPED Except [52] in GPED replace in [53]

Table 2.12 The comparison summary of previous Hakka dialect studies in China

No.	Sources of Hakka spoken in Thailand	Subdialect which is researched	Initial consonants	Vowels	Final consonants	Tones and their values
1	Wongwan tanee, Pratoom. (1984)	JieYang	21 phonemes p, p^h, t, t^h, ts, ts^h, k, k^h, ʔ, tɕ, tɕ^h, f, s, ʃ, h, m, n, ŋ, l, w, j	6 phonemes i, ɯ , u, ɛ, a, ɔ	6 phonemes p, t, k, m, n, ŋ	4 tones 22, 42, 44, 24
2	SoBha, Jurairat. (2001)	Hsing Ning	21 phonemes p, ph, t, th, k, kh, ʔ, ts, tsh, tʂ, tʂh, f, v, s, ʂ, ʐ, h, m, n, ŋ, l	6 phonemes Similar to Wongwantanee	4 phonemes t, k, n, ŋ	4 tones 33, 42, 44, 11
3	Saengtum machai, Wandee. (2003)	Meixian	18 phonemes p, p^h, t, t^h, ts, ts^h, k, k^h, ʔ, m, n, ŋ, l, f, s,h , w, j	6 phonemes Similar to Huang & Li	6 phonemes Similar to GPED	4 tones 33, 11, 53, 55
4	Ungsitipo nporn, Siripen. (2007)	Meixian	18 phonemes Similar to Saengtummachai	6 phonemes Similar to Huang & Li	8 phonemes p, t, k, m, n, ŋ, w, j	6 tones 33, 21, 31, 44, 32, 4
5	Shiwaruan grote, Nitasakorn (2008)	Jie Yang	18 phonemes p, ph, t, th k, kh, ʔ, ts, tsh, f, v, s, h, m, n, ŋ, l, j,	6 phonemes Similar to Wongwantanee	6 phonemes Similar to GPED	7 tones 52, 35, 14, 31, 11, 35, 55

Table 2.13 The comparison summary of previous Hakka dialect studies in Thailand

The comparison of Meixian Hakka in Thailand between Saengtummachai (2003) and Ungsitiponporn (2007) shows that they have the same 18 consonants and 6 vowels, but with different tones which occur from live and dead syllables. The comparison of Meixian Hakka tones in Thailand is shown in table 2.14:

Saengtummachai, Wandee (2003)	Ungsitiponporn, Siripen (2007)
Mid level tone [33]	Mid level tone [33]
Low level tone [11]	Mid-Low falling tone [21]
High falling tone [53]	Mid falling tone [31]
	Short Mid falling tone [32]
High level tone [55]	Mid-High level tone [44]
	Short High level tone[4]

Table 2.14 The comparison of Meixian Hakka tones in Thailand

In the other hand, the comparison of Jie Yang Hakka in Thailand between Wongwantanee (1984) and Shiwaruangrote (2007) shows that they have the same 6 vowels, but consonants and tones are different. Wongwantanee has 21 consonants and 4 tones, while Shiwaruangrote has 18 consonants and 7 tones. The comparison of Jie Yang Hakka consonant and tones in Thailand is shown in tables 2.15 and 2.16:

Wongwantanee, Pratoom (1984)	Shiwaruangrote, Nitasakorn (2007)
/p/	/p/
/ph/	/ph/
/t/	/t/
/th/	/th/
/k/	/k/
/kh/	/kh/
/ʔ/	/ʔ/
/ts/	/ts/
/tsh/	/tsh/
/tɕ/	-
/tɕh/	-
/m/	/m/
/n/	/n/
/ŋ/	/ŋ/
/f/	/f/
-	/v/
/s/	/s/
/ʃ/	-
/h/	/h/
/l/	/l/
/w/	-
/j /	/j /

Table 2.15 The comparison of Jie Yang Hakka consonants in Thailand

Wongwantanee, Pratoom (1984)	Shiwaruangrote, Nitasakorn (2007)
Low level tone [22]	Low tone [11]
Low rising tone [24]	Low rising tone [14]
-	Mid falling tone [31]
-	Mid rising tone [35]
-	Mid rising checked tone [35]
High falling tone [42]	High falling tone [52]
High level tone [44]	High checked tone [55]

Table 2.16 The comparison of Jie Yang Hakka tones in Thailand

2.1.3 Teochew dialect

There are ten previous studies of Teochew language, five in China and five in Thailand. Teochew dialect literature review will be described below:

Guangdong Provincial Education Department (1960) presents Chaozhou dialect which has seventeen initial consonants: / p, p^h, t, t^h, ts, ts^h,k, k^h, b, g, m, n, ŋ, s, h, z, l /. There are fifty nine rhymes and eight tones as shown in chart 2.6 and table 2.17:

i	e	ẽ	a	o	u	iŋ		ẽŋ	aŋ	oŋ	uŋ
ia			ai	oi	ui	iaŋ					uaŋ
io			ao	ou	ua	ioŋ					
iu					uẽ	iʔ		ẽʔ	aʔ	oʔ	
iou					uai	iaʔ				oiʔ	uaʔ
in	en	ẽn	an			ioʔ					
ian			ain	oin	uan	ip			ap		
ion						iap					uap
im			am			ik		ẽk	ak	ok	uk
iam					uam	iak					uak
						iok					

Chart 2.6   The rhymes of Chaozhou dialect from Guangdong Provincial Education
            Department (1960)

Tone Name	平 Ping 'level'	上 Shang 'rising'	去 Qu 'going'	入 Ru 'entering'
阴 Yin	Tone 1 33	Tone 3 53	Tone 5 213	Tone 7 21
阳 Yang	Tone 2 55	Tone 4 35	Tone 6 11	Tone 8 4

Table 2.17 Tone of Chaozhou dialect from Guangdong Provincial Education
            Department (1960)

Teochewdialect.net (n.d.) shows the phonology of Teochew that consists of eighteen initials including zero initial: / p, ph, t, th, k, kh, ʔ, ^{m}b, ^{ŋ}g, m, n, ŋ, ts, tsh, s, ^{d}z, h, l / and sixty one rhymes as shown in chart 2.7. There are eight tones as shown in table 2.18.

	i	u		ĩ			iʔ	
a	ia	ua	ã	ĩã	ũã	aʔ	iaʔ	uaʔ
o	io			ĩõ		oʔ	ioʔ	
e		ue	ẽ			eʔ		ueʔ
ɯ			ɯ̃					
ai		uai	ãĩ					
oi		ui	õĩ			oiʔ		
ao	iao			im			ip	
ou	iu		am	iam	uam	ap	iap	uap
				iŋ	uŋ		ik	uk
			aŋ	iaŋ	uaŋ	ak	iak	uak
			oŋ	ioŋ		ok	iok	
			eŋ			ek		
			ɯŋ					

Chart 2.7   Teochew Rhymes by teochewdialect.net (n.d.)

Tone Name	平 Ping 'level'	上 Shang 'rising'	去 Qu 'going'	入 Ru 'entering'
阴 Yin	Tone 1 33	Tone 2 53	Tone 3 213	Tone 4 2
阳 Yang	Tone 5 55	Tone 6 35	Tone 7 11	Tone 8 5

Table 2.18 Teochew tone values by teochewdialect.net (n.d.)

Beijing University, Department of Chinese Language (1985) [汉语方音字汇-第二版: 北京大学中国语言文学系], describes Chaozhou of Teochew dialect which has eighteen initial consonants: / p, p^{h}, t, t^{h}, ts, ts^{h}, k, k^{h}, ø, b, g, m, n, ɲ, ŋ, s, h, z, l /. The final consonants include five final consonants / p, k, ʔ,m, ŋ /. Chaozhou Teochew dialect has 86 rhymes and 8 tones as shown in chart 2.8 and table 2.19:

1	i	ĩ	e	ẽ	a	ã	ɯ	o	õ	u	
	ia	ĩã			ai	ãĩ			oi	õĩ	ua	ũã
	ie	ĩẽ			au	ãũ			ou	õũ	ue	ũẽ
	iu	ĩũ									ui	ũĩ
	iəu	ĩə̃ũ									uai	ũãĩ
	im				am							
	iəm										uam	
	iŋ		eŋ		aŋ						uŋ	
	iaŋ						ɯŋ	oŋ			uaŋ	
	ieŋ										ueŋ	
	ioŋ										uoŋ	
	ip				ap							
	iəp										uap	
	ik		ek		ak		ɯk	ok			uk	
	iak										uak	
	iek										uek	
	iok											
	iʔ	ĩʔ	eʔ	ẽʔ	aʔ			oʔ	õʔ	uʔ	
	iaʔ				auʔ			oiʔ			uaʔ	
	ieʔ										ueʔ	ũẽʔ
	iuʔ											
	iəuʔ											
		m̩			ŋ̩			ŋʔ				

Chart 2.8   Chaozhou Teochew dialect rhymes from Beijing University, Department of Chinese Language (1985) [汉语方音字汇-第二版: 北京大学中国语言文学系]

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'going'	入 Ru 'entering'
阴 Yin	Tone 1 33 Mid level	Tone 3 53 High falling	Tone 5 213 Low falling rising	Tone 7 21 Low falling
阳 Yang	Tone 2 55 High level	Tone 4 35 Mid rising	Tone 6 11 Low level	Tone 8 4 High

Table 2.19 Chaozhou Teochew tones from Beijing University, Department of Chinese Language (1985) [汉语方音字汇-第二版: 北京大学中国语言文学系]

Atchariyasucha (1982) studies the phonological systems of Swatow or Teochew. There are nineteen consonant phonemes in Swatow: /p, ph, t, th, k, kh, ʔ, b, ɡ, ts, tsh, m, n, ŋ, s, h, l, w, j /. All nineteen consonant phonemes, except /w/ may occur in initial syllable position. However, the consonant phonemes: /p, k, ʔ, m, ŋ / occur in the syllable final position. Moreover, there are four consonant clusters: /kw, khw, ʔw, hw/.

The vowel phonemes of Swatow consist of nine pure vowels – six oral vowels: /i, e, ɯ, a, o, u/ and three nasalized vowels: /ĩ, ẽ, ã/, thirteen diphthongs – nine oral vowels and four nasalized vowels: /iə, iə̃, ai, oi, oĩ, ui, iu, au, ou, uə, uə̃, io, iõ/, and two triphthongs: /iəu, uəi/. They are not contrastive in length. The tones of Swatow are shown in chart 2.9:

Tone 1 : Mid Level

Tone 2 : Low Falling

Tone 3 : High Falling

Tone 4 : Mid Falling-Rising

Tone 5 : High Rising

Tone 6 : Low Rising
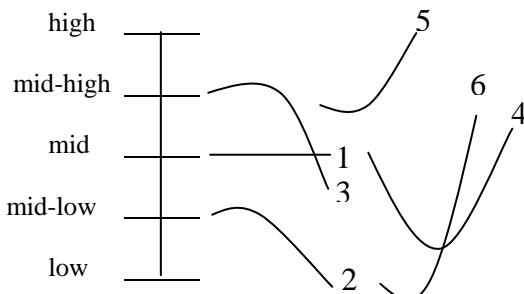
Chart 2.9   Tones of Swatow adapted from Atchariyasucha (1982, p. 26)

Gyarunsut (1983) studies the phonological systems of Teochew which has 19 consonants, the same as Atchariyasucha, Wichet (1982), in both the initial and final position. Teochew dialect has 11 vowel phonemes: 6 oral vowels: /i, e, ɨ, a, o, u/ and 5 nasal vowels: /ĩ, ẽ, ã, õ, ũ/. There are 8 diphthongs: /ia, ĩa, io, ĩo, ue, ũe, ua, ũa/. Teochew tones have six tones as shown below:

a. Mid level tone	[33]	b. Low level tone	[11]
c. Low falling tone	[21]	d. High falling tone	[51]
e. High level tone	[55]	f. Low rising tone	[24]

Maneerat (1983) studied Tea Chew Chinese Language of Nakhorn Pathom. There are eighteen consonants: / p, ph, t, th, k, kh, ʔ, b, g, m, n, ŋ, s, h, c, ch, l, j /. Only five consonants: /p, t, k, m, ŋ/ can occur in the final position. Vowels of Tea Chew Chinese language of Nakhorn Pathom are pure vowels, diphthongs and triphthongs. There are twelve pure vowels -eight oral vowels: /i, e, ɛ, ɯ, a, ɔ, o, u/ and four nasal vowels: /ĩ, ẽ. ɯ̃, ã/, fourteen diphthongs - nine oral diphthongs: /ia, iu, io, au, ai, ua, ui, oi, ou/ and five nasal diphthongs: /ĩa, ĩo, ũa, õi, õu/, and three triphthongs: /iau, uai, uãi/. There are six tones in Tea Chew Chinese Language in Nakhorn Pathom: Tone 1: Mid level, Tone 2: Low falling tone, Tone 3: High falling tone, Tone 4: Mid falling rising tone, Tone 5: High rising tone, Tone 6 : Low rising tone.

Lee (1998) summarizes the phonology of Teochew dialect which has twenty consonants: / p, ph, t, th, k, kh, ʔ, b, g, ts, tsh, s, z, h, m, n, ŋ, l, w, j /, eleven pure vowels: / i, ĩ, ɛ, ɛ̃, ɨ, ɨ̃, a, ã, ɔ, o, u /, seventeen diphthongs, and eight tones. The diphthongs and tones are as shown in tables 2.20 and 2.21:

	Front		Central		Back	
	Non-nasal	**Nasal**	**Non-nasal**	**Nasal**	**Non-nasal**	**Nasal**
Close	iu io ia	iõ iã			ui uɛ ua	uã
Close-mid					ɔi ou	ɔ̃i
Open			ʲau ʷai	ai au	aĩ	

Table 2.20 Phonemes of Teochew diphthongs by Lee (1998, p. 20)

Tone Number	1	2	3	4	5	6	7	9
Description	Mid level	High fall	Low fall rise	Low chick	High level	High rise	Low level	High check
Tone symbols	33	53	213	2	55	35	11	5
Examples	[kim] "gold"	[piã] "cookie"	[pai] "worship"	[pakˀ] "north"	[bɔɔ] "non"	[oi] "able"	[boi] "sell"	[pakˀ] "other"

Table 2.21 The eight tones of Teochew by Lee (1998, p. 21)

Chuwarahawong (2000) studied tones in Bangkok Thai spoken by the Thai, the Chao Zhou, and the Sikhs. Moreover, tone of Chaozhou spoken in Bangkok is analyzed. The result shows that there are six tones as follows:

		Male	Female			Male	Female
Tone 1	Mid level	[32]	[32]	Tone 4	High falling	[341]	[451]
Tone 2	Low falling	[21]	[31]	Tone 5	High level	[44]	[44]
Tone 3	Low level	[11]	[11]	Tone 6	Low rising	[225]	[335]

Eiampailin (2004) studied the phonological interference of Swatow in Standard Thai by Chinese speakers in Bangkok. According to the study, there are eighteen consonant phonemes in the Swatow spoken in Bangkok: /p, ph, b, t, th, k, kh, g, ʔ, m, n, ŋ, c, ch, s, h, l, j /; and all of them can occur in syllable initial position. The consonants that can occur finally in a syllable are /p, k, ʔ, m, ŋ/. The vowels of Swatow are nine monophthongs-six oral vowels and three nasalized vowels, thirteen diphthong-nine oral vowels and four nasalized vowels, and two triphthongs. All vowels are shown in table 2.22. There are six tones in Swatow: Tone 1; mid level tone [33], Tone 2; low falling tone [21], Tone 3; high falling tone [51], Tone 4; mid falling rising [312], Tone 5; high rising, and Tone 6; low rising [15].

		Front Unrounded		Central Unrounded		Back Rounded	
		Oral vowel	Nasal vowel	Oral vowel	Nasal vowel	Oral vowel	Nasal vowel
Monophthongs	Close	i	ĩ	ɯ		u	
	Close-mid	e				o	
	Open-Mid		ɛ̃				
	Open			a	ã		
Diphthongs	Close	iə iu io	iə̃ iõ			uə ui	uə̃
	Close-mid					oi ou	oĩ
	Open			ai au			
Triphthongs		iəu				uəi	

Table 2.22 The vowels of Swatow by Chinese speakers in Bangkok by Eiampailin

(2004)

The website wikipedia (n.d.) describes the phonology of Chaozhou or Teochew dialect that the voiced stop did not evolve from Middle Chinese voiced obstruents but from the Middle Chinese prenasalised stops. Therefore, the prenasalised [ᵐb] and [ᵑg] became [b] and [g] in Chaozhou respectively. The voiced alveolar affricate [ᵈz] was originally [z] in earlier Chaozhou. Some Chaoshan dialects still keep [z].

At present, the Chaozhou or Teochew dialect has eighteen consonants; / p, ph, t, th, k, kh, ʔ, b, g, ts, tsh, s, z, h, m, n, ŋ, l /. Wikipedia describes that Teochew of Chaozhou has six tones as shown in table 2.23:

Tone number	Tone name	Pitch contour	Description
1	Yin level (阴平)	33	Mid
2	Yin rising (阴上)	52	Falling
3	Yin departing (阴去)	12	Low rising
4	Yin entering (阴入)	1	Low checked
5	Yang level (阳平)	55	High
6	Yang rising (阳伤)	35	Mid rising
7	Yang departing(阳去)	11	Low
8	Yang entering (阳入)	5	High checked

Table 2.23 Chaozhou or Teochew tones by Wikipedia (n.d.)

Tables 2.24 and 2.25 summarizes a comparison of previous Teochew studies in China and in Thailand respectively.

No.	Sources of Teochew spoken in China	Initial consonants	Vowels	Final consonants	Rhymes	Tones and their values
1	Guangdong Provincial Education Department (1960) [GPED]	17 phonemes p, p^h, t, t^h, t s, ts^h, k, k^h, b, g, m, n, ŋ, s, h,z, l	6 phonemes (5 orals & 1 nasal) i, e, a, o, u, ẽ	6 phonemes p, k, ʔ, m, n, ŋ	59 rhymes	8 tones 33, 53, 213, 21, 55, 35, 11, 4
2	Teochew dialect.net (n.d.)	18 phonemes p, ph, t, th, k, kh,ʔ, ^{m}b, ^{ŋ}g, m, n, ŋ, ts, tsh, s, ^{d}z, h, l	10 phonemes (6 orals & 4 nasals) i, ĩ, e, ẽ, ɯ, ɯ̃, a, ã, o, u	5 phonemes Similar to GPED except does not have /n/	61 rhymes	8 tones Similar to GPED except the tone values of 21 and 4 replace by 2 and 5 respectively
3	Hanyu Fangyin Zihui book 2 (Beijing University, 1985)	18 phonemes p, p^h, t, t^h, ts, ts^h, k, k^h, ø, b, g, m, n, ɲ, ŋ, s, h, z, l	11 phonemes (7 orals & 4 nasals) ɿ, i, ĩ, e, ẽ, ɯ, a, ã, o, õ, u	5 phonemes Similar to Teochew dialect.net	85 rhymes	8 tones Similar to GPED
4	Lee (1998)	20 phonemes p, ph, t, th, k, kh, ʔ, b, g, ts, tsh, s, z, h, m, n, ŋ, l, w, j	11 phonemes (7 orals & 4 nasals) i, ĩ, ɛ, ɛ̃, ɨ, ɨ̃, a, ã, ɔ, o, u	Did not mention	Did not mention	8 tones Similar to Teochew dialect.net
5	www.wikipedia.org	18 phonemes Similar to Teochew dialect. net. Except the phonemes /^{m}b/ /^{ŋ}g/ and /^{d}z/ are allophones of the sound /b/, /g/, /z/	Did not mention	5 phonemes Similar to Teochew dialect.net	Did not mention	8 tones 33, 52, 12, 1, 55, 35, 11, 5

Table 2.24 The comparison summary of previous Teochew studies in China

No.	Sources of Teochew spoken in Thailand	Initial consonants	Vowels	Final consonants	Tones and their values
1	Atchariyasucha, Wichet (1982) Bangkok	19 phonemes p, ph, t, th, k, kh, ʔ, b, g, ts, tsh, m, n, ŋ, s, h, l, w, j	9 phonemes (6orals & 3 nasals) i, ĩ, e, ẽ, ɯ, a, ã, u, o	5 phonemes Similar to Teochew dialect.net	6 tones Did not mention tone values
2	Gyarunsut, Pranee (1983) Bangkok	19 phonemes Similar to Atchariyasucha	11 phonemes (6 orals & 5 nasals) i, ĩ, e, ẽ, ɨ, a, ã, o, õ, u, ũ	7 phonemes p, k, ʔ, m, ŋ, w, j	6 tones 33, 11, 21, 51, 55, 24
3	Maneerat, Naparat (1983) Nakhorn Pathom	18 phonemes Similar to Atchariyasucha except does not have /w/	12 phonemes (8 orals & 4 nasals) /i, ĩ, e, ɛ, ɛ̃, ɯ, ɯ̃, a, ã, ɔ, o, u	5 phonemes p, t, k, m ŋ	6 tones Did not mention tone values
4	Chuwarahawong, Wilailuck (2000) Bangkok – Just studied about Tone	-	-	-	6 tones Male 32, 21, 11, 341, 44, 225 Female 32, 31, 11, 451, 44, 335
5	Eiampailin, Janida (2004) Bangkok	18 phonemes Similar to Maneerat	9 phonemes (6orals & 3 nasals) i, ĩ, e, ɛ̃, ɯ, a, ã, o, u	5 phonemes Similar to Teochew dialect.net	6 tones 33, 21, 51, 312, 45, 15

Table 2.25 The comparison summary of previous Teochew studies in Thailand

In summary the phonological researches of Teochew dialect include five researches studied in China, and four researches studied in Thailand. Previous studies of Teochew show that the consonants are the same although they vary in number. As the phonemes /w/ and /j/ can be analyzed either as consonant or vowel, the number of consonants and vowels is different. Moreover, wikipedia (n.d.) describes how the voiced stops and fricatives of Chaozhou or Teochew did not evolve from the Middle Chinese voiced obstruents, but from the Middle Chinese prenasalised stops instead. Therefore, the voiced stops [b] and [g] were originally [^{m}b] and [^{ŋ}g] respectively. The voiced alveolar affricate [^{d}z] was originally a fricative sound [z] in earlier Chaozhou and [^{d}z] still remains in some Chaoshan dialects.

The final consonant comparison of Teochew shows that there are eight researches; four in China and four in Thailand. Five of eight have 5 final consonants; / p, k, ʔ, m, ŋ / except the study made in China; Guangdong Provincial Education Department (1960) has 6 final consonants: / p, k, ʔ, m, ŋ / plus /n/ and two researches in Thailand; Gyarunsut (1983) has 7 final consonants: /p, k, ʔ, m, ŋ, w, j / and Maneerat (1983) has 5 final consonants: /p, t, k, m, ŋ /. Although Maneerat (1983) has 5 consonants, the same as most researches, the final consonant /t/ is not present in other researches but /ʔ/ instead. On the other hand, the phonemes /w/ and /j/ are semivowels which can be interpreted as a consonant or vowel.

There is considerable variety in Teochew vowel phonemes. Although the previous studies have different number of vowels, all studies have the nasalized vowels which are typical characteristics of Teochew dialect. The tones of previous researches can be divided into two groups: 8 tone group and 6 tone group as shown in tables 2.26 and 2.27:

Tone Number	Tone name	Pitch contour				
		Guang dong Provincial Education Department (1960)	Teochew dialect. net (n.d.)	Hanyu Fangyin Zihui book 2 (Beijing University, 1985)	Lee (1998)	www.wiki pedia.org
1	Yin level (阴平)	33	33	33	33	33
2	Yin rising(阴上)	53	53	53	53	52
3	Yin departing (阴去)	213	213	213	213	12
4	Yin entering (阴入)	21	2	21	2	1
5	Yang level (阳平)	55	55	55	55	55
6	Yang rising (阳伤)	35	35	35	35	35
7	Yang departing (阳去)	11	11	11	11	11
8	Yang entering (阳入)	4	5	4	5	5

Table 2.26 The 8 tones group of Teochew previous research comparison in China

Tone number	Tone description	Pitch contour					
		Atchari yasucha, Wichet (1982)	Gyarun sut, Pranee (1983)	Manee rat, Naparat (1983)	Chuwarahawong, Wilailuck (2000)		Eiam pailin, Janida (2004)
					Male	Female	
1	Mid level tone	Did not mention	33	Did not mention	32	32	33
2	High level tone		55		44	44	45
3	High falling tone		51		341	451	51
4	Low rising tone		24		225	335	15
5	Low level tone		11		11	11	21
6	Low-mid falling tone		21		21	31	312

Table 2.27 The 6 tones group of Teochew previous research comparison in Thailand

2.1.4 Hainanese dialect

There is one research describing the phonology of Hainanese in Thailand which is related to in this study as shown below:

Sotthirattanapan (1986) studied the phonology of the Hainanese language of Ko samui, Suratthani, Thailand. He found that Hainanese has eighteen consonants phonemes. All consonants except /p/ and /w/ can occur in the initial position and eight consonants can occur in the final position: /p, t, k, m, n, ŋ, w, j /as shown in table 2.28.

Point of Articulation / Manner of Articulation			Labial	Alveolar	Alveo-Palatal	Palatal	Velar	Glottal
Plosives (Stop)	Voiceless	Unaspirated	-p	-t-			-k-	ʔ-
		Aspirated	ph-				kh-	
	Voiced		b-	d-		g-		
Nasals	Voiced		-m-	-n-			-ŋ-	
Affricates	Voiceless	Unaspirated			c-			
Fricatives	Voiceless			s-				h-
Lateral	Voiced			l-				
Semi vowel	Voiceless		-w		-j-			

Table 2.28 The consonants phonemes of Hainanese by Sotthirattanapan (1986, p. 36)

There are five pure vowels and three diphthongs as shown in tables 2.29 and 2.30.

Point of the tongue Tongue / Height	Front Unrounded	Central Unrounded	Oral Vowel
	Oral vowel	Oral vowel	Oral vowel
High	i		u
Mid	e		o
Low		a	

Table 2.29 The five pure vowels of Hainanese by Sotthirattanapan (1986, p. 59)

Position of the tongue / Tongue height	Lip-unrounded		Lip-rounded
	Front	Central	Back
High	i		u
			o
Low		a	

Table 2.30 The three diphthongs of Hainanese by Sotthirattanapan (1986, p. 65)

Hainanese tone of Sotthirattanapan, Arthit has seven tones as follow:

Tone 1	Low level tone	[22]
Tone 2	Mid level tone	[33]
Tone 3	Low rising tone	[23]
Tone 4	High falling tone	[41]
Tone 5	Mid falling tone	[31]
Tone 6	Low falling tone	[21]
Tone 7	Mid rising falling tone	[354]

2.1.5 Hokkien dialect

There is one research describing the phonology of Hokkien in Thailand which is related to this study as shown below:

Gyarunsut (1983) says that the phonological systems of Hokkien can be divided into three parts: they are consonant, vowel, and tone.There are 19 consonants phonemes: /p, ph, t, th, k, kh, ʔ, b, g, ts, tsh, s, h, m, n, ŋ, l, w, j /. All   consonants phonemes   except   /w/ and   /j/   can   occur   in   syllable   initial   position. /p , t, k , ʔ , m , n, ŋ, w, j /can occur in final syllable. Hokkien dialect has 12 vowel phonemes of which 8 oral vowels are /i, e, ɯ, ə, a, ɔ, o, u/ and 4 nasal vowels are /ĩ, ẽ, ã, ũ/. Hokkien dialect has 7 diphthongs: /ia/, /ĩa/, /io/, /iɔ/, /ue/, /ua/, and /ũa/. There are 5 tones as shown below:

a. Mid level tone	[33]		b. Mid falling tone	[32]
c. High falling tone	[51]		d. High level tone	[55]
e. Low rising tone	[25]			

2.1.6 Cantonese dialect

There are three studies which describe the phonology of Cantonese dialect, all of which were made abroad. In Thailand, nobody has worked on the phonology of Cantonese. The three researches are reviewed below:

Bauer and Benedict (1997) describe the phonology of Cantonese dialect which is divided into three parts; consonant, vowels, and tones.Cantonese dialect has nineteen consonant phonemes. The consonants which can occur in the final position are /p, t, k, m, n, ŋ, w, j/. Moreover, Cantonese has two syllabics which are /m̩, ŋ̍/. The initial consonants of Cantonese are shown in table 2.31:

Point of Articulation / Manner of Articulation			Labial	Labio Dental	Alveo lar	Palatal	Velar	Glot tal
Plosives (Stop)	Voice less	Unaspirated	p		t		k , kʷ	
		Aspirated	ph		th		kʰ , kʷʰ	
Affricates	Voice less	Unaspirated				tʃ		
		Aspirated				tʃh		
Fricatives	Voiceless			f	ʃ			h
Nasals	Voiced		m		n		ŋ	
Laterals	Voiced				l			
Approxi mants	Voiced		w			j		

Table 2.31 Cantonese initial consonants by Bauer and Benedict (1997)

Vowels of Cantonese dialect has eleven vowels: four short vowels and seven long vowels as shown in table 2.32:

	Front		Central		Back
	Unrounded	Rounded	Unrounded	Rounded	Rounded
High	ii	yy			uu
Mid	e	ø			o
Low	εε	œœ	a	aa	ɔɔ

Table 2.32 Cantonese vowels by Bauer and Benedict (1997)

There are seven tones in Cantonese dialect as shown below:

Tone 1	High falling tone	[53]
Tone 2	High level tone	[55]
Tone 3	Low falling tone	[21]
Tone 4	High rising tone	[25]
Tone 5	Low rising tone	[23]
Tone 6	Mid level tone	[33]
Tone 7	Low level tone	[22]

Lo and Tam (1996) show the phonology of Cantonese that there are nineteen initial consonants: /p, ph, t, th, k, kh, ts, dz, kw, khw, m, n, ŋ, f, l, h, s, j, w/. The vowel of Cantonese has fifty one rhymes as shown in chart 2.10:

aː	aːi	aːu	aːm	aːn	aːŋ	aːp	aːt	aːk
	ai	au	am	an	aŋ	ap	at	ak
ɛː					ɛːŋ			ɛːk
	ei							
œː					œːŋ			œːk
	œi			œn			œt	
iː	iːu		iːm	iːn	iːŋ	iːp	iːt	iːk
o		ou						
	oːi			oːn	oːŋ		oːt	oːk
u	uːi			uːn	uːŋ		uːt	uːk
yː				yːn			yːt	

Chart 2.10 The rhymes of Cantonese by Lo and Tam (1996)

There are seven tones of Cantonese as shown below:

Tone 1	High falling tone	Tone 2	High level tone
Tone 3	Low falling tone	Tone 4	High rising tone
Tone 5	Low rising tone	Tone 6	Mid level tone
Tone 7	Low level tone		

Tse (1991) says that the vowel of Cantonese include eleven vowels: /i, y, ɛ, ɔ, œ, ɒ, u, ʊ, e, ɑ, ɪ / and ten diphthongs: /ɒi, ɑi, ɒu, ɑu, ei, ey, ɔi, ui, iu, ou/.

2.2 Literature Review on Language distribution and Language Map in Thailand

The literature review in this section is related to Chapter 5. The terms that are used in the studies of language distribution and language map are defined below:

Language geography is the branch of human geography that studies the geographic distribution of language or its constituent elements. There are two principal fields of study within the geography of language: the "geography of language", which is related to the distribution history and space of language (Delgado de Carvalho, 1962) and "linguistic geography", which studies regional linguistic variations within languages (Pei, 1966), (Trudgill, 1974, 1975, 1983).

Linguistic geography or dialect geography is a branch of linguistics that involves the study of regional variations of speech forms. Dialect geography deals with atlases showing patterns of distribution for a series of varying feature within a language: such work on the geographic patterns of linguistic variation is also known as linguistic geography (Free dictionary by Farlex (n.d.) www.thefreedictionary.com and Encyclopedia Britannica (n.d.).

Language Map displays linguistic variation such as phonological and lexical variation. Language Map displays such information as the names of villages where languages are spoken, the number of speakers, the number of villages by Burusphat (2000, p. 195). Some samples of language maps are shown below.

According to Delaney (2000), a dialect map of American English below lists the major (and a few minor) geographic dialects and subdialects of English spoken in the United States. Many of these may be further subdivided into local subdialects that are not shown here. Obviously, the borders between dialects regions are not well defined lines as a map like this would imply, but a gradual transition extending on both sides of the line.
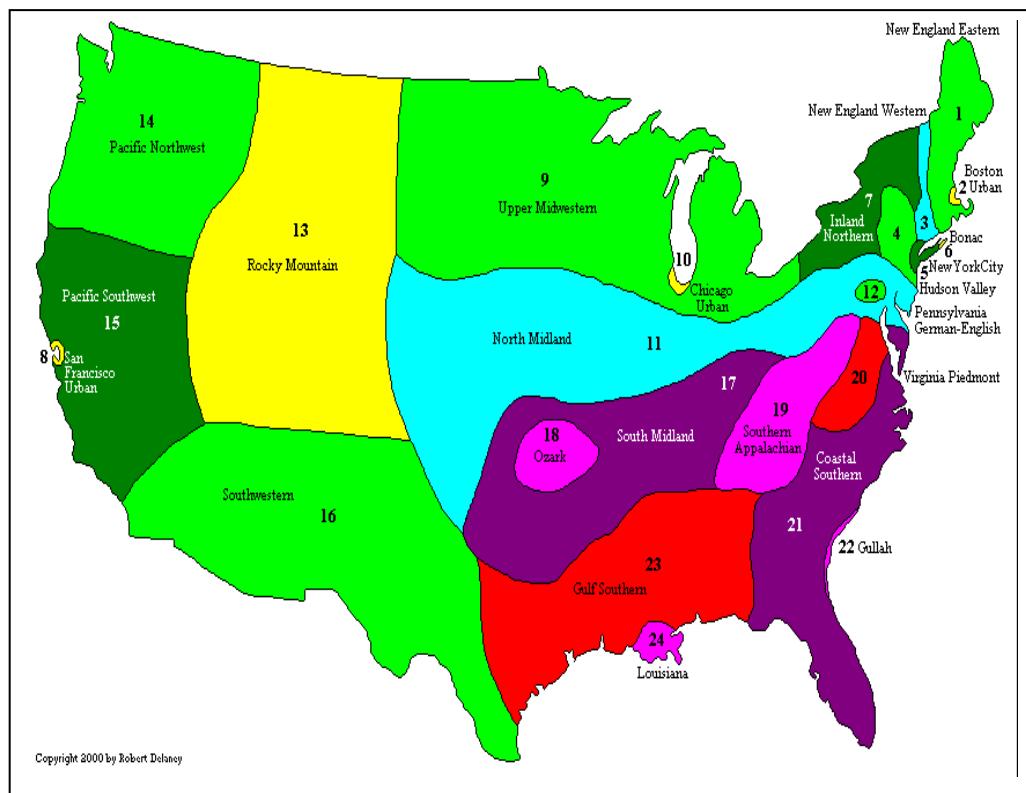
Map 2.1   Dialects and Subdialects of American English in the 48 conterminous
            states by Delaney (2000)

The language map 2.2 below shows the dominant languages per municipality in South Africa as gathered with the national census in 2001.
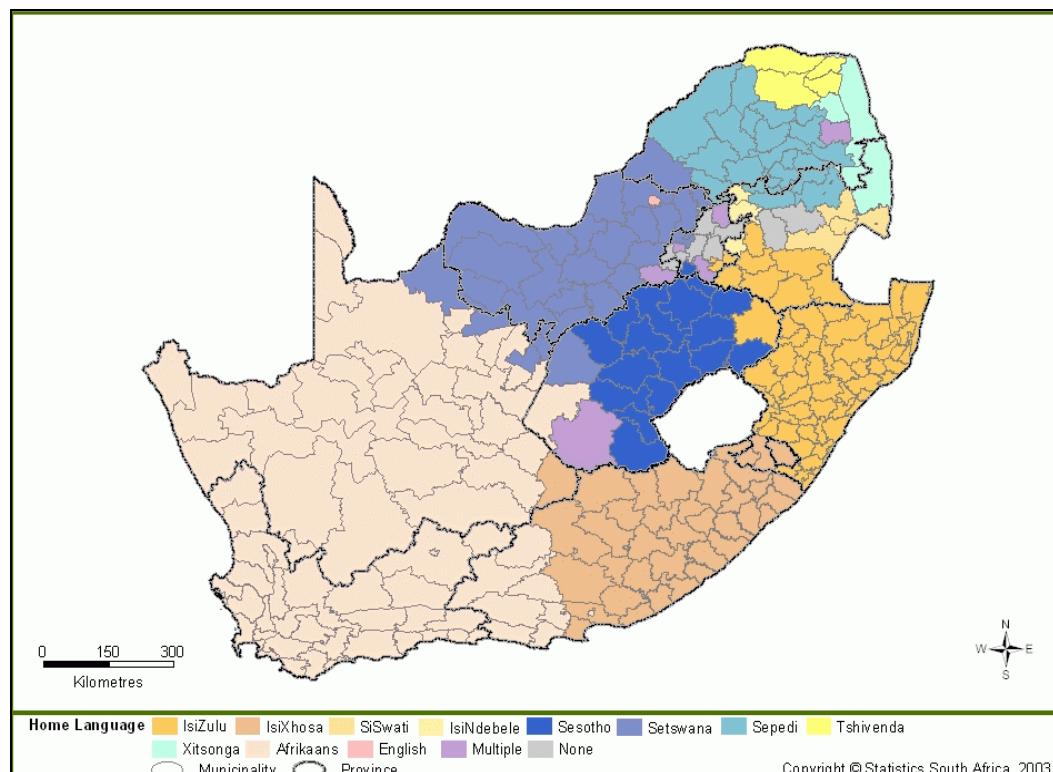
Map 2.2   The language distribution map of South Africa from Statistics South Africa (2003)

The language map of Switzerland by Tschubby (2009) shows that the linguistic geography of Switzerland is in the main tripartite, with the Swiss German region in the northeast, the Swiss French part in the west and the Swiss Italian area in the south. It remains a small Romansh speaking native population in Grischum.
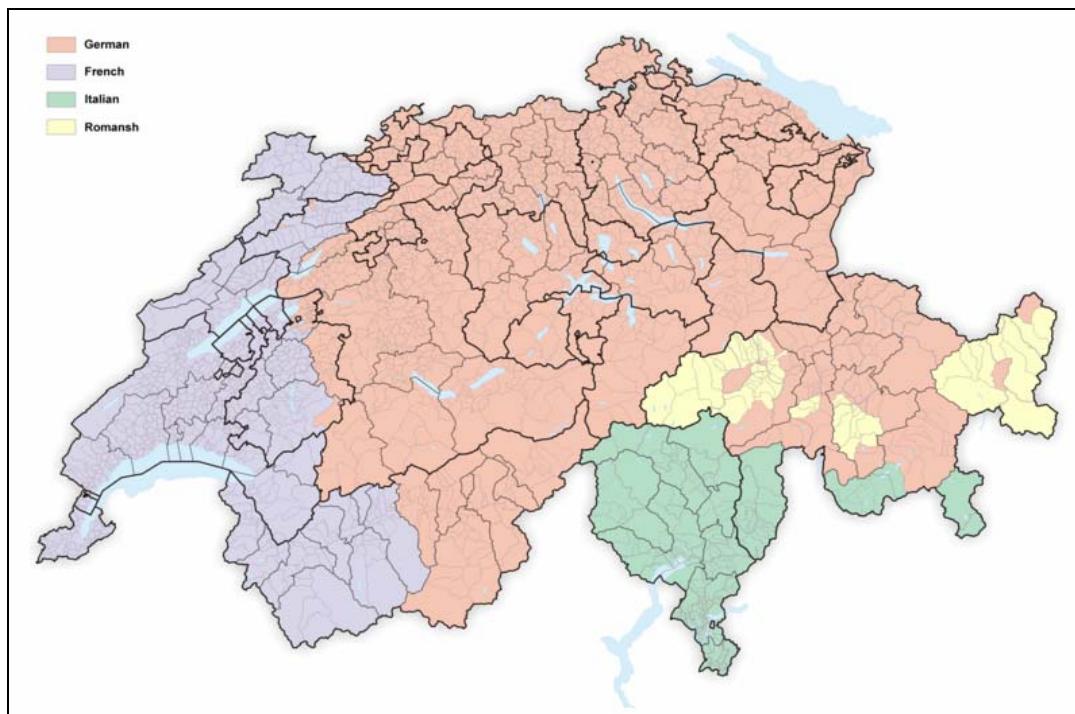
Map 2.3   Language of Switzerland Map from Tschubby (2009)
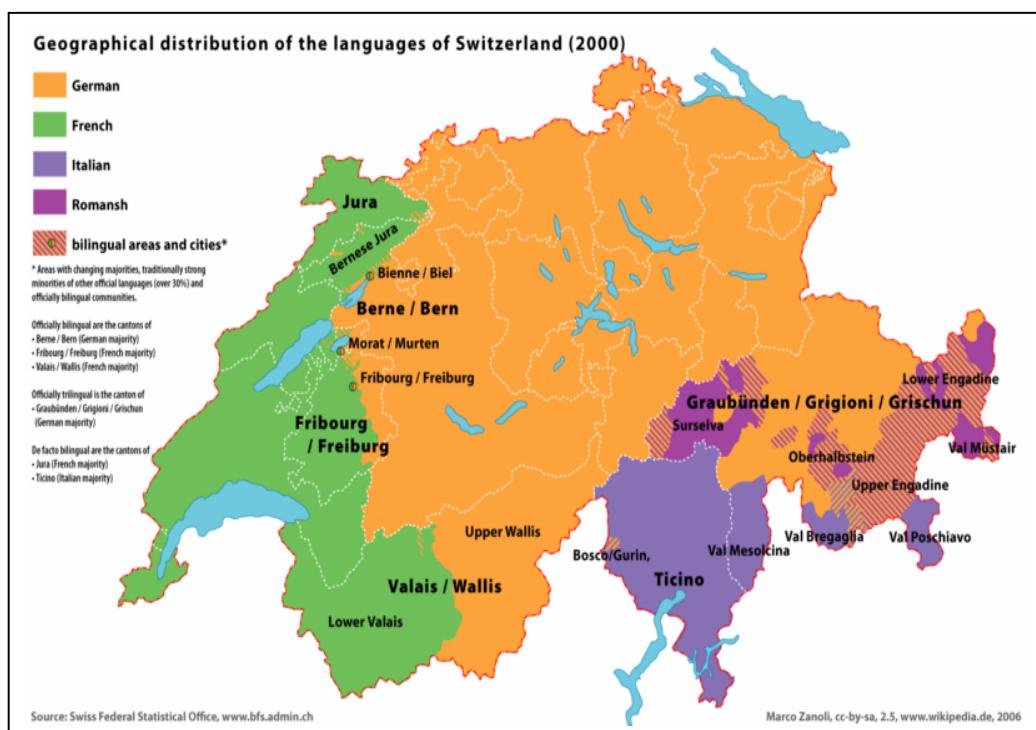
Map 2.4   Geographical distribution of the languages of Switzerland (2000) by
              Zanoli (2000)

Map 2.5   Distribution of Slavic languages from freelang.net (n.d.)

The literature review on Language distribution and Language Map in Thailand is as follows:

Gainey and L.Thongkum (1977) describes the methodology of Language Map conducted in Thailand in the Language Map of Thailand Handbook which covers all minority groups in Thailand including Haw or Yunnanese.

Premsrirat (2004) describes the Ethnolinguistic Maps of Thailand. This research was undertaken to provide a language database and to act a point of reference in mapping the distribution of Ethnolinguistic group in Thailand. This research presents the distribution of more than 60 languages belonging to 5 language families (the Tai-Kadai, Austro-Asiatic, Sino-Tibetan, Hmong-Mien and Austronesian). The language distribution is displayed by the different geo-political level of 76 provinces and four regions. Map 2.6 displays the language map of Thailand.
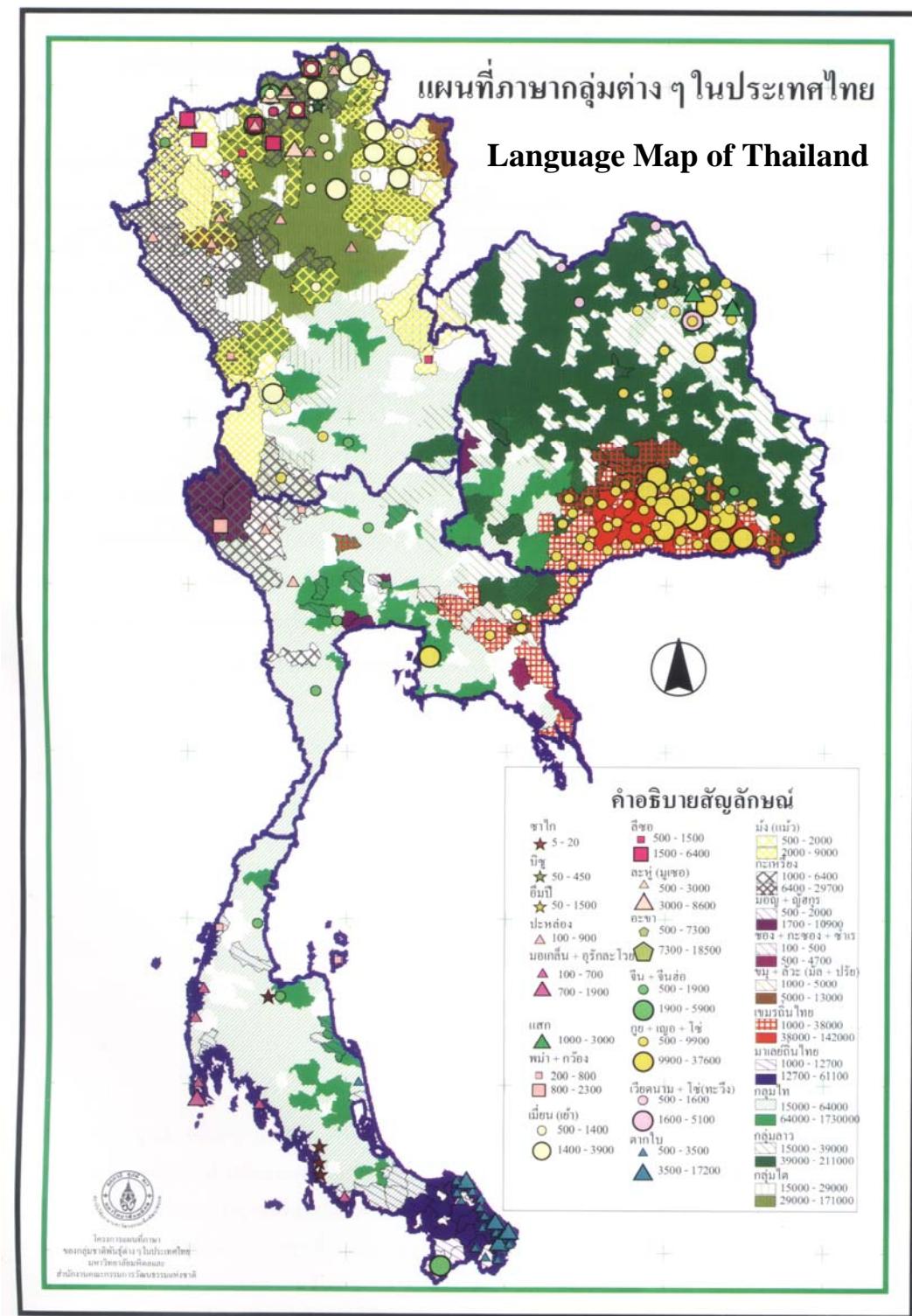
Map 2.6   The language map of Thailand adapted from Premsrirat (2004)

Although this research presents all Ethnolinguistic groups in Thailand as shown on maps, it does not cover all Chinese dialects. Only Yunnanese or Haw and a few of Chinese are shown on the maps. Map 2.7 presents the places of Chinese dialects are spoken in Thailand and map 2.8 presents the places of Yunnanese or Haw is used in Thailand.
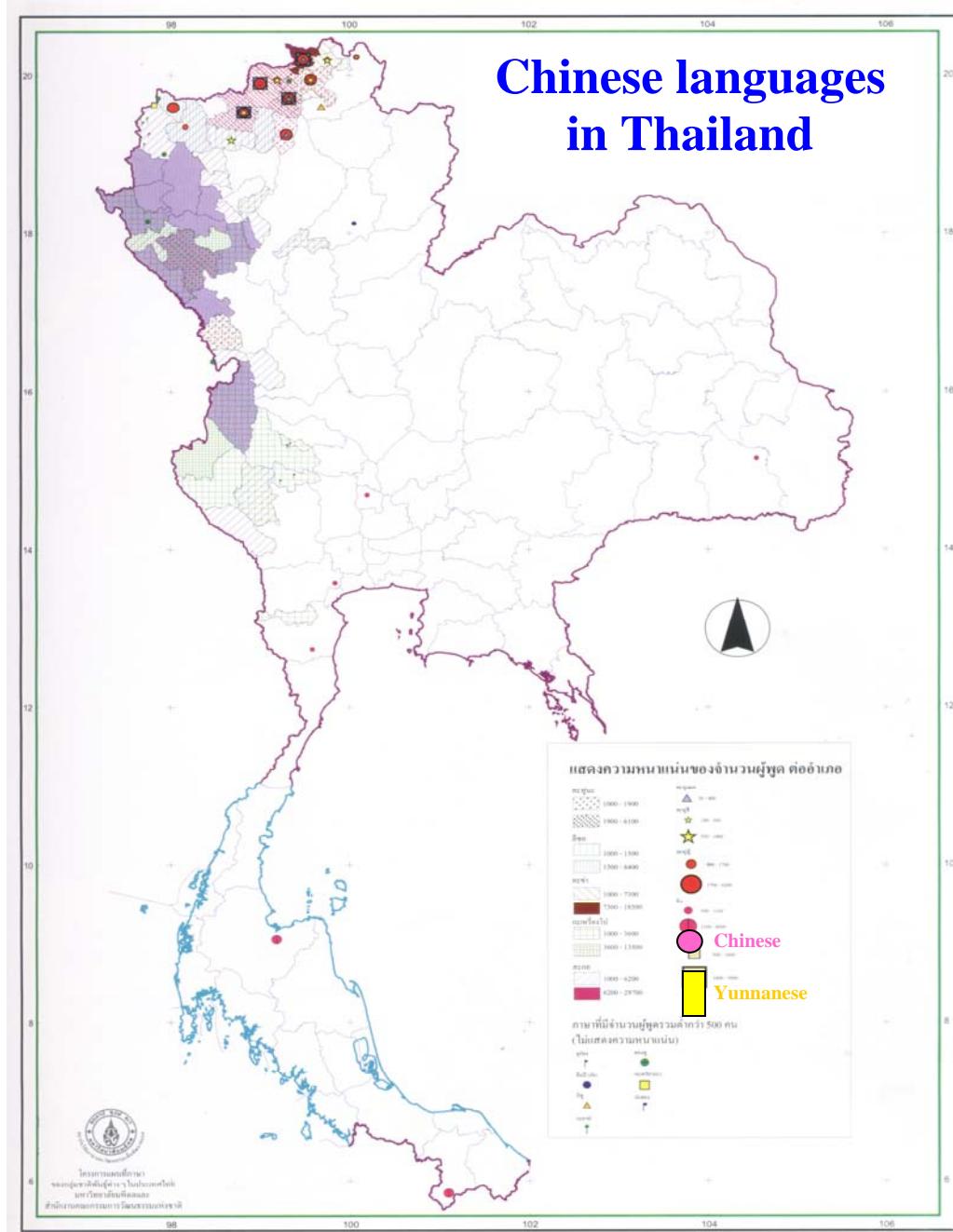
Map 2.7   Chinese languages in Thailand adapted from Premsrirat (2004)

Map 2.7 presents the places of Chinese language are used in Thailand. The pink circle represents Chinese language (five dialects except Yunnanese) and the green-yellow square is Yunnanese in Thailand.
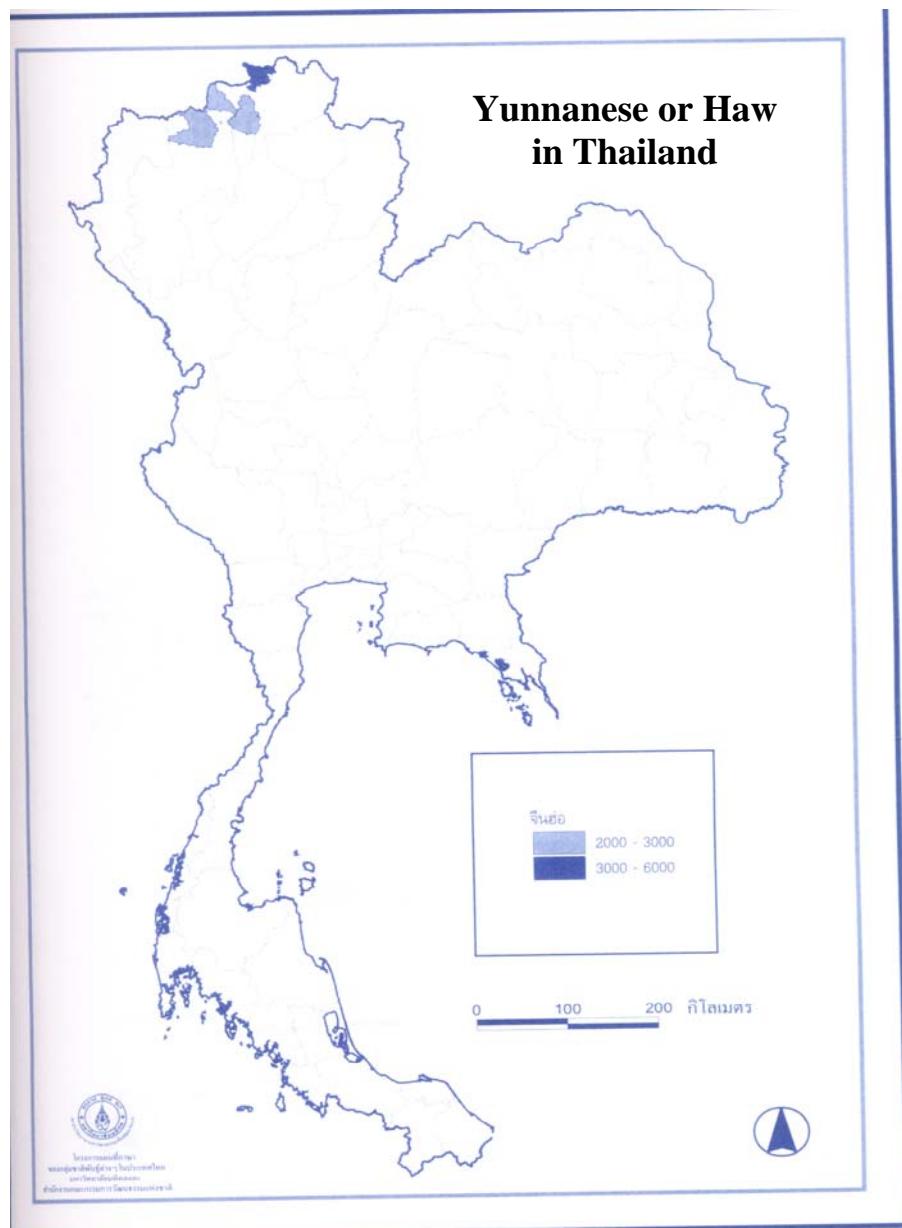
Map 2.8   Yunnanese or Haw in Thailand adapted from Premsrirat (2004)

Map 2.8 presents Yunnanese or Haw living in Chiang Rai and Chiang Mai of Thailand, shown in blue color. The light blue color means there are 2000-3000 people of Yunnanese, and the dark blue represents 3000 – 6000 Yunnanese people.

2.3 The summary of the existing research of Chinese dialects in Thailand and the contribution of this study

From the existing studies of phonology of Chinese dialects and language distribution and language map especially in Thailand, there are fourteen researches relating to the phonology of Chinese dialects in Thailand which can be divided into five groups as shown in table 2.33:

Chinese dialect in Thailand	Research total	Researcher	Place in Thailand	Region of Thailand
Yunnanese	2	Poonwathu, Panchai (1984)	Baan Paang Saa, Mae Chan district, Chiang Rai	Northern
		Cheloh, Aminah (2009)	Doi Mae Salong, Chiang Rai	
Hakka	5	Wongwantanee, Pratoom (1984)	Phra Pathom, Muang district, Nakhon Prathom	Central
		SoBha, Jurairat (2001)	Muang district, Ratchaburi	
		Saengtummachai, Wandee (2003)	Bangkok	
		Ungsitiponporn, Siripen (2007)	Bangkok	
		Shiwaruangrote, Nitasakorn (2008)	Pathum Thani	
Teochew	5	Atchariyasucha, Wichet (1982)	Bangkok	Central
		Gyarunsut, Pranee (1983)	Bangkok	
		Maneerat, Napharat (1983)	Nakhon Prathom	
		Chuwarahawong, Wilailak (2000)	Bangkok	
		Eiampailin, Janida (2004)	Bangkok	
Hainanese	1	Sotthirattanapan, Arthit (1986)	Ko Samui, Suratthani	Southern
Hokkien	1	Gyarunsut, Pranee (1983)	Bangkok	Central

Table 2.33 The previous researches of Chinese dialects phonologies of Thailand

Table 2.33 presents the previous researches of Chinese dialects in the six provinces of three regions of Thailand as shown in map 2.9:
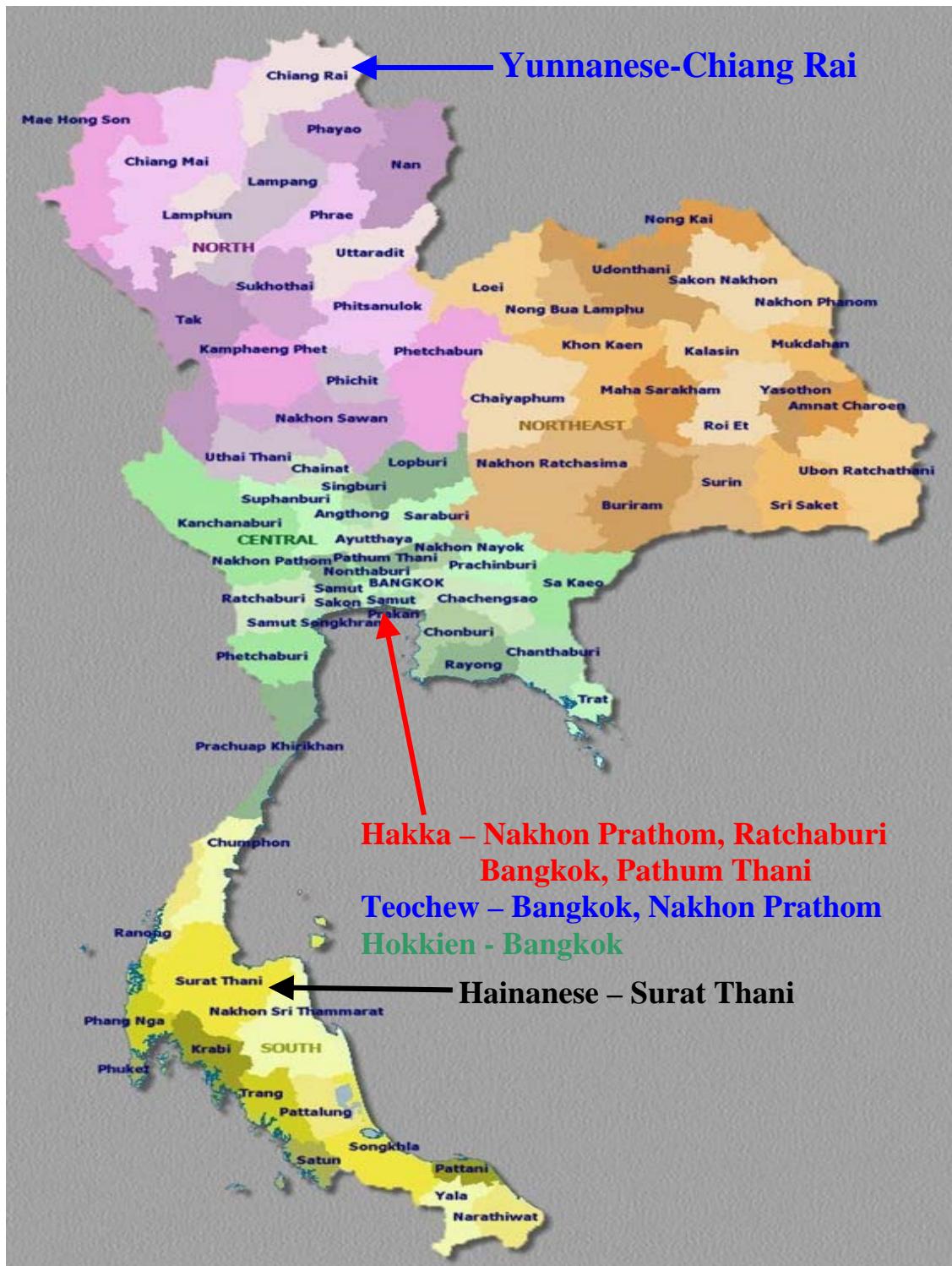
Map 2.9   Location of the previous researches of Chinese dialects in Thailand
             adapted from KIS International School (n.d.)

From the previous researches done in Thailand, Chinese phonology has been studied with respect to five dialects: Yunnanese, Hakka, Teochew, Hainanese and Hokkien. Nobody studies Cantonese phonology in Thailand. Moreover, existing Chinese phonology researches have been conducted in only six provinces which do not cover all of Chinese settlements in Thailand. Fourteen researches of five Chinese dialects studied in six provinces are shown in table 2.33. The Ethnolinguistic Maps of Thailand includes only Yunnanese or Haw. The previous researches of Chinese dialect phonology focus on the Chinese dialects spoken in particular areas and do not cover all of Thailand. The existing researches contribute to an incomplete jigsaw with gaps yet to be filled. Moreover, there have been no studies providing an overall picture of the distribution of Chinese dialects spoken in Thailand. This thesis is of interest, because it will help complete the jigsaw and fill the missing gaps. Therefore the objective of this thesis is to study the distribution and phonological characteristics of Chinese dialects throughout the entire country of Thailand, and to present an overall picture of Chinese dialects in Thailand. This thesis presents the phonology of Chinese dialects and draws a Chinese language map of Thailand. In addition, this thesis presents the distribution and location of settlement and movement of Chinese people in Thailand which can be helpful for further Chinese related researches and studies on language and culture, society, anthropology, economy, and so on.

CHAPTER III
METHODOLOGY

The procedure of the research includes four parts: 1) Preparation, 2) Data collection, 3) Data analysis, and 4) Presentation.

3.1 Preparation

3.1.1 Related literature survey

It was necessary for the researcher to study all available information about the phonology of Chinese dialects spoken in Thailand and where Chinese people have been living in Thailand. The survey of related literature can be found in many university libraries. In addition, some information has been listed from the internet.

3.1.2 Location of study

The location of this study is the provinces of Thailand where descendants of Chinese dialect speakers have been living. This study focuses on Muang district or the district which is the center of Chinese communities, where most Chinese people work as merchants. Moreover Smalley (1994, p.203-214) states that "Chinese language in Thailand is languages of towns and cities which are spoken by Chinese descendants such as Teochew, Hainanese, Cantonese, Hokkien and Hakka." The data for the study come from two sources: The first is from previous researches, documents, and internet, and the second is from the interview of the manager of the Chinese dialect Association in Thailand. Thailand has seventy-six provinces which are divided into five regions; Northern, Northeastern, Center, Eastern and Southern. The data collection will be done in 53 provinces where six Chinese dialects reside. The 53 provinces are as follows:

- Four provinces of Yunnanese:

Chiang Mai	Chiang Rai	Lampang	Mae Hong Son

- Twenty-nine provinces of Hakka:

Chiang Mai	Chiang Rai	Lampang	Nakhon Sawan
Nan	Phitsanulok	Phrae	Uttaradit
Buri Ram	Khon Kaen	Nakhonratchasima	Surin
Ubon Ratchathani	Udon Thani	Bangkok	Kanchanaburi
Nakhon Pathom	Nonthaburi	Pathum Thani	Phetchaburi
Ayutthaya	Ratchaburi	Saraburi	Rayong
Chumphon	Songkhla	Surat Thani	Trang
Yala			

- Twenty-three provinces of Teochew:

Chiang Mai	Nakhon Sawan	Phichit	Phitsanulok
Sukhothai	Tak	Nakhonratchasima	Nokhon Phanom
Ubon Ratchathani	Udon Thani	Yasothon	Bangkok
Chachoengsao	Nakhon Nayok	Nakhon Pathom	Nonthaburi
Pathum Thani	Ayutthaya	Saraburi	Chon Buri
Phuket	Songkhla	Yala	

- Thirty-seven provinces of Hainanese:

Chiang Mai	Lampang	Lamphun	Nakhon Sawan
Phayao	Phichit	Phitsanulok	Phrae
Sukhothai	Uthai Thani	Uttaradit	Khon Kaen
Nakhonratchasima	Angthong	Bangkok	Kanchanaburi
Nakhon Nayok	Phetchaburi	Ayutthaya	Prachin Buri
Ratchaburi	Sa Kaeo	Saraburi	Chantaburi
Chon Buri	Rayong	Chumphon	Narathiwat
Nakhonsithammarat	Pattani	Phangnga	Phuket
Ranong	Songkhla	Surat Thani	Trang
Yala			

- Nine provinces of Hakkien:

Bangkok	Nakhonsithammarat	Phangnga	Phuket
Ranong	Songkhla	Surat Thani	Trang
Yala			

- Seventeen provinces of Cantonese:

Chiang Mai	Lamphun	Nakhon Sawan	Phitsanulok
Sukhothai	Tak	Khon Kaen	Nakhonratchasima
Sakon Nakhon	Bangkok	Pattani	Phatthalung
Phuket	Songkhla	Surat Thani	Trang
Yala			

3.1.3 Informant selection

All of the informants are Chinese descendants whose ages are more than forty years old. They live in Muang district or the district which is the centre of each province of Thailand and are able to communicate in their language. The selected informant was the main informant for the particular dialect chosen for each province. The total numbers of the informants will be studied are 119, shown in table 3.1:

Part of Thailand	Yunnanese	Hakka	Teochew	Hainanese	Hokkien	Cantonese	Total
Northern	4	8	6	11	-	6	35
North Eastern	-	6	5	2	-	3	16
Central	-	9	8	10	1	1	29
Eastern	-	1	1	3	-	-	5
Southern	-	5	3	11	8	7	34
Total	4	29	23	37	9	17	119

Table 3.1   The total numbers of the informants will be studied

Informants are selected according to the following criteria:

3.1.3.1 They are Yunnanese, Hakka, Teochew, Hainanese, Hokkien, and Cantonese descendants who have been living in Thailand.

3.1.3.2 They understand both Thai and their Chinese languages.

3.1.3.3 Their ages are over forty years old because the
researcher found that most informants whose ages
are over forty years old can speak their language
well and better than new generation speakers.

3.1.3.4 They should have a complete set of articulators to
pronounce the sounds correctly and clearly.

3.1.3.5 They have normal hearing ability.

After field work this study found that there are many provinces where
Chinese descendants can not speak their language. Finally the total numbers of the
informants after field work are 136 as shown in table 3.2.

Part of Thailand	Yun nanese	Hakka	Teo chew	Hai nanese	Hok kien	Hok chew	Canto nese	Guang sai	Total
Northern	8	13	7	9	1	-	5	-	43
North Eastern	-	6	7	4	-	-	1	-	18
Central	2	12	10	6	2	-	1	1	34
Eastern	-	1	2	1	-	1	-	-	5
Southern	-	9	3	8	7	1	6	2	37
Total	10	41	29	28	10	2	13	3	136

Table 3.2   The total numbers of the informants after field work

3.2 Data Collection

3.2.1 Place of data collection

The place of data collection will be done in the areas where Chinese
descendents are living at present. The place of data collection covers both the old
settlement and current settlement because the researcher wants to study the movement
of their immigration. Moreover, the data collection places are Chinese communities
where many members live in each community of every province of Thailand, and a
Chinese shrine is at the center of their community and culture. From the location of the
study, the data collection will be done in 53 provinces as shown in table 3.3.

Part of Thailand	No.	The province will be done in this study	Province	Yun nanese	Hakka	Teo chew	Hai nanese	Hok kien	Can tonese	Total of infor mants
Northern	1	1	Chiang Mai	1	1	1	1		1	5
	2	2	Chiang Rai	1	1					2
	3		Kamphaeng Phet							-
	4	3	Lampang	1	1		1			3
	5	4	Lamphun				1		1	2
	6	5	Mae Hong Son	1						1
	7	6	Nakhon Sawan		1	1	1		1	4
	8	7	Nan		1					1
	9	8	Phayao				1			1
	10		Phetchabun							-
	11	9	Phichit			1	1			2
	12	10	Phitsanulok			1	1	1		1	4
	13	11	Phrae		1		1			2
	14	12	Sukhothai			1	1		1	3
	15	13	Tak			1			1	2
	16	14	Uthai Thani				1			1
	17	15	Uttaradit		1		1			2
North- eastern	18		Amnat Charoen							-
	19	16	Buri Ram		1					1
	20		Chaiyaphum							-
	21		Kalasin							-
	22	17	Khon Kaen		1		1		1	3
	23		Loei							-
	24		Maha Sarakham							-
	25		Mukdahan							-
	26	18	Nakhon Ratchasima		1	1	1		1	4
	27	19	Nakhon Phanom			1				1
	28		Nong Bua Lam Phu							-
	29		Nong Khai							-
	30		Roi Et							-
	31	20	Sakon Nakhon						1	1
	32		Si Sa Ket							-
	33	21	Surin		1					1
	34	22	Ubon Ratchathani		1	1				2
	35	23	Udon Thani		1	1				2
	36	24	Yasothon			1				1

Table 3.3   The total numbers of locations and informants will be done in this study

Part of Thailand	No.	The province will be done in this study	Province	Yun nanese	Hakka	Teo chew	Hai nanese	Hok kien	Can tonese	Total of inform ants
Central	37	25	Angthong				1			1
	38	26	Bangkok		1	1	1	1	1	5
	39	27	Chachoengsao			1				1
	40		Chai Nat							-
	41	28	Kanchanaburi		1		1			2
	42		Lop Buri							-
	43	29	Nakhon Nayok			1	1			2
	44	30	Nakhon Pathom		1	1				2
	45	31	Nonthaburi		1	1				2
	46	32	Pathum Thani		1	1				2
	47	33	Phetchaburi		1		1			2
	48	34	Ayutthaya		1	1	1			3
	49	35	Prachin Buri				1			1
	50		Prachuap Khiri Khan							-
	51	36	Ratchaburi		1		1			2
	52	37	Sa Kaeo				1			1
	53		Samut Prakan							-
	54		Samut Sakhon							-
	55		Samut Songkhram							-
	56	38	Saraburi		1	1	1			3
	57		Singburi							-
	58		Suphan Buri							-
Eastern	59	39	Chantaburi				1			1
	60	40	Chon Buri			1	1			2
	61	41	Rayong		1		1			2
	62		Trat							-
Southern	63	42	Chumphon		1		1			2
	64		Krabi							-
	65	43	Nakhon Si Thammarat				1	1		2
	66	44	Narathiwat				1			1
	67	45	Pattani				1		1	2
	68	46	Phangnga				1	1		2
	69	47	Phatthalung						1	1
	70	48	Phuket			1	1	1	1	4
	71	49	Ranong				1	1		2
	72		Satun							-
	73	50	Songkhla		1	1	1	1	1	5
	74	51	Surat Thani		1		1	1	1	4
	75	52	Trang		1		1	1	1	4
	76	53	Yala		1	1	1	1	1	5
Total		53 provinces of Thailand		4	29	23	37	9	17	119

Table 3.3   The total numbers of locations and informants will be done in this study (cont.)

3.2.2. Instruments

3.2.2.1 Integrated circuit recorder (IC Recorder)

3.2.2.2 Notebook computer and handy drive

3.2.2.3 Automatic camera

3.2.2.4 Computer software program PRAAT

3.2.2.5 The map of Thailand by KIS International School (n.d.)
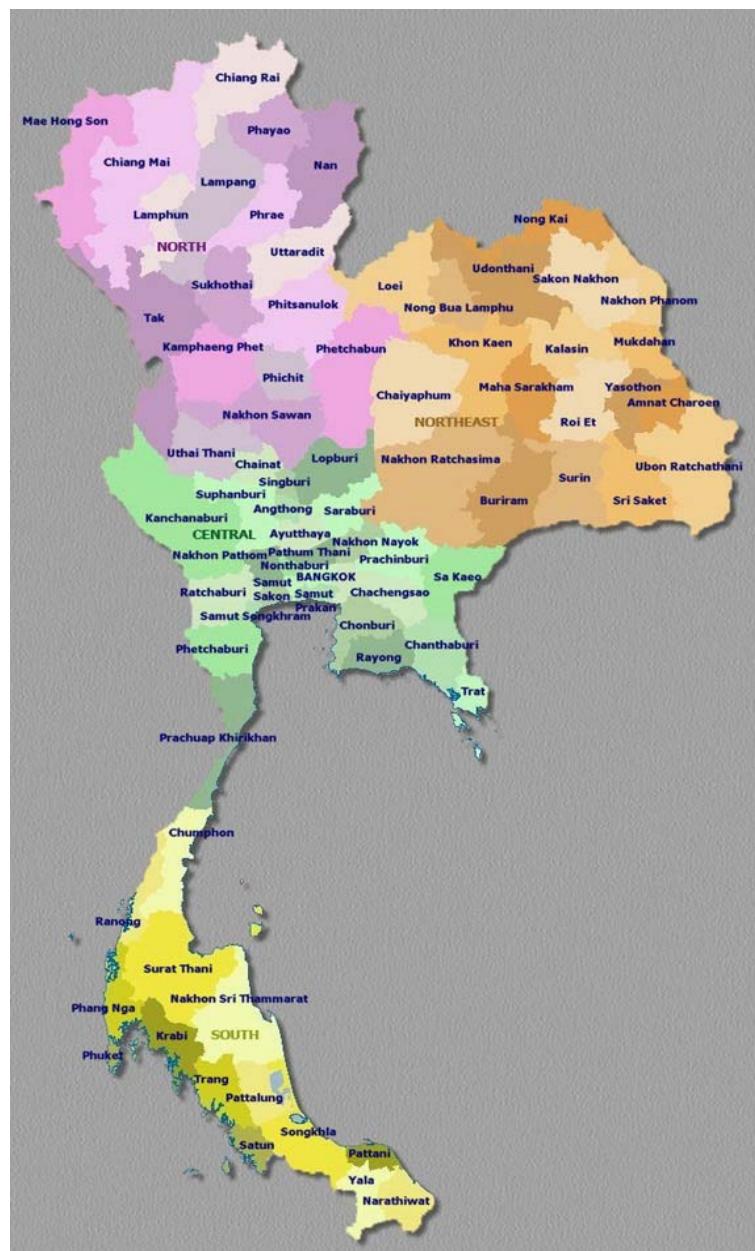
Map 3.1   The map of Thailand from KIS International School (n.d.)

The places of data collection of six Chinese dialects in Thailand listed in table 3.3 are displayed on maps 3.2 – 3.7 below:
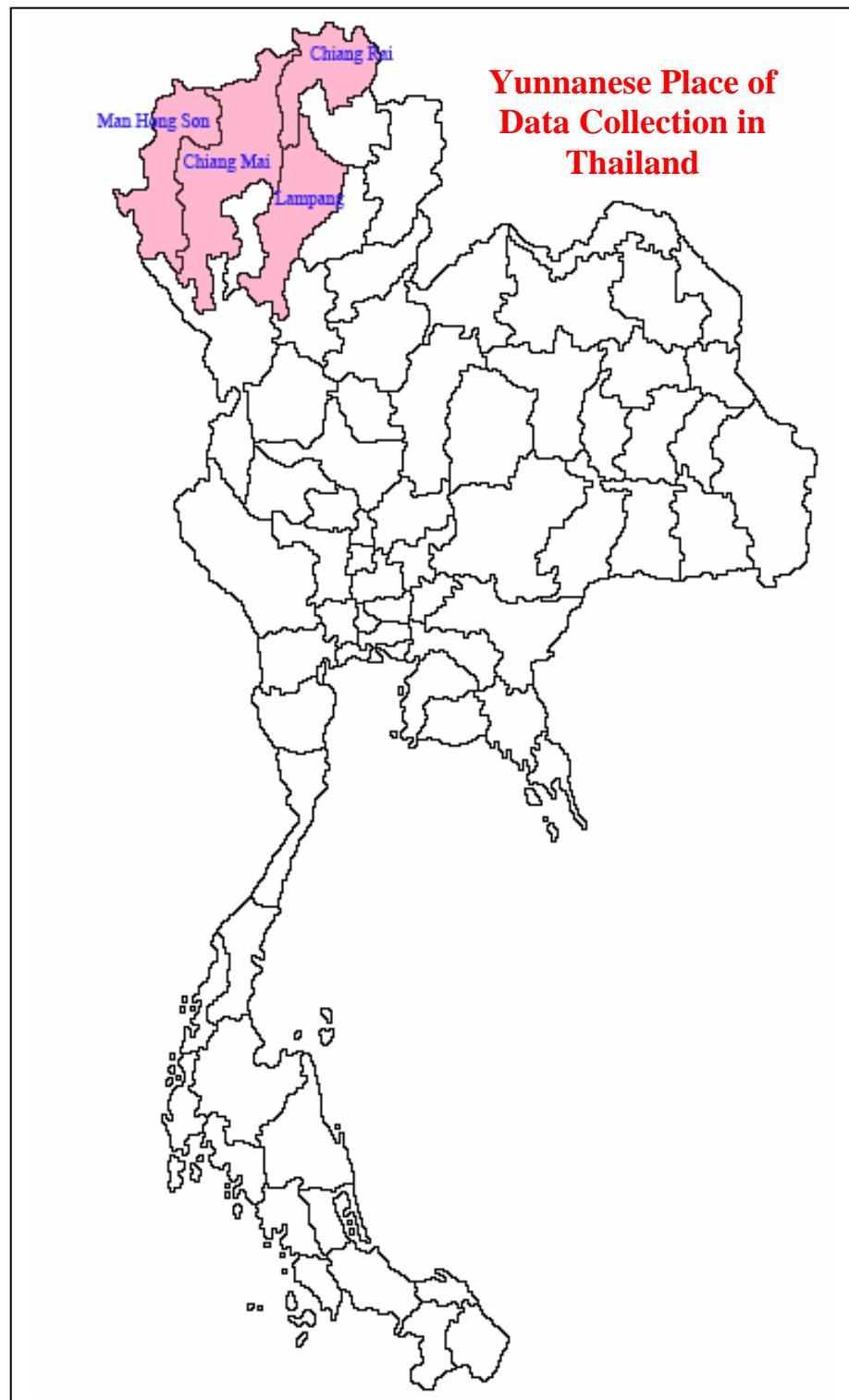
Map 3.2   Yunnanese place of data collection in Thailand adapted from Nectec (n.d.)
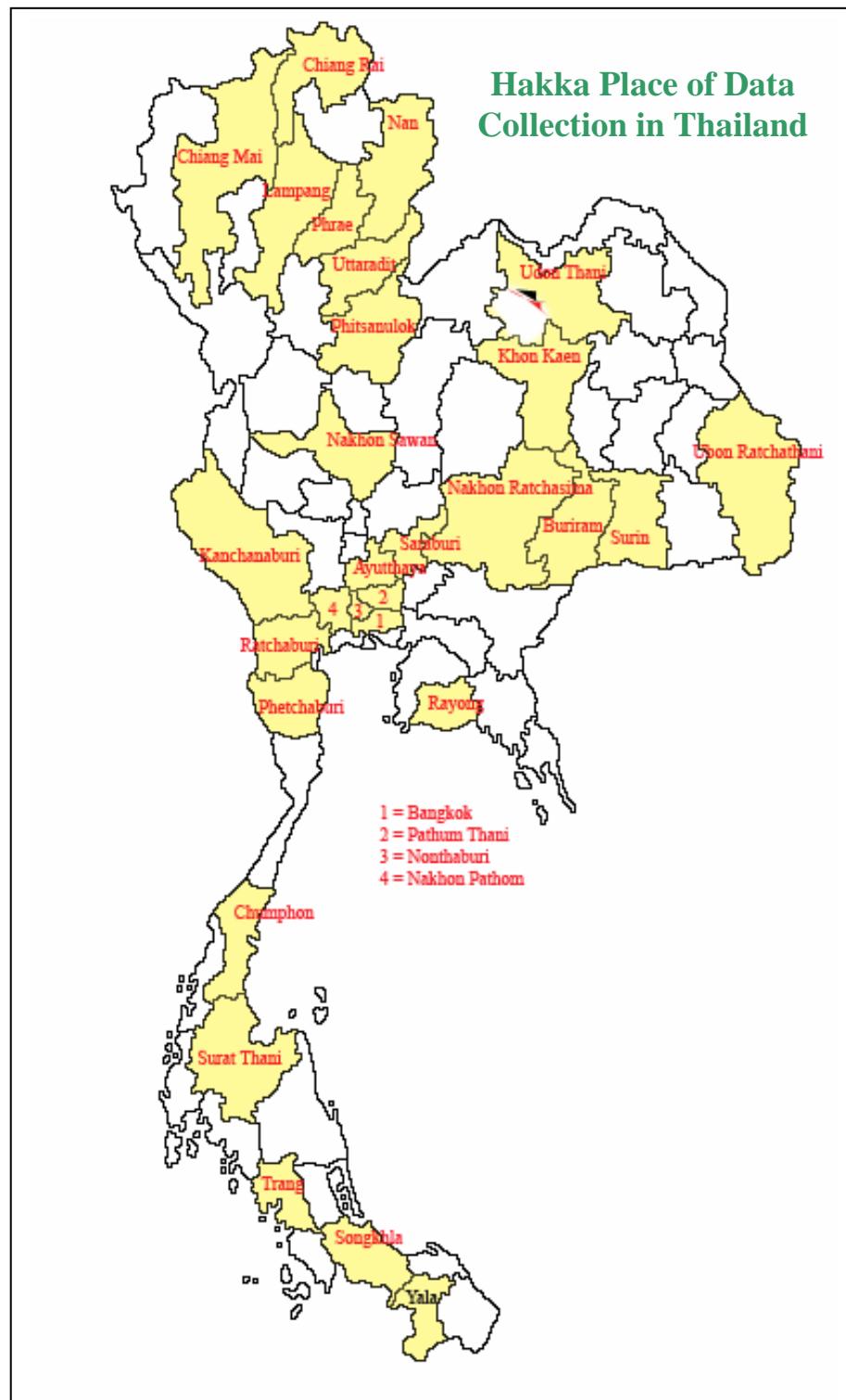
Map 3.3   Hakka place of data collection in Thailand adapted from Nectec (n.d.)
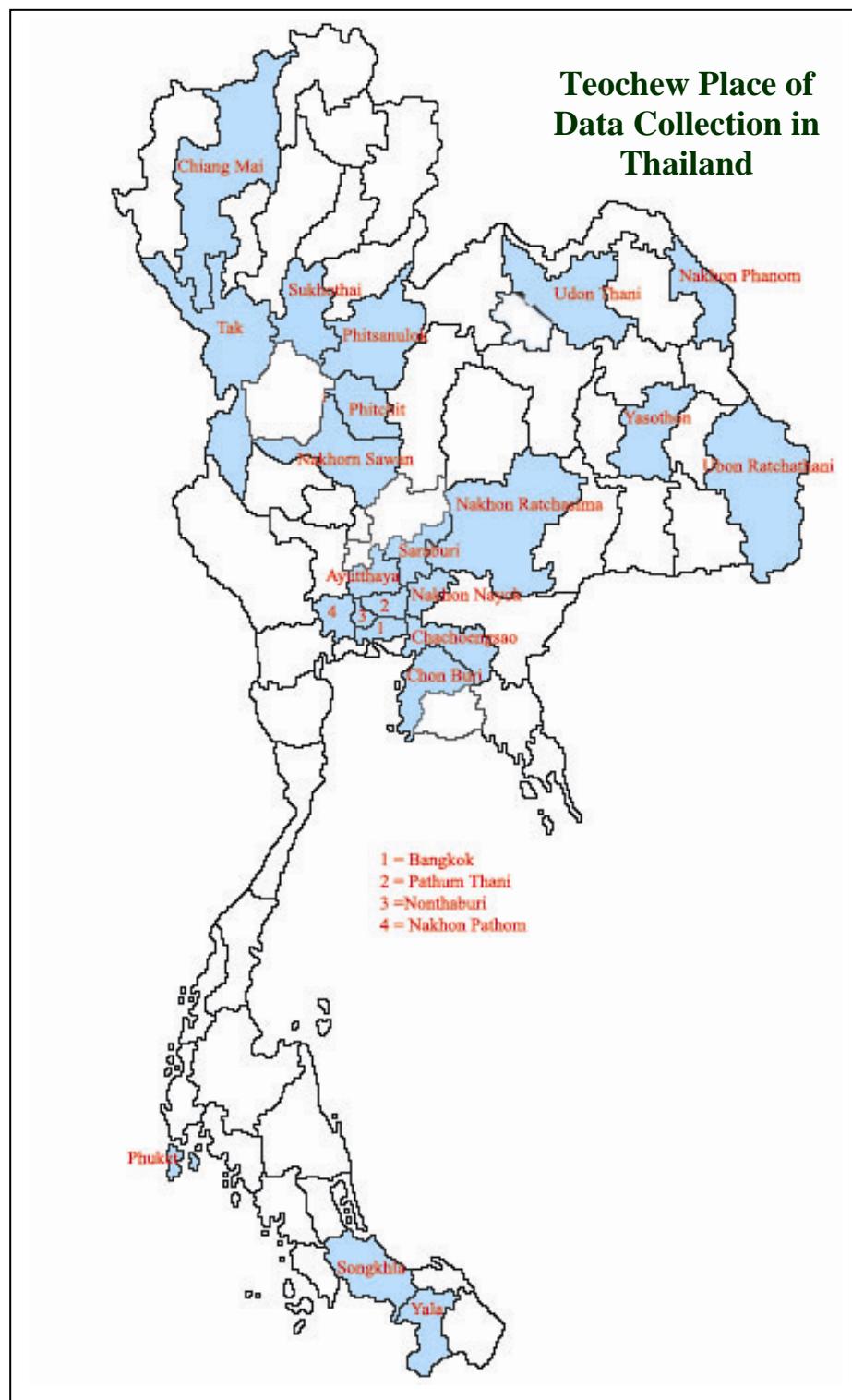
Map 3.4   Teochew place of data collection in Thailand adapted from Nectec (n.d.)

Hainanese Place of Data Collection in Thailand

Phayao
Chiang Mai
Lampang
Lamphun
Phrae
Uttaradit
Sukhothai
Phitsanulok
Khon Kaen
Phichit
Nakhon Sawan
Uthai Thani
Nakhon Ratchasima
Kanchanaburi
3
5
2
4
Prachinburi
1
Sa Kaeo
Ratchaburi
Chonburi
Petchaburi
Rayong
Chantaburi

1 = Bangkok
2 = Ayutthaya
3 = Angthong
4 = Nakhon Nayok
5 = Saraburi

Chumphon
Ranong
Surat Thani
Phang-nga
Nakhon Si Thammarat
Phuket
Trang
Songkhla
Pattani
Yala
Narathiwat

Map 3.5   Hainanese place of data collection in Thailand adapted from Nectec (n.d.)

Hokkien Place of Data Collection in Thailand

Bangkok

Ranong

Surat Thani

Phang Nga

Nakhon Si Thammarat

Phuket

Trang

Songkhla

Yala

Map 3.6   Hokkien place of data collection in Thailand adapted from Nectec (n.d.)

Cantonese Place of Data Collection in Thailand

Chiang Mai
Lamphun
Sukhothai
Tak
Phitsanulok
Khon Kaen
Nakhon Sawan
Nakhon Ratchasima
Bangkok
Surat Thani
Phuket
Trang
Phatthalung
SongKhla
Pattani
Yala

Map 3.7   Cantonese place of data collection in Thailand adapted from Nectec (n.d.)

After field work the place of data collection had done in 50 provinces where the Chinese dialects informants still use their language. The location where had done in this study is shown in table 3.4.

Part of Thailand	After field work	Province	Yun nanese	Hak ka	Teo chew	Hai nanese	Hok kien	Hok chew	Can tonese	Guang sai	Total of infor mants
Northern	1	Chiang Mai	1	2	1	1			2		7
	2	Chiang Rai	7	1							8
	3	Lampang		1		1					2
	4	Lamphun			1						1
	5	Nakhon Sawan		1	1	1			2		5
	6	Nan		1							1
	7	Phayao		2		1					3
	8	Phichit			1	1					2
	9	Phitsanulok		1	1	1			1		4
	10	Phrae		1							1
	11	Sukhothai		1	1	1	1				4
	12	Uthai Thani		1							1
	13	Uttaradit		1	1	2					4
North-eastern	14	Buri Ram		1							1
	15	Chaiyaphum			1						1
	16	Khon Kaen		1	1	1					3
	17	Maha Sarakham				1					1
	18	Nakhon Ratchasima		1	1	1			1		4
	19	Nakhon Phanom			1						1
	20	Sakon Nakhon			1						1
	21	Si Sa Ket			1						1
	22	Surin		1							1
	23	Ubon Ratchathani		1							1
	24	Udon Thani		1	1	1					3
Central	25	Bangkok	1	3	2	1	1		1	1	10
	26	Chachoengsao			1						1
	27	Nakhon Nayok				1					1
	28	Nakhon Pathom		1	1						2
	29	Nonthaburi				1					1
	30	Pathum Thani		1							1
	31	Phetchaburi		1							1
	32	Ayutthaya		1	1	1	1				4
	33	Prachin Buri			1	1					2
	34	Ratchaburi		1	1						2
	35	Samut Prakan	1		1						2
	36	Samut Sakhon		1	1						2
	37	Saraburi		2		1					3
	38	Suphan Buri		1	1						2
	39	Chantaburi				1					1
Eastern	40	Chon Buri			1						1
	41	Rayong		1	1			1			3

Table 3.4   The total numbers of locations and informants in this study

Part of Thailand	After field work	Province	Yun nanese	Hak ka	Teo chew	Hai nanese	Hok kien	Hok chew	Can tonese	Guang sai	Total of infor mants
Southern	42	Chumphon		1							1
	43	Nakhon Si Thammarat		1				1			3
	44	Narathiwat		1		1					1
	45	Pattani		1		1					2
	46	Phuket		1		1	3		2		8
	47	Songkhla		1		3	1		3	1	9
	48	Surat Thani		1							1
	49	Trang		1	1	1	1				4
	50	Yala		1	2	1	2		1	1	8
Total	50 provinces		10	41	29	28	10	2	13	3	136

Table 3.4   The total numbers of locations and informants in this study (cont.)

3.2.2.6 Six Chinese dialect Wordlist

The basic wordlist which is used for phonetic data collection is adapted from the wordlists of previous studies. This wordlist consists of semantic domains, such as part of body, plants, animals, verbs, etc. Each Chinese dialect wordlist covers the consonants, vowels and tones.

The wordlists which are composed of the words having contrastive tones are also prepared for a tonal analysis.

O'Connor (1973, p. 224) said that as all languages have pure plosive consonants having at least two places of articulation, so syllables with three initial stops, /p-, t-, k-/ were selected as initials of words in the wordlist. Moreover, three vowels /i, u, a/ were used in these wordlists, because the minimal vowel system /i, u, a/ always occurs in all languages (O'Connor, 1973, p. 216).

As Chinese language always has fricative and nasal consonants which have at least three places of articulation, so syllables with fricative consonants /f-, s-, h-/ and nasal consonants /m-, n-, ŋ-/ were selected as initials of words in the wordlist. The wordlist having these initials will be used when the words having plosive initials do not have contrastive tones.

According to Baxter (1992, p.14-15), the stages of Chinese history are as follows:

1.**Old Chinese (OC)** is the Chinese language of the early and Mid Zhōu dynasty. It is the language of the early Chinese classics and of Zhōu bronze inscriptions. Old Chinese is called Shànggǔ Hànyǔ 上古汉语 in Chinese.

2. **Early Middle Chinese (EMC)** is the language codified in the rhyming dictionary Qièyùn of A.D. 601, which probably represents a conservative version of the standard literary of the sixth century. Because the rhyme-book tradition provides such detailed information about it, Early Middle Chinese is one of the main source of evidence about Old Chinese.

3. **Late Middle Chinese (LMC)** is the language of the Táng, represented in the rhyme-table tradition of late Táng and early Sòng. Most of the distinctions found in modern Chinese dialects can be traced no further back than Late Middle Chinese, although many dialects retain a few distinctions from an earlier stage. Late Middle Chinese is also the source of the major strata of Sino-xenic loan words. The Min dialect group shows distinctions which predate Early Middle Chinese, so it must have split off from the other dialects still earlier.

4. **Old Mandarin (OM).** This term is used for the early from of Mandarin preserved in such works as the Zhōng yuán yīnyùn 中原音韵, a rhyme book of the Yuán dynasty intended as a standard for rhymes in Yuán opera.

Norman (1988, p. 53) explained the tone development of Chinese dialects from the Middle Chinese as follows:

"Each of the original tonal categories split into two registers which refer to the effects of initial consonants on the tones of the syllables I which they occur:

typically voiced initials condition a lower pitch and voiceless initials a higher pitch. If voicing is subsequently lost as a distinctive element in a tonal language, then these register distinctions become phonemic. At this stage a new eight-term tonal system was created"

The four tones of Middle Chinese are shown in the table 3.5.

1	2	3	4
平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'

Table 3.5   The four tones of Middle Chinese adapted from Norman (1988, p. 54)

When the tonal development occurred, the four tones of Middle Chinese categories are: category 1: 平 Ping 'level', 2: 上 Shang 'rising', 3: 去 Qu 'departing', and 4: 入 Ru 'entering'; (ending with a stop –p, -t, and –k) were further split into eight categories according to voicing initial consonants known as in traditionally are Yin (阴) 'voiceless initials' and Yang (阳) 'voiced initials'.

Norman (1988, p. 53) also described that "Yin is applied to the higher of upper register associated with Middle Chinese voiceless initials, and Yang is applied to the lower register conditioned by the Middle Chinese voices initials. But sonorant initials (nasals, laterals, and semivowels) sometimes condition the same changes as the voiceless initials, depending on the tonal category".

The tone splitting according to Yin and Yang are shown in table 3.6.

Initial Class	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin Voiceless	Tone 1 阴平 Yin Ping 'upper level'	Tone 3 阴上 Yin Shang 'upper rising'	Tone 5 阴去 Yin Qu 'upper departing'	Tone 7 阴入 Yin Ru 'upper entering'
阳 Yang Voiced	Tone 2 阳平 Yang Ping 'lower level'	Tone 4 阳上 Yang Shang 'lower rising'	Tone 6 阳去 Yang Qu 'lower departing'	Tone 7 阳入 Yang Ru 'lower entering'

Table 3.6   The traditional eight tonal categories adapted from Norman (1988, p. 54)

Moreover some dialects from Middle Chinese could be further split into nine categories based on the original four tones of Middle Chinese are: 平 1 Level, 上 2 Rising, and 去 3 Departing. For tone 入 4 Entering: 阴入 Yin Entering became two tones, 高入 High Entering and 中入 Mid Entering, and 阳入 Yang Entering became 低入 Low Entering.

For Cantonese dialect, although Middle Chinese could be further split into nine categories, 平 1 Level: 阴平 Yin Level became two tones, 高平 High Level and 中平 Mid Level, and 阳平 Yang Level became 低平 Low Level. On the other hand, the name of the original four tones of Middle Chinese can be name as A, B, C and D. The tone splitting of Middle Chinese into nine categories of Cantonese is shown in the table 3.7 below.

Initial Class	平 Ping 'level' A	上 Shang 'rising' B	去 Qu 'departing' C	入 Ru 'entering' D
阴 Yin Voiceless	Tone 1 阴平 Yin Ping 'High level' A1' Tone 2 中平 Zhong Ping 'Mid level' A1	Tone 4 阴上 Yin Shang 'upper rising' B1	Tone 5 阴去 Yin Qu 'upper departing' C1	Tone 7 阴入 Yin Ru 'upper entering' D1
阳 Yang Voiced	Tone 3 阳平 Yang Ping 'lower level' A2	Tone 4 阳上 Yang Shang 'lower rising' B2	Tone 6 阳去 Yang Qu 'lower departing' C2	Tone 7 阳入 Yang Ru 'lower entering' D2

Table 3.7   The traditional nine tonal categories splitting in Cantonese dialect

The wordlists of six Chinese dialects for phonological analysis will be presented below:

3.2.2.6.1 Wordlist of Yunnanese

The data for Yunnanese phonological analysis are composed of the basic wordlist adapted from Poonwathu (1984) and Cheloh (2009). There are 364 words that cover Yunnanese consonants, vowels and tones. The Yunnanese consonants and vowels are shown in table 3.8 and the examples of wordlist are shown in table 3.9:

Initial consonants	Vowels	Final consonants
p, ph, m, f, w, t, th, d͡z, t͡ʃ, d͡ʒ, ts, tsh, s, z, n, l, tɕ, tɕh, ɕ, j, k, kh, x, ʔ, h	i, e, ɯ, ə, a, u, o, ɔ, ia, iu, ɯi, ɯu, ai, au, ui, ua, uə, iɛ, iɔ, uɔ, əi, əu, iau, uai, iəu, uəi	m, n, ŋ

Table 3.8   The consonants and vowels which occur in Yunnanese dialect

Places of articulation	Consonants	Example of the wordlist			
		Word	Tone	Meaning	
				Thai	English
Labial	p, ph, m, f, w	pi	22-31	ปากกา	a pen
		phan	24-23	อ้วน	to be fat
		mai	44-42	ซื้อ	to buy
		mai	24-23	ขาย	to sell
		fan	24-23	ข้าวสวย	cooked rice
		wu - u	44-42	ห้า	five
Alveolar	t, th, d͡z, t͡ʃ, d͡ʒ, ts, tsh, s, z, n, l	ta	22-42	ตี	to hit
		tan	24-23	ไข่	an egg
		than	22-31	น้ำตาล	sugar
		dzɯ - zə	22-31	ร้อน	hot
		tsan - san	33-33	สาม	three
		tsuan - tshuan	22-31	เรือ	a boat
		na	22-31	เอา	to take
		nau	44-42	สมอง	brain
		lau	44-42	แก่	old
Lamino-prepalatal	tɕ, tɕh, ɕ, j	tɕiu	44-42	เก้า	nine
		tɕhu	22-31	ออก	out
		tsin - ɕin	33-33	ใหม่	new
		jin - iɛn	22-31	เกลือ	salt
Velar	k, kh, x	kan	33-33	แห้ง ,ตาก	to be dry
		khuai	24-23	เร็ว	quickly
Glottal	ʔ, h	ʔɯ - ə	24-23	สอง	two
		han - xan	24-23	เหงื่อ	sweat

Table 3.9   The example words of Yunnanese consonants and vowels

Yunnanese has 4 tones divided into 2 patterns as shown below.

1) Yunnanese tone pattern 1 (Panchai :1984)

a) the mid level tone or /1/ [33]   b) the high level tone or /2/ [44]

c) the low level tone or /3/ [22]   d) the low – rising tone or /4/ [24]

2) Yunnanese tone pattern 2 (Gui, 2000) and (Cheloh, 2009). Tone pattern 2 differs in tone values as shown in Tables 3.10 and 3.11 below:

Researcher's name	Yin Ping	Yang Ping	Shang	Qu
Gui, Ming Chao (2000)	44	31	53	212
Cheloh, Aminah (2009)	33	31ʔ	42	23

Table 3.10 Yunnanese tone pattern 2

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[44] and [33] Tone 1 Mid-upper level tone	[53] and [42] Tone 3 High falling tone	[212] and [23] Tone 4 Low rising tone	Not mention
阳 Yang	[31] and [31$^?$] Tone 2 Mid to low falling tone			

Table 3.11 Tone values of Yunnanese tone pattern 2

A set of words with four Yunnanese tones were selected for the wordlists according to the following environments:

1) Monosyllabic syllables with open syllables (CV).

2) Closed syllables with final nasals (CVN).

All the wordlists used in tone analysis are shown below:

1) The first set is monosyllabic words with open syllable (CV) composing initial stops plus vowels with four contrastive tones as shown in table 3.12:

CV	Tone	Phonetic	Meaning	
			Thai	**English**
pa	1	pa	ไล่ ฟันดาบ	fence
	2	pa	ด้าม	a clf. used for a knife
	3	pa	แปด	eight
	4	pa	เขื่อน ฝายทดน้ำ	a dam for irrigation purposes
thi	1	thi	บันได	ladder
	2	thi	เตะ	to kick
	3	thi	ร่างกาย	body
	4	thi	แทนที่	to replace

Table 3.12 The Yunnanese wordlists of contrastive tones which are monosyllabic

words with open syllable (CV)

2) The second set is monosyllabic words with final nasals in closed syllables (CVN). These syllables are composed of initial stops plus vowels and end with final nasals with four contrastive tones as shown in table 3.13:

CVN	Tone	Phonetic	Meaning	
			Thai	**English**
than	1	than	ทะเล	Beach
	2	than	น้ำตาล	Sugar
	3	than	เรียบ	Smooth
	4	than	ถ่าน	Carbon
khan	1	khan	สุขภาพ	Healthy
	2	khan	แบกบนบ่า	To carry on the shoulder
	3	khan	ฟัน สับ	To chop
	4	khan	เห็น ดู	To see

Table 3.13 The Yunnanese wordlists of contrastive tones which are monosyllabic

words with final nasals in closed syllables (CVN)

3.2.2.6.2 Wordlist of Hakka

The wordlist of Hakka dialect in this thesis is adapted from Wongwantanee (1984), SoBha (2001), Saengtummachai (2003), Ungsitiponporn (2007) and Shiwaruangrote (2008). There are a total of 683 words which cover consonants, vowels and tones. The example of Hakka consonants and vowels is shown in table 3.14 and the examples of wordlist are shown in table 3.15:

Initial consonants	Vowels	Final consonants
p, ph, t, th, k, kh, ʔ, ts, tsh, tɕ, tɕh, tʂ, tʂh, f, v, s, ʃ, ʂ, z̩, h, m, n, ŋ, l, w, j	i, ɯ or ɨ, u, ɛ, e, a, o,	p, t, k, m, n, ŋ (w, j)

Table 3.14 The consonants and vowels of Hakka dialect

Places of articulation	Consonants	Hakka dialect	Example of the wordlist				
			Word	Tone	Meaning		
					Thai	English	
Labial	p, ph, m, f, v, w	Jie Yang	pɛn	44-52	พัง ทะลาย	to collapse	
			pak	22-35	หนึ่งร้อย	hundred	
			fa	44-52	ดอกไม้	flower	
			man	22-11	ช้า	slow	
		Meixian	phi	44	จมูก	nose	
			mo	33	ผม	hair	
			ŋin	11	คน	person	
		Hsing Ning	pi	42	ปากกา	pen	
			phi	44	จมูก	nose	
			fa	11	ดอกไม้	flower	
Alveolar	t, th, ts, tsh, s, ʃ, tʂ, tʂh, ʂ, z̩, n, l	Jie Yang	tɛn	42-14	รอคอย	to wait	
			thi	22-11	สถานที่ ที่ดิน	land, place	
			tshi	44-35	สด	fresh	
			si	42-31	สี่	four	
		Meixian	sim	33	หัวใจ	heart	
			thet	53	แตะ	kick	
			loi	11	มา	come	
		Hsing Ning	tan	33	สีแดง	red	
			tsau	33	แห้ง	dry	
			tʂɨ	42	นิ้ว	finger	
Lamino-prepalatal	tɕ, tɕh, j	Jie Yang	tɕɔi - tsɔi	42-31	ปาก	mouth	
			jap	44-55	ใบไม้	leaf	
		Meixian	tɕha	11	ชา	tea	
			tɕui	55	เมา	to get drunk	
			juŋ	55	ใช้	use	

Table 3.15 The example words of Hakka consonants and vowels

Places of articulation	Consonants	Hakka dialect	Example of the wordlist			
			Word	Tone	Meaning	
					Thai	English
Velar	k, kh, ŋ	Jie Yang	kim	44-52	ทองคำ	gold
			khau	42-14	สอบ	to take an examination
			ŋa	24-35	ฟัน	tooth
		Meixian	kim	33	ทองคำ	gold
			kui	55	ราคาแพง	expensive
			ŋau	33	กัด	bite
		Hsing Ning	ki	42	เลื่อย	saw
			khi	33	ขับ	to drive
			ŋa	11	ฟัน	tooth
Glottal	ʔ, h	Jie Yang	ʔap	22-35	เป็ด	duck
			hɔi	42-14	ทะเล	sea
		Meixian	hoi	53	ทะเล	sea
			ʔam	53-44	มืด	dark
		Hsing Ning	ʔaŋ	44	มืด	dark
			hɔi	42	ทะเล	sea

Table 3.15 The example words of Hakka consonants and vowels. (cont.)

Hakka tones system classifies Hakka dialects into three groups as shown below:

1) Meixian group has three patterns.

a) Meixian tone patterns 1-2 have 6 tones, but differ in tone values as shown in tables 3.16, 3.17 and 3.18:

Researcher's name	Yin Ping	Yang Ping	Shang	Qu	Yin Ru	Yang Ru
Guangdong Provincial Education Department (1960)	44	11	31	52	1	5
Hanyu Fangyin Zihui (1962)	44	11	31	42	21	4
Hashimoto (1973)	33	11	31	55	31	44
Ungsitiponporn, Siripen (2007)	33	21	31	44	32	4

Table 3.16 Meixian Hakka tone pattern 1-2 from Guangdong Provincial Education
           Department (1960), Hanyu Fangyin Zihui (1962), Hashimoto (1973), and
           Ungsitiponporn (2007)

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	Tone 1 44/33 Mid-upper level tone	Tone 3 31 Mid falling tone	Tone 4 52/42 High falling tone	Tone 5 1/21 Short low level tone
阳 Yang	Tone 2 11/21 Low level tone			Tone 6 5/4/44 Short high level tone

Table 3.17 Meixian Hakka tone pattern 1

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	Tone 1 44 / 33 Mid-upper level tone	Tone 3 31 Mid falling tone	Tone 4 55 /44 High level tone	Tone 5 31 / 32 Short mid falling tone
阳 Yang	Tone 2 11 / 21 Low level tone			Tone 6 5 / 4 / 44 Short high level tone

Table 3.18 Meixian Hakka tone pattern 2

b) Meixian tone pattern 3 has 4 tones which is found in Saengtummachai (2003) as shown in table 3.19:

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	33	53	55	53
阳 Yang	11			55

Table 3.19 Meixian Hakka tone pattern 3

2) Jie Yang group has two patterns. They are 4 tones and 7 tones as shown in tables 3.20 and 3.21 below:

a) Jie Yang tone pattern 1 has 4 tones which is found in Wongwantanee (1984) as shown in table 3.20:

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	42	24	22	24
阳 Yang	24			44

Table 3.20 Jie Yang Hakka tone pattern 1

b) Jie Yang tone pattern 2 has 7 tones which is found in Shiwaruangrote, Nitasakorn as shown in table 3.21:

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	52	14	31	35
阳 Yang	35		11	55

Table 3.21 Jie Yang Hakka tone pattern 2

3) Hsing Ning group has only one pattern and 4 tones which is found in SoBha, Jurairat (2001) as shown in table 3.22:

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	33	42	44	42
阳 Yang	11			44

Table 3.22 Hsing Ning Hakka tone pattern

A set of words with Hakka tones was selected for the wordlists according to the following environments:

1) Monosyllabic syllables with open syllables (CV).

2) Closed syllables with final nasals (CVN).

3) Closed syllables with final stops (CVS).

All the wordlists used in tone analysis are shown below:

1) The first set is monosyllabic words with open syllable (CV) composing initial stops or fricatives plus vowels with contrastive tones as shown in tables 3.23, 3.24 and 3.25:

CV	Tone	Phonetic	Meaning	
			Thai	English
ki	1	ki	อยู่อาศัย	reside, dwell
	2	ki	เขา (สรรพนามบุรุษที่ 3)	he / she
	3	ki	ยกขึ้น	lift, raise
	4	ki	เลื่อย	saw
tu	1	tu	เมืองหลวง	capital
	2	tu	ไม่เคารพ สบประมาท	show disrespect
	3	tu	การพนัน	gamble
	4	tu	อิจฉา	be jealous

Meixian Hakka dialect

Table 3.23 The Meixian Hakka dialect wordlists of contrastive tones which are

monosyllabic words with open syllable (CV)

CV	Tone	Phonetic	Meaning	
			Thai	English
pi	22	phi	จมูก	nose
	42	phi	สะเก็ดแผล	scab
	44	phi	ราคาถูก	cheap
	24	phi	ผิวหนัง	skin
	14	pi	เปรียบเทียบ	to compare
fu	52	fu	ชายหนุ่ม สามี	man, husband
	35	fu	ประคองด้วยสองมือ พยุง	to elevate with both hands
	14	fu	เสือ	tiger
	31	fu	วิดน้ำโดยใช้คน 2 คนถือปลายเชือกแต่ละด้านที่ผูกกับถังทั้ง 2 ด้าน ใช้กระบวยน้ำสาดน้ำเข้าที่นา	to bale out water by using a bucket which has a rope attached or fastened to each side
	11	fu	เน่าเปื่อย ผุพัง เสีย	rotten, decay

Jie Yang Hakka dialect

Table 3.24 The Jie Yang Hakka dialect wordlists of contrastive tones which are

monosyllabic words with open syllable (CV)

CV	Tone	Phonetic	Meaning	
			Thai	English
pa	33	pa	พ่อ	Father
	42	pa	วาง	to put
	44	pha	กลัว	to fear
	11	pha	คลาน	crawl
khi	33	khi	ขับ	to drive
	42	khi	เริ่ม	to start
	44	khi	ไป	to go
	11	khi	แขก	visitor, strange

Hsing Ning Hakka dialect

Table 3.25 The Hsing Ning Hakka dialect wordlists of contrastive tones which are

monosyllabic words with open syllable (CV)

2) The second set is monosyllabic words with final nasals in closed syllables (CVN). These syllables are composed of initial stop plus vowel and end with final nasals with contrastive tones as shown in tables 3.26, 3.27 and 3.28:

CVN	Tone	Phonetic	Meaning	
			Thai	English
kim	1	kim	ทอง	gold
	2	khim	จับกุม	capture, catch
	3	kim	สีสันแวววาวจับตา	bright and beautiful
	4	kim	ห้าม	prohibit
tuŋ	1	tuŋ	ฤดูหนาว	winter
	2	thuŋ	เหมือนกัน	same, like
	3	tuŋ	เข้าใจ	understand
	4	tuŋ	แข็ง หนาวจนแข็ง	freeze

Meixian Hakka dialect (table title)

Table 3.26 The Meixian Hakka dialect wordlists of contrastive tones which are

monosyllabic words with final nasals in closed syllables (CVN)

CVN	Tone	Phonetic	Meaning	
			Thai	English
pin	52	pin	น้ำแข็ง	ice
	14	pin	ชักดิ้นชักงอ	to move rapidly, to wriggle
	42	phin	ตัวหนังสือ	characteristic
	44	phin	ความสงบสุข	peaceful
fun	52	fun	แต่งงาน	marriage
	35	fun	จิตวิญญาน	the soul
	14	fun	แป้ง ผง	powder, flour
	11	fun	หุ้น ส่วนแบ่ง	share

Jie Yang Hakka dialect (table title)

Table 3.27 The Jie Yang Hakka dialect wordlists of contrastive tones which are

monosyllabic words with final nasals in closed syllables (CVN)

CVN	Tone	Phonetic	Meaning	
			Thai	English
phan	33	phan	ปีน	to climb
	42	phan	เถียง ถกเถียง	to argue
	44	phan	ข้อ ปล้อง การแบ่งเป็นตอนๆ	segment on section
	11	phaŋ	เพิง สลัด (กริยา) ฉาย	shed
kin	33	kin	เรียบ ทำให้เสมอกัน	even
	42	khin	วัด(พื้นที่)	measure
	44	khin	เฉลิมฉลอง	to celebrate
	11	khin	แนะนำ	to advise

Hsing Ning Hakka dialect (table title)

Table 3.28 The Hsing Ning Hakka dialect wordlists of contrastive tones which are

monosyllabic words with final nasals in closed syllables (CVN)

3) The second set is monosyllabic words with final stops in closed syllables (CVS). These syllables are composed of initial stop plus vowel and end with final stops with contrastive tones as shown in table 3.29, 3.30 and 3.31:

CVS	Tone	Phonetic	Meaning	
			Thai	English
kip	5	kip	เร็ว ๆ	hurry, haste
	6	kip	กิ๊บหนีบผ้า	clip
tuk	5	tuk	ควบคุม บัญชาการ	supervise, control
	6	thuk	พิษ ยาพิษ	poison

Meixian Hakka dialect

Table 3.29 The Meixian Hakka dialect wordlists of contrastive tones which are
monosyllabic words with final stops in closed syllables (CVS)

CVS	Tone	Phonetic	Meaning	
			Thai	English
pit	35-22	pit	ปากกา ดินสอ	pen, pencil
	44	pit	เสียงดังแกรกตอนเปิด	to crack open
phit	22	phit	วัด (ระยะทาง พื้นที่)	to measure
	44	phit	ค้างคาว	bat

Jie Yang Hakka dialect

Table 3.30 The Jie Yang Hakka dialect wordlists of contrastive tones which are
monosyllabic words with final stops in closed syllables (CVS)

CVS	Tone	Phonetic	Meaning	
			Thai	English
phat	42	phat	โปรย พรม	to sprinkle
	44	phat	ดึงออก	to pull out
kit	42	kit	โชคดี	lucky
	44	kit	หายใจ	to breathe

Hsing Ning Hakka dialect

Table 3.31 The Hsing Ning Hakka dialect wordlists of contrastive tones which are
monosyllabic words with final stops in closed syllables (CVS)

3.2.2.6.3 Wordlist of Teochew

The data for Teochew phonological analysis are composed of the basic wordlist adapted from Atchariyasucha (1982), Hanyu Fangyin Zihui book 2 (1985), Maneerat (1983) and Eiampailin (2004). There are 499 words which cover Teochew consonants, vowels and tones. The example of Teochew consonants and vowels as shown in tables 3.32 - 3.33:

Initial consonants	Vowels	Final consonants
p, ph, t, th, k, kh, ʔ, b, g, ts, tsh, m, n, ŋ, s, h, l, w, j	i, ĩ, e, ẽ, ɯ or ɨ, a, ã, o, õ, u, ũ, ɔ	p, t, k, m, n, ŋ, w, j

Table 3.32 The consonants and vowels which occur in Teochew dialect

Places of articulation	Consonants	Word	Tone	Meaning	
				Thai	English
Labial	p, ph, b, m, w	pɯŋ	21	ข้าวสวย	cooked rice
		phĩ	21	จมูก	nose
		bi	51	ข้าวสาร	pounded rice
		mã	312-52	ย่า ยาย	grandmother
Alveolar	t, th, ts, tsh, s, n, l	tam	45	เปียก	wet
		thoi	51	มอง ดู	see
		tsuə	45	ง	snack
		nɯŋ	15	ไข่	egg
Lamino-prepalatal	j	juəʔ	45	ร้อน	hot
		jip	45	เข้า	enter
Velar	k, kh, g, ŋ	kau	15	หนา	thick
		khi	51	ขึ้น (ข้างบน)	go to up stair
		gu	45	วัว ควาย	buffalo, cow
		ŋou	15	ห้า	five
Glottal	ʔ, h	ʔɯn	45	สีเหลือง	yellow
		hiə	33	พี่ชาย	older brother

Table 3.33 The example words of Teochew consonants and vowels

Teochew tone system has 2 patterns according to Teochew tone in China and Thailand. Each pattern differs in tone values.

1) Teochew tone pattern 1: Teochew tone in China. This group has 8 tones as shown in tables 3.34 – 3.35:

Researcher's name	Yin Ping	Yang Ping	Yin Shang	Yang Shang	Yin Qu	Yang Qu	Yin Ru	Yang Ru
GuangDong Provincial Education Department (1960)	33	53	213	21	55	35	11	4
Teochew Dialect.net	33	53	213	2	55	35	11	5
HANYU FANGYIN ZIHUI book 2 (1985)	33	53	213	21	55	35	11	4
Lee (1998)	33	53	213	2	55	35	11	5

Table 3.34 Teochew tone pattern 1 from Guangdong Provincial Education (1960),
Teochew Dialect.net (n.d.), Beijing University, Department of Chinese
Language (1985), and Lee (1998)

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	Tone1 Mid level tone	Tone 3 Low falling rising tone	Tone 5 High level tone	Tone 7 Low level tone
阳 Yang	Tone 2 High falling tone	Tone 4 Short low level or low falling tone	Tone 6 Mid rising tone	Tone 8 Short High level tone

Table 3.35 Teochew tone pattern 1

2) Teochew tone pattern 2: Teochew tone in
Thailand. This group has 6 tones as shown in tables 3.36 – 3.37 below:

Tone number	Tone description	Pitch contour					
		Atchariyasucha, Wichet (1982)	Gyarunsut, Pranee (1983)	Maneerat, Naparat (1983)	Chuwarahawong, Wilailuck (2000)		Eiampailin, Janida (2004)
					Male	Female	
1	Mid level tone	Did not mention	33	Did not mention	32	32	33
2	High level tone		55		44	44	45
3	High falling tone		51		341	451	51
4	Low rising tone		24		225	335	15
5	Low level tone		11		11	11	21
6	Low-mid falling tone		21		21	31	312

Table 3.36 Teochew tone pattern 2 from Atchariyasucha (1982), Gyarunsut (1983),
Maneerat (1983), Chuwarahawong (2000), and Eiampailin (2004)

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	Tone 1 Mid level tone	Tone 3 High falling tone	Tone 5 and 6 Low level tone and Low-mid falling tone	
阳 Yang	Tone 2 High level tone	Tone 4 Low rising tone		Tone 2 High level tone

Table 3.37 Teochew tone pattern 2

A set of words with Teochew tones were selected for the wordlists according to the following CV, CVN, and CVS environments. All the wordlists used in tone analysis are shown below:

1) The first set is monosyllabic words with open syllable (CV) composing initial stops plus vowels with four contrastive tones as shown in table 3.38:

CV	Tone	Phonetic	Meaning Thai	Meaning English
ti	33	ti	ของ(ใคร)	of
	21	ti	ที่ดิน	land or the earth
	51-31	ti	ประท้วง ยืนยัน	to protest
	42	ti	กษัตริย์	king
	45	ti	บ่อน้ำ	pond
	25	ti	น้องชาย	younger brother
pi	33	phĩ	ถูก	cheap
	21	phĩ	จมูก	nose
	51-31	pi	เปรียบเทียบ	to compare
	31-42	pi	หิ้ว แขน	to hold, arm
	45	pi	ม้าม	spleen
	25	pi	ปิด	to close

Table 3.38 The Teochew wordlists of contrastive tones which are monosyllabic words with open syllable (CV)

2) The second set is monosyllabic words with final nasals in closed syllables (CVN). These syllables are composed of initial stops or fricatives plus vowels and end with final nasals with four contrastive tones as shown in table 3.39:

CVN	Tone	Phonetic	Meaning	
			Thai	English
taŋ	33	taŋ	ตะวันออก	the east
	21	taŋ	ถ้ำ โพรง อุโมงค์	cave
	31	taŋ	กลุ่ม ก้อน	party, group
	42	taŋ	ไข่	egg
	45	taŋ	ทองแดง	copper
	25	taŋ	หนัก	heavy
huŋ	33	huŋ	หุ้น	to share
	21	huŋ	ส่วนแบ่ง	share
	31	huŋ	แป้ง	powder
	42	huŋ	สอน	to teach
	45	huŋ	เมฆ	cloud
	25	huŋ	ผสม รวม	to mix

Table 3.39 The Teochew wordlists of contrastive tones which are monosyllabic words
with final nasals in closed syllables (CVN)

3) The second set is monosyllabic words with
final stops in closed syllables (CVS). These syllables are composed of initial stops
plus vowels and end with final stops with contrastive tones as shown in table 3.40:

CVN	Tone	Phonetic	Meaning	
			Thai	English
tik	21	tik	รับ ได้รับ	to receive, to get
	45	tik	ซื่อสัตย์	honest
huk	21	huk	ทันใดนั้น	suddenly
	45	huk	พระพุทธเจ้า	monk

Table 3.40 The Teochew wordlists of contrastive tones which are monosyllabic words
with final stop in closed syllables (CVS)

3.2.2.6.4 Wordlist of Hainanese

The data for Hainanese phonological analysis are
composed of the basic wordlist adapted from Sotthirattanapan (1986). There are 342
words which cover Hainanese consonants, vowels and tones. The example words for
presenting Hainanese consonants and vowels are shown in tables 3.41 – 3.42:

Initial consonants	Vowels	Final consonants
ph, t, k, kh, ʔ, b, d, g, m, n, ŋ, c, s, h, l, j	i, e, a, o, u	p, t, k, m, n, ŋ, w, j

Table 3.41 The consonants and vowels which occur in Hainanese dialect

Places of articulation	Consonants	Example of the wordlist			
		Word	Tone	Meaning	
				Thai	English
Labial	ph, b, m	phi	33	จมูก	nose
		bi	21	ข้าวสาร	pounded rice
		mak	33	ตา	eye
Alveolar	t, d, s, n, l	tap	33	สิบ	ten
		de	22	ชา	tea
		sia	33	รถ	car
		nok	354	อ้วน	fat
		lam	22	สีน้ำเงิน	blue
Lamino-prepalatal	c, j	cia	31	กิน	eat
		jip	33	เข้า	enter
Velar	k, kh, g, ŋ	ka	33	ส้ม	orange
		khi	21	ฟัน	tooth
		ge	33	ฟัน	tooth
		ŋaw	31	ห้า	five
Glottal	ʔ, h	ʔuj	22	สีเหลือง	yellow
		huaj	33	ดอกไม้	flower

Table 3.42 The example words of Hainanese consonants and vowels

Hainanese tone system has only one pattern and 7 tones as shown in table 3.43:

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'	
				CVS	CVʔ
阴 **Yin**	Mid level tone 33	Low falling tone 21	Low rising tone 23	Mid rising falling tone 354	High falling tone 41
阳 **Yang**	Low level tone 22	Mid falling tone 31	Mid level tone 33		Mid falling tone 31

Table 3.43 Hainanese tone pattern 1

A set of words with Hainanese tones were selected for the wordlists according to CV, CVN, and CVS environments as shown in table 3.44:

CV CVN CVS	Tone	Phonetic	Meaning	
			Thai	English
ti	22	di	ช้า	Slow
	33	ti	หวาน	Sweet
	23	ti	พัด, สี่	four, to fan
	41	ti	น้อย	a little
	31	ti	ใช่	yes
	21	ti	ตาย	dead
tim	33	tim	หัวใจ	heart
	21	tim	สะใภ้	daughter in law
tit	33	tit	ปีก	wing
	354	tit	เหลน	great grandson
ka	22	ka	อุ้ม	to carry
	33	ka	ส้ม	orange
	23	ka	สอน	teach
	41	ka	เล็บ , ห่ม	nail, to cover
	31	ka	กัด	bite
	21	ka	กล้าหาญ	dare, bravely
kam	22	kam	อม	keep in the mouth, suck
	33	kam	รสเฝื่อน	bitter and harsh to taste, unpalatable, ill-favoured
	21	kam	เป็นไข้ซ้ำสอง	sick, ill
kak	33	kak	หาย	disappear
	354	kak	เขาสัตว์	horn

Table 3.44 The Hainanese wordlists of contrastive tones which are monosyllabic words with open syllables (CV), final nasals (CVN), and final stop (CVS)

3.2.2.6.5 Wordlist of Hokkien

The Hokkien wordlist in this thesis is adapted from Kao (1957), Chiang (1983), Gyarunsut (1983), Kittikul (1991), and Tan (2005). There are 380 words which cover Hokkien consonants, vowels and tones. The example words for presenting Hokkien consonants and vowels are shown in the tables 3.45 and 3.46:

Initial consonants	Vowels	Final consonants
p, ph, t, th, k, kh, ʔ, b, g, ts, tsh, m, n, ŋ, s, h, l, w, j	i, e, a, o, u	p, t, k, ʔ, m, n, ŋ, w, j

Table 3.45 The consonants and vowels which occur in Hokkien dialect

Places of articulation	Consonants	Example of the wordlist			
		Word	Tone	Meaning	
				Thai	English
Labial	p, ph, b, m, w	pun	33	ให้	to give
		phɔ	51	สมุด	book
		be	55	ม้า	horse
		ma	55	ย่า ยาย	grandmother
Alveolar	t, th, ts, tsh, s, n, l	te	25	ชา	tea
		thaw	25	หัว	head
		tsap	25	สิบ	ten
		sɨ	33	อาจารย์	teacher
		na	25	ตะกร้า	Basket
		lat	25	เรี่ยวแรง	power
Velar	k, kh, g, ŋ	kũj	25	สูง	tall
		kha	33	ขา	leg
		ge	25	ฟัน	tooth
		ŋe	25	แข็ง	freeze
Glottal	ʔ, h	ʔə	33	หม้อ	pot
		hɨ	25	ปลา	fish

Table 3.46 The example words of Hokkien consonants and vowels

Hokkien tone system has two patterns according to Hokkien tone in Thailand and Hokkien tone in Singapore.

1) Hokkien tone pattern 1: Hokkien tone in Thailand has 5 tones as shown in table 3.47:

Tone	Tone name	Tone value	Live		Dead
			CV	CVN	CVS
1	Mid level tone	33	√	√	
2	Mid falling tone	32	√	√	
3	High falling tone	51	√	√	
4	High level tone	55	√	√	√
5	Low rising tone	25	√	√	√

Table 3.47 Hokkien tone pattern 1: Hokkien tone in Thailand

3) Hokkien tone pattern 2: Hokkien tone in Singapore has 7 tones as shown in table 3.48:

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 **Yin**	Tone 1 unmark	Tone 2 ´	Tone 3 `	Tone 4 unmark
阳 **Yang**	Tone 5 ^	Tone 6 ´	Tone 7 -	Tone 8 ˌ

Table 3.48 Hokkien tone pattern 2: Hokkien tone in Singapore

The Hokkien tone pattern in Singapore shows that tone 2 and tone 6 merge, because the example words of these two tones are the same. Moreover, although the example word of tone 1 and tone 4 are different, they are unmarking tones which might be the same tone and may merge. There are 7 tones in Hokkien dialect in Singapore.

A set of words with Hokkien tones were selected for the wordlists according to the existing researches as shown in table 3.49:

CV CVN CVS	Tone	Tone symbol	Phonetic	Meaning	
				Thai	**English**
to	1	unmarked	to	มีด	a knife
	2	´	tó	เกาะ	an island
	3	`	tò	เท ริน	to pour out
	4	unmarked	toʔ(h)	โต๊ะ	a table
	5	^	tô	หลบหนี	to escape
	6	´	tó	เกาะ	an island
	7	-	tō̄	แนวทาง คำสั่งสอน	A doctrine, a way
	8	ˌ	toˌʔ(h)	จุดไฟ ก่อ	to kindle, blaze
i	1	unmarked	i	เขา หล่อน มัน (สรรพนามบุรุษที่ 3)	he, she, it, him, her (for living thing only)
	2	´	í	เก้าอี้	a chair
	3	`	ì	ความหมาย	meaning, intention
	4	unmarked	No word		
	5	^	î	ป้า	a maternal aunt
	6	´	í	เก้าอี้	a chair
	7	-	ī (īⁿ)	ง่าย	easy
	8	ˌ	No word		

Table 3.49 The Hokkien wordlists of contrastive tones

3.2.2.6.6 Wordlist of Cantonese

The Cantonese wordlist in this thesis is adapted from Chao (1947), Lo & Tam (1996), Bauer & Benedict (1997), and Todaechavattana (2002). There are a total 376 words which cover Cantonese consonants, vowels and tones. The example words for presenting Cantonese consonants and vowels are shown in the tables 3.50 and 3.51:

Initial consonants	Vowels	Final consonants
p, ph, t, th, k, kh, kw, kwh, tʃ, tʃh, f, ʃ, m, n, ŋ, h, l, w, j	ii, yy, e, ø, ɛɛ, œœ, a, aa, ɔɔ, o, uu	p, t, k, m, n, ŋ, w, j m̩, ŋ̩

Table 3.50 The consonants and vowels of Cantonese dialect

Places of articulation	Consonants	Example of the wordlist			
		Word	Tone	Meaning	
				Thai	English
Labial	p, ph, m, w	puun	22	เพื่อน	friend
		phiiw	33	เป่า	to blow
		maw	55	แมว	cat
		waan	21	แหวน	ring
Alveolar	t, th, f, ʃ, n, l	tɔɔj	22	รอคอย	to wait
		thoŋ	21	สีแดง	red
		fan	53	ฝน	rain
		ʃej	25	ตาย	to die
		naw	25	นิ้ว	finger
		liit	22	เลือด	blood
Lamino-prepalatal	tʃ, tʃh, j	tʃii	33	ใจ	heart
		tʃhyy	25	เสื้อ	cloth, shirt
		jii	22	สอง	two
Velar	k, kh, kw, kwh, ŋ	kam	53	ทองคำ	gold
		khœœ	53	ขัด	to rub, scrub off
		kwat	55	ขุด	to dig
		khwan	33	นอน	to sleep
		ŋaa	21	ฟัน	tooth
Glottal	h	haw	55	รัก	love
		haam	21	เค็ม	salty

Table 3.51 The example words of Cantonese consonants and vowels

　　　　　　　　　　The Cantonese tone system has only one pattern.
There are 7 tones as shown in table 3.52 below. Some researchers said that Cantonese
has 10 tones with contrasting seven tones on open syllable and 3 tone contours on
dead syllable. Cantonese tone pattern shows that tones A1 and D1S, C1 and D1L, and
C2 and D2 merge. Cantonese tone pattern is shown in table 3.52:

	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'	
				DS	DL
阴 Yin	Tone 1 51 / 52 / 53 High falling tone A1́ Tone 2 55 High level tone A1	Tone 4 25 High rising tone B1	Tone 6 33 Mid level tone C1	Tone 1 5 / 55 D1S	Tone 6 33 D1L
阳 Yang	Tone 3 21 Low falling tone A2	Tone 5 23 Low rising tone B2	Tone 7 22 Low level tone C2	Tone 7 2 / 22 D2	

Table 3.52 Cantonese tone pattern

　　　　　　　　　　A set of words with Cantonese tones were selected
for the wordlists according to CV, CVN, and CVS environments as shown in table
3.53:

Initial Consonant	Tone		Phonetic	Meaning	
				Thai	English
p	51-53	A1́	paa	หมู	pig
	55	A1	paan	ปลิ้น	to turn inside out
	21	A2	phaaŋ	แพง	expensive
	25	B1	paa	เป้าหมาย	target
	23	B2	phaaŋ	ตะบอง ไม้พลอง	stick, club
	33	C1	paa	ป่า	meadow, valley
	22	C2	paa	เปลี้ย	tired, wear out
	55	D1S	pak	แบก	to carry
	33	D1L	paak	ปาก	mouth
	22	D2	paak	เผือก	taro, cocoyam
tʃ	51-53	A1́	tʃan	หิน	stone
	55	A1	tʃaaŋ	ชิง	to strive, flight
	21	A2	tʃhaa	ชา	tea
	25	B1	tʃhan	ขน ผม	hair
	23	B2	tʃhan	เห็น	to see
	33	C1	tʃaa	จะ	just
	22	C2	tʃaaŋ	ร้าน	booth, shop
	55	D1S	tʃap	จับ	to catch, hold
	33	D1L	tʃaap	ดูด จิบ	to suck
	22	D2	tʃaap	สืบทอด	to inherit
j	51-53	A1́	jii	รักษา	to cure
	55	A1	jii	เสื้อผ้า	clothing
	21	A2	jii	สงสัย	suspicious
	25	B1	jii	เก้าอี้	chair
	23	B2	jii	หู	Ear
	33	C1	jii	ความคิด	idea
	22	C2	jii	สอง	two
	55	D1S	jek	กำไร	benefit
	33	D1L	jaak	กิน	eat
	22	D2	jek	ด้วย	also

Table 3.53 The Cantonese wordlists of contrastive tones

3.2.3 Collection of Phonological data

3.2.3.1 The six wordlists were used for collecting the data of phonological analysis of Chinese dialects.

3.2.3.2 Personal background of informants were obtained by interview.

3.2.3.3 .The data collection was based on auditory judgement. The informants pronounced the words on the wordlist. Each word was pronounced three times. The words were recorded on IC (Integrated Circuit) digital recorder.

3.2.3.4 The researcher pronounced each word repeatly until the informants accepted or confirmed.

3.2.3.5 The words were transcribed with the International Phonetic Alphabet (I.P.A.).

3.2.3.6 The collected data were rechecked again.

3.2.3.7 All Chinese dialects were done as in numbers 3-6.

3.2.3.8 All the data were analyzed. If there were some problems with the data, they were rechecked with the informants.

3.3 Data Analysis

3.3.1 Phonological analysis

3.3.1.1 The data of Chinese dialects were analyzed by using phonemic approach.

3.3.1.2 The tones of Chinese dialects were analyzed and displayed by the computer program called PRATT program version 4.3.20 (PRAAT downloaded from hppt://www.praat.org is a program for speech analysis and synthesis). The tones of words pronounced by each informant of each dialect were analyzed.

3.3.1.3 The fundamental frequency and duration of each tone were shown and presented on Microsoft Excel 2000.

3.3.1.4 The same procedure was used with other words.

3.3.1.5 Tonal letter and number system were used to transcribe tones in this study.

The pitch patterns of tones, Y.R. Chao's tone letter has been adapted for use. This method of illustrating tones is as follows:

"The pitch pattern will be illustrated by means of a vertical reference line signifying a speaker's pitch range which is divided into four equal parts so as to indicate five relative pitch levels. The simplified tone-pitch curve which is attached to the right of the vertical line shows the pitch pattern, the general direction of the pitch contours of the tones" (Pudhitanakul, 1979)

                                    5
                                    4
Pitch range   3
                                    2
                                    1

Direction of pitch contour
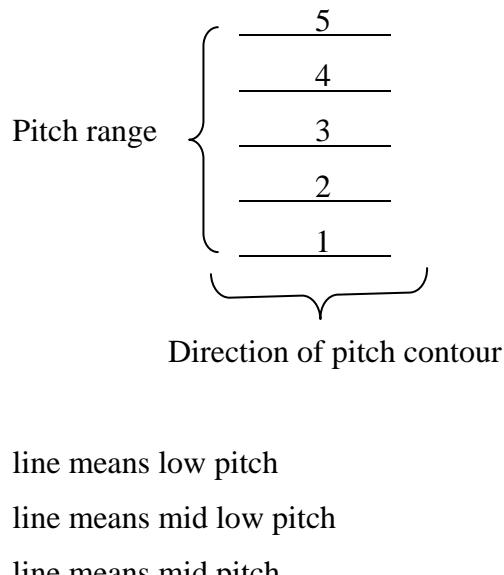
1st   line means low pitch
2nd   line means mid low pitch
3rd   line means mid pitch
4th   line means mid high pitch
5th   line means high pitch

        3.3.1.6 The consonants, vowels, and tones were analyzed and summarized, then all Chinese dialect phonologies were described.

3.3.2 Phonological comparison

        3.3.2.1 Comparing the phonological variation of all Chinese dialects.

        3.3.2.2 Classify Chinese dialects into groups using their phonological systems.

3.3.3 Language map

        3.3.3.1 The phonological distribution of Chinese dialects was analyzed by using the dialectology or dialect geography approach.

        3.3.3.2 Make a linguistic map which displays the phonological variation of Chinese dialects in Thailand based on the interview.

        3.3.3.3 Make a language map which displays the location of Chinese dialects spoken in Thailand.

3.4 Data Presentation

This study will present two subjects: 1) the Chinese dialect phonologies and 2) the distribution of Chinese dialects in Thailand.

3.4.1 The phonology of Chinese dialects in Thailand

This part will be presented in Chapter 4: Chinese dialect phonology. This chapter will explain the phonology of Chinese dialects in Thailand.

3.4.2   The distribution of Chinese dialects in Thailand

This part will be presented in Chapter 5: The distribution of Chinese dialects in Thailand. This chapter has two sections to describe: maps of Chinese dialect distribution in Thailand and the settlement of Chinese dialects in Thailand.

3.4.2.1 Maps of Chinese dialect distribution in Thailand.

This section includes:

3.4.2.1.1   The map of Chinese dialects in Thailand displaying all dialects.

3.4.2.1.2   The map of all Chinese dialects in Thailand displaying Chinese dialect areas:

- Where is Yunnanese spoken in Thailand?
- Where is Hakka spoken in Thailand?
- Where is Teochew spoken in Thailand?
- Where is Hainanese spoken in Thailand?
- Where is Hokkien spoken in Thailand?
- Where is Cantonese spoken in Thailand?
- Where is Hokchew spoken in Thailand?
- Where is Guangsai spoken in Thailand?

3.4.2.2 The settlement of Chinese dialects in Thailand

This section will present three parts:

3.4.2.2.1   The migration pattern of Chinese people into Thailand up to the present time.

3.4.2.2.2   The distribution of different Chinese dialect speakers related to the period of Chinese immigration into Thailand.

CHAPTER IV
PHONOLOGICAL SYSTEM OF CHINESE DIALECTS
IN THAILAND

This chapter analyzes the phonological characteristics of Chinese dialects in Thailand which are divided into eight Chinese dialects: 4.1) Yunnanese 4.2) Hakka 4.3) Teochew 4.4) Hainanese 4.5) Hokkien 4.6) Fuzhou (Hokchew) 4.7) Cantonese and 4.8) Guangsai. The eight Chinese dialects in Thailand can be grouped into 4 groups as follows:

1. Mandarin (include Yunnanese)

2. Hakka or Kejia

3. Yue or Cantonese (include Cantonese and Guangsai)

4. Min divided into   a) Eastern Min (include Fuzhou / Hokchew)

b) Southern Min (include Teochew, Hokkien, and Hainanese)

In each Chinese dialect, there are three major classes of phonemes: consonants, vowels and tones as described below:

4.1 Yunnanese phonology

Yunnanese dialect belongs to the southwestern subdivision of the Mandarin group. As Yunnan (云南) has many provinces, there is a regional variation of phonologies. In Thailand, Yunnanese came from Yunnan in China. The Yunnanese people immigrated into Thailand since 1800 because of political reasons. As the Yunnanese people who immigrated into Thailand came from different cities of Yunnan, they speak different sub-dialects of Yunnanese. This research found that there are 5 subdialects of Yunnanese in Thailand as explained below:

- Yunnanese subdialect 1: YS1, is Yunnanese phonology from Muang Hai of Xishuagbanna Autonomous Region of Tai Ethnic Group (孟海县, 西双版纳傣族自治州).

- Yunnanese subdialect 2: YS2, is Yunnanese phonology from Kunming in Yunnan (昆明).

- Yunnanese subdialect3: YS3, is Yunnanese phonology from Longling in Yunnan (龙陵县).

- Yunnanese subdialect4: YS4, is Yunnanese phonology from Simao district in Yunnan (思茅区).

- Yunnanese subdialect5: YS5, is from the northern part of Yunnan.

4.1.1 Yunnanese Consonant Phonemes

The consonant phonemes consist of /p, ph, t, th, k, kh, m, n, ŋ, ts, tsh, tɕ, tɕh, f, s, z, ɕ, x, l, ʔ/ as shown in table 4.1 below:

Point of Articulation / Manner of Articulation			Bilabial	Labio-dental	Alveolar	Alveolo-palatal	Velar	Glottal
Plosives (Stop)	- voice	-asp	p		t		k	(ʔ)
		+asp	ph		th		kh	
Nasals	+ voice		m		n		(ŋ)	
Affricates	- voice	-asp			ts	tɕ		
		+asp			tsh	tɕh		
Fricatives	- voice			f	s	ɕ	x	
	+ voice				z			
Lateral Approximants					l			ø

Table 4.1   Yunnanese Consonant Phonemes

The consonant phoneme /ŋ / is found in Yunnanese subdialects 1 and 2, but [ŋ] is the allophone of /n/ in Yunnanese subdialect 3, 4 and 5.

/ʔ/ is found in some subdialects of Yunnanese. It only occurs with the tone [31ʔ]

From table 4.1, the Yunnanese subdialects can be classified into 2 groups based on the presence and absence of the phoneme /ŋ/.

The Yunnanese subdialect group 1 has 19 consonants: /p, ph, t, th, k, kh, m, n, ŋ, ts, tsh, tɕ, tɕh, f, s, z, ɕ, x, l/ which can occur as final consonants. All consonants except /ŋ/ can occur as initial consonants.

The Yunnanese subdialect group 2 has 18 consonants: /p, ph, t, th, k, kh, m, n, ŋ, ts, tsh, tɕ, tɕh, f, s, z, ɕ, x, l/. The phoneme /n/ has two allophones: [n] and [ŋ] which have varied distribution in different sub – dialects. In YS3 and YS4, [n] occur both in the initial and final position while [ŋ] occurs only in the final position. In YS5, [n] and [ŋ] occur as free variation in both initial and final positions. In final position of YS3, YS4, and YS5, [n] follows [iɛ] and [ŋ] follows /ɔ, ia, iɔ/ whereas [n] and [ŋ] are free variants elsewhere. The contrastive consonants of Yunnanese subdialects are shown in table 4.2.

Yunnanese subdialect	Yunnanese consonant group 1		Yunnanese consonant group 2		
	YS1	YS2	YS3	YS4	YS5
Consonant phonemes	19 consonant phonemes /p, ph, t, th, k, kh, m, n, ŋ, ts, tsh, tɕ, tɕh, f, s, z, ɕ, x, l/		18 consonant phonemes /p, ph, t, th, k, kh, m, n, ts, tsh, tɕ, tɕh, f, s, z, ɕ, x, l/		
Initial consonants	All consonants except /ŋ/		All 18 consonants		
			/n/ → [n] / #_		/n/ → [n] ~[ŋ] / #_
Final consonants	/n, ŋ/		/n/ → [n] / iɛ_# → [ŋ] /ɔ, ia, iɔ_# → [n] ~[ŋ] / elsewhere		

Table 4.2   The contrastive consonants of Yunnanese dialect in Thailand

4.1.2 Yunnanese Vowel Phonemes

Yunnanese vowel phonemes have three types: monophthongs, diphthongs and triphthongs. The number of vowel phonemes is varied in subdialects. YS1 and YS2 have 8 monophthongs: /i, ɛ, a, ə, ɯ, u, o, ɔ/, while YS3 and YS5 have 6 monophthongs: /i, a, ə, ɯ, u, o/ and YS4 has 5 monophthongs: /i, a, ə, u, o/. The vowel phonemes /i, a, ə, u, o/ occur in every subdialect. The vowel phoneme /ɔ/ appears in YS1 and YS2 while [ɔ] is an allophone of /o/ in YS3, 4 and 5. The last vowel phoneme /ɯ/ appears in all subdialects except YS4, because [ɯ] is an allophone of /i/ in YS4.

All Yunnanese subdialects have four triphthongs: /iau, iəu, uai, uəi/. There are thirteen diphthongs: /iɛ, ia, iɔ, iu, ai, au, əi, əu, ɔi, ou, ui, ua, uɔ/ in YS1. YS2 – YS5 have 12 diphthongs, /ou/ disappears in YS3, 4 and 5 while the diphthong /ɔi/ disappears in YS2, 3, 4 and 5. YS3, 4, 5 have the diphthong /uə/ while YS1 and YS2 do not. All vowel phonemes are shown in table 4.3:

Yunnanese subdialect	YS1 Muang Hai	YS2 Kunming	YS3 Longling	YS4 Simao	YS5 Northern
Monophthongs	8 monophthongs /i, ɛ, a, ə, ɯ, u, o, ɔ/		6 monophthongs /i, a, ə, ɯ, u, o/. /o/→ [o] / _[ŋ]# ; [ɔ] / elsewhere	5 monophthongs /i, a, ə, u, o/ /i/→ [ɯ] / ts, tsh, s, z/_# ; [i] / elsewhere /o/→ [o] / _[ŋ]# ; [ɔ] / elsewhere	6 monophthongs /i, a, ə, ɯ, u, o/ /o/→ [o] / _# ; [o] / _[ŋ]# ; [ɔ] /tɕ, l/ _#
Diphthongs	13 diphthongs /iɛ, ia, iɔ, iu, ai, au, əi, əu, ɔi, ou, ui, uan, uɔn/	12 diphthongs /iɛ, ia, iɔ, iu, ai, au, əi, əu, əo, ui, uan, uɔn/	12 diphthongs /iɛ, ia, iɔ, iu, ai, au, əi, əu, ui, uan, uɔn, ən/		
Triphthongs	4 triphthongs /iau, iei, uan, uɔn/				

Table 4.3   The contrastive vowel of Yunnanese

4.1.3 Yunnanese tones

Tones of Yunnanese can be divided into 2 patterns. They are 4 tones and 5 tones as explained below.

4.1.3.1 Yunnanese tone pattern 1

Yunnanese tone pattern 1 has 4 tones: 1) mid or mid high level tone, 2) low level tone or mid falling tone, 3) high falling or high mid falling tone, 4) low falling rising tone or low rising tone. Yunnanese tone pattern 1 is found in YS1, YS4 and YS5. In YS1, tone pattern 1 has two types. The difference of Yunnanese tone values are shown in table 4.4 and charts 4.1 – 4.4.

Subdialect / Tones	YS1: Type 1	YS1: Type 2	YS4	YS5
Tone 1	33	33	33	33
Tone 2	22	31	31ʔ	31ʔ
Tone 3	52	53	42	53
Tone 4	213	23	23	214

Table 4.4   The tone value of Yunnanese tone pattern 1

4.1.3.2 Yunnanese tone pattern 2

Yunnanese tone pattern 2 has 5 tones which is found in YS2: Kunming and YS3: Longling. They are 1) high mid and mid level tone, 2) low or low mid level tone, 3) low falling rising tone and high mid level tone, 4) high falling tone and low rising tone, and 5) mid falling tone. Yunnanese tone pattern 2 is found in YS2 and YS3 as shown in table 4.5 and charts 4.5 – 4.6.

Tones / Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5
YS2	44	11	213	53	$31^{?}$
YS3	44	22	53	23	$31^{?}$

Table 4.5   The tone value of Yunnanese tone pattern 2

From the Chinese history, four different types of tone were identified in Middle Chinese: 1.Ping (平) 'level', 2. Shang (上) 'rising', 3. Qu (去) 'departing', and 4. Ru (入) 'entering' (ending with a stop –p, -t, and –k). The four tones were further split into eight categories according to voicing initial consonants. Two registers from voicing initial consonants, traditionally called Yin (阴) 'voiceless initials' and Yang (阳) 'voiced initials'; Yin is applied to the higher or upper register while Yang is applied to the lower register in Middle Chinese. Moreover, some dialects from Middle Chinese could be further split into nine categories based on the original 4 tones of Middle Chinese as follows:

Tone 平 1 Level, 上 2 Rising, and 去 3 Departing. For tone 入 4 Entering: 阴入 Yin Entering became to two tones, 高入 High Entering and 中入 Mid Entering, and 阳入 Yang Entering became to 低入 Low Entering.

At the present, tones of Yunnanese can be divided into 2 patterns which have 4 tones and 5 tones following tables 4.4 - 4.5 and charts 4.1 - 4.6. Four and five contrastive tones in pattern 1 and 2 which have developed from the four historical tone categories of Yunnanese dialect tone system in Thailand are shown in tables 4.6 - 4.7 below:

Name of Province in Yunnan		阴平 Yin Ping	阳平 Yang Ping	上 Shang	去 Qu	入 Ru
YS1 Muang Hai	Type 1	33	22	52	213	22
	Type 2	33	31	53	23	31
YS4 Simao		33	$31^{?}$	42	23	$31^{?}$
YS5 Northern part		33	$31^{?}$	53	214	$31^{?}$

Tone of Ru sheng merges with Yang Ping

Table 4.6   Tone value of Yunnanese tone pattern 1 from the splitting of the Middle Chinese tone categories (Shown in each subdialect)

Name of Province in Yunnan	阴平 Yin Ping	阳平 Yang Ping	上 Shang	去 Qu	入 Ru
YS2 Kunming	44	11	213	53	$31^{?}$
YS3 Longling	33	22	44	23	$31^{?}$

Table 4.7   Tone value of Yunnanese tone pattern 2 from the Middle Chinese tone

categories (Shown in each subdialect)

Tables 4.6 and 4.7 show that the tone development from Ancient Chinese to Middle Chinese and into Yunnanese in Thailand can be described as follows:

1. The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to mid level or high mid level tone while Yang ping corresponds to mid to low falling or low level tone.

2. The ancient rising tone category (上声 Shang Sheng) corresponds to high falling tone, low falling rising tone or mid high level tone.

3. The ancient departing tone category (去声 Qu Sheng) corresponds to low rising, low falling rising tone or high falling tone.

4. The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, and –k have been lost in Yunnanese in Thailand. As the final stops p, t, k were all lost, so this tone category merged with the Yang Ping category in Yunnanese pattern 1. On the other hand, although all final stops p, t, k in Yunnanese pattern 2 were also lost as Yunnanese pattern 1, this tone did not merge with the Yang Ping category and corresponds to mid falling tone.

Charts 4.1 - 4.6 show the phonetic realization of tones from Ancient Chinese to Middle Chinese and into Yunnanese in Thailand below:

1) The phonetic realization of Yunnanese tone pattern 1
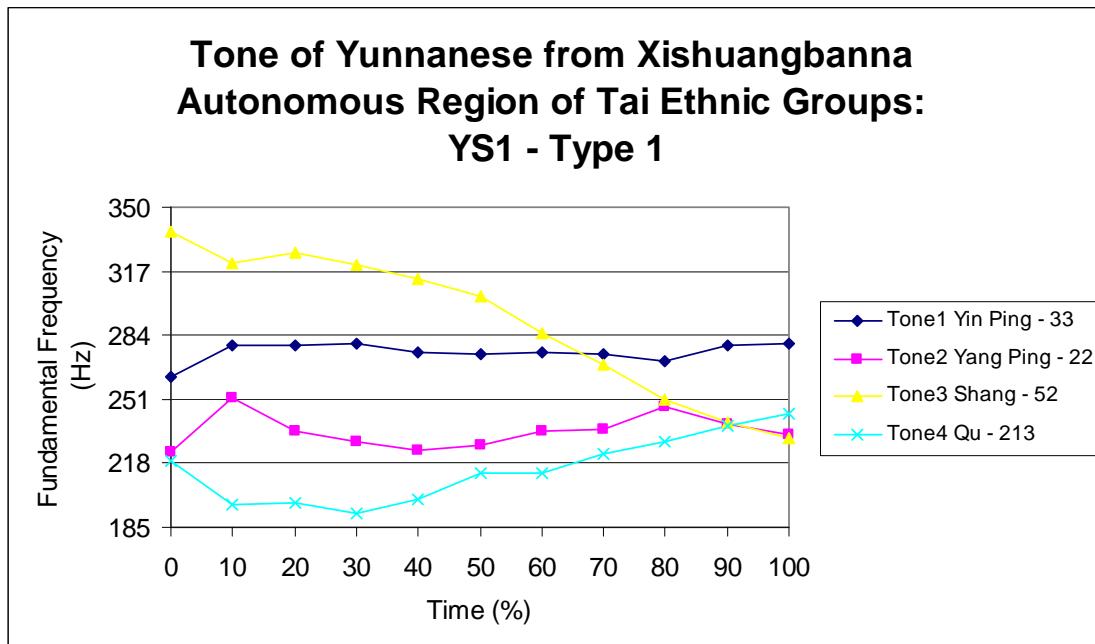
Chart 4.1   Phonetic realization of four tones: YS1 Pattern 1- Type 1
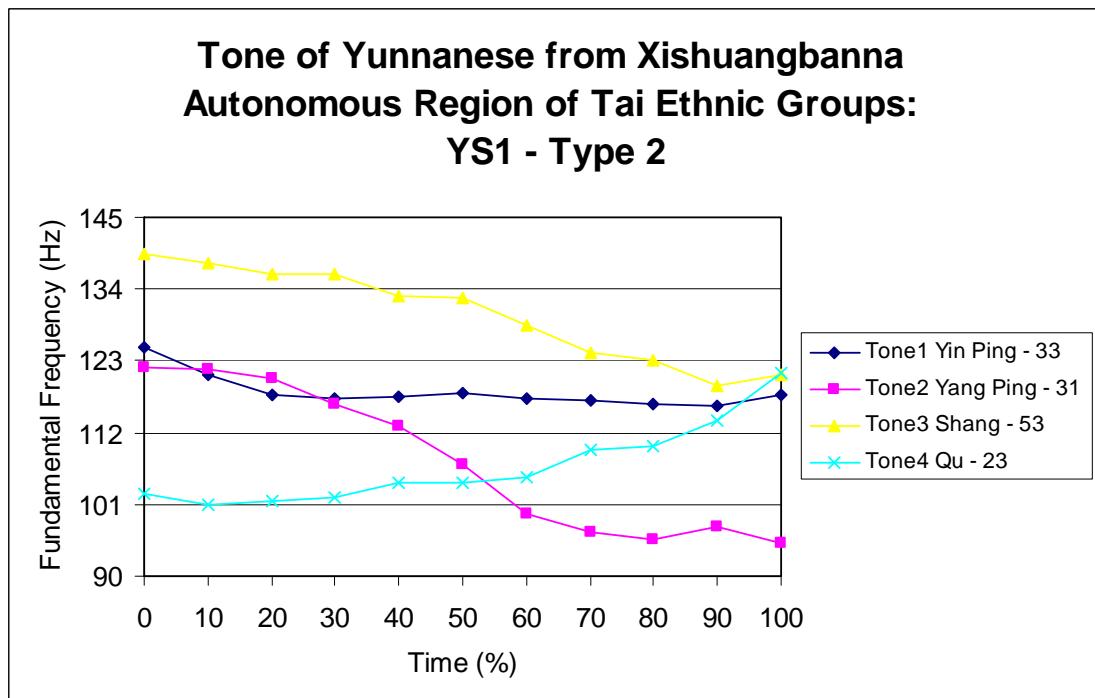
Chart 4.2   Phonetic realization of four tones: YS1 Pattern 1- Type 2
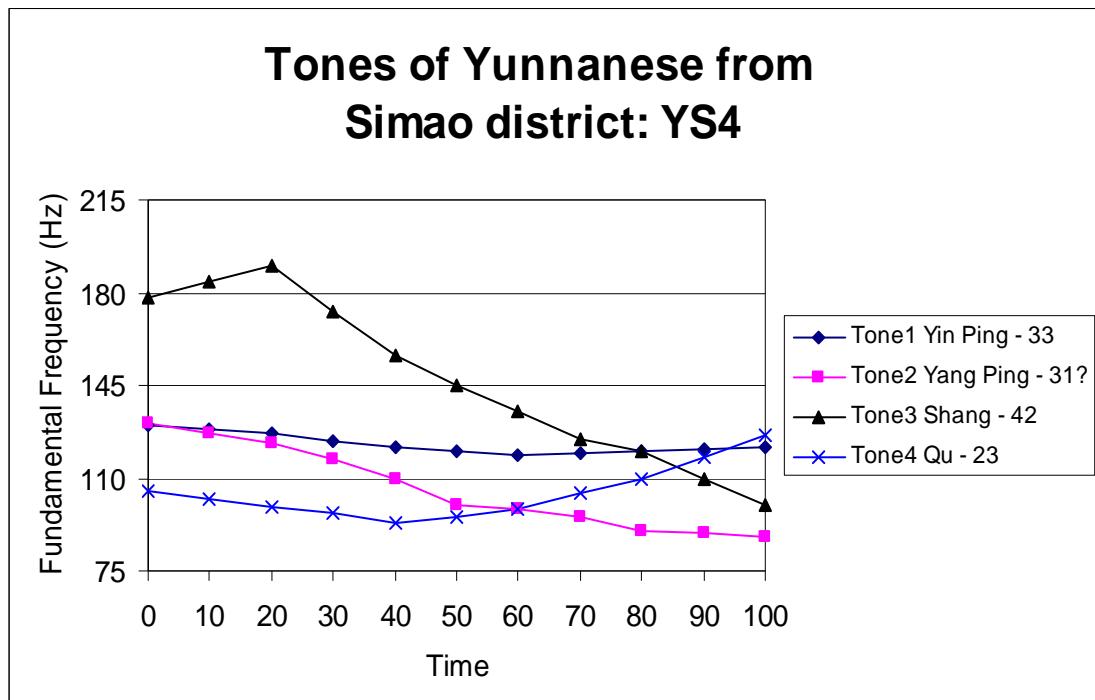
Chart 4.3   Phonetic realization of four tones: YS4
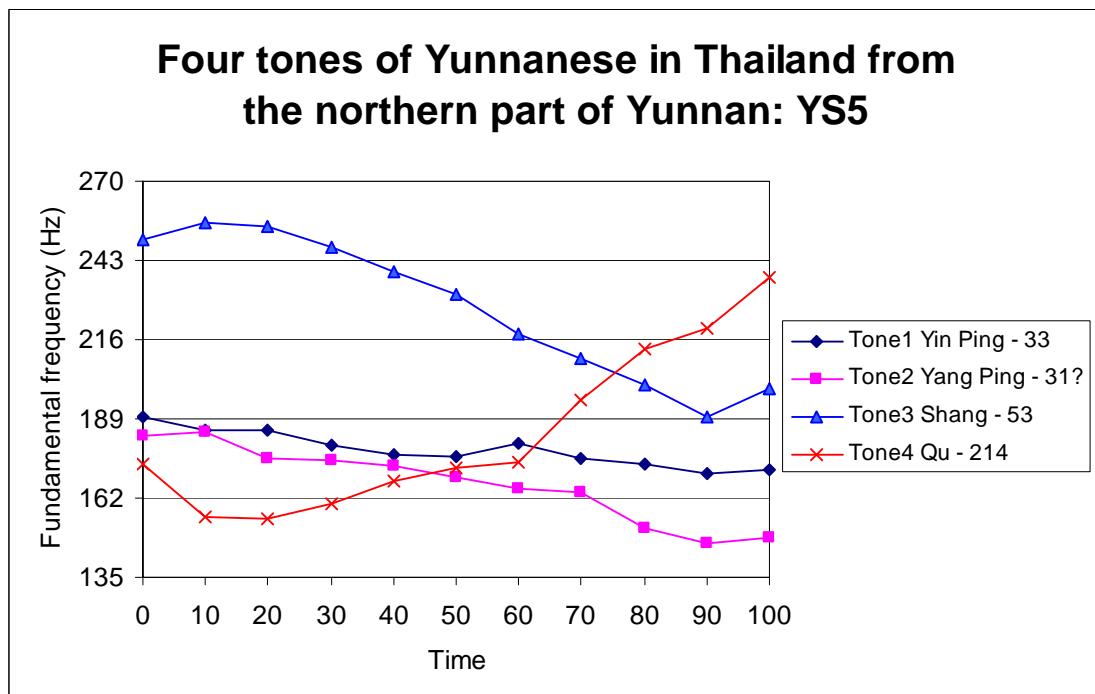
Chart 4.4   Phonetic realization of four tones: YS5

2) The phonetic realization of Yunnanese tone pattern 2
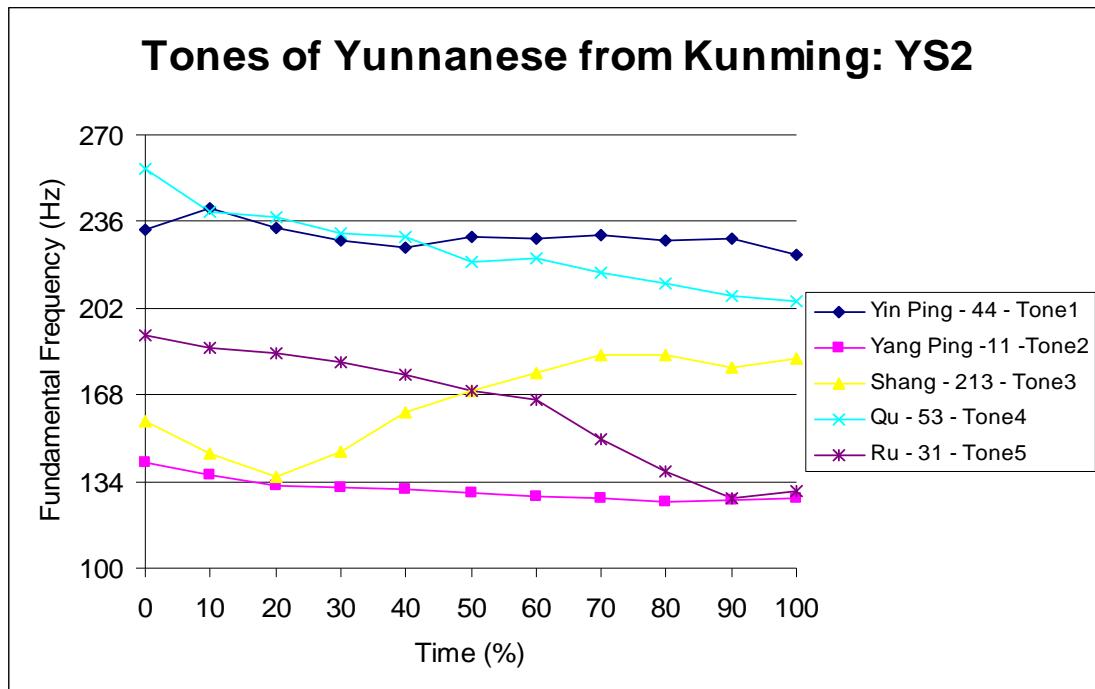
Chart 4.5   Phonetic realization of five tones: YS2
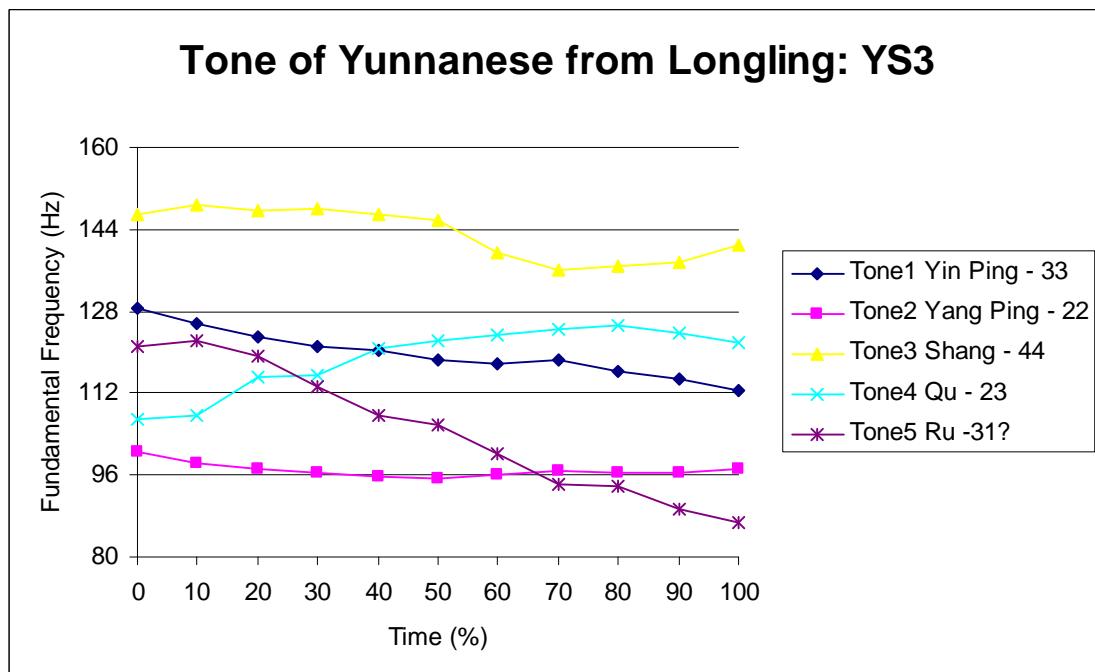
Chart 4.6   Phonetic realization of four tones: YS3

4.2 Hakka phonology

            Hakka or Kejie dialect in Thailand has 2 subdialects: Ng-yan group (Chim Khak or Deep Hakka) and Hoi-liuk fung group (Pan San Khak or Half mountain). The consonant phonemes of these two subdialects are the same. There are 18 consonant phonemes: /p, ph, t, th, ts, tsh, k, kh, ʔ, m, n, ŋ, l, f, s, h, w, j/. All consonants can occur in the initial position and six consonant phonemes: /p, t, k, m, n, ŋ/ can occur in the final position. The 18 consonant phonemes are shown in table 4.8.

Point of Articulation Manner of Articulation			Bilabial	Labio- dental	Alveolar	Velar	Glottal
Plosives (Stop)	- voice	-asp	p		t	k	ʔ
		+asp	ph		th	kh	
Nasals	+ voice		m		n	ŋ	
Affricates	- voice	-asp			ts		
		+asp			tsh		
Fricatives	- voice			f	s		h
Lateral					l		
Approximants			w		j		

Table 4.8   Hakka Consonant Phonemes in Thailand

4.2.1 Ng-yan group (Chim Khak or Deep Hakka)

            Most Chim Khak or Deep Hakka in Thailand came from Meixian and Hsing Ning (Xingning). Since Meixian Hakka and Hsing Ning Hakka are found most in Thailand, the phonologies of these two subdialects will be described.

4.2.1.1 Meixian Hakka Phonology

            Meixian Hakka Phonology can be divided into three parts: consonant, vowel and tones as explained below.

4.2.1.1.1 Meixian Hakka Consonant Phonemes

Meixian Hakka in Thailand has 18 consonant phonemes: /p, ph, t, th, ts, tsh, k, kh, ʔ, m, n, ŋ, l, f, s, h, w, j/ as shown in table 4.8.

4.2.1.1.2 Meixian Hakka Vowel Phonemes

Meixian Hakka vowel phonemes has three types: monophthongs, diphthongs and triphthongs. There are six monophthongs: / i, ɛ, ɯ, a, o, u/, thirteen diphthongs: /iɛ, ia, iɔ, iu, ɛu, ai, au, oi, ou, ui, uɛ, uo, ua/, and three triphthongs: /iau, iai, uai/. Moreover there is syllabic /m̩/ which can form a syllable by its own.

4.2.1.1.3 Meixian Hakka Tones

Meixian Hakka has two patterns. All patterns have six tones which can be grouped into two categories according to live and dead syllables. The live syllable tones occur on open syllables and syllables closed with nasals /m, n, ŋ/. On the other hand, the dead syllable tones occur on syllables closed with stops /p, t, k/. Meixian Hakka tones pattern 1 are 1) mid level tone [33], 2) low mid falling tone [21], 3) mid to low falling tone [31], 4) high mid level tone [44], 5) mid to low mid falling tone [32], and 6) high level tone [55]. Meixian Hakka tones pattern 2 are 1) mid level tone [33], 2) low mid rising tone [23], 3) low mid to low falling tone [21], 4) mid to low mid falling tone [32], 5) high mid level tone [44], and 6) high level tone [55]. Tones of Meixian Hakka are shown in tables 4.9 - 4.11 and charts 4.7 – 4.8.

Tones \ Subdialect		Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6
Meixian Hakka	Pattern 1	33	21	31	44	32	55
	Pattern 2	33	23	21	32	44	55

Table 4.9   Meixian Hakka tones

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[33] Tone 1 Mid level tone	[31] Tone 3 Mid to low falling tone	[44] Tone 4 High mid level tone	[32] Tone 5 Short Mid to low mid falling tone
阳 Yang	[21] Tone 2 Low mid falling tone			[55] Tone 6 Short High level tone

Table 4.10 Tone values of Meixian Hakka pattern 1 in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[33] Tone 1 Mid level tone	[32] Tone 4 Mid to low mid falling tone	[44] Tone 5 High mid level tone	[32] Tone 3 Short Mid to low mid falling tone
中 Zhong	[23] Tone 2 Low mid rising tone			
阳 Yang	[21] Tone 3 Low mid falling tone		[33] Tone 1 Mid level tone	[55] Tone 6 Short High level tone

Table 4.11 Tone values of Meixian Hakka pattern 2 in Thailand

Tables 4.10 and 4.11 show the tone development from Ancient Chinese to Middle Chinese and into Meixian Hakka in Thailand as described below.

1. The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping) in Meixian Hakka pattern 1. Yin Ping corresponds to mid level tone while Yang ping corresponds to low mid falling tone. Meixian Hakka pattern 2 split into three tone categories: upper level tone (阴平 Yin Ping), middle level tone (中平 Zhong Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to mid level tone while Zhong Ping corresponds to low mid rising tone and Yang ping corresponds to low mid falling tone of Meixian Hakka in Thailand.

2. The ancient rising tone category (上声 Shang Sheng) corresponds to mid to low falling tone in pattern 1 and mid to mid low falling tone in pattern 2.

3. The ancient departing tone category (去声 Qu Sheng) can be divided into two groups. First group found in Meixian Hakka tones pattern 1, the ancient departing tone category does not split, so this tone category corresponds to high mid level tone. Second group found in Meixian Hakka tones pattern 2, the ancient departing tone category split into two tone categories: upper departing tone (阴去 Yin Qu) and lower level tone (阳去 Yang Qu). Yin Qu corresponds to high mid level tone while Yang Qu corresponds to mid level tone.

4. The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, and –k split into two categories: upper entering tone (阴入 Yin Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to short mid falling tone while Yang Ru corresponds to short high level tone. All two tone patterns of Meixian Hakka in Thailand and the same tones.

The tone splitting from Ancient Chinese to Middle Chinese and into all two tone patterns of Meixian Hakka in Thailand are shown in charts 4.7 and 4.8 below:
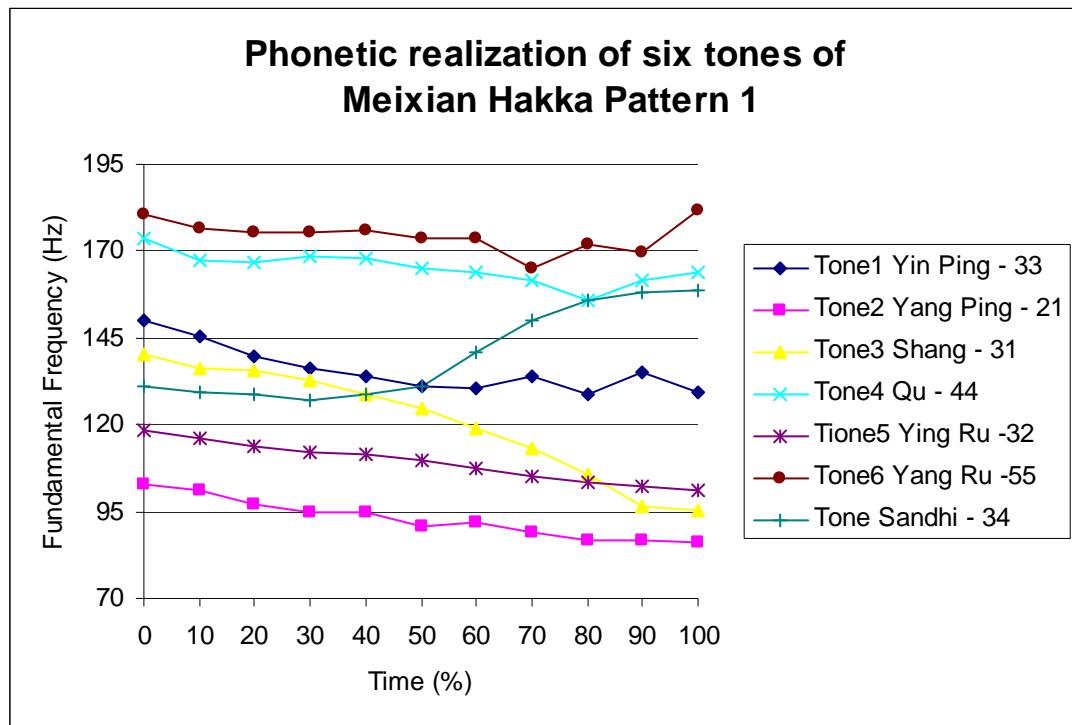
Chart 4.7   Phonetic realization of six tones of Meixian Hakka pattern 1
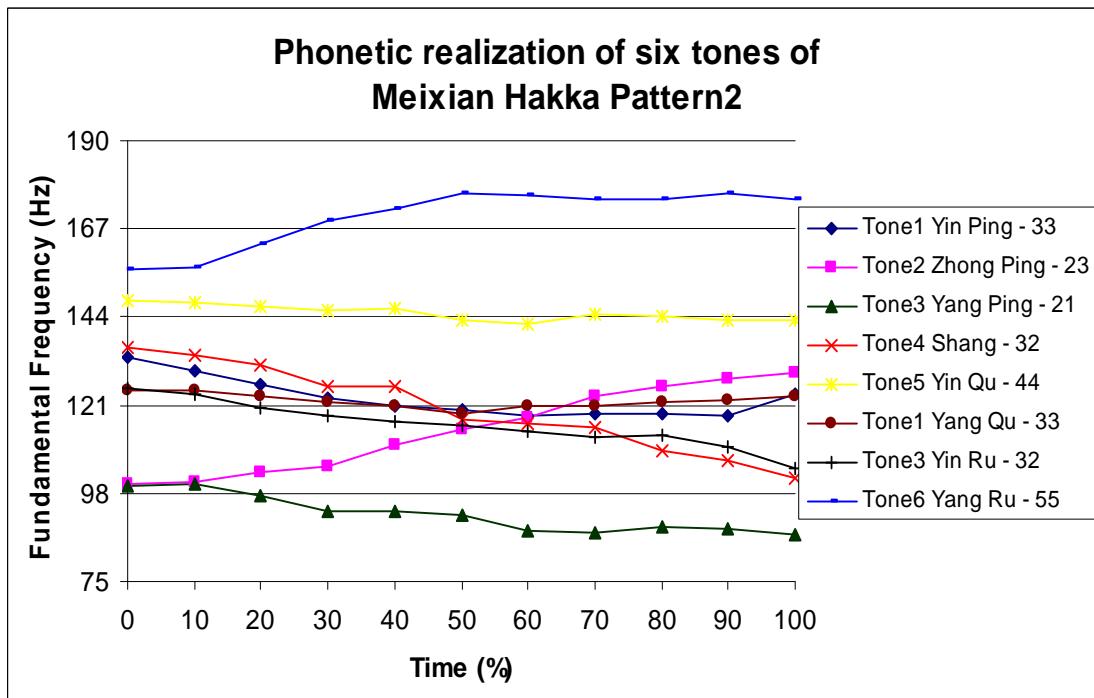
Chart 4.8   Phonetic realization of six tones of Meixian Hakka pattern 2

4.2.1.2 Hsing Ning or Xingning Hakka Phonology

Hsing Ning or Xingning Hakka Phonology can be divided into three parts: consonant, vowel and tones as explained below.

4.2.1.2.1 Hsing Ning Hakka Consonant Phonemes

Hsing Ning Hakka in Thailand has 18 consonants phonemes: /p, ph, t, th, ts, tsh, k, kh, ʔ, m, n, ŋ, l, f, s, h, w, j/ as shown in table 4.8.

4.2.1.2.2 Hsing Ning Hakka Vowel Phonemes

Hsing Ning Hakka vowel phonemes has three types: monophthongs, diphthongs and triphthongs. There are six monophthongs: / i, ɛ, ɯ, a, o, u/, twelve diphthongs: /ia, iɛ, io, iu, ɛu, ai, au, oi, ou, ui, uɛ, ua/, and three triphthongs: /iɛu, iau, uai/. Moreover there are two syllabics /m̩/ and /ŋ̍/ which can form a syllable their own.

4.2.1.2.3 Hsing Ning Hakka Tones

Hsing Ning Hakka has six tones which can be grouped into two categories according to live and dead syllables. There are five tones: 1) low mid level tone, 2) low level tone, 3) high falling tone, 4) high mid level tone which occur on the live syllables and two tones: 5) short mid level tone, and 6) short high level tone which occurs on the dead syllables. Tones of Hsing Ning Hakka are shown in tables 4.12 – 4.13 and chart 4.9 below.

Tones / Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6
Hsing Ning Hakka	22	11	53	44	33	55

Table 4.12 Hsing Ning Hakka tones

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 **Yin**	[22] Tone 1 Low mid level tone	[53] Tone 3 High falling tone	[44] Tone 4 High mid level tone	[33] Tone 5 Short Mid level tone
阳 **Yang**	[11] Tone 2 Low level tone			[55] Tone 6 Short High level tone

Table 4.13 Tone values of Hsing Ning Hakka

Table 4.13 shows the tone development from Ancient Chinese to Middle Chinese and into Hsing Ning Hakka in Thailand as described below.

1. The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to low mid level tone while Yang ping corresponds to low level tone in Hsing Ning Hakka in Thailand.

2. The ancient rising tone category (上声 Shang Sheng) corresponds to high falling tone.

3. The ancient departing tone category (去声 Qu Sheng) corresponds to high mid level tone.

4. The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, and –k split into two categories: upper entering tone (阴入 Ying Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to short mid level tone or short mid falling tone while Yang Ru corresponds to short high level tone in Hsing Ning Hakka in Thailand.

The tone splitting from Ancient Chinese to Middle Chinese and into Hsing Ning Hakka in Thailand is shown in chart 4.9 below.
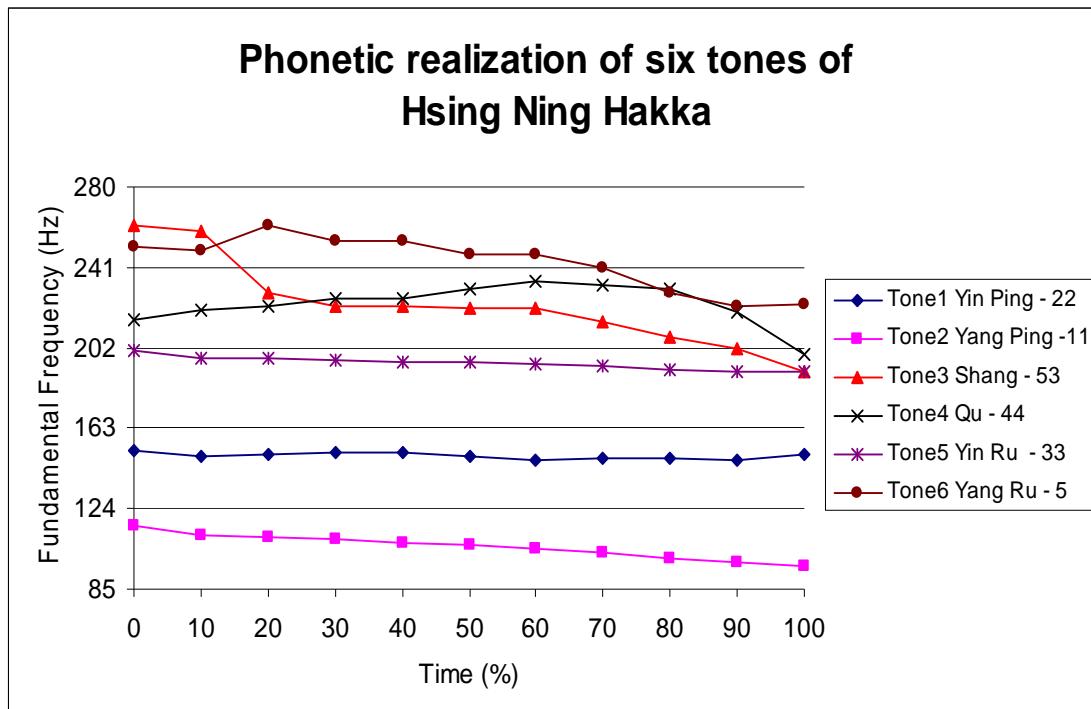
Chart 4.9   Phonetic realization of six tones of Hsing Ning Hakka

4.2.2. Pan San Khak (Half mountain)

Most Pan San Khak Hakka in Thailand came from Fengshun or Hong Sun, Dabu, Jie Yang or Kiet Yong (Kik Io). The phonologies of Pan San Khak can be divided into two groups which will be described below.

1) Fengshun and Dabu Hakka Phonology

2) Jie Yang or Kiet Yong (Kit Io) Hakka Phonology

4.2.2.1 Fengshun and Dabu Hakka Phonology

Fengshun and Dabu Hakka Phonology can be divided into three parts: consonant, vowel and tones as explained below.

4.2.2.1.1   Fengshun and Dabu Hakka
Consonant Phonemes

Fengshun and Dabu Hakka in Thailand has 18 consonant phonemes: /p, ph, t, th, ts, tsh, k, kh, ʔ, m, n, ŋ, l, f, s, h, w, j/ as shown in table 4.8.

4.2.1.1.2 Fengshun and Dabu Hakka Vowel Phonemes

Fengshun and Dabu Hakka vowel phonemes have three types: monophthongs, diphthongs and triphthongs. There are seven monophthongs: /i, ɛ, ɯ, a, ɔ, o, u/, fourteen diphthongs: /ia, iɛ, io, iɔ, iu, ɛu, ai, au, ɔi, oi, ui, uɛ, uo, ua/, and three triphthongs: /iɛu, iau, uai/. Moreover, Fengshun and Dabu Hakka has syllabic /ŋ/.

4.2.1.1.3 Fengshun and Dabu Hakka Tones

Fengshun and Dabu Hakka has five tones: 1) mid level tone, 2) low rising tone, 3) high falling tone, 4) high mid level tone, and 5) low mid falling tone. Fengshun and Dabu Hakka tone is shown in tables 4.14 – 4.15 and charts 4.10 below.

Subdialect \ Tones	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5
Fengshun or Hong Sun Hakka	33	13	52	44	21

Table 4.14 The tone value of Fengshun and Dabu Hakka

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[33] Tone 1 Mid level tone	[52] Tone 3 High falling tone	[44] Tone 4 High mid level tone	[21] Tone 5 Low mid falling tone
阳 Yang	[13] Tone 2 Low rising tone		[21] Tone 5 Low mid falling tone	[44] Tone 4 High mid level tone

Table 4.15 Tone split of Fengshun and Dabu Hakka

Table 4.15 shows the tone development from Ancient Chinese to Middle Chinese and into Fengshun and Dabu Hakka tone in Thailand as described below.

1. The ancient level tone category (平声 Ping Sheng) split into two
tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang
Ping). Yin Ping corresponds to mid level tone while Yang ping corresponds to low
rising tone in Fengshun and Dabu Hakka in Thailand.

2. The ancient rising tone category (上声 Shang Sheng) corresponds to
high falling tone.

3. The ancient departing tone category (去声 Qu Sheng) split into two
tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去
Yang Qu). Yin Qu corresponds to high mid level tone while Yang Qu corresponds to
low mid falling tone.

4. The ancient entering tone category (入声 Ru sheng) which ending
with a stop –p, -t, –k, and -ʔ split into two categories: upper entering tone (阴入 Ying
Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to low mid falling
tone while Yang Ru corresponds to high mid level tone.

Yin Qu merges with Yang Ru while Yang Qu merges with Yin Ru. The
tones splitting from Ancient Chinese to Middle Chinese and into Fengshun and
DabuHakka in Thailand is shown in charts 4.10 below.
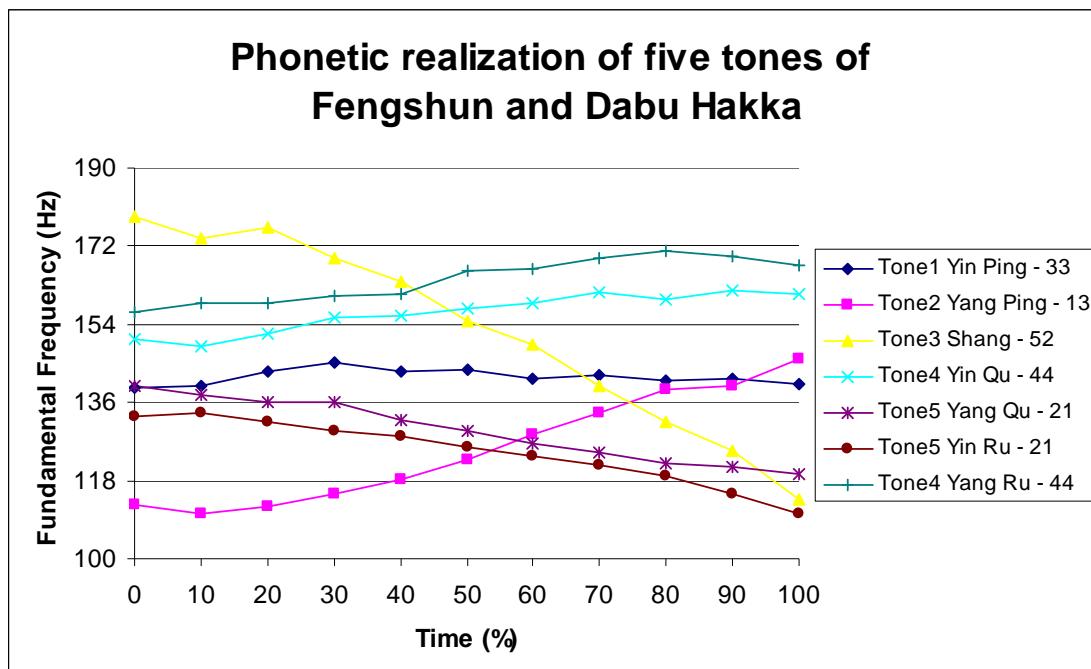
Chart 4.10 Phonetic realization of five tones of Fengshun and Dabu Hakka

4.2.2.2 Jie Yang or Kiet Yong (Kik Io) Hakka Phonology

Jie Yang or Kiet Yong (Kik Io) Hakka

phonology can be divided into three parts: consonant, vowel and tones as explained below.

4.2.1.1.1 Jie Yang or Kiet Yong (Kik Io)
Hakka Consonant Phonemes

Jie Yang or Kiet Yong (Kik Io) Hakka in

Thailand has 18 consonant phonemes: /p, ph, t, th, ts, tsh, k, kh, ʔ, m, n, ŋ, l, f, v, s, h, j/. as show in table 4.8.

4.2.1.1.2 Jie Yang or Kiet Yong (Kik Io)
Hakka Vowel Phonemes

Jie Yang or Kiet Yong (Kik Io) Hakka

vowel phonemes have three types: monophthongs, diphthongs and triphthongs. There are six monophthongs: / i, ɛ, ɯ, a, ɔ, u/, eleven diphthongs: /ia, iɔ, iu, ɛu, ai, au, ɔi, ui, uɔ, uɛ, ua/, and three triphthongs: /iau, iui, uai/. Moreover there are syllabics /m̩/ and /ŋ̍/.

4.2.1.1.3 Jie Yang or Kiet Yong (Kik Io)
Hakka Tones

Jie Yang or Kiet Yong (Kik Io) Hakka has

seven tones which can be grouped into two categories according to live and dead syllables. There are four tones: 1) high falling tone, 2) mid rising tone, 3) low rising tone, 4) mid falling tone, 5) low level tone which occur on the live syllables and two tones: 6) short mid rising tone, and 7) short high level tone which occur on the dead syllables. Tones of Jie Yang or Kiet Yong (Kik Io) Hakka are shown in tables 4.16 – 4.17 and chart 4.11 below.

Tones \ Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6	Tone 7
Jie Yang or Kiet Yong (Kik Io) Hakka	52	35	14	31	22	24	44

Table 4.16 Tones value of Jie Yang or Kiet Yong (Kik Io) Hakka tone in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[52] Tone 1 High falling tone	[14] Tone 3 Low rising tone	[31] Tone 4 Mid falling tone	[24] Tone 5 Low mid rising tone
阳 Yang	[35] Tone 2 Mid rising tone		[22] Tone 5 Low mid level tone	[44] Tone 6 High mid level tone

Table 4.17 Tone split of Jie Yang or Kiet Yong (Kik Io) Hakka in Thailand

Table 4.17 shows the tone development from Ancient Chinese to Middle Chinese and into Jie Yang or Kiet Yong (Kik Io) Hakka in Thailand as described below.

1. The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to high falling tone while Yang ping corresponds to mid rising tone in Jie Yang or Kiet Yong (Kik Io) Hakka in Thailand.

2. The ancient rising tone category (上声 Shang Sheng) corresponds to low rising tone.

3. The ancient departing tone category (去声 Qu Sheng) split into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). Yin qu corresponds to mid falling tone while Yang qu corresponds to low mid level tone.

4.   The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, and –k split into two categories: upper entering tone (阴入 Ying Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds low mid rising tone while Yang Ru corresponds to high mid level tone of Jie Yang or Kiet Yong (Kik Io) Hakka in Thailand.

The tone split from Ancient Chinese to Middle Chinese and into Jie Yang or Kiet Yong (Kik Io) Hakka in Thailand is shown in chart 4.11 below:
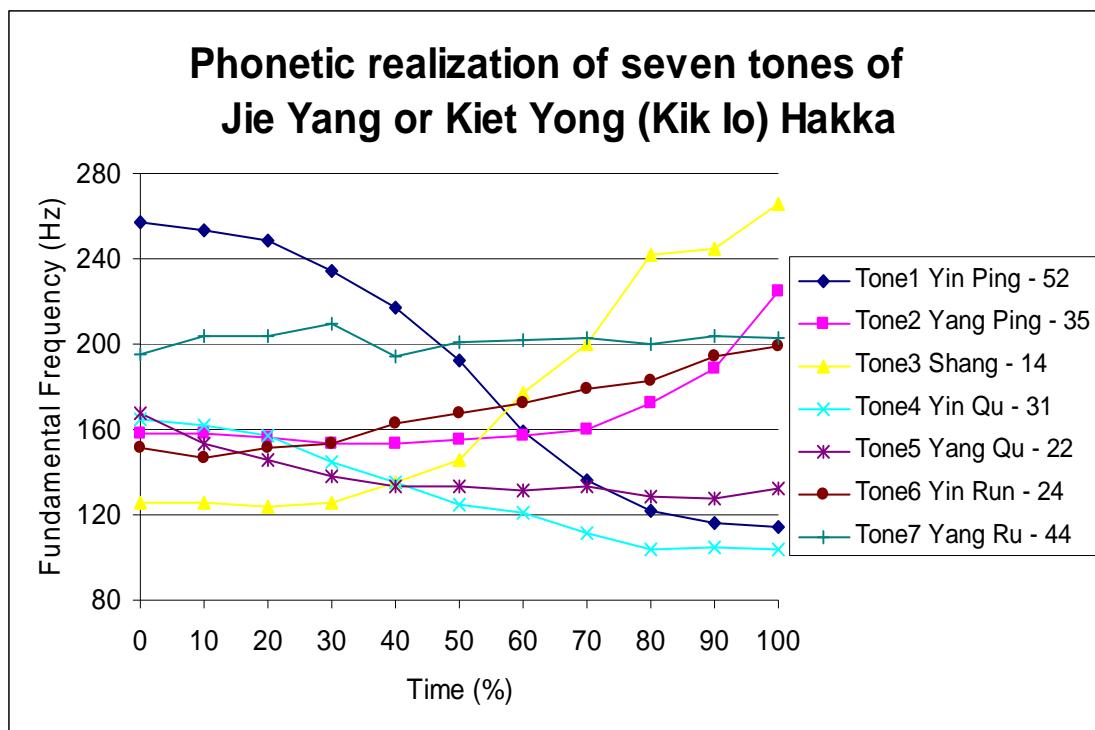
Chart 4.11 Phonetic realization of seven tones of Jie Yang or Kiet Yong (Kik Io)
Hakka in Thailand

The grouping of four subdialects of Hakka in Thailand into two subdialects: Ng-yan group (Chim Khak or Deep Hakka) and Hoi-liuk fung group (Pan San Khak) is not based on consonant phonemes. Both groups have the same 18 consonant phonemes: /p, ph, t, th, ts, tsh, k, kh, ʔ, m, n, ŋ, l, f, s, h, w, j/ and all consonants can occur in the initial position while six consonant phonemes: /p, t, k, m, n, ŋ/ can occur in the final consonant.

The two subdialects are differentiated by vowel phonemes and tones. Meixian Hakka has six monophthongs: / i, ɛ, ɯ, a, o, u/ which is the same as Hsing Ning Hakka, and Jie Yang or Kiet Yong (Kik Io) Hakka while Fengshun and Dabu Hakka has seven monophthongs: / i, ɛ, ɯ, a, ɔ, o, u/. For the diphthongs, Meixian Hakka has thirteen diphthongs: /iɛ, ia, iɔ, iu, ɛu, ai, au, oi, ou, ui, uɛ, uo, ua/, while Hsing Ning Hakka has twelve diphthongs: /iɛ, ia, io, iu, ɛu, ai, au, oi, ou, ui, uɛ, ua/, Fengshun and Dabu Hakka have fourteen diphthongs: /iɛ, ia, io, iɔ, iu, ɛu, ai, au, ɔi, oi, ui, uɛ, uo, ua/, and Jie Yang or Kiet Yong (Kik Io) Hakka has eleven diphthongs: /ia, iɔ, iu, ɛu, ai, au, ɔi, ui, uɔ, uɛ, ua/. Although Hsing Ning and Fengshun and Dabu have the same fourteen diphthongs, but /ou/ in Hsing Ning is not found in Fengshun and Dabu while /uo/ in Fengshun and Dabu is not found in Hsing Ning. Triphthongs in Meixian Hakka has three triphthongs: /iau, iai, uai/ while Hsing Ning Hakka and Fengshun and Dabu Hakka have the same three triphthongs: /iɛu, iau, uai/ and Jie Yang or Kiet Yong (Kik Io) Hakka has three triphthongs: /iau, iui, uai/ respectively. The difference of Hakka vowel phonemes is shown in table 4.18 below.

Subdialect of Hakka	Ng-yan group (Chim Khak or Deep Hakka)		Hoi-liuk fung group (Pan San Khak)	
Vowel	Meixian	Hsing Ning	Fengshun and Dabu	Jie Yang or Kiet Yong (Kik Io)
Monophthongs	/i/	/i/	/i/	/i/
	/ɛ/	/ɛ/	/ɛ/	/ɛ/
	/ɯ/	/ɯ/	/ɯ/	/ɯ/
	/a/	/a/	/a/	/a/
	-	-	/ɔ/	/ɔ/
	/o/	/o/	/o/	-
	/u/	/u/	/u/	/u/
Diphthongs	/ia/	/ia/	/ia/	/ia/
	/iɛ/	/iɛ/	/iɛ/	-
	/iɔ/	-	/iɔ/	/iɔ/
	-	/io/	/io/	-
	/iu/	/iu/	/iu/	/iu/
	/ɛu/	/ɛu/	/ɛu/	/ɛu/
	/ai/	/ai/	/ai/	/ai/
	/au/	/au/	/au/	/au/
	-	-	/ɔi/	/ɔi/
	/oi/	/oi/	/oi/	-
	/ou/	/ou/	-	-
	/ui/	/ui/	/ui/	/ui/
	/uɛ/	/uɛ/	/uɛ/	/uɛ/
	-	-	-	/uɔ/
	/uo/	-	/uo/	-
	/ua/	/ua/	/ua/	/ua/
Triphthongs		/iɛu/	/iɛu/	
	/iau/	/iau/	/iau/	/iau/
	/iai/	-	-	
	-	-	-	/iui/
	/uai/	/uai/	/uai/	/uai/

Table 4.18 The comparison of vowel phonemes of subdialects of Hakka in Thailand

The comparison of tone phonemes of Hakka in Thailand reveals that there are three groups which are five tones, six tones and seven tones as shown in table 4.19 below:

Group	Sub dialect	Yin Ping level		Yang Ping level (阳平)	Shang rising (上)	Yin Qu departing (阴去)	Yang Qu departing (阳去)	Yin Ru entering (阴入)	Yang Ru entering (阳入)
		Yin Ping (阴平)	Zhong Ping (中平)						
Group 1 (5 tones)	Fungshun and Dabu	33		13	52	44	21	21	44
	Meixian pattern 1	33		21	31	44	44	32	55
Group 2 (6 tones)	Meixian pattern 2	33	23	21	32	44	33	32	55
	Hsing Ning	22		11	53	44	44	33	55
Group 3 (7 tones)	JieYang or Kiet Yong (Kik Io)	52		35	14	31	22	24	44

Table 4.19 The comparison of Hakka tone value in Thailand

4.3 Teochew phonology

Most Teochew in Thailand came from Kik-Io, Theng-Hai, Phou-Leng, Tio-Io and Tio-Ang of Chaoshan, so Teochew dialects have 2 subdialects. The two Teochew subdialects have different phonologies in vowels and tones. Both subdialects have the same consonants. Two subdialects of Teochew in Thailand are explained below:

1) Teochew subdialect 1

Teochew subdialect 1 is used by speakers from Kik-Io, Theng - Hai, Tio - Io and Phou - Leng.

2) Teochew subdialect 2

Teochew subdialect 2 is used by speakers from Tio-Ang, some from Kik-Io and some from Theng-Hai.

There are eighteen consonant phonemes in 2 Teochew subdialects. They are /p, ph, b, t, th, k, kh, g, ʔ, m, n, ŋ, ts, tsh, s, z (j), h, l/. Some Teochew speakers of 2 subdialects replace /z/ with /j/ . All consonants can occur in syllable initial position. Only /p , k , ʔ , m , ŋ/ occur finally.

4.3.1 Teochew Consonant Phonemes

The eighteen consonant phonemes can be displayed according to their point and manner of articulation in table 4.20.

Point of Articulation Manner of Articulation			Labial	Alveolar	Palatal	Velar	Glottal
Plosives (Stop)	-voice	-asp	p	t		k	ʔ
		+asp	ph	th		kh	
	+voice		b			g	
Nasals	+voice		m	n		ŋ	
Affricates	-voice	-asp		ts			
		+asp		tsh			
Fricatives	-voice			s			h
	+voice			(z)			
Lateral	+voice			l			
Approximants	+voice				(j)		

Table 4.20 Teochew consonant phonemes in Thailand

4.3.2 Teochew Vowel Phonemes

There are nine monophthongs: six oral vowels and three nasalized vowels. They are / i, ĩ, ɛ, ɛ̃, ɯ, a, ã, o, u/, sixteen diphthongs - ten oral vowels and six nasalized vowels: /ia, iã, iu, io, iõ, ai, ãĩ, au, oi, oĩ ou, uə, uə̃, ui, əi, ə̃ĩ/, and two triphthongs: /iau, uai/. Moreover, there is a syllabic /m̩/.

Although Teochew vowel phonemes are the same, they also have a regional variation. The vowel phonemes are varied in 2 subdialects as mentioned previously.

The differences of Teochew vowel phonemes are shown in table 4.21 below.

Vowel phoneme of Teochew subdialect 1	>	Vowel phoneme of Teochew subdialect 2	Example Words of Teochew subdialect 1	Example Words of Teochew subdialect 2	Meaning
/i/	>	/ɛ/	[kiŋ 33]	[kɛŋ 33]	'banana'
			[miŋ 33]	[mɛŋ 33]	'a face'
			[phik 21]	[phɛk 21]	'classifier of horses'
/i/	>	/ɯ/	[ŋiŋ 44]	[ŋɯŋ 44]	'silver'
/io/	>	/ia/	[tshio 213]	[tshia 213]	'to laugh'
/oi/	>	/əi/	[thoi 52]	[thəi 52]	'to see'
			[khoi 33]	[khəi 33]	'stream, canal'

Table 4.21 The differences of Teochew vowel phonemes

Some words have three pronunciations depending on the places where the speakers come from. These words are shown in table 4.22 below.

Name of City \ Words	Kik-Io	Theng-Hai	Tio-Ang and Phou-Leng
'A thousand'	[aĩ]	[oĩ]	[əĩ]
	[chaĩ 33]	[tshoĩ 33]	[tshəĩ 33]
'shoulder'	[kaĩ 33]	[koĩ 33]	[kəĩ 33]

Name of City \ Words	Kik-Io 1	Kik-Io 2, Theng-Hai and Phou-Leng	Kik-Io 3 and Tio-Ang
'thicken'	[ɛ]	[i]	[ɯ]
	[kɛk 44]	[kik 44]	[kɯk 44]

Table 4.22 The example word showing regional variation of Teochew vowel

4.3.3 Teochew Tones

Teochew has six tones. They are 1) mid level tone, 2) high mid level tone, 3) high falling tone, 4) low rising tone, 5) low falling rising tone and 6) low falling tone. All tones can occur in live syllables. Two tones in dead syllables: short low level tone and short high level tone are merge with tone 6: low falling tone and

tone2: high level tone respectively. All six tones of Teochew dialect in Thailand are shown in tables 4.23 – 4.24 and chart 4.11 below.

Tones ⟍ Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6
Teochew	33	44	52	24	213	21

Table 4.23 The tones values of Teochew in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[33] Tone 1 Mid level tone	[52] Tone 3 High falling tone	[213] Tone 5 Low falling rising tone	[21] Tone 6 Short Low level tone
阳 Yang	[44] Tone 2 High mid level tone	[24] Tone 4 Low rising tone	[21] Tone 6 Low falling tone	[44] Tone 2 Short High mid level tone

Tone Yang Ping merges with Yang Ru and tone Yang Qu merges with Yin Ru

Table 4.24 Tone split of Teochew in Thailand

From table 4.24, the four Middle Chinese tone categories of 平 Ping, 上 Shang, 去 Qu and 入 Ru have developed in the contemporary of Teochew dialect to exhibit a Yin-Yang splitting in every tone, giving a total of eight tones. The tone development from Ancient Chinese to Middle Chinese and into Teochew dialect in Thailand can be described as follows:

1. The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to mid level tone while Yang ping corresponds to high mid level tone in Teochew in Thailand.

2.   The ancient rising tone category (上声 Shang Sheng) split into two tone categories: upper rising tone (阴上 Yin Shang) and lower rising tone (阳上 Yang Shang). Yin Shang corresponds to high falling tone while Yang Shang corresponds to low rising tone.

3.   The ancient departing tone category (去声 Qu Sheng) split into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). Yin Qu corresponds to low falling rising tone while Yang Qu corresponds to low fallingl tone.

4.   The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, -k, and –ʔ split into two categories: upper entering tone (阴入 Ying Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to short Low level tone while Yang Ru corresponds to short High mid level tone. These two tones merge with tone 6 and tone 2 respectively.

The tone splitting from Ancient Chinese to Middle Chinese and into Teochew in Thailand is shown in chart 4.12 below.
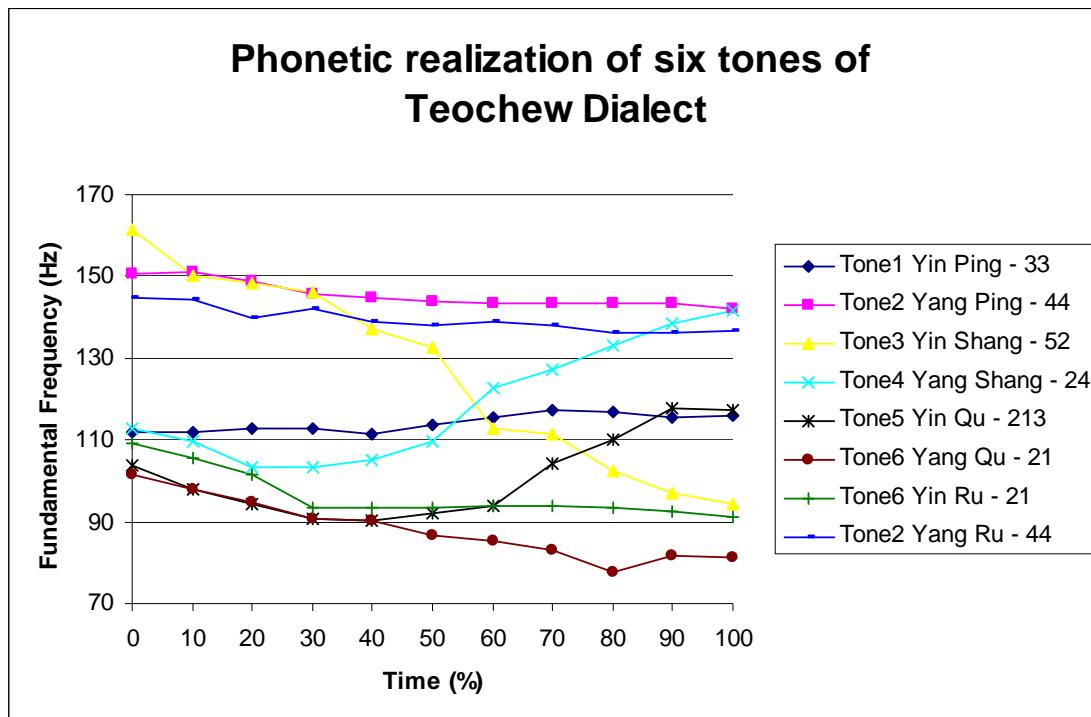
Chart 4.12 Phonetic realization of six tones of Teochew in Thailand

4.4 Hainanese phonology

Most Hainanese people in Thailand came from Hainan Island. Hainanese phonology in Thailand is shown as follows:

4.4.1   Hainanese Consonant Phonemes

There are two groups of Hainanese consonant phonemes: eighteen and nineteen consonant phonemes. The phoneme which makes a difference is /th/. Group of consonant phonemes which does not have /th/ is used by informants who studied Chinese language and Hainanese language from Hainan Island when they were young. The two groups of Hainanese consonant phonemes are shown in the table 4.25 below.

Point of Articulation / Manner of Articulation			Labial	Alveolar	Palatal	Velar	Glottal
Plosives (Stop)	-voice	-asp	p	t		k	ʔ
		+asp	ph	(th)		kh	
	+voice		b	d		g	
Nasals	+voice		m	n		ŋ	
Affricates	-voice	-asp		ts			
Fricatives	-voice			s			h
Lateral	+voice			l			
Approximants	+voice		w		j		

Table 4.25 Hainanese consonant phonemes spoken in Thailand

All consonant phonemes can occur in the initial position. The final consonants can be divided into two groups: seven final consonant phonemes: / p, t, k, ʔ, m, n, ŋ/ and six final consonant phonemes: / p, t, k, m, n, ŋ/. These two groups are different in an absence or presence of the final glottal stop /ʔ/ as shown below.

Group 1 (+ʔ)	Group 2 (-ʔ)	Meaning
/cioʔ²²/	/cio²¹/	A little
/kaʔ⁴⁴/	/ka³¹/	Nail
/toʔ⁴⁴/	/to³¹/	To do

Table 4.26 The example of final stop /ʔ/ difference of Hainanese

4.4.2 Hainanese Vowel Phonemes

Hainanese vowel phonemes have five monophthongs: /i, ε, a , o, u/, nine diphthongs: /ia, io, iu, ai, au, oi, ou, ui, ua/, and two triphthongs: /iau, uai/.

Although Hainanese vowel phonemes are the same, they also have a regional variation. These words which have different pronunciations depending on the places where the speakers come from are shown below.

Vowel phoneme of some Bun Siau	>	Vowel phoneme of Kheng Tua and some Bun Siau	Example Words of Bun Siau	Example Words of Kheng Tua and some Bun Siau	Meaning
/ia/	>	/i/	[tiat 44]	[tit 44]	'great grandson, wing'
			[jiat 21]	[jit 21]	'day'
/au/	>	/ou/	[hau 31]	[hou 31]	'rain'

4.4.3   Hainanese Tones

Hainanese tone phonemes have seven tones: 1) mid level tone, 2) low falling tone, 3) mid falling tone, 4) low mid rising tone, 5) high mid rising falling tone, 6) high level tone, and 7) low mid level tone. Tones 1 – 5 occur in live syllables and tones 6 and 7 occur in dead syllables. All seven tones of Hainanese are shown in table 4.27 – 4.28 and chart 4.13 below.

Tones	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6	Tone 7
Hainanese	33	21	31	24	453	44	22

Table 4.27 Hainanese tone values in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[33] Tone 1 Mid level tone	[31] Tone 3 Mid falling tone	[24] Tone 4 Mid falling tone	[44] Tone 6 High mid level tone
阳 Yang	[21] Tone 2 Low mid falling tone		[453] Tone 5 High mid rising falling tone	[22] Tone 7 Low mid level tone

Table 4.28 Tone splitting of Hainanese tones in Thailand

From table 4.28, the four Middle Chinese tone categories of 平 Ping, 上 Shang, 去 Qu and 入 Ru have developed in the contemporary of Hainanese dialect to exhibit a Yin-Yang splitting in every tone, giving a total of eight tones. The tone development from Ancient Chinese to Middle Chinese and into Hainanese dialect in Thailand can be described as follows:

1.   The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to mid level tone while Yang ping corresponds to low mid falling tone.

2.   The ancient rising tone category (上声 Shang Sheng) corresponds to mid falling tone.

3.   The ancient departing tone category (去声 Qu Sheng), split into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). Yin Qu corresponds to low mid rising tone while Yang Qu corresponds to high mid rising falling tone.

4.   The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, -k, and -ʔ split into two categories: upper entering tone (阴入 Ying Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to high mid level tone while Yang Ru corresponds to low mid level tone.

The phonetic realization of tones splitting from the Middle Chinese tone categories of Hainanese is shown in chart 4.13 below.

Phonetic realizations of seven tones of Hainanese

Legend:
- Tone1 Yin Ping - 33
- Tone2 Yang Ping - 21
- Tone3 Yin Shang - 31
- Tone3 Yang Shang -31
- Tone4 Yin Qu - 24
- Tone5 Yang Qu - 453
- Tone6 Yin Ru - 44
- Tone7 Yang Ru - 22
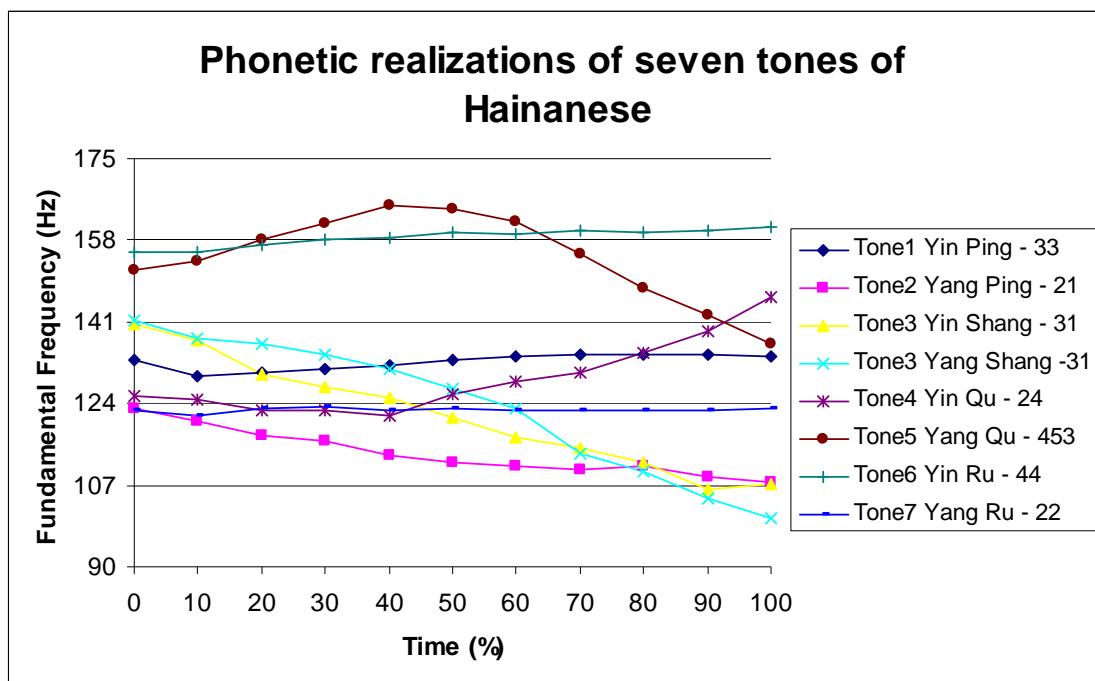
Chart 4.13 Phonetic realization of seven tones of Hainanese in Thailand

4.5 Hokkien phonology

Most Hokkien people in Thailand came from Amoy or Xiamen, Tang An, Nan An, Tong An, etc. in Fujian province of China. Moreover, at the present, Hokkien people who live in Thailand also came from Penang and Taiwan. Although they came from different places, they have the same ancestors from Fujian.

Hokkien phonology in Thailand can be divided into two subdialects. Each subdialect will be explained into three parts: consonants phonemes, vowel phonemes and tones. Two Hokkien phonologies in Thailand are shown below.

4.5.1   Hokkien Consonant Phonemes

There are nineteen consonant phonemes: /p, ph, t, th, k, kh, ʔ, b, g, m, n, ŋ, ts, tsh, s, h, l, w, j/ which can be divided into two subdialects.

4.5.1.1 Hokkien Subdialect 1: Consonant Phonemes

Hokkien subdialect 1 has nineteen consonants: /p, ph, t, th, k, kh, ʔ, b, g, m, n, ŋ, ts, tsh, s, h, l, w, j/. All consonants except /ŋ/ can occur in initial positions while seven consonants: /p, t, k, ʔ, m, n, ŋ/ occur in final positions. All nineteen consonant phonemes are shown in table 4.29 below.

Point of Articulation / Manner of Articulation			Bilabial	Alveolar	Velar	Glottal
Plosives (Stop)	- voice	-asp	p	t	k	ʔ
		+asp	ph	th	kh	
	+ voice		b		g	
Nasals	+ voice		m	n	ŋ	
Affricates	- voice	-asp		ts		
		+asp		tsh		
Fricatives	- voice			s		h
Lateral				l		
Approximants			w	j		

Table 4.29 The nineteen consonant phonemes of Hokkien subdialect 1 and 2 group 1

4.5.1.2 Hokkien Subdialect 2: Consonant Phonemes

Hokkien subdialect 2 has two groups of consonant phonemes as follows:

4.5.1.2.1 Hokkien Subdialect 2: Consonant Phonemes Group 1

Hokkien subdialect 2 group 1 has the same consonants as subdialect 1. All nineteen consonants and seven consonants as shown in Hokkien subdialect 1 occur in initial positions and final positions respectively. The difference between Hokkien subdialect 1 and 2 group 1 is /ŋ/ which can occur only in the final position in Hokkien subdialect 1 while /ŋ/ occur both in the initial and final positions in Hokkien subdialect 2 group 1. All consonant phonemes are shown in table 4.29.

4.5.1.2.2 Hokkien Subdialect 2: Consonant Phonemes Group 2

Hokkien subdialect 2 group 2 has eighteen consonant phonemes: /p, ph, t, th, k, kh, ʔ, b, m, n, ŋ, ts, tsh, s, h, l, w, j/. Subdialect 2 group 2 does not have /g/. All consonants can occur in initial positions while seven consonants: /p, t, k, ʔ, m, n, ŋ/ occur in final positions. All eighteen consonant phonemes are shown in the table 4.30 below.

Point of Articulation / Manner of Articulation			Bilabial	Alveolar	Velar	Glottal
Plosives (Stop)	- voice	-asp	p	t	k	ʔ
		+asp	ph	th	kh	
	+ voice		b			
Nasals	+ voice		m	n	ŋ	
Affricates	- voice	-asp		ts		
		+asp		tsh		
Fricatives	- voice			s		h
Lateral				l		
Approximants			w	j		

Table 4.30 The nineteen consonant phonemes of Hokkien subdialect 2 group 2

4.5.2   Hokkien Vowel Phonemes

4.5.2.1 Hokkien Subdialect 1Vowel phonemes

Hokkien vowel phonemes can be divided into three parts: monophthongs, diphthongs and triphthongs. There are twelve monophthongs: eight oral vowels: /i, ɛ, ɯ, ə, a, ɔ, o, u/ and four nasal vowels: / ĩ, ɛ̃, ũ, ã/. There are twelve diphthongs: nine oral vowels: /ia, io, iu, ai, au, oi, ou, ui, ua,/ and three nasal vowels: /iã, iũ, uã/. There are two oral triphthongs: /iau, uai/. Moreover Hokkien also has a syllabic /m̩/.

4.5.2.2 Hokkien Subdialect 2Vowel phonemes

Hokkien vowel phonemes can be divided into three parts: monophthongs, diphthongs and triphthongs. There are eleven monophthongs: eight oral vowels: /i, ɛ, ɯ, ə, a, ɔ, o, u/ and three nasal vowels: / ĩ, ɛ̃, ã/. There are thirteen diphthongs: ten oral vowels: /ia, io, iu, ɛu, ai, au, oi, ou, ui, ua,/ and three nasal vowels: /iã, iũ, uã/. There are two oral triphthongs: /iau, uai/. Moreover Hokkien also has a syllabic /m̩/.

4.5.3   Hokkien Tones

Hokkien tone phonemes have six tones which can be divided into two subdialects. Subdialect 1: 1) mid level tone, 2) low rising tone, 3) high falling tone, 4) low mid level tone, 5), high mid level tone and 6) low mid level tone. Subdialect 2: tones 1 – 3 are the same as subdialect 1 while tones 4, 5 and 6 are mid low falling tone, low mid falling tone and high mid level tone respectively.

Hokkien tones have two subdialects depending on varied phonetic values of each tone and the tone merger. All Hokkien tones are shown in the tables 4.31 - 4.32 and charts 4.14 – 4.15 below.

Tone / Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6
1	33	24	52	21	44	22
2	33	23	52	31	21	44

Table 4.31 Tone value of Hokkien tones in Thailand

Tone / Subdialect	Yin Ping	Yang Ping	Shang	Yin Qu	Yang Qu	Yin Ru	Yang Ru
1	33	24	52	21	21	44	22
2	33	23	52	31	21	21	44

Table 4.32 Tone split of Hokkien tones in Thailand

From table 4.32, the four Middle Chinese tone categories of 平 Ping, 上 Shang, 去 Qu and 入 Ru have developed in the contemporary of Hokkien dialect to exhibit a Yin-Yang splitting in every tone, giving a total of eight tones. The tone development from Ancient Chinese to Middle Chinese and into Hokkien dialect in Thailand can be described as follows:

1. The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to mid level tone while Yang ping corresponds to low mid rising tone.

2. The ancient rising tone category (上声 Shang Sheng) corresponds to high falling tone.

3. The ancient departing tone category (去声 Qu Sheng) can be divided into two ways. The first, the ancient departing tone category corresponds to low mid falling tone in subdialect 1. The second, the ancient departing tone category splits into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). Yin Qu corresponds to mid falling tone while Yang Qu corresponds to low mid falling tone in subdialect 2.

4. The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, -k, and -ʔ split into two categories: upper entering tone (阴入 Ying Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to high mid level

tone in subdialect 1 and low mid falling tone in subdialect 2 while Yang Ru corresponds to low mid level tone in subdialect 1 and high mid level tone in subdialects 2.

Yin Qu merges with Yang Qu in Hokkien subdialect 1 while Yang Qu merges with Yin Ru in Hokkien subdialect 2. The phonetic realization of tones from the splitting of Middle Chinese tone categories of Hokkien is shown in charts 4.14 – 4.15 below.
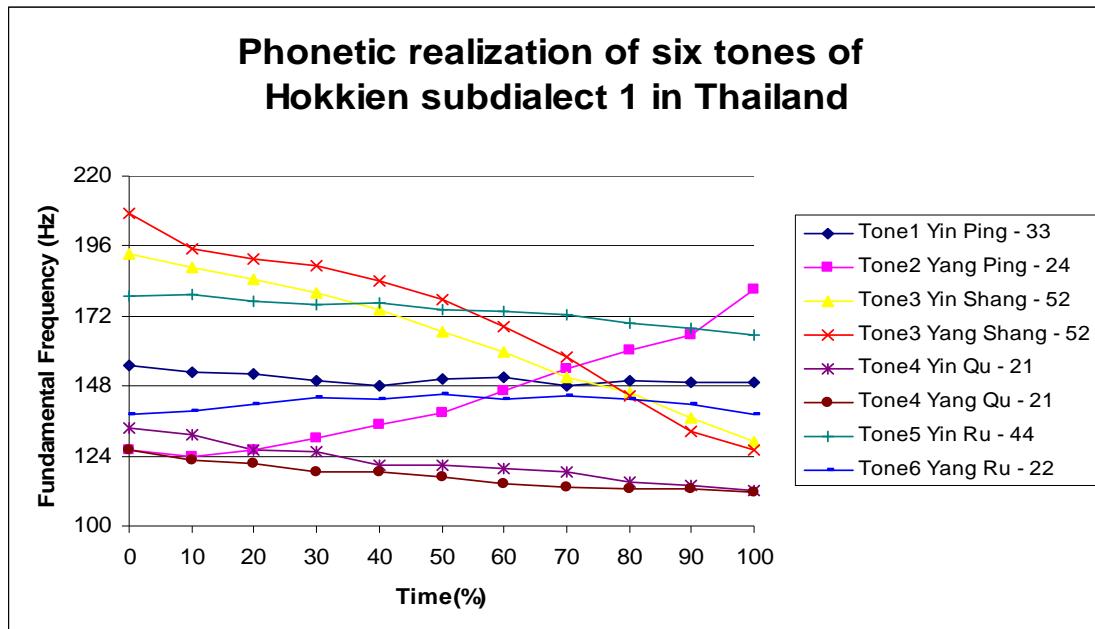
Chart 4.14 Phonetic realization of six tones of Hokkien subdialect 1 in Thailand
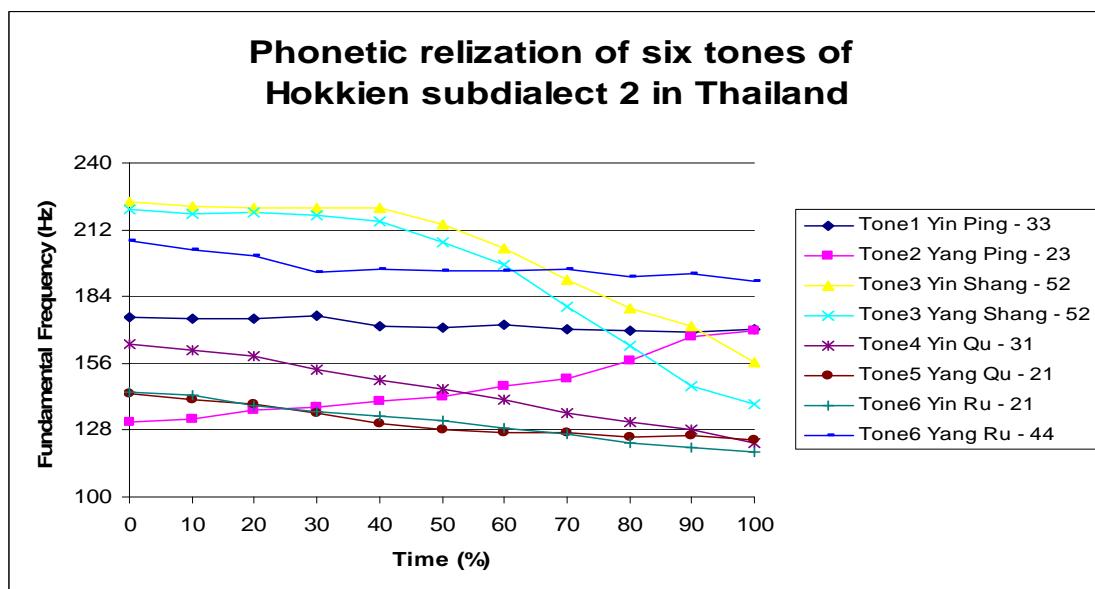
Chart 4.15 Phonetic realization of six tones of Hokkien subdialect 2 in Thailand

4.6 Fuzhou phonology

Fuzhou dialect or Foochow is known as Hokchiu which is considered the standard dialect of Min Dong, a branch of Min Chinese mainly spoken in the eastern part of Fujian province in China. Fuzhou dialect phonology in Thailand can be divided into three parts: consonants, vowels and tones as follows:

4.6.1 Fuzhou Consonant Phonemes

Fuzhou consonant phonemes in Thailand have seventeen consonants: /p, ph, t, th, k, kh, ʔ, m, n, ŋ, ts, tsh, s, h, l, w, j/. All consonants can occur in the initial position while only six consonants: /t, k, ʔ, m, n, ŋ/ can occur in the final position. Fuzhou consonant phonemes are shown in table 4.33 below.

Point of Articulation / Manner of Articulation			Bilabial	Alveolar	Velar	Glottal
Plosives (Stop)	- voice	-asp	p	t	k	ʔ
		+asp	ph	th	kh	
Nasals	+ voice		m	n	ŋ	
Affricates	- voice	-asp		ts		
		+asp		tsh		
Fricatives	- voice			s		h
Lateral				l		
Approximants			w	j		

Table 4.33 The seventeen consonant phonemes of Fuzhou dialect in Thailand

4.6.2 Fuzhou Vowel Phonemes

Fuzhou vowel phonemes include eight vowel monophthongs: /i, ɛ, a, ə, ɯ, ɔ, o, u/, eleven diphthongs: /ia, io, iu, ɛu, ai, au, ɯə, oi, ui, ua, uo/ and two triphthongs: /iau, uai/.

4.6.3 Fuzhou Tones

　　　　　Fuzhou has six tones: 1) high level tone [55], 2) mid level tone [33], 3) mid to low falling tone [31], 4) high falling tone [52], 5) mid to low mid falling tone [32], and 6) low mid rising tone [24].　Six Fuzhou tones and phonetic realization from the splitting of the Middle Chinese tone categories are shown in tables 4.34 – 4.35 and chart 4.16 below.

Tone	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6
Fuzhou	55	33	31	52	21	24

Table 4.34 Fuzhou tone value in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[55] Tone 1 High level tone	[31] Tone 3 Mid falling tone	[21] Tone 5 Low mid falling tone	
阳 Yang	[33] Tone 2 Mid level tone	[52] Tone 4 High falling tone	[24] Tone 6 Low mid rising tone	[55] Tone 1 High level tone

Tone Yin Ping merges with Yang Ru and Yin Qu merges with Yin Ru

Table 4.35 Tone splitting from the Middle Chinese of Fuzhou dialect in Thailand

　　　　　From the four Middle Chinese tone categories of 平 Ping, 上 Shang, 去 Qu and 入 Ru have developed in the contemporary of Fuzhou dialect to exhibit a Yin-Yang splitting in every tone, giving a total of eight tones. The tone development from Ancient Chinese to Middle Chinese and into Fuzhou dialect in Thailand can be described as follows:

　　　　　1.　The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to high level tone while Yang ping corresponds to mid level tone.

2.   The ancient rising tone category (上声 Shang Sheng) split into two tone categories: upper rising tone (阴上 Yin Shang) and lower rising tone (阳上 Yang Shang). Yin Shang corresponds to mid to low falling tone while Yang Shang corresponds to high to low mid falling tone.

3.   The ancient departing tone category (去声 Qu Sheng) split into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). Yin Qu corresponds to low mid falling tone while Yang Qu corresponds to low mid rising tone.

4.   The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, -k, and -ʔ split into two categories: upper entering tone (阴入 Ying Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to low mid falling tone while Yang Ru corresponds to high level tone.

Moreover, tone Yin Qu merges with Yin Ru and Yin Ping merges with Yang Ru which corresponds to mid to low mid falling tone and high level tone respectively, so it make Fuzhou dialect has six tones. The tone splitting from the Ancient Chinese to Middle Chinese and into Fuzhou in Thailand is shown in the chart 4.16 below.
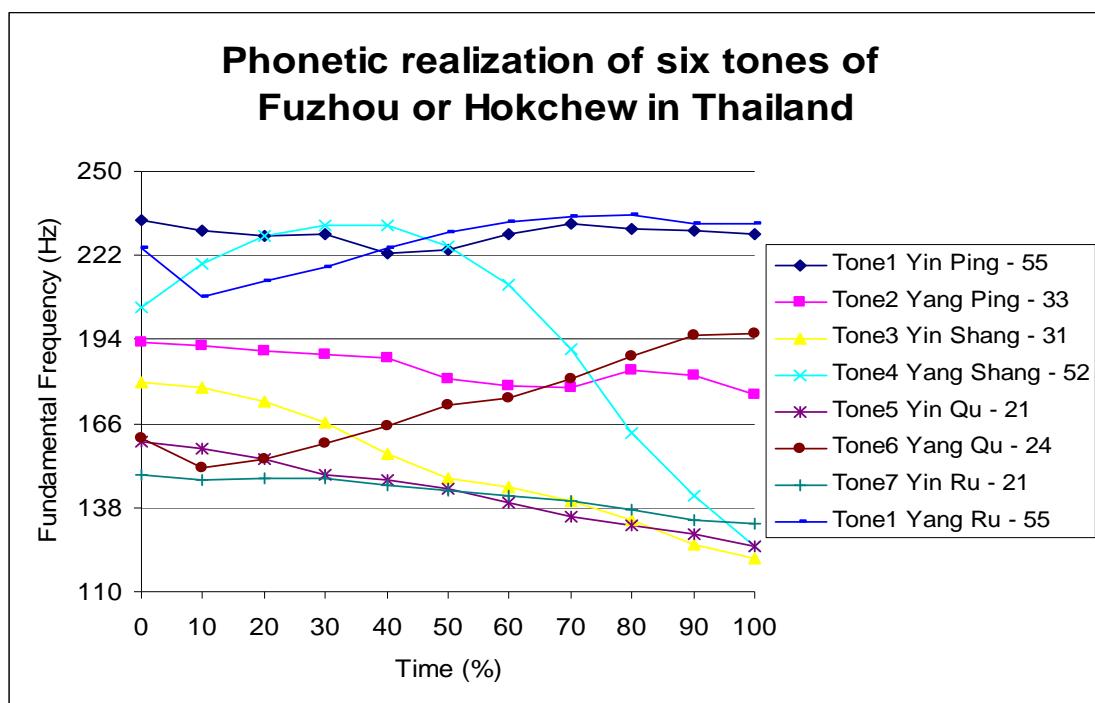
Chart 4.16 Phonetic realization of six tones of Fuzhou or Hokchew in Thailand

4.7 Cantonese phonology

There are two subdialects of Cantonese phonology which are called in Cantonese language, "Sam Yap" and "Se Yap". "Sam Yap" is the Standard Cantonese which is spoken in Hong Kong and "Se Yap" is the Colloquial Cantonese spoken in various places of China. Most Cantonese people usually speak "Sam Yap" to Cantonese people in Thailand and all over the world especially in Hong Kong and America. Their Cantonese phonologies have a regional variation. Most Cantonese people in Thailand came from Guangzhou, Zhongshan and Foshan in Guangdong province of China, so Cantonese phonology can be divided into three subdialects following their original places below.

4.7.1   Cantonese phonology of Guangzhou subdialect

4.7.2   Cantonese phonology of Zhongshan subdialect

4.7.3   Cantonese phonology of Foshan subdialect

The phonology of Cantonese in each subdialect will be explained into three parts: consonant phonemes, vowel phonemes and tones as follow:

All subdialects of Cantonese have nineteen consonant phonemes: /p, ph, t, th, k, kh, kw, ʔ, m, n, ŋ, ts, tsh, f, s, h, l, w, j/. All consonants except /ʔ/ can occur in initial positions. Seven consonants: /p, t, k, ʔ, m, n, ŋ/ can occur in final positions. All nineteen consonant phonemes are shown in table 4.36 below.

Point of Articulation / Manner of Articulation			Labial	Alveolar	Palatal	Velar	Glottal
Plosives (Stop)	-voice	-asp	p	t		k, kw	ʔ
		+asp	ph	th		kh	
Nasals	+voice		m	n		ŋ	
Affricates	-voice	-asp		ts			
		+asp		tsh			
Fricatives	-voice		f	s			h
Lateral	+voice			l			
Approximants	+voice		w		j		

Table 4.36 Cantonese consonant phonemes spoken in Thailand

4.7.1 Guangzhou Cantonese phonology

4.7.1.1 Guangzhou Cantonese Consonant phonemes

Guangzhou Cantonese has nineteen consonant phonemes: /p, ph, t, th, k, kh, kw, ʔ, m, n, ŋ, ts, tsh, f, s, h, l, w, j/. All consonants except /ʔ/ can occur in the initial positions. Seven consonants: /p, t, k, ʔ, m, n, ŋ/ can occur in final positions. All consonants are shown in table 4.36.

4.7.1.2 Guangzhou Cantonese Vowel phonemes

There are nine monophthongs: /i, y, ε, æ, a, ə, ɔ, o, u/, eight diphthongs: /iu, εi, ai, au, əi, oi, ou, ui/. Moreover Guangzhou Cantonese has two syllabics: /m̩/ and /ŋ̩/ which can form a syllable their own. For example: the word /ŋ³⁵/ means 'five'.

4.7.1.3 Guangzhou Cantonese Tones

There are six tones, 1) high mid level tone, 2) mid falling tone, 3) low rising tone, 4) mid level tone, 5) low mid rising tone, 6) low level tone. Six tones of Guangzhou Cantonese are shown in tables 4.37 – 4.38 and chart 4.17 below.

Tones Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6
Guangzhou Cantonese	44	31	13	33	24	22

Table 4.37 Six tones values of Guangzhou Cantonese tone in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[44] Tone 1 High mid level tone	[13] Tone 3 Low rising tone	[33] Tone 4 Mid level tone	[44] Tone 1 Short high mid level tone
中 Zhong			[24] Tone 5 Low mid rising tone	[33] Tone 4 Short mid level tone
阳 Yang	[31] Tone 2 Mid falling tone		[22] Tone 6 Low level tone	[22] Tone 6 Short low level tone

Table 4.38 Tone split of Guangzhou Cantonese in Thailand

Table 4.38 shows that the tone development from Ancient Chinese to Middle Chinese and into Guangzhou Cantonese in Thailand can be described as follows:

1. The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to high mid level tone while Yang Ping corresponds to mid falling tone.

2. The ancient rising tone category (上声 Shang Sheng) corresponds to low rising tone.

3. The ancient departing tone category (去声 Qu Sheng) split into three tone categories: upper departing tone (阴去 Yin Qu), middle departing tone (中去 Zhong Qu) and lower departing tone (阳去 Yang Qu). Yin Qu corresponds to mid level tone while Zhong Qu and Yang Qu correspond to low mid rising tone and low level tone respectively.

4. The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, and –k split into three categories: upper entering tone (阴入 Ying Ru), middle entering tone (中入 Zhong Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to short high mid level tone while Zhong Ru and Yang Ru correspond to short mid level tone and short low level tone.

Although the tones from Ancient Chinese to Middle Chinese and into Guangzhou Cantonese in Thailand can split into nine tones, Yin Ping merges with Yin Ru, Yin Qu merges with Zhong Ru, and Yang Qu merges with Yang Ru.   The tone merger of Guangzhou Cantonese results in six tones. The phonetic realization of tones from the splitting of the Middle Chinese tone categories of Guangzhou Cantonese is shown in chart 4.17 below.
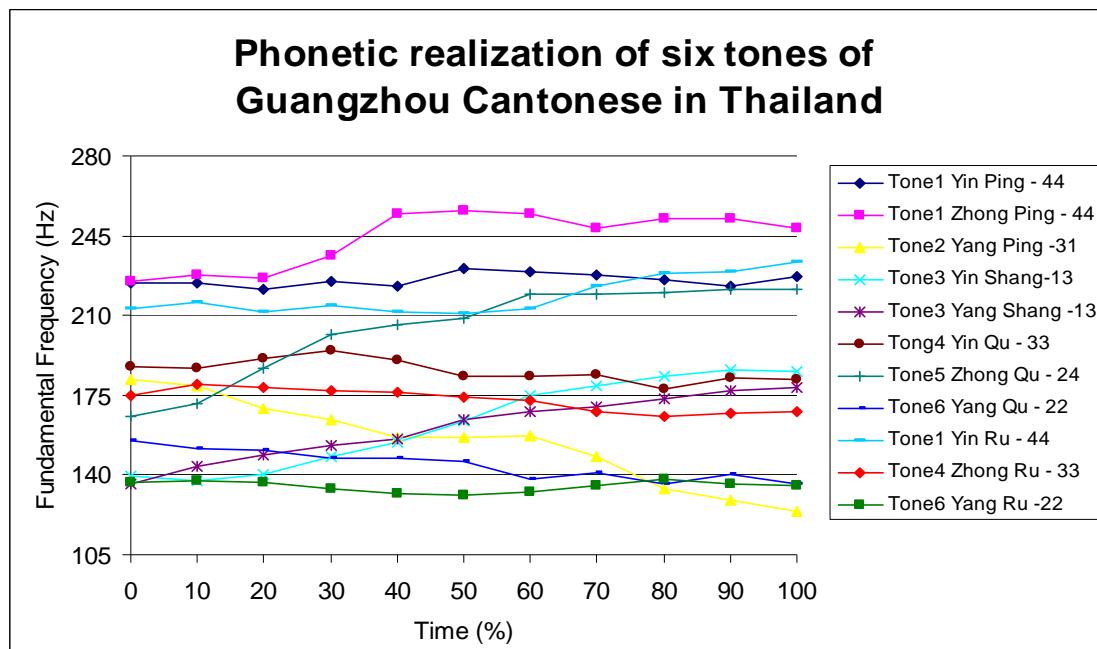
Chart 4.17 Phonetic realizations of six tones of Guangzhou Cantonese in Thailand

4.7.2 Zhongshan Cantonese phonology

4.7.2.1 Zhongshan Cantonese Consonant phonemes

Zhongshan Cantonese has nineteen consonant phonemes: /p, ph, t, th, k, kh, kw, ʔ, m, n, ŋ, ts, tsh, f, s, h, l, w, j/. All consonants except /ʔ/ can occur in the initial positions. Seven consonants: /p, t, k, ʔ, m, n, ŋ/ can occur in final positions. All nineteen consonant phonemes are shown in the table 4.36.

4.7.2.2 Zhongshan Cantonese Vowel phonemes

Zhongshan Cantonese has nine monophthongs: /i, y, ɛ, æ, a, ɯ, ɔ, o, u/, ten diphthongs: /ia, iu, io, ɛi, əi, au, ai, oi, ou, ui/, one triphthong: /iɛu/, and syllabic /m̩/ and /ŋ̍/.

4.7.2.3 Zhongshan Cantonese Tones

There are six tones, 1) high falling tone, 2) low level tone, 3) low ton mid rising tone, 4) mid level tone, 5) low mid falling tone, 6) mid low level tone. Six tones of Zhongshan Cantonese are shown in tables 4.39 - 4.40 and chart 4.18 below.

Tones Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6
Zhongshan Cantonese	52	11	13	33	42	22

Table 4.39 Six tone values of Zhongshan Cantonese tone in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[52] Tone 1 High to low mid falling tone	[13] Tone 3 Low to mid rising tone	[42] Tone 5 High mid to low mid falling tone	[33] Tone 4 Mid level tone
中 Zhong				[22] Tone 6 Low mid level tone
阳 Yang	[11] Tone 2 Low level tone	[33] Tone 4 Mid level tone	[22] Tone 6 Low mid level tone	[33] Tone 4 Mid level tone

Table 4.40 Tone split of Zhongshan Cantonese in Thailand

Table 4.40 shows that the tone development from Ancient Chinese to Middle Chinese and into Zhongshan Cantonese in Thailand can be described as follows:

1. The ancient level tone category (平声 Ping Sheng) split into two tone categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to high to low mid falling tone while Yang ping corresponds to low level tone.

2. The ancient rising tone category (上声 Shang Sheng) split into two tone categories: upper rising tone (阴上 Yin Shang) and lower rising tone (阳上 Yang Shang). Yin Shang corresponds to low to mid rising tone while Yang Shang corresponds to mid level tone.

3. The ancient departing tone category (去声 Qu Sheng) split into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). Yin Qu corresponds to high mid to low mid falling tone while Yang Qu corresponds to low mid level tone.

4.   The ancient entering tone category (入声 Ru sheng) which ending
with a stop –p, -t, and –k split into three categories: upper entering tone (阴入 Ying
Ru), middle entering tone (中入 Zhong Ru) and lower entering tone (阳入 Yang Ru).
Yin Ru and Yang Ru correspond to mid level tone while Zhong Ru corresponds to low
mid level tone.

Yin Ru and Yang Ru merge with Yang Shang while Zhong Ru merges
with Yang Qu. The splitting and merging of Middle Chinese tones categories result in
six tones of Zhongshan Cantonese as shown in chart 4.18 below.
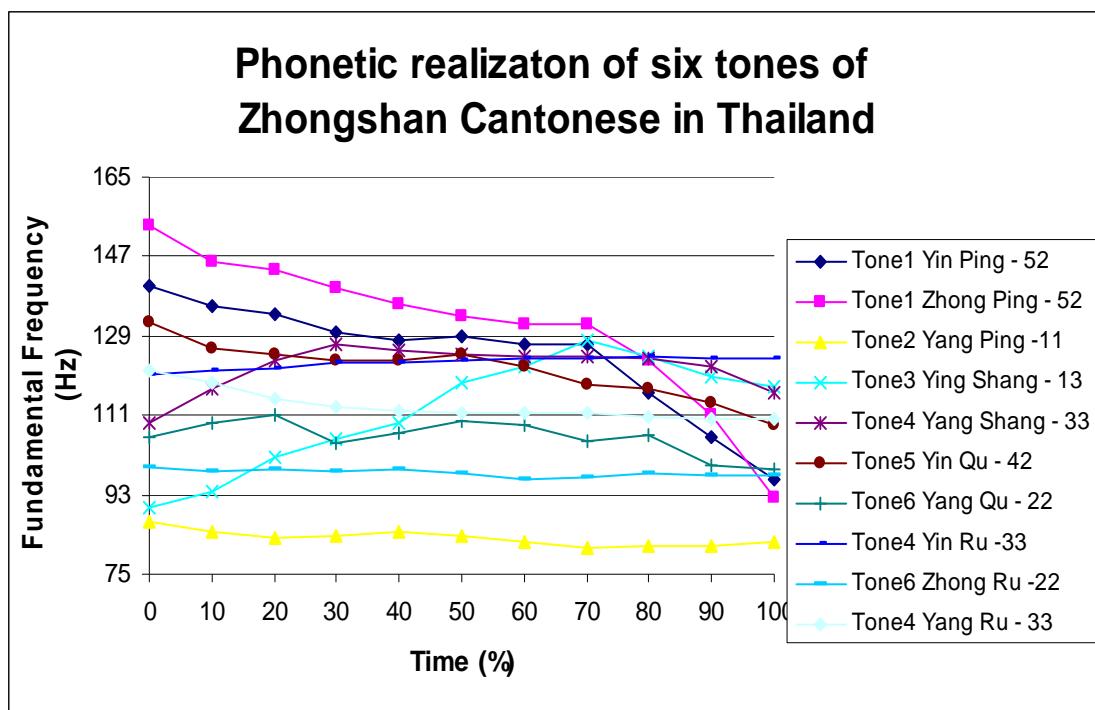
Chart 4.18 Phonetic realization of six tones of Zhongshan Cantonese in Thailand

4.7.3 Foshan Cantonese phonology

4.7.3.1 Foshan Cantonese Consonant phonemes

Foshan Cantonese has nineteen consonant phonemes: /p, ph, t, th, k, kh, kw, ʔ, m, n, ŋ, ts, tsh, f, s, h, l, w, j/ which are the same as Guangzhou and Zhongshan Cantonese. Eighteen consonants except /ʔ/ can occur in the initial position. Seven consonants: /p, t, k, ʔ, m, n, ŋ/ can occur in the final position. All nineteen consonant phonemes are shown in table 4.36.

4.7.3.2 Foshan Cantonese Vowel phonemes

Foshan Cantonese vowel phonemes have nine monophthongs: /i, y, ɛ, æ, a, ɯ, ɔ, o, u/, ten diphthongs: /ia, io, iu, ɛi, au, ai, oi, ou, uo, ui/. Moreover, there is syllabic /m̩/ not /ŋ̍/ which occurs in Guangzhou and Zhongshan subdialects.

4.7.3.3 Foshan Cantonese Tone phonemes

There are six tones, 1) high to low mid falling tone, 2) high mid level tone, 3) low mid to low falling tone, 4) low mid to high mid rising tone, 5) mid level tone, 6) mid low level tone. Six tones of Foshan Cantonese are shown in tables 4.41 – 4.42 and chart 4.19 below.

Tones Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6
Foshan Cantonese	52	44	21	24	33	22

Table 4.41 Six tone values of Foshan Cantonese tone in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[52] Tone 1 High to low mid falling tone	[24] Tone 4 Low mid to high mid rising tone	[33] Tone 5 Mid level tone	[44] Tone 2 High mid level tone
中 Zhong	[44] Tone 2 High mid level tone			[33] Tone 5 Mid level tone
阳 Yang	[21] Tone 3 Low mid to low falling tone	[33] Tone 5 Mid level tone	[22] Tone 6 Low mid level tone	[22] Tone 6 Low mid level tone

Table 4.42 Tone split of Foshan Cantonese in Thailand

Table 4.42 shows that the tone development from Ancient Chinese to Middle Chinese and into Foshan Cantonese in Thailand can be described as follows:

1. The ancient level tone category (平声 Ping Sheng) split into three tone categories: upper level tone (阴平 Yin Ping), middle level tone (中平 Zhong Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to high to low mid falling tone while Zhong Ping and Yang Ping correspond to high mid level tone and low mid to low falling tone respectively.

2. The ancient rising tone category (上声 Shang Sheng) split into two tone categories: upper rising tone (阴上 Yin Shang) and lower rising tone (阳上 Yang Shang). Yin shang corresponds to low mid to high mid rising tone while Yang shang corresponds to mid level tone.

3. The ancient departing tone category (去声 Qu Sheng) split into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). Yin Qu corresponds to mid level tone while Yang Qu corresponds to low mid level tone.

4.   The ancient entering tone category (入声 Ru sheng) which ending
with a stop –p, -t, and –k split into three categories: upper entering tone (阴入 Ying
Ru), middle entering tone (中入 Zhong Ru) and lower entering tone (阳入 Yang Ru).
Yin Ru corresponds to high mid level tone while Zhong Ru and Yang Ru correspond
to mid level tone and low mid level tone respectively.

Yang Shang merges with Yin Qu and Zhong Ru. Zhong Ping merges with
Yin Ru while Yang Qu merges with Yang Ru. The splitting of Middle Chinese tone
categories of Foshan Cantonese is shown in chart 4.18 below.
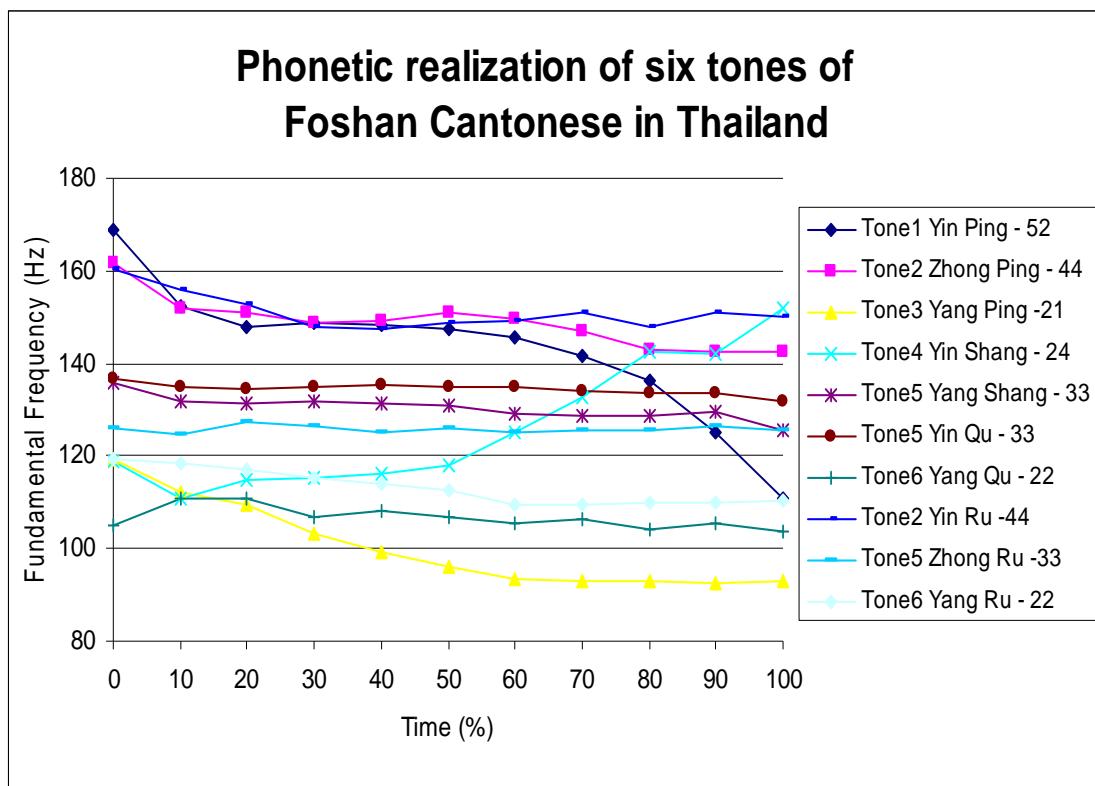
Chart 4.19 Phonetic realizations of six tones of Foshan Cantonese in Thailand

4.8 Guangsai phonology

Guangsai dialect is found in the southern part of Thailand, especially in Batong, Yala and some in Songkhla. Most of Chinese descendants live in Betong, Yala. Guangsai dialect phonology in Thailand can be divided into three parts: consonants, vowels and tones as follows:

4.8.1 Guangsai Consonant Phonemes

Guangsai consonant phonemes have nineteen consonant phonemes: /p, ph, t, th, k, ʔ, b, d, m, n, ŋ, ts, tsh, f, s, h, l, w, j/. All consonants can occur in the initial position while /p, t, k, ʔ, m, n, ŋ/ can occur in both the initial and final position. All consonant phonemes are shown in table 4.43 below.

Point of Articulation / Manner of Articulation			Labial	Alveolar	Palatal	Velar	Glottal
Plosives (Stop)	-voice	-asp	p	t		k	ʔ
		+asp	ph	th			
	+voice		b	d			
Nasals	+voice		m	n		ŋ	
Affricates	-voice	-asp		ts			
		+asp		tsh			
Fricatives	-voice		f	s			h
Lateral	+voice			l			
Approximants	+voice		w		j		

Chart 4.43 Guangsai consonant phonemes spoken in Thailand

4.8.2 Guangsai Vowel phonemes

Guangsai vowel phoneme in Thailand has seven monophthongs: /i, y, ɛ, a, ɯ, o, u/. The phoneme /o/ has two allophones, [ɔ] which occurs in open syllable and [o] which occurs in close syllable. There are nine diphthongs: /ia, iu, ai, au, ou, ui, uo, ua/ and two triphthongs: /iau, uai/.

4.8.3 Guangsai Tones

There are seven tones, 1) mid level tone, 2) mid falling tone, 3) high falling tone, 4) low mid level tone, 5) low mid rising tone, 6) high mid level tone, and 7) low mid falling tone. The seven tones of Guangsai are shown in tables 4.44 - 4.45 and chart 4.20 below.

Tones / Subdialect	Tone 1	Tone 2	Tone 3	Tone 4	Tone 5	Tone 6	Tone 7
Guangsai	33	31	53	22	25	44	21

Table 4.44 Nine tone values of Guangsai in Thailand

Tone	平 Ping 'level'	上 Shang 'rising'	去 Qu 'departing'	入 Ru 'entering'
阴 Yin	[33] Tone 1 Mid level tone / [31] Tone 2 Mid to low falling tone	[22] Tone 4 Low mid level tone	[44] Tone 6 High mid level tone	[44] Tone 6 High mid level tone / [22] Tone 4 Low mid level tone
阳 Yang	[53] Tone 3 High to mid falling tone	[25] Tone 5 Low mid to high rising tone	[21] Tone 7 Low mid to low falling tone	[33] Tone 1 Mid level tone

Table 4.45 Tone split of Guangsai in Thailand

Table 4.45 shows that the tone development from Ancient Chinese to Middle Chinese and into Guangsai in Thailand can be described as follows:

1. The ancient level tone category (平声 Ping Sheng) split into three tone categories: upper level tone (阴平 Yin Ping), middle level tone (中平 Zhong Ping) and lower level tone (阳平 Yang Ping). Yin Ping corresponds to mid level tone while Zhong Ping and Yang Ping correspond to mid to low falling tone and high to mid falling tone respectively.

2. The ancient rising tone category (上声 Shang Sheng) split into two tone categories: upper rising tone (阴上 Yin Shang) and lower rising tone (阳上 Yang Shang). Yin Shang corresponds to low mid level tone while Yang Shang corresponds to low mid to high rising tone.

3. The ancient departing tone category (去声 Qu Sheng) split into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). Yin Qu corresponds to high mid level tone while Yang Qu corresponds to low mid to low falling tone.

4. The ancient entering tone category (入声 Ru sheng) which ending with a stop –p, -t, and –k split into three categories: upper entering tone (阴入 Ying Ru), middle entering tone (中入 Zhong Ru) and lower entering tone (阳入 Yang Ru). Yin Ru corresponds to high mid level tone while Zhong Ru and Yang Ru correspond to low mid level tone and mid level tone respectively.

The splitting of Middle Chinese tone categories of Guangsai results in ten tones. Yin Ping merges with Yang Ru, while Yin Shang and Yin Qu merge with Zhong Ru and Yin Ru respectively, so there are seven tones of Guangsai. The splitting of Middle Chinese tone categories of Guangsai is shown in chart 4.20 below.
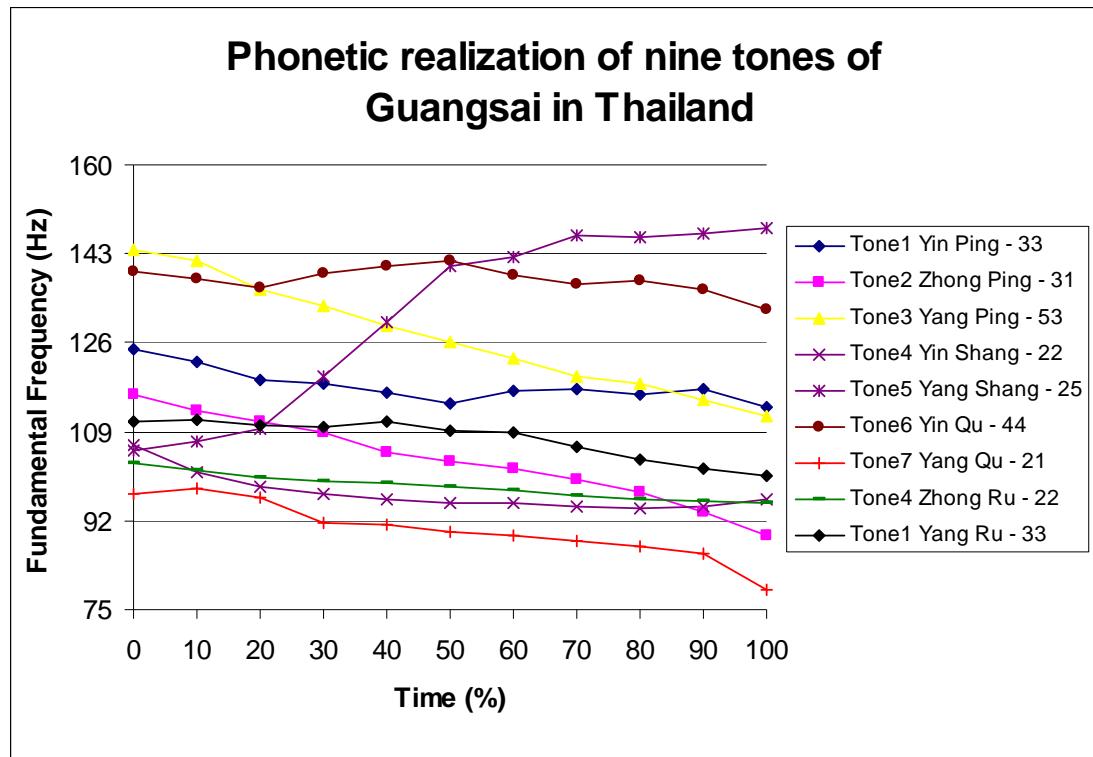
Chart 4.20 Phonetic realizations of seven tones of Guangsai in Thailand

        In summary, this chapter describes the phonologies of eight Chinese dialects spoken in Thailand, namely, Yunnanese, Hakka, Teochew, Hainanese, Hokkien, Fuzhou (Hokchew), Cantonese, and Guangsai. Three major classes of phonemes: consonants, vowels, and tones are presented.
        Chapter 5 will present the settlement patterns of Chinese dialect speakers. The migration directions from China to Thailand which affect the distribution of Chinese dialects in Thailand will be displayed in settlement maps.

CHAPTER V
THE DISTRIBUTION OF CHINESE DIALECTS IN THAILAND

This chapter presents the distribution of Chinese dialects in Thailand. Chinese dialect maps are created to display the locations where the Chinese dialects in Thailand presented in chapter 4 are spoken. Chinese settlement maps are also provided to illustrate the migration routes from China to the present locations in Thailand.

5.1 Chinese dialect distribution in Thailand

Maps of Chinese dialect distribution in Thailand show the locations where Chinese dialects are spoken in Thailand. The Chinese dialects in Thailand presented in chapter 4 consist of eight Chinese dialects as shown below.

5.1.1 Yunnanese dialect distribution in Thailand

Yunnanese dialect distribution in Thailand found that at the present time Yunnanese people live in Chiangmai, Chiangrai, Mae Hong Son, Lampang, Bangkok, Nonthaburi, Pathumthani and Samutprakan. Yunnanese dialect distribution in Thailand is presented in map 5.1. Most Yunnanese people live in Chiangmai and Chiangrai which are represented by dark pink color in the map. Some of them live in Mae Hong Son and Lampang which are represented by light pink color. In Bangkok, Nonthaburi, Pathumthani and Samutprakan, there are some Yunnanese speakers who do their business or work in these provinces which are also represented by light pink color.

5.1.2 Hakka dialect distribution in Thailand

There are many Hakka people living in Thailand which are composed of Ng-yan group (Chim Khak or Deep Hakka) and Hoi-liuk fung group (Pan San Khak or Half mountain). When they are in Thailand they live in the same province. Map 5.2 presents the distribution of Hakka in Thailand. The dark orange color shows the place where most Hakka live and some of them can speak their Hakka language. The light orange color represents the places where some Hakka live and almost no one can speak their Hakka language because most of them are the new generation.

5.1.3 Teochew dialect distribution in Thailand

As Teochew people have the highest population in Thailand (Skinner, 1958 and Vatikiotis, 1998), they live in almost every province of Thailand. Although the first generation of Teochew came from different places in China, at the present time, they speak similarly. The distribution of Teochew in Thailand is shown in map 5.3. The places where most Teochew people live are presented by dark blue color while the places where some Teochew people live are shown by light blue color.

5.1.4 Hainanese dialect distribution in Thailand

Hainaneses in Thailand live in many provinces of Thailand as shown in map 5.4. The dark violet color represents the places where most of Hainanese people live while the light violet color represents the places where some Hainanese live.

5.1.5 Hokkien and Fuzhou dialect distribution in Thailand

As Hokkien and Fuzhou people live together in Thailand, the locations where these people live are represented together on map 5.5. Most Hokkien and Fuzhou people live in the southern part of Thailand. The dark yellow color represents the places where most Hokkien and Fuzhou live while the light yellow color represents the places where some Hokkien and Fuzhou live.

5.1.6 Cantonese dialect distribution in Thailand

The Cantonese in Thailand live in the south, the north and central parts of Thailand. Most Cantonese live in Chiangmai, Nakhonsawan, Bangkok, Phuket, Songkhla and Yala (Betong) which are represented by dark green color on map 5.6. The light green color represents the places where a few Cantonese live.

5.1.7 Guangsai dialect distribution in Thailand

Guangsai is one of Chinese dialects in Thailand. Comparing to other Chinese dialect speakers, there are few Guangsai people. The center of Guangsai community is in the southern part of Thailand especially Yala (Betong). The distribution of Guangsai in Thailand is shown on map 5.7.

A summary of Chinese dialects in Thailand can be seen on map 5.8.
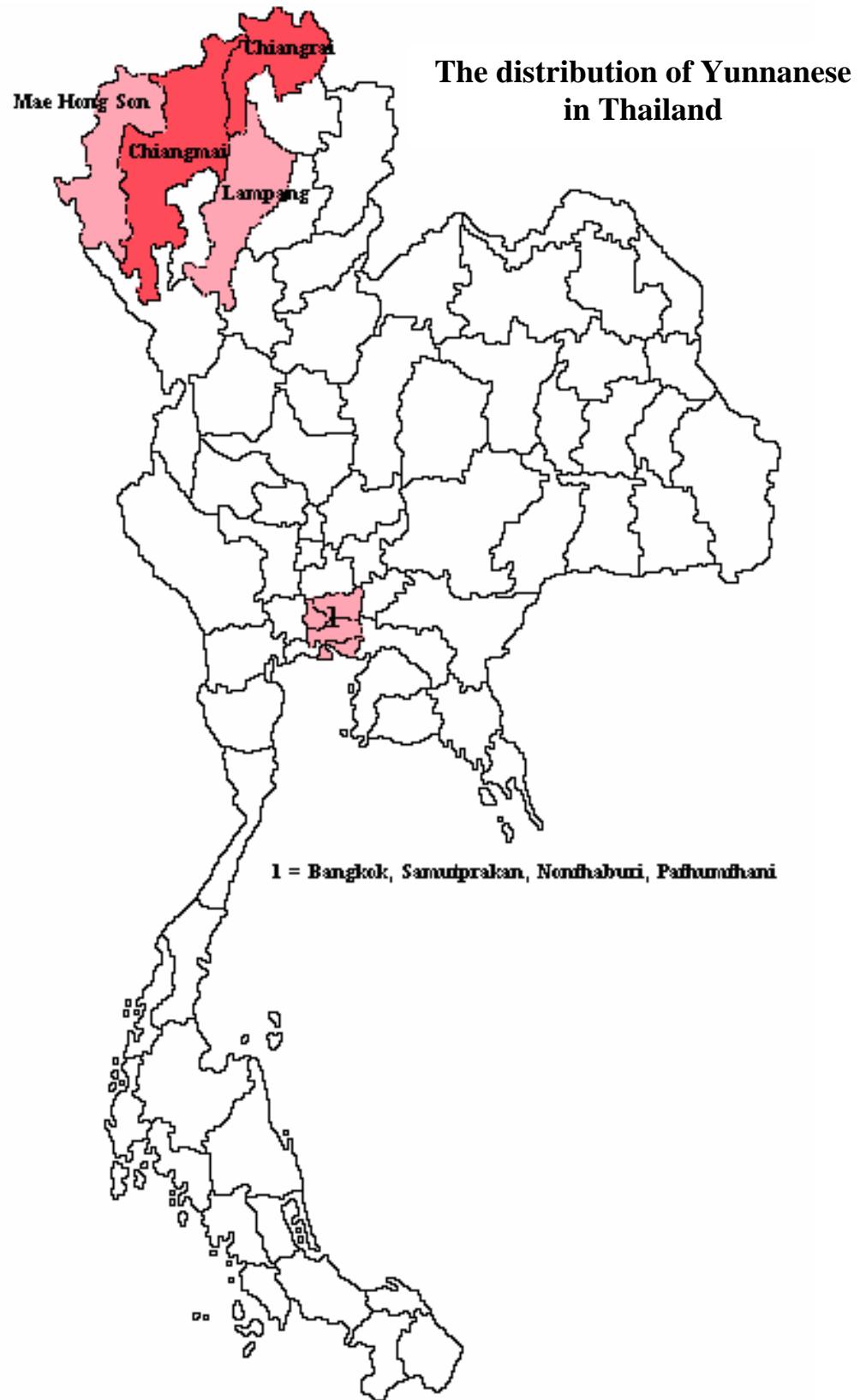
Map 5.1   The distribution of Yunnanese in Thailand adapted from Nectec (n.d.)

**The distribution of Hakka
in Thailand**

Chiangrai

Phayao

Chiangmai

Lam
pang

Nan

Phrae

Uttaradit

Sukho
thai

Phitsa
nulok

Tak

Udon
thani

Sakon
nakhon

Nakhonphanom

Khonkaen

Nakhonsawan

Yaso
thon

6

Ubon
ratchathani

Uthai
thani

Suphan
buri

Nakhon
ratchasima

Kanchanaburi

5

4

Buriram

Surin

3

1

Ratchaburi

2

Petchaburi

Rayong

1 = Bangkok, Nonthaburi, Samutprakan, Pathumthani
2 = Samutsakhon
3 = Nakhonpathom
4 = Ayuttaya

5 = Saraburi
6 = Amnatcharoen
7 = Phatthalung

Chumphon

Suratthani

Nakhon
srithammarat

Phuket

Trang

7

Songkhla

Pattani

Yala

Narathiwat

Map 5.2   The distribution of Hakka in Thailand adapted from Nectec (n.d.)

The distribution of Teochew in Thailand

1 = Bangkok, Nonthaburi, Samutprakan, Pathumthani
2 = Samutsakhon
3 - Nakhonpathom
4 = Ayuttaya
5 = Saraburi
6 = Samutsongkhram
7 = Angthong
8 = Singburi
9 = Chainat

Map 5.3   The distribution of Teochew in Thailand adapted from Nectec (n.d.)

The distribution of Hainanese in Thailand

Phayao

Chiangmai

Lampang

Lam
phun

Phrae

Uttaradit

Sukho
thai

Phitsanulok

Udonthani

Khonkaen

Phichit

Nakhonsawan

Uthaithani

4

Nakhon
ratchasima

6 3 Saraburi

5

2 Prachinburi

1

Sakaeo

Ratchaburi

Chonburi

Petchaburi

Rayong Chantaburi

1 = Bangkok, Nonthaburi, Samutprakan, Pathumthani

2 = Nakhonnayok   6 = Suphanburi

3 = Angthong

4 = Chainat

5 = Ayuttaya

Chumphon

Ranong

Suratthani

Nakhonsithammarat

Phuket

Trang

Songkhla

Pattani

Yala

Narathiwat

Map 5.4   The distribution of Hainanese in Thailand adapted from Nectec (n.d.)

**The distribution of
Hokkien and Fuzhou
in Thailand**

Map 5.5   The distribution of Hokkien and Fuzhou in Thailand adapted from Nectec (n.d.)
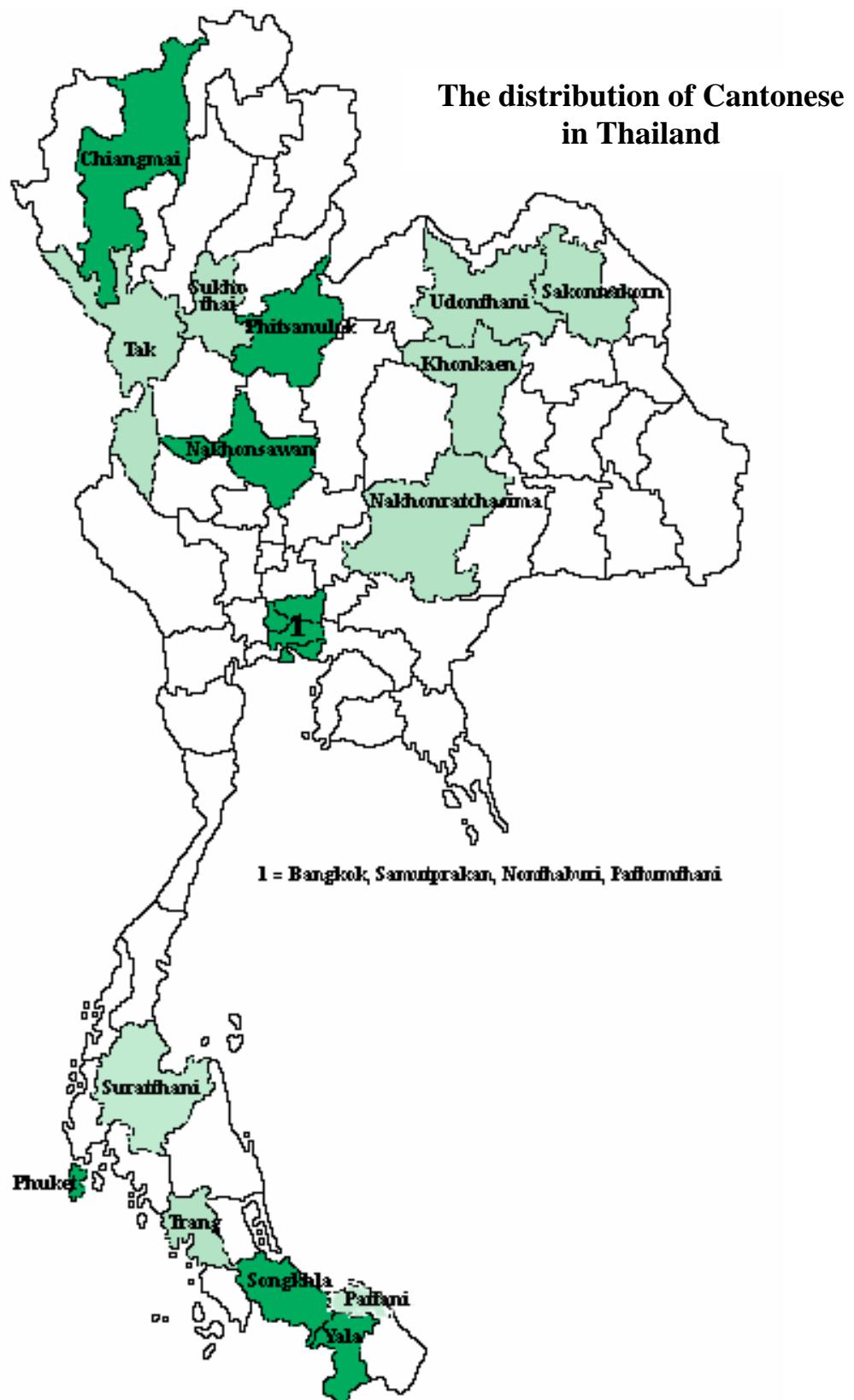
The distribution of Cantonese in Thailand

1 = Bangkok, Samutprakan, Nonthaburi, Pathumthani

Map 5.6   The distribution of Cantonese in Thailand adapted from Nectec (n.d.)

**The distribution of Guangsai
in Thailand**

1 = Bangkok, Nonthaburi, Samutprakan, Pathumthani

Map 5.7   The distribution of Guangsai in Thailand adapted from Nectec (n.d.)

The distribution of Chinese dialects in Thailand

Map 5.8   The distribution of Chinese dialects in Thailand adapted from
thailandtripbooking.com (n.d.)
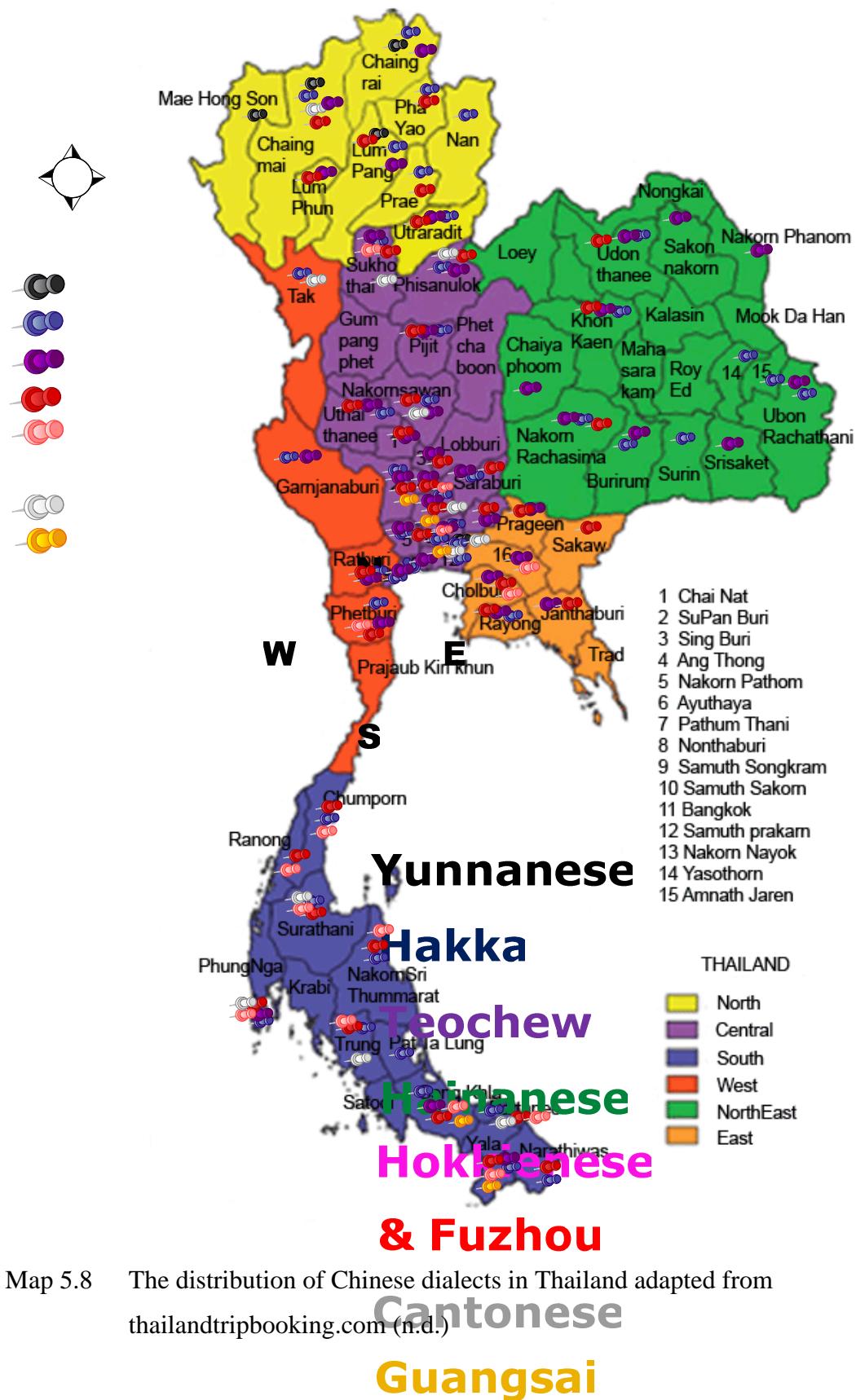
5.2 The settlement of Chinese people in Thailand

Chinese migrants settled in Thailand many years ago. Kuhn (2008, p.2) said that:

> around the year 1990, some 37 million people who claim
> Chinese ancestry or are classed by other as Chinese lived
> outside the People's Republic of China and Taiwan in
> 136 countries worldwide. More than 70 percent of the
> totals were located in Southeast Asia ("Nanyang"), the
> venue of emigrant Chinese for millennia. And of the
> whole 37 million, about half lived in just three Southeast
> Asian countries: Indonesia, Thailand and Malaysia.

Important waves of migration of Chinese people to Thailand occurred twice as follows:

5.2.1 Seventeenth century – World War II (1939-1949)

The first major migration started around the seventeenth century up to the end of World War II (1939 – 1945) because of economic and politic problems in China. The problems were so serese, especially in the southern part, that people found it so unbearable that they decided to emigrate from their homeland to Thailand and to other countries in Southeast Asia. Most Chinese emigrants in this period were from the south of China; Hokkien, Teochew, Hakka, Fuzhou or Hokchew, Hainan or Hailam, and some Cantonese.

5.2.1.1 The migration of Hokkien to Thailand

Hokkien people who lived in the littoral prefectures of Quanzhou and Zhongshan, left their hometowns from the seaport of Xiamen (see map 5.9). Almost all of them migrated to the nearest foreign land which was Taiwan, then to the Philippines, Java, Malaysia, Borneo, Singapore and Thailand. Most Hokkien who immigrated to Thailand came by boat to the southern part of Thailand, especially Pattani and some of them sailed further up to Khlongtoei port near Bangkok. The direction that Hokkien shipped to Thailand is shown on map 5.10.

At present, Hokkien who arrived in Bangkok still live in Bangkok or other provinces in central part of Thailand. Most of them no longer speak their language. Hokkien who live in the southern part of Thailand came in two ways: the first group came directly from China and the second group passed through Singapore and Malaysia and on to Thailand. Moreover, some of Hokkien who arrived in the southern part moved up to Bangkok and other provinces for business, work and education. The movement of Hokkien to Thailand is shown on map 5.11.

Map 5.9   Xiamen seaport where Hokkien embarked for other countries adapted
           From Newstar Artificial Stone Co.,ltd (2010)

Map 5.10   The direction of Hokkien's migration to Thailand adapted from

mammilalia (2005)

1 = The area inhabited by Hokkien who travelled from China and disembarked at Khlongtoei port, Bangkok

The green line = Some of Hokkien in the southern part of Thailand moved to Bangkok and other provinces

2 = The area inhabited by Hokkien who arrived directly from China to southern parts and Hokkien who passed through Singapore and Malaysia on their way to Thailand
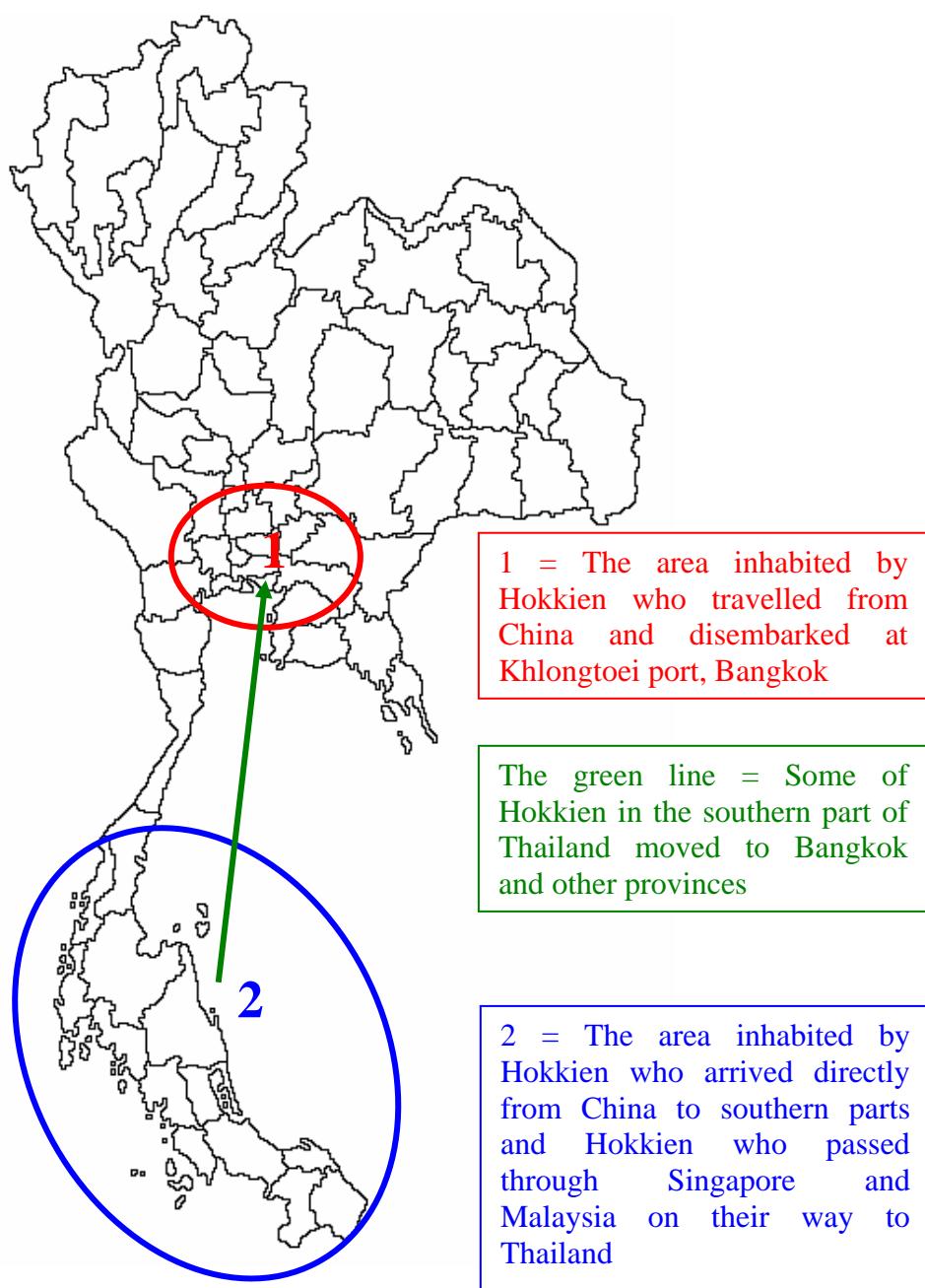
Map 5.11   The movement of Hokkien in Thailand adapted from Nectec. (n.d.)

5.2.1.2 The migration of Cantonese to Thailand

Cantonese people who lived in Guangzhou and Zhaoqing in the Pearl River Delta (see map 5.12) embarked from the seaport of Guangzhou (Canton) (see map 5.13). Almost all of them travelled to the nearest foreign ports which was Hong Kong, then on to North America, Australia, Malaysia, Singapore and some to Thailand. Most Cantonese who immigrated to Thailand cane by boat to the southern parts of Thailand and Malaysia or Singapore then on to other parts of Thailand. Some sailed to Bangkok and disembarked at Khlongtoei port. The direction that Cantonese shipped to Thailand is presented in map 5.14.

At the present time Cantonese who arrived by boat in Bangkok, settled there and the other provinces in the northern and northeastern parts of Thailand. Some of this group still speaks their original language. On the other hand, most Cantonese who settled and live in the southern parts of Thailand continue to use their language more than Cantonese in other parts. The movement of Cantonese in Thailand is shown on map 5.15.

Map 5.12   Perl River Delta by Yan (1994)

Map 5.13   The seaport of Guangzhou where Cantonese embarked for other countries
            from EC.COM.CN (n.d.)

Map 5.14   The direction of Cantonese's migration to Thailand adapted from
            mammilalia (2005)

The pink line = some of Cantonese in Bangkok moved to the provinces of northern and northeastern part of Thailand

1 = the area inhabited by Cantonese who shipped from China and disembarked at Khlongtoei seaport, Bangkok.

The green line = Some of Cantonese in the southern part of Thailand moved to Bangkok.

2 = the area inhabited by Cantonese who shipped directly from China to the southern part of Thailand and Cantonese who passed Singapore and Malaysia to Thailand.

Map 5.15   The movement of Cantonese in Thailand adapted from Nectec (n.d.)

5.2.1.3 The migration of Teochew to Thailand

Teochew people who lived in Chaozhou and Shantou (Swatow) which are prefectures of Guangdong province, embarked from the seaports of Shantou or Swatow (see map 5.16). Almost all of them migrated to Thailand, especially during the reign of King Taksin (1767 – 1782). Some of them migrated to Singapore and Malaysia. Most Teochew who immigrated to Thailand disembarked at Khlongtoei seaport in Bangkok and some of them disembarked at Pattani and settled in the southern parts of Thailand. The direction of the Teochew migration to Thailand is shown on map 5.17.

At the present time Teochew descendants live in many provinces of Thailand which is shown in map 5.3. Teochew is the dialect that Chinese people use most in Thailand. Bangkok is the center of their community. Teochew who arrived in Bangkok settled in Bangkok and in other provinces in almost every part of Thailand. Most of them who live in the central part; Uthaithani, Chinat, Angthong and etc. can not speak their language because they are new generation. On the other hand, most Teochew who live in major commercial cities such as Bangkok, Nakhonsawan, Chiangmai, and Songkhla still use their own language. The movement of Cantonese in Thailand is shown on map 5.18.

Map 5.16   Shantou seaport where Teochew embarked for other countries by Dujunco
(1995)

Map 5.17   The direction of Teochew and Hakka's migration to Thailand adapted

from mammilalia (2005)

The pink line = most Teochew, Hakka and Hainanese in Bangkok moved to every part of Thailand

1 = the area inhabited by Teochew, Hakka and Hainanese who shipped from China and disembarked at Khlongtoei seaport, Bangkok.

The green line = Some of Teochew, Hakka and Hainanese in the southern part of Thailand moved to Bangkok.

2 = the area inhabited Teochew, Hakka and Hainanese who shipped directly from China to the southern part of Thailand.

Map 5.18   The movement of Teochew, Hakka and Hainanese in Thailand adapted
            from Nectec (n.d.)

5.2.1.4 The migration of Hakka to Thailand

Hakka people who lived in Meizhou and Jieyang which are near Chaozhou embarked from the seaports of Shantou or Swatow (see map 5.19). Hakka people immigrated to many countries, for example, India, Malaysia, Singapore and Thailand. There were two ports in Thailand where Hakka disembarked: Khlongtoei seaport in Bangkok and Pattani seaport in the south. The direction that Hakka travelled to Thailand is the same as Teochew as shown on map 5.17.

At the present time Hakka descendants live in many provinces of Thailand which is shown in map 5.2. Hakka who arrived in Bangkok settled there and in other provinces though out Thailand. The movement of Hakka in Thailand is the same as Teochew as presented on map 5.18.

Map 5.19   Shantou seaport where Hakka embarked for other countries from
           google.com (n.d.)

5.2.1.5 The migration of Hainanese to Thailand

Hainanese people who lived on Hainan island which historically was a part of Guangdong but now a separate province, emmigrated from the seaport of Haikou (see map 5.20). Most Hainanese people arrived at Khlongtoei port, Bangkok or in the south at Saiburi in Pattani or Samui island. The direction that Hainanese travelled to Thailand is shown on map 5.21.

At the present time Hainanese people are settled in various provinces in Thailand which is shown in map 5.4. Most Hainanese came by boat to Bangkok and some then moved to other provinces. Some of them arrived by sea and settled in the southern part of Thailand. The movement of Hainanese in Thailand is the same as Teochew as presented on map 5.18.
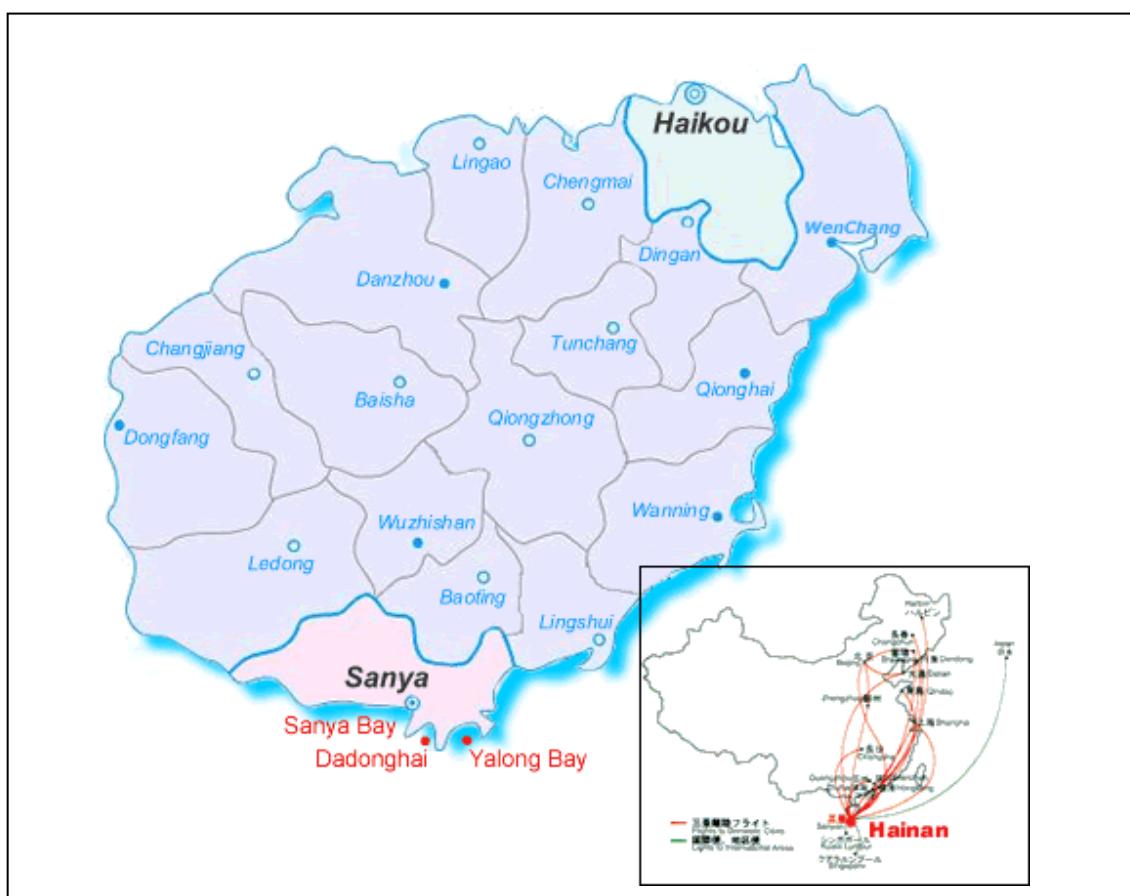
Map 5.20   Haikou seaport where Hainanese embarked for Thailand from
           Sunnysanya (n.d.)

Map 5.21   The direction of Hainanese's migration to Thailand adapted from

mammilalia (2005)

5.2.1.6 The migration of Fuzhou or Hokchew to Thailand

Fuzhou or Hokchew people who lived in Fuzhou prefecture left China from the seaport of Fuzhou (see map 5.22). The places where Hainanese people migrated to are Sibu (Sarawak), East Malaysia, on the northern coast of Borneo and North America. Some of them migrated to Thailand and lived together with Hokkien. Most Fuzhou or Hokchew came from China to the southern part of Thailand by ship and disembarked at Pattani seaport and some of them disembarked at Khlongtoei seaport, Bangkok. The direction that Fuzhou or Hokchew travelled to Thailand is shown on map 5.23.

At the present time, most Fuzhou or Hokchew live in the southern part of Thailand, especially Nakhonsrithammarat. Some moved to the other provinces for business and some Fuzhou settled in Bangkok. The movement of Fuzhou or Hokchew in Thailand is shown on map 5.24.

Map 5.22   Fuzhou seaport where Fuzhou or Hokchew embarked for other countries
          from China assistor travel (n.d.)

Map 5.23   The direction of Fuzhou or Hokchew's migration to Thailand adapted from

mammilalia (2005)

1 = the area inhabited by Fuzhou or Hokchew who travelled by sea from China and disembarked at Khlongtoei seaport, Bangkok.

The green line = Some Fuzhou or Hokkien from the southern part of Thailand moved to Bangkok and other provinces in central and eastern parts of Thailand.

2 = the area inhabited by Fuzhou or Hokchew who migrated directly from China to the southern part of Thailand. Most Fuzhou or Hokchew live in Nakhonsrithammarat.

Map 5.24   The movement of Fuzhou or Hokchew in Thailand adapted from
           Nectec (n.d.)

5.2.1.7 The migration of Guangsai to Thailand

Guangsai people who lived in Guangxi embarked from the seaport of Nanning (see map 5.25). Most of them migrated directly to the southern part of Thailand, or passed through Malaysia or Singapore to the south. They settled in the southern parts especially Betong (Yala). At present some Guangsai who settled originally in the south, have moved to Bangkok. The direction that Guangsai travelled by sea to Thailand is shown on map 5.26 and the movement of Guangsai in Thailand is shown on map 5.27.

Map 5.25   Nanning seaport where Guangsai embarked for other countries from
           Collins. (2008)
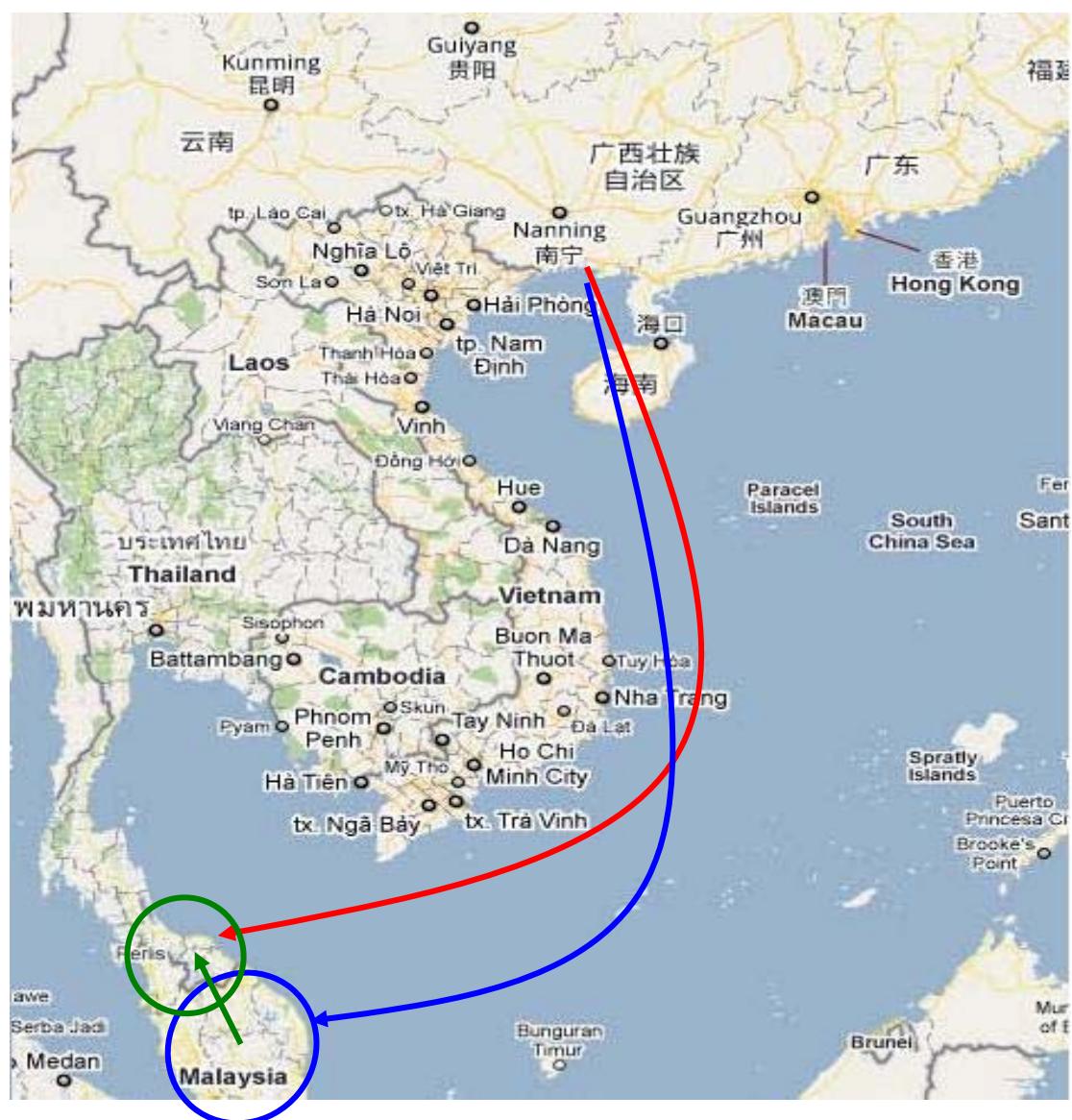
Map 5.26 The direction of Guangsai's migration to Thailand adapted from

           google.com (n.d.)

1 = the area inhabited by Guangsai who mostly came from the southern part of Thailand and some directly from China.

The green line = some Guangsai from the south moved to Bangkok.

2 = the area inhabited by Guangsai who travelled by sea directly from China to the southern part of Thailand and Guangsai who passed through Singapore and Malaysia to Thailand
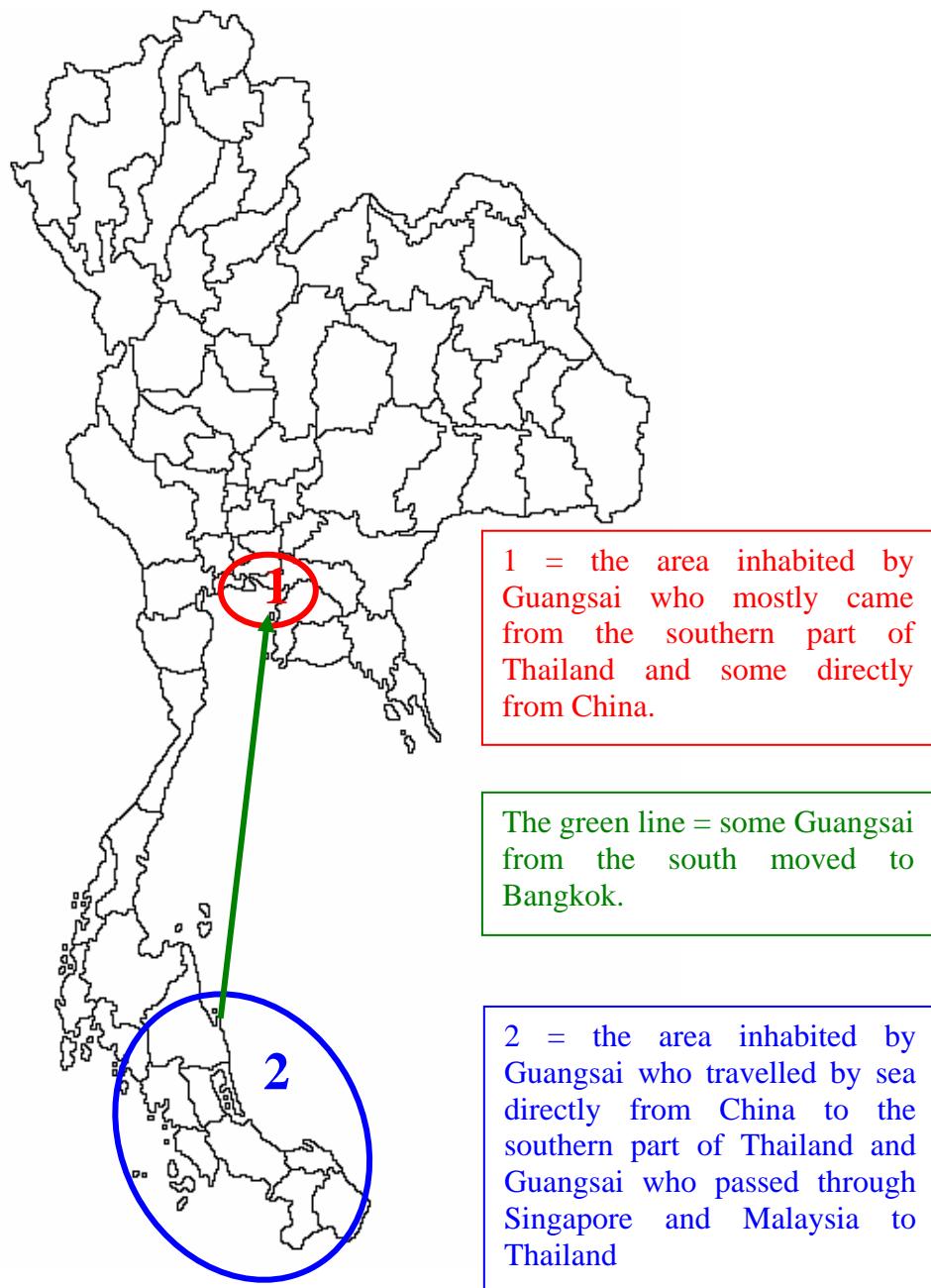
Map 5.27   The movement of Guangsai in Thailand adapted from Nectec (n.d.)

5.2.2 Civil War (1945-1949)

The migration of Yunnanese to Thailand

The second major migration took place during the Chinese Civil War (1945 – 1949) between the Communist and Kuomintang forces. Yunnanese are the Chinese people living in Yunnan (see map 5.28) in the southern part of China. They migrated to Thailand, Myanmar, Vietnam and Taiwan. Yunnanese who immigrated to Thailand settled in the northern part especially Chiangmai, Chiangrai and Mae Hong Son. The Yunnanese in Thailand are divided into two groups, the Yunnanese Chinese refugees and the former soldiers of the 93rd division of the Kuomintang or the KMT. At the present time, Yunnanese are found in Chiangmai, Chiangrai, Mae Hong Son, some in Lampang and Bangkok. Yunnanese moved to Bangkok for business, work and education. The direction that Yunnanese followed into Thailand is shown on map 5.29 and the movement of Guangsai in Thailand is shown on map 5.30.

Moreover, not only Yunnanese migrated to Thailand in the second wave of migration, but also other Chinese groups: Teochew, Hakka, Hokkien, Fuzhou, Hainanese, Cantonese and Guangsai.
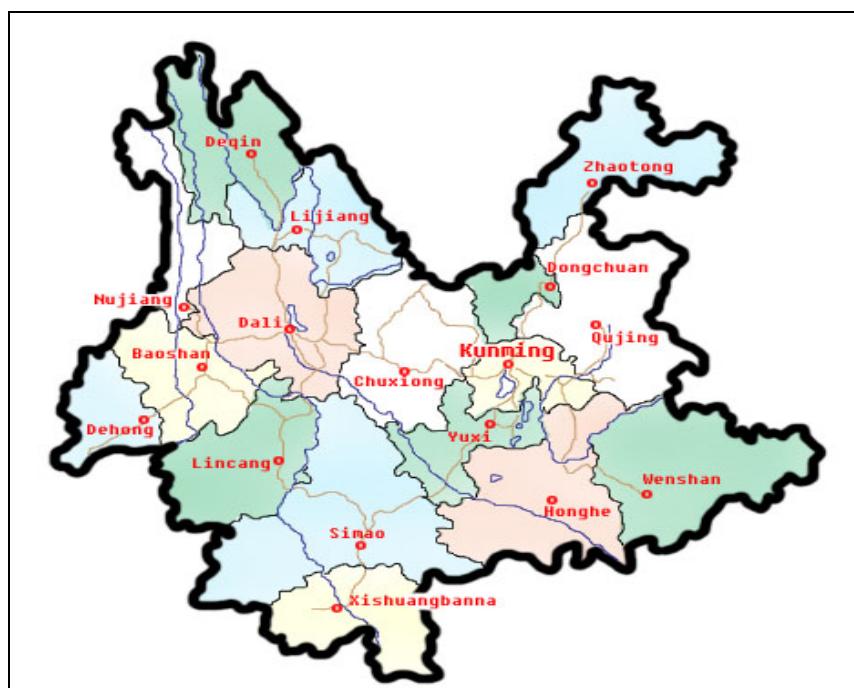
Map 5.28   Yunnan from where Yunnanese immigrated to Thailand and other
                countries by Mekongc (2009)

Map 5.29   The direction of Yunnanese's migration to Thailand adapted from
          Sainarong. (2007)

1 = the northern area of Thailand where Yunnanese migrants live.

The green line = some Yunnanese in the northern part of Thailand moved to Bangkok.

2 = the area inhabited by Yunnanese who moved from the northern part of Thailand.
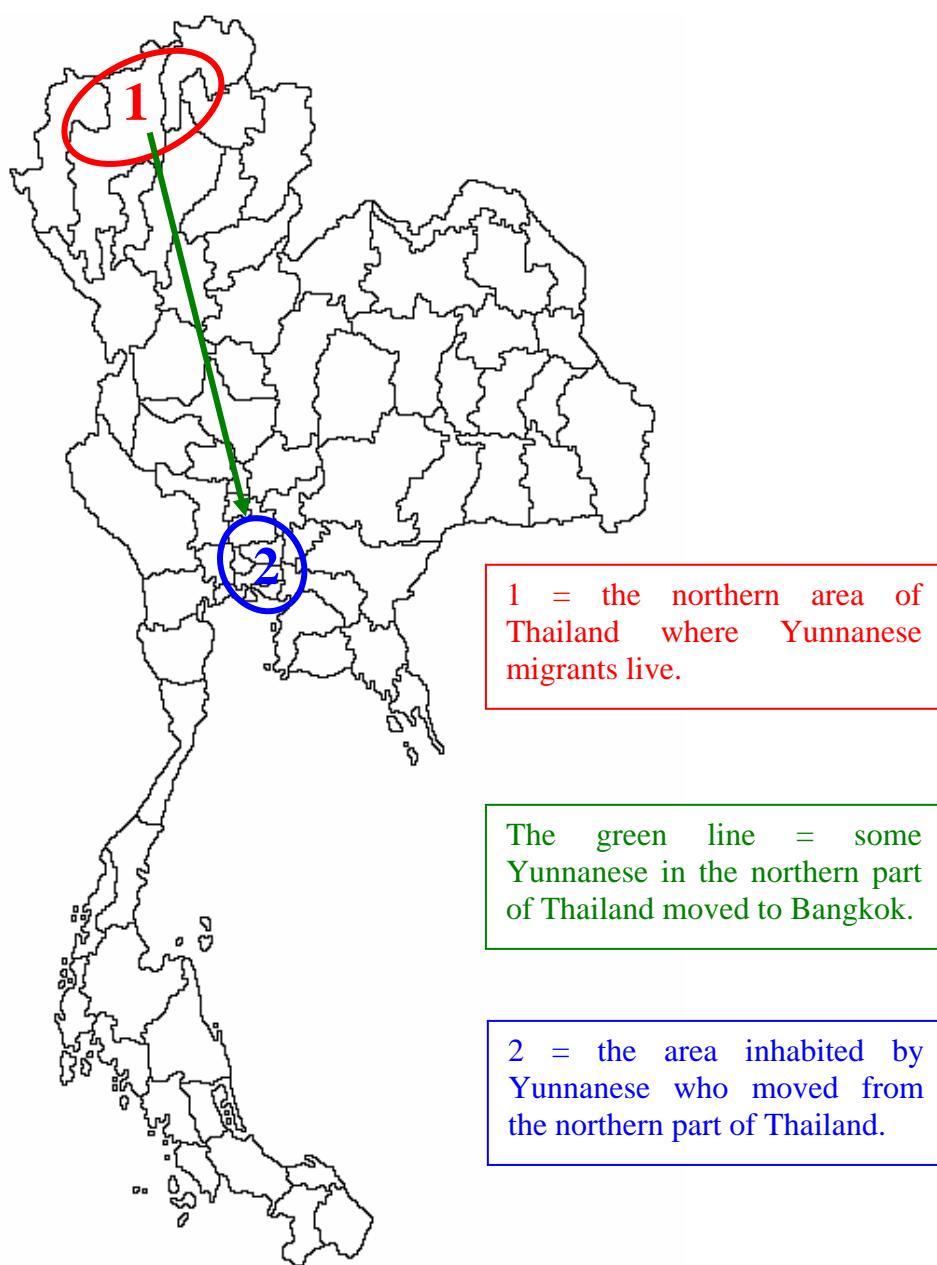
Map 5.30   The movement of Yunnanese in Thailand adapted from Nectec (n.d.)

CHAPTER VI
CONCLUSION AND DISCUSSION

6.1 Conclusion

6.1.1 Chinese dialects and subdialects in Thailand

This chapter summarizes the phonological characteristics of Chinese dialects in Thailand which are divided into eight Chinese dialects namely 1) Yunnanese, 2) Hakka, 3) Teochew, 4) Hainanese, 5) Hokkien, 6) Fuzhou (Hokchew), 7) Cantonese, and 8) Guangsai. The eight Chinese dialects in Thailand can be classified into 4 groups as follows:

6.1.1.1 Mandarin

There is one Yunnanese dialect found in Thailand which belongs to the Mandarin Chinese group. Yunnanese people came from different cities of Yunnan, so they speak 5 regional subdialects of Yunnanese as follows:

6.1.1.1 Yunnanese subdialect 1: YS1, is spoken in Muang Hai of Xishuagbanna Autonomous Region of Tai Ethnic Group (孟海县, 西双版纳傣族自治州).

6.1.1.2 Yunnanese subdialect 2: YS2, is spoken in Kunming in Yunnan (昆明).

6.1.1.3 Yunnanese subdialect3: YS3, is spoken in Longling in Yunnan (龙陵县).

6.1.1.4 Yunnanese subdialect4: YS4, is spoken in Simao district in Yunnan (思茅区).

6.1.1.5 Yunnanese subdialect5: YS5, is spoken in the northern part of Yunnan.

6.1.1.2 Hakka or Kejia

The Hakka or Kejia found in Thailand has 2 subdialects. They are Ng-yan group (Chim Khak or Deep Hakka) and Hoi-liuk fung group (Pan San Khak or Half mountain). Moreover, each subdialect of Hakka can be divided into two groups as shown below.

6.1.1.2.1 Ng-yan group (Chim Khak or Deep Hakka)

Chim Khak or Deep Hakka found in Thailand consists of 2 subdialects as shown below.

1) Meixian Hakka

2) Hsing Ning Hakka.

6.1.1.2.2 Pan San Khak (Half mountain)

Pan San Khak or half mountain Hakka consists of 2 subdialects as shown below.

1) Fengshun and Dabu Hakka

2) Jie Yang or Kiet Yong (Kit Io) Hakka

6.1.1.3. Yue or Cantonese

Yue or Cantonese found in Thailand has 2 dialects as follows:

6.1.1.3.1 Cantonese

Cantonese in Thailand has 3 subdialects as shown below.

1) Guangzhou subdialect

2) Zhongshan subdialect

3) Foshan subdialect

6.1.1.3.2 Guangsai spoken in Guangxi province.

6.1.1.4. Min

The Min Chinese group found in Thailand consists of Eastern Min and Southern Min. There is one Chinese dialect of Eastern Min and three Chinese dialects of Southern Min. All Chinese dialects of the Min Chinese group are shown below.

6.1.1.4.1 Eastern Min (Min Dong)

This research found that Fuzhou or Hokchew is the only Chinese dialect belonging to Eastern Min in Thailand.

6.1.1.4.2 Southern Min (Min Nan)

There are 3 Chinese dialects of Southern Min in Thailand as follows:

1) Teochew

There are 2 subdialects of Teochew in Thailand as explained below:

a. Teochew subdialect 1 is used by speakers from Kik-Io, Theng-Hai, Tio-Io and Phou-Leng.

b. Teochew subdialect 2 is used by speakers from Tio-Ang, some from Kik-Io and some from Then-Hai.

2) Hainanese

Hainanese in Thailand can be divided into 2 groups following consonant phonemes.

3) Hokkien

Hokkien in Thailand can be divided into 2 subdialects following consonants, vowels and tones.

All eight Chinese dialects and subdialects found in Thailand are presented in chart 6.1 below.
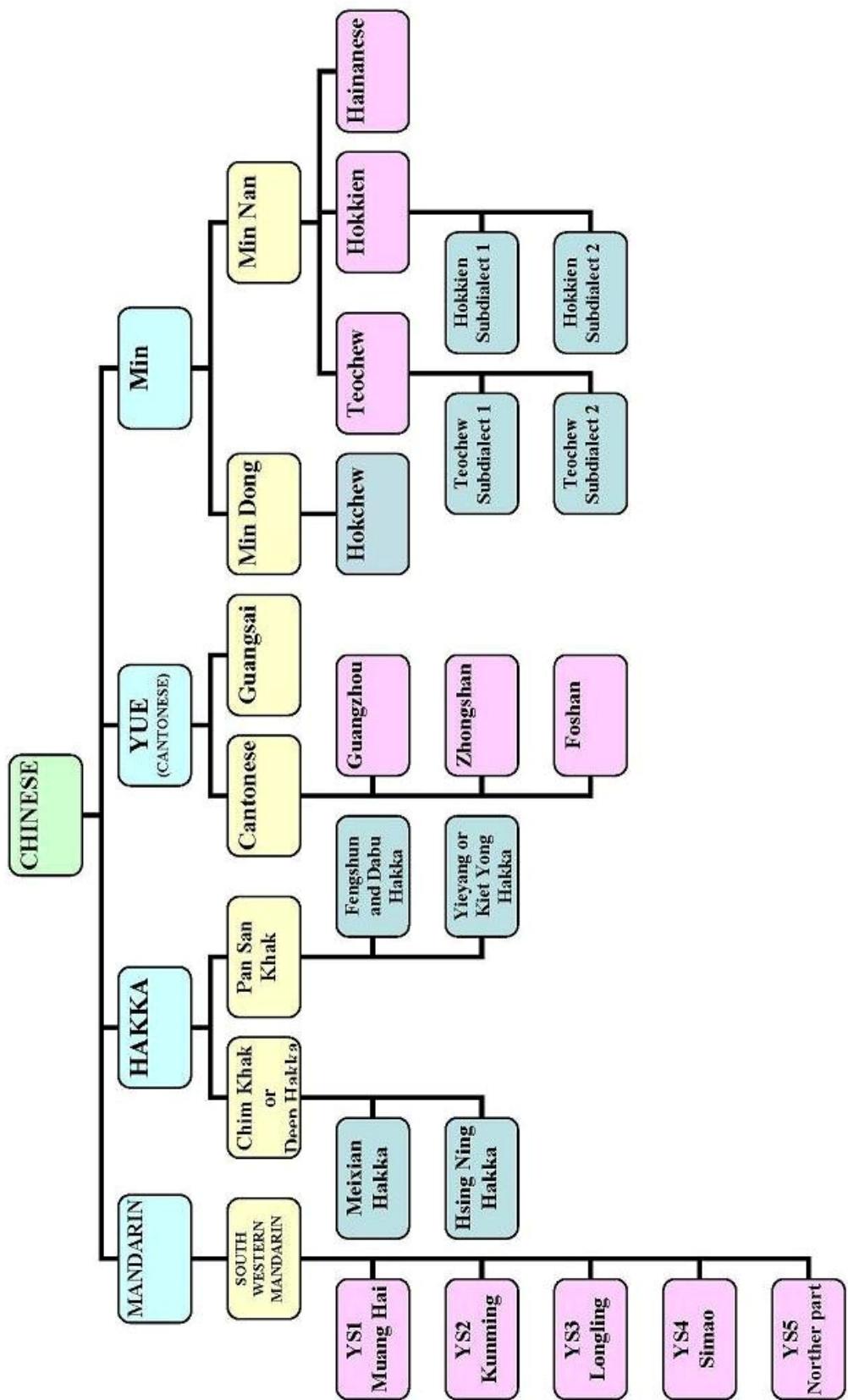
Chart 6.1 The Chinese languages tree in Thailand

6.1.2 The phonological comparison of Chinese dialects in Thailand

The phonological comparison of Chinese dialects in Thailand will be explained in 3 parts: consonants, vowels and tones as follows:

6.1.2.1 The comparison of Chinese dialect consonants

The consonant phonemes of eight Chinese dialects in Thailand can be grouped into three as follows:

6.1.2.1.1 The first group which has seventeen consonants

The Chinese dialect in the first group is Fuzhou dialect which has seventeen consonants: /p, ph, t, th, k, kh, ʔ, m, n, ŋ, ts, tsh, s, h, l, w, j/.

6.1.2.1.2 The second group which has eighteen consonants

The Chinese dialects in the second group are Yunnanese group 2, Hakka, Teochew, Hainanese group 2, and Hokkien subdialect 2 group 2. Although they have the same number of consonants, they have different consonant phonemes as follows:

Yunnanese group 2	Hakka	Teochew	Hainanese group 2	Hokkien subdialect 2
/p, ph, t, th, k, kh, m, n, ts, tsh, tɕ, tɕh, f, s, z, ɕ, x, l/	/p, ph, t, th, ts, tsh, k, kh, ʔ, m, n, ŋ, l, f, s, h, w, j/	/p, ph, b, t, th, k, kh, g, ʔ, m, n, ŋ, ts, tsh, s, z (j), h, l/	/p, ph, b, t, d, k, kh, g, ʔ, m, n, ŋ, ts, s, h, l, w, j/	/p, ph, t, th, k, kh, ʔ, b, m, n, ŋ, ts, tsh, s, h, l, w, j/

6.1.2.1.3 The third group which has nineteen consonants

The Chinese dialects in the third group are Yunnanese group 1, Hainanese group 1, Hokkien subdialect 1, Hokkien subdialect 2 group 1, Cantonese, and Guangsai dialects. Although they have the same number of consonants, they have different consonant phonemes as follows:

Yunnanese group 1	Hainanese group 1	Hokkien subdialect 1 and subdialect 2 group 1	Cantonese	Guangsai
/p, ph, t, th, k, kh, m, n, ŋ, ts, tsh, tɕ, tɕh, f, s, z, ɕ, x, l/	/p, ph, b, t, h, d, k, kh, g, ʔ, m, n, ŋ, ts, s, h, l, w, j/	/p, ph, t, th, k, kh, ʔ, b, g, m, n, ŋ, ts, tsh, s, h, l, w, j/	/p, ph, t, th, k, kh, kw, ʔ, m, n, ŋ, ts, tsh, f, s, h, l, w, j	/p, ph, t, th, k, ʔ, b, d, m, n, ŋ, ts, tsh, f, s, h, l, w, j/

All consonant phonemes of the eight Chinese dialects are shown in table 6.1 below.

Remark   the abbreviations in tables 6.1 – 6.7 are:

G1 = Group 1   G2 = Group 2

S1 = Subdialect1   S2 = Subdialect2

Y1 = Yunnanese subdialect1   Y2 = Yunnanese subdialect2

Y3 = Yunnanese subdialect3   Y4 = Yunnanese subdialect4,

Y5 = Yunnanese subdialect5   MX = Meixian

HN = Hsing Ning   FD = Fengshun and Dabu Hakka

JK = Jie Yang or Kiet Yong Hakka   G = Guangzhou

Z = Zhongshan   F = Foshan

Yunnanese		Hakka	Teochew	Hainanese		Hokkien			Fuzhou	Cantonese			Guangsai
G1	G2			G1	G2	S1	S2 G1	S2 G2		Guang Zhou	Zhong shan	Fo shan	
19	18	18	18	19	18	19	19	18	17	19	19	19	19
p	p	p	p	p	p	p	p	p	p	p	p	p	p
ph	ph	ph	ph	ph	ph	ph	ph	ph	ph	ph	ph	ph	ph
t	t	t	t	t	t	t	t	t	t	t	t	t	t
th	th	th	th	th		th	th	th	th	th	th	th	th
k	k	k	k	k	k	k	k	k	k	k	k	k	k
kh	kh	kh	kh	kh	kh	kh	kh	kh	kh	kh	kh	kh	
										kw	kw	kw	
		ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ
			b	b	b	b	b	b					b
				d	d								d
			g	g	g	g	g						
m	m	m	m	m	m	m	m	m	m	m	m	m	m
n	n	n	n	n	n	n	n	n	n	n	n	n	n
ŋ		ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ
ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts
tsh	tsh	tsh	tsh			tsh	tsh	tsh	tsh	tsh	tsh	tsh	tsh
tɕ	tɕ												
tɕh	tɕh												
f	f	f								f	f	f	f
s	s	s	s	s	s	s	s	s	s	s	s	s	s
z	z		z										
ç	ç												
x	x												
		h	h	h	h	h	h	h	h	h	h	h	h
l	l	l	l	l	l	l	l	l	l	l	l	l	l
		w		w	w	w	w	w	w	w	w	w	w
		j	(j)	j	j	j	j	j	j	j	j	j	j

Table 6.1   The comparison of eight Chinese dialect consonant phonemes in Thailand

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Note The reason of /ʔ/ realization in the initial position is the sound /ʔ/ is more stress.

Table 6.1 shows that the consonants /p, ph, t, k, m, n, ts, s, l/ are found in all eight Chinese dialects in Thailand. The consonants /tɕ, tɕh, ɕ, x/ are used only in Yunnanese dialect. Only /th/ is not found in Hainanese group 2, and /kh, tsh/ is not found in Guangsai and Hainanese respectively. /f/ is in Yunnanese, Hakka, Cantonese and Guangsai, while /kw/ is found only in Cantonese. /ʔ, ŋ, h, j/ are present in seven Chinese dialects except Yunnanese, while /w/ is found in Hakka, Hainanese, Hokkien, Fuzhou, Cantonese and Guangsai.

Most consonants in table 6.1 can occur in initial position except /ʔ/ in Cantonese and /ŋ/ in Yunnanese group 1, Hokkien subdialect 1 and Hokkien subdialect 2 group 1. All initial consonants of the eight Chinese dialects in Thailand are shown in table 6.2.

The final consonants can be grouped into five as follows.

1) Final consonant group1. There is only one final consonant: /n/ which occurs in Yunnanese group 2.

2) Final consonant group 2. There are two final consonants: /n, ŋ/ which occur in Yunnanese group 1.

3) Final consonant group 3. There are five final consonants: /p, k, ʔ, m, ŋ/ which occur in Teochew.

4) Final consonant group 4. There are six final consonants which can be divided into two subgroups.

    a) The final consonants /p, t, k, m, n, ŋ/ occur in Hakka and Hainanese group 2.

    b) The final consonants /t, k, ʔ, m, n, ŋ/ occur in Fuzhou.

5) Final consonants group 5. There are seven final consonants: /p, t, k, ʔ, m, n, ŋ/ which occur in Hainanese group1, Hokkien, Cantonese and Guangsai.

The comparison of final consonants of eight Chinese dialects in Thailand is shown in table 6.3.

| Yunnanese | | Hakka | Teochew | Hainanese | | Hokkien | | | Fuzhou | Cantonese | | | Guangsai |
G1	G2			G1	G2	S1	S2 G1	S2 G2		Guang Zhou	Zhong shan	Fo shan	
p	p	p	p	p	p	p	p	p	p	p	p	p	p
ph	ph	ph	ph	ph	ph	ph	ph	ph	ph	ph	ph	ph	ph
t	t	t	t	t	t	t	t	t	t	t	t	t	t
th	th	th	th	th		th	th	th	th	th	th	th	th
k	k	k	k	k	k	k	k	k	k	k	k	k	k
kh	kh	kh	kh	kh	kh	kh	kh	kh	kh	kh	kh	kh	
										kw	kw	kw	
		ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ				ʔ
			b	b	b	b	b	b					b
			d	d	d								d
			g	g	g	g	g						
m	m	m	m	m	m	m	m	m	m	m	m	m	m
n	n	n	n	n	n	n	n	n	n	n	n	n	n
		ŋ	ŋ	ŋ	ŋ		ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ
ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts
tsh	tsh	tsh	tsh			tsh	tsh	tsh	tsh	tsh	tsh	tsh	tsh
tɕ	tɕ												
tɕh	tɕh												
f	f	f								f	f	f	f
s	s	s	s	s	s	s	s	s	s	s	s	s	s
z	z		z										
ç	ç												
x	x												
		h	h	h	h	h	h	h	h	h	h	h	h
l	l	l	l	l	l	l	l	l	l	l	l	l	l
		w		w	w	w	w	w	w	w	w	w	w
		j	(j)	j	j	j	j	j	j	j	j	j	j

Table 6.2   A comparison of initial consonants of eight Chinese dialects in Thailand

Yunnanese		Hakka	Teochew	Hainanese		Hokkien	Fuzhou	Cantonese	Guangsai
G1	G2			G1	G2				
		p	p	p	p	p		p	p
		t		t	t	t	t	t	t
		k	k	k	k	k	k	k	k
			ʔ	ʔ		ʔ	ʔ	ʔ	ʔ
		m	m	m	m	m	m	m	m
n	n	n		n	n	n	n	n	n
ŋ		ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ

Table 6.3   A comparison of final consonants of eight Chinese dialects in Thailand

6.1.2.2 The comparison of Chinese dialects vowels

The comparison of vowel phonemes of eight Chinese dialects in Thailand shows that the three monophthongs /i, a, u/ occur in all Chinese dialects, while other monophthongs occur differently in each dialect. Moreover, both Teochew and Hokkien have nasalized vowels. All vowel phonemes are shown in table 6.4.

Yunnanese					Hakka				Teochew	Hainanese	Hokkien		Fuzhou	Cantonese			Guangsai
Y1	Y2	Y3	Y4	Y5	MX	HN	FD	JK	chew	nanese	S1	S2		G	Z	F	
i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i
ɛ	ɛ				ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ
a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
ə	ə	ə	ə	ə							ə	ə	ə	ə			
ɯ	ɯ	ɯ		ɯ	ɯ	ɯ	ɯ	ɯ	ɯ		ɯ	ɯ	ɯ		ɯ	ɯ	ɯ
u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u
o	o	o	o	o	o	o	o		o	o	o	o	o	o	o	o	o
ɔ	ɔ						ɔ	ɔ			ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	
									ĩ		ĩ	ĩ		y	y	y	y
									ɛ̃		ɛ̃	ɛ̃		æ	æ	æ	
									ã		ã	ã					
											ũ						

Table 6.4   A comparison of eight Chinese dialects vowel monophthongs in Thailand

For the diphthongs and triphthongs of the eight Chinese dialects in Thailand it was found that the four diphthongs: /iu, ai, au, ui/ can occur in every dialect while the others occur differently in each dialect.

Syllabic /m̩/ occurs in Meixian, Hsing Ning, Teochew, Hokkien and Cantonese while /ŋ̩/ occurs in Hsing Ning, Fengshun and Dabu, and Cantonese. The comparison of diphthongs, triphthongs and syllabics are shown in tables 6.5, 6.6 and 6.7 respectively.

Yunnanese					Hakka				Teo chew	Hai nanese	Hokkien		Fuzhou	Cantonese			Guangsai
Y1	Y2	Y3	Y4	Y5	MX	HN	FD	JK			S1	S2		G	Z	F	
iɛ	iɛ	iɛ	iɛ	iɛ	iɛ	iɛ	iɛ										
ia	ia	ia	ia	ia	ia	ia	ia	ia	ia	ia	ia	ia	ia		ia	ia	ia
						io	io		io	io	io	io	io		io	io	
iɔ	iɔ	iɔ	iɔ	iɔ	iɔ		iɔ	iɔ									
iu	iu	iu	iu	iu	iu	iu	iu	iu	iu	iu	iu	iu	iu	iu	iu	iu	iu
														ɛi	ɛi	ɛi	
					ɛu	ɛu	ɛu	ɛu				ɛu	ɛu				
ai	ai	ai	ai	ai	ai	ai	ai	ai	ai	ai	ai	ai	ai	ai	ai	ai	ai
au	au	au	au	au	au	au	au	au	au	au	au	au	au	au	au	au	au
													ɯə				
əi	əi	əi	əi	əi					əi					əi	əi		
əu	əu	əu	əu	əu													
ɔi					ɔi	ɔi	ɔi										
					oi	oi	oi	oi	oi	oi	oi	oi	oi	oi	oi	oi	oi
ou	ou				ou	ou			ou	ou	ou	ou		ou	ou	ou	ou
ui	ui	ui	ui	ui	ui	ui	ui	ui	ui	ui	ui	ui	ui	ui	ui	ui	ui
					uɛ	uɛ	uɛ	uɛ									
ua	ua	ua	ua	ua	ua	ua	ua	ua		ua	ua	ua	ua				ua
	uə	uə	uə						uə								
uɔ	uɔ	uɔ	uɔ	uɔ				uɔ									
					uo		uo						uo			uo	uo
									iã		iã	iã					
									iõ								
											iũ	iũ					
									aĩ								
									əĩ								
									oĩ								
									uɔ̃								
											uã	uã					

Table 6.5   A comparison of vowel diphthongs of eight Chinese dialects in Thailand

Yun nanese	Hakka				Teo chew	Hai nanese	Hok kien	Fuzhou	Cantonese			Guangsai
	MX	HN	FD	JK					G	Z	F	
	iai											
		iɛu	iɛu							iɛu		
iau	iau	iau	iau	iau	iau	iau	iau	iau				iau
iəu												
				iui								
uai	uai	uai		uai	uai	uai	uai	uai				uai
uəi												

Table 6.6   A comparison of vowel triphthongs of eight Chinese dialects in Thailand

Hakka				Teochew	Hokkien	Cantonese
MX	HN	FD	JK			
m̩	m̩			m̩	m̩	m̩
	ŋ̍	ŋ̍			ŋ̍	

Table 6.7   A comparison of syllabics of eight Chinese dialects in Thailand

6.1.2.3 Comparison of Chinese dialects tones

The comparison of tones of eight Chinese dialects in Thailand shows that tones of Chinese dialects in Thailand can be divided into four groups as follows.

6.1.2.3.1 Chinese dialect tone group1

The Chinese dialect tone group 1 has four tones. Chinese dialects in this group are Yunnanese subdialect 1, 4 and 5.

6.1.2.3.2 Chinese dialect tone group 2

The Chinese dialect tone group 2 has five tones. Chinese dialects in this group are Yunnanese subdialect 2, 3 and Fengshun and Dabu Hakka.

6.1.2.3.3 Chinese dialect tone group 3

The Chinese dialect tone group 3 has six tones. Chinese dialects in this group are Meixian Hakka, Hsing Ning Hakka, Teochew, Hokkien, Fuzhou and Cantonese.

6.1.2.3.4 Chinese dialect tone group 4

The Cantonese dialect tone group 4 has seven tones. Chinese dialects in this group are Jie Yang or Kiet Yong (Kik Io) Hakka, Hainanese and Guangsai.

All Chinese dialect tones are shown in table 6.8.

Dialects	Tones	Variety	Ping Sheng			Shang Sheng		Qu Sheng			Ru Sheng		
			Yin Ping	Zhong Ping	Yang Ping	Yin Shang	Yang Shang	Yin Qu	Zhong Qu	Yang Qu	Yin Ru	Zhong Ru	Yang Ru
Yunnanese	4 Tones	YS1 Type 1	33		22	52		213					22
Yunnanese	4 Tones	YS1 Type 2	33		31	53		23					31
Yunnanese	5 Tones	YS2	44		11	213		53					31ʔ
Yunnanese	5 Tones	YS3	33		22	44		23					31ʔ
Yunnanese	4 Tones	YS4	33		31ʔ	42		23					31ʔ
Yunnanese	4 Tones	YS5	33		31ʔ	53		214					31ʔ
Hakka	6 Tones	Meixian Pattern1	33		21	31		44			32		55
Hakka	6 Tones	Meixian Pattern2	33	23	21	32			44	33		32	55
Hakka	6 Tones	Hsing Ning	22		11	53		44			33		55
Hakka	5 Tones	Fengshun & Dabu	33		13	52		44		21	21		44
Hakka	7 Tones	Jie Yang or Kiet Yong	52		35	14		31		22	24		44
Teochew	6 Tones	Teochew	33		44	52	24	213		21	21		44
Hainanese	7 Tones	Hainanese	33		21	31		24		453	44		22

Table 6.8   The comparison of tones of eight Chinese dialects in Thailand

Dialects			Ping Sheng			Shang Sheng		Qu Sheng			Ru Sheng		
			Yin Ping		Yang Ping	Yin Shang	Yang Shang	Yin Qu		Yang Qu	Yin Ru		Yang Ru
			Yin Ping	Zhong Ping	Yang Ping	Yin Shang	Yang Shang	Yin Qu	Zhong Qu	Yang Qu	Yin Ru	Zhong Ru	Yang Ru
Hokkien	6 Tones	Subdialect 1	33		24	52	52	21			44		22
		Subdialect 2	33		23	52	52	31		21		21	44
Fuzhou		Fuzhou	55		33	31	52	21		24		21	55
Cantonese		Guangzhou	44		31	13	13	33	24	22	44	33	22
		Zhongshan	52		11	13	33	42		22	33	22	33
		Foshan	52	44	21	24	33	33		22	44	33	22
Guangsai	7 Tones	Guangsai	33	31	53	22	25	44		21	44	22	33

Table 6.8   The comparison of tones of eight Chinese dialects in Thailand (continued)

Table 6.8 shows that the tone development from Ancient Chinese to Middle Chinese and into eight Chinese dialects in Thailand can be described as follows:

1. The ancient level tone category (平声 Ping Sheng)

The splitting of Ping Sheng can be divided into two groups. First group, the ancient level tone category split into two categories: upper level tone (阴平 Yin Ping) and lower level tone (阳平 Yang Ping). The first group is found in Yunnanese, Hakka, Meixian Hakka pattern 1, Hsing Ning Hakka, Fengshun and Dabu Hakka, Jie Yang or Kiet Yong Hakka, Teochew, Hainanese, Hokkien, Fuzhou, Guangzhou Cantonese and Zhongshan Cantonese. Second group, the ancient level tone category split into three categories: upper level tone (阴平 Yin Ping), middle level tone (中平 Zhong Ping) and lower level tone (阳平 Yang Ping). The second group is found in Meixian Pattern 2, Foshan Cantonese and Guangsai.

2. The ancient rising tone category (上声 Shang Sheng)

The splitting of Shang Sheng can be divided into two groups. First group, the ancient rising tone category does not split. The first group is found in Yunnanese, Hakka, Hainanese, Hokkien and Guangzhou Cantonese. Second group, the ancient rising tone category split into two tone categories: upper rising tone (阴上 Yin Shang) and lower rising tone (阳上 Yang Shang). The second group is found in Teochew, Fuzhou, Zhongshan Cantonese, Foshan Cantonese and Guangsai.

3. The ancient departing tone category (去声 Qu Sheng)

The splitting of Qu Sheng can be divided into three groups. First group, the ancient departing tone category does not split. The first group is found in Yunnanese, Meixian Hakka pattern 1, Hsing Ning Hakka and Hokkien subdialect 1. Second group, the ancient departing category split into two tone categories: upper departing tone (阴去 Yin Qu) and lower departing tone (阳去 Yang Qu). The second group is found in Meixian Hakka pattern 2, Fengshun and Dabu Hakka, Jie Yang or Kiet Yong Hakka, Teochew, Hainanese, Hokkien subdialect 2, Fuzhou, Zhongshan Cantonese, Foshan Cantonese and Guangsai. The Third group, the ancient departing category split into three tone categories: upper departing tone (阴去 Yin Qu), middle

level tone (中去 Zhong Qu) and lower level tone (阳去 Yang Qu). The third group in found in Guangzhou Cantonese.

4.   The ancient entering tone category (入声 Ru sheng)

The splitting of Ru Shen which ends with a stop –p, -t, and –k can be divided into three groups. First group, the ancient entering tone category does not split. The first group is found in Yunnanese. Second group, the ancient entering tone category split into two tone categories: upper entering tone (阴入 Ying Ru) and lower entering tone (阳入 Yang Ru). The second group is found in Hakka, Teochew, Hainanese, Hokkien and Fuzhou. Third group, the ancient entering tone category split into three tone categories: upper entering tone (阴入 Ying Ru), middle entering tone (中入 Zhong Ru) and lower entering tone (阳入 Yang Ru). The third group is found in Cantonese and Guangsai.

The merger and splitting cause the number of Chinese dialect tones differ. The different consonants, vowels and tones in each dialect reveal the typical characteristic of each dialect.

6.1.3 The Chinese distribution and settlement in Thailand

The eight Chinese dialects can be grouped according to their distribution and periods of migration to Thailand as follows:

6.1.3.1. The grouping of Chinese dialects based on their distribution

The Chinese dialects in Thailand can be grouped into three groups as follows:

a) **The Chinese dialects in Thailand group 1**

The Chinese dialects in Thailand group 1 are spoken by Yunnanese who immigrated from the southern part of China to the northern part of Thailand as presented in maps 5.1 and 5.30.

b) **The Chinese dialects in Thailand group 2**

The Chinese dialects in Thailand group 2 are used by Teochew, Hakka and Hainanese speakers who migrated from the southern part of China to Bangkok and the southern part of Thailand. At the present time they live in almost every province of Thailand. Most Teochew and Hainanese live in the central part while Hakka live in almost all parts of Thailand. This group is presented on maps 5.2 – 5.4 and 5.18.

c) **The Chinese dialects in Thailand group 3**

The Chinese dialects in Thailand group 3 are used by Hokkien, Fuzhou or Hokchew, Cantonese and Guangsai speakers who migrated from the southern part of China to the southern part of Thailand and Bangkok. At the present time some Chinese people have settled in Bangkok and other provinces. The center for this group is in the southern part of Thailand; Phuket, Songkhla, Pattani, Yala and Nakhonsrithammarat. This group is presented on maps 5.5 – 5.7, 5.11, 5.15, 5.24 and 5.27.

6.1.3.2 The grouping of Chinese dialects based on the periods of Chinese immigration into Thailand.

The Chinese dialects in Thailand can be grouped according to the periods of migration to Thailand. There were two important periods of migration of Chinese people to Thailand as follows:

a) **Seventeenth century – World War II (1939-1949)**

The first migration started around the seventeenth century up to World War II (1939 – 1949) because of economic and political turmoil in China. The Chinese who migrated to Thailand during this period were Hokkien, Teochew, Hakka, Fuzhou or Hokchew, Hainan or Hailam, and some Cantonese who lived in the South of China. The Chinese in this group had different occupations which determined where they settled and can be found today. Most Hokkien, Fuzhou, Cantonese, Guangsai and some Hakka do mining and grow rubber trees, so they mostly live in the southern part of Thailand. On the other hand, most

Teochew, Hakka and Hainanese work in agriculture or trade, so they mostly live in the central, eastern, northern and northeastern part of Thailand. Moreover, from the seventeenth century up to now, these Chinese groups have inter-married with Thais resulting in new generations of mixed-race.

b) Civil War (1945-1949)

The second major migration took place during the Civil War (1945 – 1949) between the Communists and the Nationalists. Most of this group were Yunnanese from Yunnan in the southwestern part of China. Most Yunnanese were soldiers who migrated to Thailand illegally and sought asylun, so they live in limited places available with their community, under law. Yunnanese still use their language in daily life and at present, so their phonology may not have changed.

Moreover, not only Yunnanese, but also some speakers of other Chinese group: Teochew, Hakka, Hokkien, Fuzhou, Hainanese, Cantonese and Guangsai migrated to Thailand during the second migration. The majority of Chinese from these groups arrived during the first migration.

A summary of Chinese migration to Thailand is presented on map 6.1. The black circle represents the Chinese in southern China. The red and blue lines represent the direction by sea of Chinese to Bangkok (number 1) and southern parts of Thailand (number 2). The orange line represents the direction that Chinese people who passed through Malaysia and Singapore to Thailand (number 3). The pink line shows the direction that Chinese people took to the northern part of Thailand (number 4).

Map 6.1   The migration of Chinese dialect speakers to Thailand adapted from

Oberlin (n.d.)

6.2 Discussion

It has been found that there are eight Chinese dialects in Thailand: Yunnanese, Hakka, Teochew, Hainanese, Hokkien, Fuzhou or Hokchew, Cantonese and Guangsai. This research did not find Yunnanese from Zhenkang country (Zhènkāngxiàn: 镇康县) and Gengma Dai and Va Autonomous county (Gěngmǎ dǎizú wǎzú Zìzhìxiàn: 耿马傣族佤族自治县) in Chiangrai province. All eight Chinese dialects are spoken by Chinese people who migrated to Thailand from the seventeenth century. Because Mandarin is the standard international language, in Thailand it is used for business and education. This study does not include the use of Mandarin, because there are a few Mandarins.

It was also found that the phonology of Chinese dialects had regional variations within each Chinese dialect as a result of Chinese people migration to Thailand from different regions and cities in China. These days, despite the many varieties of Chinese dialect in Thailand, most speak their own language less, especially in the central, northeastern and northern parts of Thailand. Thai is mainly used everyday and some Chinese use Mandarin to communicate particular situations. Mandarin is popular in the southern parts of Thailand with Teochew being the most commonly spoken dialect for Chinese throughout Thailand.

6.3 Suggestions for further studies

This thesis focuses only on the phonology and distribution of Chinese dialects in Thailand. Further research of Chinese dialects in Thailand is suggested.

6.3.1 A study of tone sandhi in each Chinese dialect in Thailand.

6.3.2 A comparative study of tone sandhi of Chinese dialects in Thailand

6.3.3 A study of the interference of Chinese dialects in Standard Thai or Mandarin Chinese.

6.3.4 A study of the morphology and grammar, or lexicon of Chinese dialects in Thailand.

6.3.5 A study of the socio-cultural assimilation of Chinese people in Thailand.

6.3.6 A study of code switching between Chinese and Thai or Chinese dialects.

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        มหาวิทยาลัยมหิดล.

APPENDICES

APPENDIX A

GLOSSARY OF CHINESE DIALECT WORD LIST

Chinese dialects :   Yunnanese, Hakka, Teochew, Hainanese, Hokkien,

Hokchew, Cantonese, Guangsai

Word order   :   English Alphabets

Tone order   :   1 , 2 , 3 , 4 , 5 , 6, 7

The blank is the informants don't use this word or use another word.

Yunnanese Dialect Word List

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
3rd person				/tha¹/ [tha³³]	/tha¹/ [tha³³]	/tha¹/ [tha³³]
(to) ask				/uən⁴/ [uən²³]	/uən⁴/ [uən²³]	/uən⁴/ [uən²¹⁴]
(to) ask for	/tɕhiu³/ [tɕhiu⁵²]	/tɕhiu³/ [tɕhiu⁵³]				
be able	/nɔŋ³/ [nɔŋ⁵²]	/nɔŋ³/ [nɔŋ⁵³]		/nən⁵/ [nən³¹ʔ] [nən³¹ʔ]		
beach				/than¹/ [than³³]	/than¹/ [than³³]	/than¹/ [than³³]
bean				/təu¹⁴/ [təu²³]	/təu⁴/ [təu²³]	/təu⁴/ [təu²¹⁴]
(to) beg	/tɕhiu³/ [tɕhiu⁵²]	/tɕhiu³/ [tɕhiu⁵³]				

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
black			/xə¹/ [xəː⁴⁴]			
blood			/tɕiɛ³/ [tɕiɛ²¹³]			
body	/sən¹/ [sən³³]	/sən¹/ [sən³³]				
	/thi³/ [thi⁵²]	/thi³/ [thi⁵³]				
(to) boil			/tɕu¹/ [tɕuː⁴⁴]			
(to) borrow	/tɕɛ⁴/ [tɕɛː²¹³]	/tɕɛ⁴/ [tɕɛː²³]			/tai⁴/ [tiu²³]	
brain	/nau³/ [nau⁵²]	/nau³/ [nau⁵³]				
(be) broken			/khaŋ³/ [khaŋ²¹³]	/pho⁴/ [phɔː²³]	/pho⁴/ [phɔː²³]	/pho⁴/ [phɔː²¹⁴]
(to) buy	/mai³/ [mai⁵²]	/mai³/ [mai⁵³]	/mai⁴/ [mai⁵³]	/mai³/ [mai⁴⁴]	/mai³/ [mai⁴²]	/mai³/ [mai⁵³]
(to) call	/tɕiau⁴/ [tɕiau²¹³]	/tɕiau⁴/ [tɕiau²³]				
can (v.)	/nɔŋ³/ [nɔŋ⁵²]	/nɔŋ³/ [nɔŋ⁵³]		/nən⁵/ [nən³¹ʔ] [nəŋ³¹ʔ]		
carbon	/than⁴/ [than²¹³]	/than⁴/ [than²³]	/than⁴/ [than⁵³]	/than⁴/ [than²³]	/than⁴/ [than²³]	/than⁴/ [than²¹⁴]
(to) carry on the shoulder				/khan⁵/ [khaŋ³¹ʔ]		
(to) come			/lai³/ [lai²¹³]			

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
charcoal	/than⁴/ [than²¹³]	/than⁴/ [than²³]	/than⁴/ [than⁵³]	/than⁴/ [than²³]	/than⁴/ [than²³]	/than⁴/ [than²¹⁴]
chicken	/tɕi¹/ [tɕiː³³]	/tɕi¹/ [tɕiː³³]	/tɕi¹/ [tɕiː⁴⁴]	/tɕi¹/ [tɕiː³³]	/tɕi¹/ [tɕiː³³]	/tɕi¹/ [tɕiː³³]
chop	/khan³/ [khan⁵²]	/khan³/ [khan⁵³]				
cigarette			/iɛn¹/ [iɛn⁴⁴]			
classifier of book	/pən³/ [pən⁵²]	/pən³/ [pən⁵³]		/pən¹/ [pəŋ³³]	/pən³/ [pən⁴²]	
classifier used for a knife	/pa³/ [paː⁵²]	/pa³/ [paː⁵³]		/pa³/ [paː⁴⁴]	/pa³/ [paː⁴²]	/pa³/ [paː⁵³]
climb	/pha²/ [phaː²²]	/pha²/ [phaː³¹]		/pha²/ [phaː²²]	/pha²/ [phaː³¹ʔ]	/pha²/ [phaː³¹ʔ]
close			/kua¹/ [kua⁴⁴]			
color			/sə²/ [sə¹¹]			
copper	/thuŋ²/ [thuŋ²²]	/thuŋ²/ [thuŋ³¹]				
country			/kuɔ³/ [kuɔ²¹³]			/kuɔ³/ [kuɔ⁵³]
cover	/kai⁴/ [kai²¹³]	/kai⁴/ [kai²³]		/kai⁴/ [kai²³]		
(to) cry	/khu³/ [khuː⁵²]	/khu³/ [khuː⁵³]	/khu³/ [khuː²¹³]			
cup	/pəi¹/ [pəi³³]	/pəi¹/ [pəi³³]	/pəi¹/ [pəi⁴⁴]	/pəi¹/ [pəi³³]	/pəi¹/ [pəi³³]	/pəi¹/ [pəi³³]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
(to) cure				/tsi^4/ [tsɯː^{23}]	/tsi^4/ [tsɯː^{23}]	
cut	/khan^3/ [khan^{52}]	/khan^3/ [khan^{53}]				
dam	/pa^4/ [paː^{213}]	/pa^4/ [paː^{23}]			/pa^4/ [paː^{23}]	/pa^4/ [paː^{214}]
dog	/kəi^3/ [kəu^{52}]	/kəi^3/ [kəu^{53}]	/kəu^3/ [kəu^{213}]	/kəu^3/ [kəu^{44}]	/kəu^3/ [kəu^{42}]	/kəu^3/ [kəu^{53}]
door	/mɯɯn^2/ [mɯɯn^{22}]	/mɯɯn^2/ [mɯɯn^{31}]				
dig	/ua^1/ [ua^{33}]	/ua^1/ [ua^{33}]	/kua^2/ [kua^{11}]			
dirty						/tsan^1/ [tsan^{33}]
drag				/tho^1/ [thɔː^{33}]	/tho^1/ [thɔː^{33}]	
dragon			/su^2 loŋ^3/ [suː^{11} loŋ^{213}]			
	/loŋ^2/ [loŋ^{22}]	/loŋ^2/ [loŋ^{31}]	/loŋ^3/ [loŋ^{213}]	/lon^2/ [loŋ^{31ʔ}]	/lon^2/ [loŋ^{31ʔ}]	
(to) drink	/xɔ^1/ [xɔː^{33}]	/xɔ^1/ [xɔː^{33}]		/xɔ^1/ [xɔː^{33}]	/xɔ^1/ [xɔː^{33}]	/xɔ^1/ [xɔː^{33}]
drip	/ti^2/ [tiː^{22}]	/ti^2/ [tiː^{31}]	/ti^3/ [tiː^{213}]	/ti^5/ [tiː^{31ʔ}]	/ti^2/ [tiː^{31ʔ}]	
	/ta^3/ [taː^{52}]	/ta^3/ [taː^{53}]				
(be) dry	/kan^1/ [kan^{33}]	/kan^1/ [kan^{33}]		/kan^1/ [kan^{33}]	/kan^1/ [kan^{33}]	/kan^1/ [kan^{33}]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
east				/ton^1/ [toŋ^{33}]		
(to) eat	/tshɯ^2/ [tshɯː^{22}]	/tshɯ^2/ [tshɯː^{31}]				/tshɯ^1/ [tshɯː^{33}]
egg	/tan^4/ [tan^{213}]	/tan^4/ [tan^{23}]	/tan^4/ [tan^{53}]	/tan^4/ [tan^{23}]	/tan^4/ [tan^{23}]	/tan^4/ [tan^{214}]
eight	/pa^2/ [pa^{22}]	/pa^2/ [pa^{31}]	/pa^2/ [pa^{11}]	/pa^2/ [pa^{22}]	/pa^2/ [pa^{31ʔ}]	/pa^2/ [pa^{31ʔ}]
elder brother			/ko^1/ [koː^{44}]			/ko^1/ [koː^{33}]
elder sister	/tɕie^3/ [tɕiɛ^{52}]	/tɕie^3/ [tɕiɛ^{53}]	/tɕɛ^3/ [tɕɛː^{53}]		/tɕiɛ^3/ [tɕie^{42}]	/tɕiɛ^3/ [tɕiɛ^{53}]
electric	/tiɛn^4/ [tiɛn^{213}]	/tiɛn^4/ [tiɛn^{23}]				
elephant			/ɕian^4/ [ɕian^{53}]			
(to) endure	/zən^3/ [zən^{52}]	/zən^3/ [zən^{53}]		/zən^5/ [zən^{31ʔ}]	/zən^2/ [zən^{31ʔ}]	/zən^2/ [zən^{31ʔ}]
expensive	/kui^4/ [kui^{213}]	/kui^4/ [kui^{213}]	/kui^4/ [kui^{53}]	/kui^4/ [kui^{23}]	/kui^4/ [kui^{23}]	/kui^4/ [kui^{214}]
face	/lian^3/ [lian^{52}]	/lian^3/ [lian^{53}]	/lian^3/ [lian^{213}]			
(to) fan			/saŋ^3/ [saŋ^{33}]			
(be) fat	/phaŋ^4/ [phaŋ^{213}]	/phaŋ^4/ [phaŋ^{23}]	/phaŋ^3/ [phaŋ^{213}]	/phan^4/ [phan^{23}]	/phan^4/ [phaŋ^{23}]	/phan^4/ [phaŋ^{214}]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
father	/pa^1/ [pa:^{33}]	/pa^1/ [pa:^{33}]	/pa^1/ [pa:^{44}]	/pa^1/ [pa:^{33}]		
	/tɛ^1/ [tɛ:^{33}]	/tɛ^1/ [tɛ:^{33}]	/tɛ^1/ [tɛ:^{44}]			
father's mother (grandmother)						/nai^1/ [nai^{33}]
feudal chief				/pa^4/ [pa:^{23}]		
fence					/pa^1/ [pa:^{33}]	/pa^1/ [pa:^{33}]
field	/thi^4/ [thi^{213}]	/thi^4/ [thi^{23}]				
fire	/xo^3/ [xo:^{52}]	/xo^3/ [xo:^{53}]	/xo^3/ [xo:^{213}]	/xua^3/ [xua^{44}]	/xua^3/ [xua^{42}]	/xua^3/ [xua^{53}]
(to)float	/phiau^1/ [phiau^{33}]	/phiau^1/ [phiau^{33}]	/phiau^1/ [phiau^{44}]	/phiau^1/ [phiau^{33}]	/phiau^1/ [phiau^{33}]	/phiau^1/ [phiau^{33}]
(to) flow			/lai^3/ [lai^{213}]			
flower	/xua^1/ [xua^{33}]	/xua^1/ [xua^{33}]	/xua^1/ [xua^{44}]	/xua^1/ [xua^{33}]	/xua^1/ [xua^{33}]	/xua^1/ [xua^{33}]
(to) fly	/fəi^1/ [fəi^{33}]	/fəi^1/ [fəi^{33}]	/fəi^1/ [fəi^{44}]	/fəi^1/ [fəi^{33}]	/fəi^1/ [fəi^{33}]	/fəi^1/ [fəi^{33}]
four			/sɯ^4/ [sɯ:^{53}]			
fruit			/kua^3/ [kua^{213}]			/kuɔ^3/ [kuɔ^{53}]
(to)get	/tɯ^2/ [tɯ:^{22}]	/tɯ^2/ [tɯ:^{31}]				

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
(to) get up				/tɕhi³/ [tɕhiː⁴⁴]	/tɕhi³/ [tɕhiː⁴²]	/tɕhi³/ [tɕhiː⁵³]
(to) give	/kəi³/ [kəi⁵²]	/kəi³/ [kəi⁵³]				
(to) go	/khɯ⁴/ [khɯː²¹³]	/khɯ⁴/ [khɯː²³]			/khɯ⁴/ [khɯː²³]	
			/khə⁴/ [khəː⁵³]			
gong	/lo²/ [lo²²]	/lo²/ [lo³¹]				
good	/xau²/ [xau²²]	/xau²/ [xau³¹]				
gold	/tɕin¹/ [tɕin³³]	/tɕin¹/ [tɕin³³]		/tɕin¹/ [tɕin³³]	/tɕin¹/ [tɕin³³]	/tɕin¹/ [tɕin³³]
hard	/khɔi⁴/ [khɔi²¹³]	/khɔi⁴/ [khɔi²³]				
	/səu³/ [səu⁵²]	/səu³/ [səu⁵³]	/siu⁴/ [siu⁵³]			
hat			/ta³/ [taː²¹³]			
hate	/xən³/ [xən⁵²]	/xən³/ [xən⁵³]				
(to) have			/iu²/ [iːu¹¹]			
head			/thou³/ [thou²¹³]			
healthy	/khaŋ¹/ [khaŋ³³]	/khaŋ¹/ [khaŋ³³]		/khan¹/ [khaŋ³³]	/khan¹/ [khaŋ³³]	/khan¹/ [khaŋ³³]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
hear			/thin^1/ [thin^{44}]	/thin^1/ [thin^{33}]		
high	/kau^1/ [kau^{33}]	/kau^1/ [kau^{33}]	/kau^1/ [kau^{44}]	/kau^1/ [kau^{33}]	/kau^1/ [kau^{33}]	/kau^1/ [kau^{33}]
	/lan^3/ [lan^{52}]	/lan^3/ [lan^{53}]				
hot			/zɯ^2/ [zɯː^{11}]	/zə^5/ [zə^{31ʔ}]	/zə^2/ [zə^{31ʔ}]	/zə^2/ [zə^{31ʔ}]
house	/tɕia^1/ [tɕia^{33}]	/tɕia^1/ [tɕia^{33}]		/tɕia^1/ [tɕia^{33}]	/tɕia^1/ [tɕia^{33}]	/tɕia^1/ [tɕia^{33}]
hungry			/ɔ^4/ [ɔː^{53}]			/o^4/ [oː^{214}]
ice	/piŋ^1 khɔi^4/ [piŋ^{33} khɔi^{213}]	/piŋ^1 khɔi^4/ [piŋ^{33} khɔi^{23}]				
iron	/thaŋ^4/ [thaŋ^{213}]	/thaŋ^4/ [thaŋ^{23}]				
(to) jump				/thiau^4/ [thiau^{23}]	/thiau^4/ [thiau^{23}]	/thiau^4/ [thiau^{214}]
(to) kick	/thi^2/ [thiː^{22}]	/thi^2/ [thiː^{31}]		/thi^5/ [thiː^{31ʔ}]	/thi^2/ [thiː^{31ʔ}]	
(to) kill			/sa^5/ [sa^{31ʔ}]			
ladder	/thi^1/ [thiː^{33}]	/thi^1/ [thiː^{33}]		/thi^1/ [thiː^{33}]		/thi^1/ [thiː^{33}]
	/lou^3 thi^1/ [lou^{52} thiː^{33}]	/lou^3 thi^1/ [lou^{53} thiː^{33}]				
lamp				/tɯn^1/ [tɯŋ^{33}]		/tɯn^1/ [tɯŋ^{33}]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
leg			/tɕo³/ [tɕoː²¹³]			
(be) light (in weight)				/tɕhin¹/ [tɕhiŋ³³]	/tɕhin¹/ [tɕhiŋ³³]	/tɕhin¹/ [tɕhiŋ³³]
long				/tshan⁵/ [tshaŋ³¹ʔ]		
lose				/tiu¹/ [tiu³³]	/tiu¹/ [tiu³³]	/tiu¹/ [tiu³³]
many	/to¹/ [toː³³]	/to¹/ [toː³³]				
meat			/zu⁴/ [zuː⁵³]			
medicine	/iɔ³/ [iːɔ⁵²]	/iɔ³/ [iːɔ⁵³]	/iɔ³/ [iːɔ²¹³]			
melon	/kua¹/ [kua³³]	/kua¹/ [kua³³]		/kua¹/ [kua³³]	/kua¹/ [kua³³]	
milk	/nai³/ [nai⁵²]	/nai³/ [nai⁵³]				
minute	/fən¹/ [fən³³]					
money	/tɕhian³/ [tɕhian⁵²]	/tɕhian³/ [tɕhian⁵³]				
morning	/tsau³ tshaŋ⁴/ [tsau⁵² tshaŋ²¹³]	/tsau³ tshaŋ⁴/ [tsau⁵³ tshaŋ²³]	/tsau³/ [tsau²¹³]			
mother	/ma¹/ [maː³³]	/ma¹/ [maː³³]	/ma¹/ [maː⁴⁴]	/ma¹/ [maː³³]	/ma¹/ [maː³³]	/ma¹/ [maː³³]
mouth			/tsui³/ [tsui²¹³]	/tsui³/ [tsui⁴⁴]	/tsui³/ [tsui⁴²]	/tsui³/ [tsui⁵³]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
neck		/po^3/ [po:^{213}]	/ po^3 tɕɯ^1/ [po:^{213} tɕɯ:^{44}]			
new				/ɕin^1/ [ɕiŋ^{33}]	/ɕin^1/ [ɕiŋ^{33}]	/ɕin^1/ [ɕiŋ^{33}]
nine	/tɕiu^3/ [tɕiu^{52}]	/tɕiu^3/ [tɕiu^{53}]				
not	/mo^3/ [mo:^{52}]	/mo^3/ [mo:^{53}]				
oil	/iəu^3/ [iəu^{52}]	/iəu^3/ [iəu^{53}]	/iəu^3/ [iəu^{213}]	/iəu^5/ [iəu^{31ʔ}]	/iəu^2/ [iəu^{31ʔ}]	/iəu^3/ [iəu^{53}]
old	/lau^3/ [lau^{52}]	/lau^3/ [lau^{53}]	/lau^3/ [lau^{213}]			
(to) open	/khai^1/ [khai^{33}]	/khai^1/ [khai^{33}]	/khai^1/ [khai^{44}]	/khai^1/ [khai^{33}]	/khai^1/ [khai^{33}]	/khai^1/ [khai^{33}]
out	/tɕhu^2/ [tɕhu:^{22}]	/tɕhu^2/ [tɕhu:^{31}]	/tɕhu^2/ [tɕhu:^{11}]			
ox			/niu^3/ [niu^{213}]			
paddy rice			/ku^2/ [ku:^{11}]	/ku^5/ [ku:^{31ʔ}]	/ku^2/ [ku:^{31ʔ}]	/ku^2/ [ku:^{31ʔ}]
			/ku^2 tsɯ^2/ [ku^{31} tsɯ^{11}]			
palace				/kon^1/ [koŋ^{33}]	/kon^1/ [koŋ^{33}]	
(be) pale (in color)				/tan^4/ [tan^{23}]		
pan				/kuɔ^1/ [kuɔ^{33}]	/kuɔ^1/ [kuɔ^{33}]	

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
paper	/tsɯ³/ [tsɯː⁵²]	/tsɯ³/ [tsɯː⁵³]	/tsɯ³/ [stɯː²¹³]			
(to) pay	/fu⁴/ [fu²¹³]	/fu⁴/ [fu²³]				
pen	/pi²/ [piː²²]	/pi²/ [piː³¹]	/pi²/ [piː¹¹]	/pi⁵/ [piː³¹ʔ]	/pi²/ [piː³¹ʔ]	/pi²/ [piː³¹ʔ]
people	/zən³/ [zən⁵²]	/zən³/ [zən⁵³]		/zən⁵/ [zən³¹ʔ]	/zən²/ [zən³¹ʔ]	/zən²/ [zən³¹ʔ]
(to) pick up				/si⁵/ [sɯː³¹ʔ]	/si²/ [sɯː³¹ʔ]	
pig	/tsu¹/ [tsuː³³]	/tsu¹/ [tsuː³³]	/tsu¹/ [tsuː⁴⁴]	/tsu¹/ [tsuː³³]	/tsu¹/ [tsuː³³]	/tsu¹/ [tsuː³³]
possessive	/tə⁴/ [təː²¹³]	/tə⁴/ [təː²³]				
pour	/tau⁴/ [tau²¹³]	/tau⁴/ [tau²³]		/tau⁴/ [tau²³]	/tau⁴/ [tau²³]	/tau⁴/ [tau²¹⁴]
powder						/fən³/ [fəŋ⁵³]
promote				/pa⁵/ [paː³¹ʔ]		
province	/sən³/ [sən⁵²]	/sən³/ [sən⁵³]				
(to) pull	/la¹/ [la³³]	/la¹/ [la³³]				
pull out				/pa⁵/ [paː³¹ʔ]		
pull up				/pa⁵/ [paː³¹ʔ]		

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
push	/thui^1/ [thui^{33}]	/thui^1/ [thui^{33}]		/thui^1/ [thui^{33}]	/thui^1/ [thui^{33}]	/thui^1/ [thui^{33}]
quickly	/khuai^4/ [khuai^{213}]	/khuai^4/ [khuai^{23}]	/khuai^4/ [khuai^{213}]	/khuai^4/ [khuai^{23}]	/khuai^4/ [khuai^{23}]	/khuai^4/ [khuai^{214}]
rat			/tshu^3/ [tshuː^{213}]	/tshu^3/ [tshuː^{44}]	/tshu^3/ [tshuː^{42}]	/tshu^3/ [tshuː^{53}]
replace				/thi^4/ [thi^{23}]		
rice			/mi^4/ [miː^{53}]		/mi^3/ [miː^{42}]	
				/fan^4/ [fan^{23}]	/fan^4/ [fan^{23}]	/fan^4/ [faŋ^{214}]
rule by force				/pa^4/ [paː^{23}]		
(to) run	/ phau^{4}pu^3/ [phau^{213}puː^{52}]	/ phau^{4}pu^3/ [phau^{23}puː^{53}	/phau^3/ [phau^{213}]	/phau^4/ [phau^{22}]	/phau^3/ [phau^{42}]	/phau^2/ [phau^{31ʔ}]
			/ phau^{3}pu^4/ [phau^{213} puː^{53}]			
(to) scratch			/ian^3/ [iːan^{213}]			
(to) see				/khan^2/ [khaŋ^{22}]	/khan^4/ [khaŋ^{23}]	/khan^4/ [khaŋ^{214}]
(to) select				/pa^5/ [paː^{31ʔ}]		
(to) sell	/mai^4/ [mai^{213}]	/mai^4/ [mai^{23}]	/mai^3/ [mai^{213}]			
(to) send				/sɔn^4/ [sɔn^{23}]	/sɔn^4/ [sɔn^{23}]	/sun^4/ [suŋ^{214}]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
seven			/tshi^5/ [tshiː$^{31?}$]			
(to) shed				/phon^5/ [phoŋ$^{31?}$]	/phon^2/ [phoŋ$^{31?}$]	
shrimp	/çia^1/ [çia^{33}]		/çia^1/ [çia^{44}]			
silver			/tsɯ^1/ [tsɯː^{44}]			
(to) sit	/tɕɔ^4/ [tɕɔː^{213}]	/tɕɔ^4/ [tɕɔː^{23}]	/tɕɔ^4/ [tɕɔː^{53}]			/tɕo^4/ [tɕɔː^{214}]
six	/lu^3/ [lu^{52}]	/lu^3/ [lu^{53}]	/liəu^4/ [liəu^{53}]	/lu^3/ [lu^{44}]	/lu^2/ [lu$^{31?}$]	/lu^2/ [lu$^{31?}$]
skin			/tsha^3 fən^3/ [tsha^{213} fən^{213}]			
(to) sleep			/sui^4/ [sui^{53}]			
slowly	/man^4/ [man^{213}]	/man^4/ [man^{23}]				
small	/çiau^3/ [çiau^{52}]	/çiau^3/ [çiau^{53}]	/çiau^4/ [çiau^{53}]			
smooth					/than^3/ [than^{42}]	/than^3/ [than^{53}]
snake			/sə^2/ [sə^{11}]			
snow			/tɕiɛ^3/ [tɕiɛ^{213}]			

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
soft	/zuan³/ [zuan⁵²]	/zuan³/ [zuan⁵³]				
soil			/thu⁴/ [thuː²¹³]			
some action's done			/tau⁴/ [tau⁵³]			
south	/nan³/ [nan⁵²]	/nan³/ [nan⁵³]				
(to) speak	/suɔ³/ [suɔ⁵²]	/suɔ³/ [suɔ⁵³]				
(to) split in two			/khaŋ³/ [khaŋ²¹³]	/pho⁴/ [phɔː²³]	/pho⁴/ [phɔː²³]	/pho⁴/ [phɔː²¹⁴]
(to) stab			/sa²/ [saː¹¹]			
(to) steal	/thəu¹/ [thəu³³]	/thəu¹/ [thəu³³]				
sticky	/nian³/ [nian⁵²]	/nian³/ [nian⁵³]				
stomach	/tu⁴/ [tuː²¹³]	/tu⁴/ [tuː²³]		/tu⁴/ [tuː²³]		
storehouse				/luo⁵/ [luo³¹ʔ]		
(to) study				/ɕiɔ⁵/ [ɕiɔ³¹ʔ]	/ɕiɔ²/ [ɕiɔ³¹ʔ]	/ɕiɔ²/ [ɕiɔ³¹ʔ]
sugar	/thaŋ³/ [thaŋ⁵²]	/thaŋ³/ [thaŋ⁵³]	/than²/ [than¹¹]	/than²/ [than²²]	/than²/ [than³¹ʔ]	/than²/ [than³¹ʔ]
sun						/zɯ⁵/ [zɯː³¹ʔ]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
(to) swallow			/iε^3/ [i:ε^{213}]			
sweat				/xan^4/ [xan^{23}]	/xan^4/ [xan^{23}]	/xan^4/ [xan^{214}]
sweet				/thiεn^5/ [thiεn$^{31?}$]	/thiεn^2/ [thiεn$^{31?}$]	/thiεn^2/ [thiεn$^{31?}$]
(to) talk			/na^3/ [na:^{213}]	/na^5/ [na:$^{31?}$]	/na^2/ [na:$^{31?}$]	/na^2/ [na:$^{31?}$]
tall	/kau^1/ [kau^{33}]	/kau^1/ [kau^{33}]	/kau^1/ [kau^{44}]	/kau^1/ [kau^{33}]	/kau^1/ [kau^{33}]	/kau^1/ [kau^{33}]
	/lan^3/ [lan^{52}]	/lan^3/ [lan^{53}]				
tea			/tsha^5/ [tsha$^{31?}$]			
teeth				/khan^3/ [khaŋ^{44}]		
ten				/si^5/ [si:$^{31?}$]	/si^2/ [si:$^{31?}$]	/si^3/ [si:^{53}]
thief	/thəu^1/ [thəu^{33}]	/thəu^1/ [thəu^{33}]				
thin	/sou^4/ [sou^{213}]	/sou^4/ [sou^{23}]	/phai^3/ [phai^{213}]			
three	/san^1/ [san^{33}]	/san^1/ [san^{33}]	/san^1/ [san^{44}]	/san^1/ [san^{33}]	/san^1/ [san^{33}]	/san^1/ [san^{33}]
			/su^4/ [su:^{53}]			
(to) throw	/tiu^1/ [tiu^{33}]	/tiu^1/ [tiu^{33}]				/tiu^1/ [tiu^{33}]

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
(to) tie	/paŋ³/ [paŋ⁵²]	/paŋ³/ [paŋ⁵³]	/paŋ²/ [paŋ²²]			
tiger			/fu⁴/ [fuː⁵³]			
tongue			/təu¹/ [təu⁴⁴]			
(to) touch	/mɔ¹/ [mɔː³³]	/mɔ¹/ [mɔː³³]			/mo¹/ [mɔː³³]	
two				/lian³/ [lian⁴⁴]	/lian³/ [lian⁴²]	/lian³/ [lian⁵³]
(to) use	/iɔŋ⁴/ [iːɔŋ²¹³]	/iɔŋ⁴/ [iːɔŋ²³]		/iɔn¹/ [iːɔŋ³³]	/iɔn¹/ [iːɔŋ³³]	/iɔn¹/ [iːɔŋ³³]
(to) wait	/tən²/ [tən²²]	/tən²/ [tən³¹]	/tən²/ [tən²²]	/tən³/ [tən⁴⁴]		
(to) wash				/çi³/ [çiː⁴⁴]	/çi³/ [çiː⁴²]	/çi³/ [çiː⁵³]
water	/sui³/ [sui⁵²]	/sui³/ [sui⁵³]				
wheat					/mə¹/ [məː³³]	
white	/pə²/ [pəː²²]	/pə²/ [pəː³¹]	/pə¹/ [pəː⁴⁴]	/pə⁵/ [pəː³¹ʔ]	/pə²/ [pəː³¹ʔ]	/pə²/ [pəː³¹ʔ]
wide	/khuan¹/ [khuan³³]	/khuan¹/ [khuan³³]	/khuan¹/ [khuan⁴⁴]	/khuan¹/ [khuan³³]	/khuan¹/ [khuan³³]	/khuan¹/ [khuan³³]
(to) win						/lo/ [lɔː³¹ʔ]
wind			/fəŋ¹/ [fəŋ³³]			

Meaning	YS1		YS2	YS3	YS4	YS5
	Type 1	Type 2				
wood					/mu^2/ [muː^{31ʔ}]	
word				/tshɯ^5/ [tshɯː^{31ʔ}]		
worm	/tshiu^1/ [tshiu^{33}]	/tshiu^1/ [tshiu^{33}]				
(to) wrap	/pau^1/ [pau^{33}]	/pau^1/ [pau^{33}]	/pau^1/ [pau^{44}]	/pau^1/ [pau^{33}]	/pau^1/ [pau^{33}]	/pau^1/ [pau^{33}]
year	/niɛn^3/ [niɛn^{52}]	/niɛn^3/ [niɛn^{53}]	/niɛn^3/ [niɛn^{213}]			/ni^2/ [niː^{31ʔ}]
you				/ni^3/ [niː^{44}]	/ni^3/ [niː^{42}]	
younger sister			/məi^3/ [məi^{213}]			

Hakka Dialect Word List

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
advise	/tsai⁴ sau⁴/ [tsai⁴⁴ sau⁴⁴]				
alike	/thuŋ² jaŋ⁴/ [thuŋ²¹ jaŋ⁴⁴]	/ʔi¹ joŋ⁵/ [ʔi³³ joŋ⁴⁴]			
	/tshiɔŋ¹/ [tshiɔŋ³³]	/tshiɔŋ⁵/ [tshiɔŋ⁴⁴]			
		/hou³ tshiɔŋ⁵/ [hou²¹ tshiɔŋ⁴⁴]			
(to) answer	/tap⁵/ [tap³²]				
ant			/ni¹/ [ni²²]		/ŋɛ⁴/ [ŋɛ³¹]
argue	/tshau² kau¹ / [tshau²¹ kau³³]	/siɔŋ¹ sau³ / [siɔŋ³³ sau²¹]		/ʔau³/ [ʔau⁵²]	
				/sioŋ⁴ ma⁵ [sioŋ⁴⁴ sma²¹]	
(to) arrest	/tsok⁵/ [tsok³²]				
(to) arrive					/tau⁴/ [tua³¹]
ask for			/thau³/ [thau⁵³]		/thɔ³/ [thɔ¹⁴]
			/khiɛu²/ [khiɛu¹¹]		
arrow					/kiau¹/ [kiau⁵²]

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
at	/thi⁵/ [thi⁴⁴]	/thi⁵/ [thi⁴⁴]			
aunt				/ji²/ [ji¹³]	/ji²/ [ji³⁵]
(to) avoid	/phit⁵/ [phit³²]				
	/thou¹ phit⁴/ [thou²³ phit³²]				
(to) bale out water by using a bucket which has a rope attached or fastened to each side	/fu⁴/ [fu⁴⁴]		/fak⁵/ [fak³³]		
bamboo				/tsɔk⁵/ [tsɔk²¹]	
banana			/kuŋ¹ tsiau¹/ [kuŋ²² tsiau²²]		
(to) bark			/phoi⁴/ [phoi⁴⁴]		
bat		/phit⁶/ [phit⁵⁵]			
bean					/thɛu⁵/ [thɛu²²]
(to) beg			/thau³/ [thau⁵³]		/thɔ³/ [thɔ¹⁴]
(to) bend			/wan¹/ [wan²²]		
big				/thai⁴/ [thai²¹]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
bird				/tiau¹/ [tiau³³]	/tiau¹/ [tiau⁵²]
biscuit			/piaŋ³/ [piaŋ⁵³]		
bite			/ŋau¹/ [ŋau²²]		/ŋau¹/ [ŋau⁵²]
bitter					/khu³/ [khu¹⁴]
black	/wu¹/ [wu³³]	/wu¹/ [wu³³]		/wu¹/ [wu³³]	/wu¹/ [wu⁵²]
blessings	/hɛn⁴ fu³/ [hɛn⁴⁴ fu³¹]	/ hɛn⁴ fu³/ [hɛn⁴⁴ fu³¹]			
blossom				/khɔi⁴/ [khɔi⁴⁴]	
(to) blow					/tshui¹/ [tshui⁵²]
book					/su¹/ [su⁵²]
bottle			/kuat⁶/ [kuat⁵⁵]		/kuat⁷/ [kuat⁴⁴]
brain			/nau³/ [nau⁵³]		
(to) break					/ʔau³/ [ʔau¹⁴]
(to) breathe	/thɛu² khi⁴/ [thɛu²¹ khi⁴⁴]	/thɛu³ khi⁶/ [thɛu²¹ khi⁵⁵]			
	/thɛu² hi⁴/ [thɛu²¹ hi⁴⁴]				

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
(to) bring					/na^1/ [na^{52}]
bright and beautiful	/fat^6 kuoŋ^4/ [fat^{55} kuoŋ^{44}] /fat^5 kuoŋ^2/ [fat^{32} kuoŋ^{21}]	/kim^1 kuoŋ^1 tsan^3 lan^1/ [kim^{33} kuoŋ^{33} tsan^{21} lan^{33}]			
Buddha image			/fut^6/ [fut^{55}]	/fut^4/ [fut^{44}]	/fut^7/ [fut^{44}]
buffalo					/ŋiu^2/ [ŋiu^{35}]
bureau					/khiuk^7/ [khiuk^{44}]
(to) buy				/mai^4/ [mai^{34}]	
cake			/piaŋ^3/ [piaŋ^{53}]		
canal	/khi^1/ [khi^{33}]				
capital	/su^4 tu^1/ [su^{44} tu^{33}]				
	/fɛu^1/ [fɛu^{33}]	/fɛu^5/ [fɛu^{44}]			
capture	/tsok^5/ [tsok^{32}]				
car	/tsha^1/ [tsha^{33}]	/tsha^3/ [tsha^{21}]			
to carry (sth) at both ends of a pole placed on one's sholder			/khai^1/ [khai^{22}]		

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
cat					/ŋiau⁴/ [ŋiau³¹]
catch	/tsok⁵/ [tsok³²]				
cattle					/ŋiu²/ [ŋiu³⁵]
characteristic	/tshɯ¹/ [tshɯ³³]	/tshɯ¹/ [tshɯ³³]	/sɯ⁴/ [sɯ⁴⁴]	/tshɯ⁵/ tshɯ²¹]	
cheap	/phian² ŋin²/ [phian²¹ ŋin²¹]			/phi¹/ [pji³³]	/phian¹/ [phian⁵²]
chicken			/kɛ¹/ [kɛ²²]	/kɛ¹/ [kɛ³³]	/kai¹/ [kai⁵²]
(to) chop			/tsam³/ [tsam⁵³]		
chopstick					/khuai⁵/ [khuai²²]
city	/fɛu¹/ [fɛu³³]	/fɛu⁵/ [fɛu⁴⁴]			
(to) celebrate	/khin⁴ tsu²/ [khin⁴⁴ tsu²¹]				
	/khin⁴ tsuk⁵/ [khin⁴⁴ tsuk³²]	/khin¹ tsuk⁴/ [khin³³ tsuk³²]			
classifier of flower		/tsuan³/ [tsuan²¹]			
(to) climb	/pha²/ [pha²¹]	/pha²/ [pha²³]			
clip	/kiap⁶/ [kiap⁵⁵]		/kiap⁶/ [kiap⁵⁵]	/kiap⁴/ [kiap⁴⁴]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
(to) close					/kuan^1/ [kuan^{52}]
coconut			/jɛ^2/ [jɛ^{11}]		
(to) collapse			/ʔo^1/ [ʔo^{22}]		
color			/sɛt^5/ [sɛt^{33}]	/sɛt^5/ [sɛt^{21}]	
come	/loi^2/ [loi^{21}]		/loi^2/ [loi^{11}]	/lɔi^2 / [lɔi^{13}]	
(to) compare	/pi^2/ [piː^{21}]	/pi^3/ [piː^{21}]	/pi^4/ [pi^{44}]	/pi^3/ [pi^{52}]	/pi^3/ [pi^{14}]
control		/kuan^3 li^3/ [kuan^{21} li^{21}]			
		/kuan^3 tsɯ^4/ [kuan^{21} tsɯ^{32}]			
cooking pot			/lou^4/ [lou^{44}]		
cool			/liŋ^2/ [liŋ^{11}]		
(to) cough			/khɛt^6/ [khɛt^{55}]		
country	/kuɛt^5 ka^1/ [kuɛt^{32} ka^{33}]	/kuɛt^4 ka^1/ [kuɛt^{32} ka^{33}]	/kuɛt^5/ [kuɛt^{33}]	/kuɛt^5/ [kuɛt^{21}]	/kuɛt^6/ [kuɛt^{24}]
				/kuɛt^5 ka^1/ [kuɛt^{21} ka^{33}]	
cramp			/pi^4/ [pi^{44}]	/pi^4/ [pi^{44}]	
crawl	/pha^2/ [pha^{21}]	/pha^2/ [pha^{23}]		/pha^2/ [pha^{13}]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
crowded					/tsat⁷/ [tsat⁴⁴]
(to) cry			/kiau⁴/ [kiau⁴⁴]		
cucumber				/kua⁴/ [kua⁴⁴]	/kua¹/ [kua⁵²]
cure					/ji⁴/ [ji³¹]
curved			/wan¹/ [wan²²]		
dark			/ʔam⁴/ [ʔam⁴⁴]	/ʔam³/ [ʔam⁵²]	/ʔam⁴/ [ʔam³¹]
day			/ŋi⁵/ [ŋit³³]		
decay	/fu²/ [fu²¹] /fu¹ lan⁴/ [fu³³ lan⁴⁴]	/fu¹/ [fu³³]		/fu⁴/ [fu⁴⁴]	/fu⁵/ [fu²²]
deer				/luk⁴/ [luk⁴⁴]	
deposit			/tap⁶/ [tap⁵⁵]	/tap⁵/ [tap²¹]	
(to) die			/si⁴/ [si⁴⁴]		/si³/ [si¹⁴]
(to) dig			/wut⁶/ [wut⁵⁵]		

Note: The superscript numbers in the table above (e.g., /tsat⁷/, [tsat⁴⁴]) represent tone values and are part of the phonetic transcription.

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
dirty					/la⁵/ [la²²]
(show) disrespect	/mo³ kui² ki³ / [mo²¹ kui²³ ki²¹]	/put⁴ kin¹ tsuŋ¹/ [put³² kin³³ tsuŋ³³]			
ditch	/khi¹/ [khi³³]				
(to) do			/tso⁴/ [tso⁴⁴]		/tsɔ⁴/ [tsɔ³¹]
dog				/kɛu³/ [kɛu⁵²]	/kɛu³/ [kɛu¹⁴]
door	/mun²/ [mun²¹]				
drama				/hi³/ [hi⁵²]	/hi⁴/ [hi³¹]
drive a car	/sɯ¹ tsha¹/ [sɯ³³ tsha³³]				
drunk			/tsui⁴/ [tsui⁴⁴]		
dry			/tsau¹/ [tsau²²]	/tsau⁴ / [tsau⁴⁴]	
duck	/ʔap⁵/ [ʔap³²]	/ʔap⁵/ [ʔap³²]		/ʔap⁵/ [ʔap²¹]	/ʔap⁶/ [ʔap²⁴]
dwell	/tshu⁴/ [tshu⁴⁴]				
ear				/ŋi³/ [ŋi⁵²]	
earth	/thi⁴ phi²/ [thi⁴⁴ phi²¹]				

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
earthen crock jar					/ʔaŋ¹/ [ʔaŋ⁵²]
east	/tuŋ¹/ [tuŋ³³]			/tuŋ¹/ [tuŋ³³]	
easy					/kɔi¹/ [kɔi⁵²]
(to) eat	/sɛt⁶/ [sɛt⁵⁵]	/sɛt⁶/ [sɛt⁵⁵]			/sit⁷/ [sit⁴⁴]
eight			/pat⁶/ [pat⁵⁵]	/pat⁵/ [pat²¹]	/pat⁶/ [pat²⁴]
elephant					/siɔŋ³/ [siɔŋ¹⁴]
(to) elevate with both hands	/phu²/ [phu²¹]	/fu²/ [fu²³]			/fu²/ [fu³⁵]
emperor					/ti⁵/ [ti²²]
empty			/khuŋ¹/ [khuŋ²²]		
(be) engrossed in	/fun³ tiau⁴/ [fun³¹ tiau⁴⁴]	/fun⁴ tiau⁵/ [fun³² tiau⁴⁴]			
evening			/ʔam⁴/ [ʔam⁴⁴]	/ʔam³/ [ʔam⁵²]	/ʔam⁴/ [ʔam³¹]
expensive				/kui³/ [kui⁵²]	/kui⁴/ [kui³¹]
fan	/san⁴/ [san⁴⁴]		/san³/ [san⁵³]	/sɛn³/ [sɛn⁵²]	
(to) fan	/phat⁵/ [phat³²]		/phat⁵/ [phat³²]		
	/tshui¹/ [tshui³³]		/san³/ [san⁵³]		

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
fat				/phui²/ [phui¹³]	
father			/fu⁴/ [fu⁴⁴]		/fu⁴/ [fu³¹]
(to) fear	/pha⁴/ [pha⁴⁴] /kiaŋ¹/ [kiaŋ³³]	/pha⁵/ [pha⁴⁴] /kiaŋ¹/ [kiaŋ³³]		/kiaŋ¹/ [kiaŋ³³]	
fertile				/phui²/ [phui¹³]	
fever			/fat⁵ sau¹/ [fat³³ sau²²]		
fish			/ŋ²/ [ŋ¹¹]	/ŋ²/ [ŋ¹³]	/ŋ²/ [ŋ³⁵]
five			/ŋ³/ [ŋ⁵³]	/ŋ³/ [ŋ⁵²]	/ŋ³/ [ŋ¹⁴]
(to) float			/fi¹/ [fi²²]		
flour	/fun³/ [fun³¹]	/fun⁴/ [fun³²]			
(to) flow			/liu²/ [liu¹¹]	/lau²/ [lau¹³]	
flower				/fa¹/ [fa³³]	
foot					/kiɔk⁷/ [kiɔk⁴⁴]
four				/si³/ [si⁵²]	/si⁴/ [si³¹]

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
freeze		/hon²/ [hon²³]			
fresh					/tshi²/ [tshi³⁵]
frog (small green frog)			/kuai³/ [kuai⁵³]	/kuai⁴/ [kuai⁴⁴]	/kuai³/ [kuai¹⁴]
fruit					/kuɔ³/ [kuɔ¹⁴]
(to) fry			/tsa⁴/ [tsa⁴⁴]		
gather					/kiam³/ [kiam¹⁴]
gamble	/tu² pok⁵/ [tu²¹ pok³²]	/tu⁴/ [tu³²]			
(to) give	/kim¹/ [kim³³]	/kim³/ [kim²¹]			
give up	/kiai⁴/ [kuai⁴⁴]	/kiai⁵/ [kuai⁴⁴]			
glue					/kɔ²/ [kɔ³⁵]
(to) go			/hi⁴/ [hi⁴⁴]	/khɯ³/ [khɯ⁵²]	
gold	/kim¹ thiau²/ [kim³³ thiau²¹]	/kim³/ [kim²¹]		/kim¹/ [kim³³]	
gold bar				/thiɛu²/ [thiɛu¹³]	

| Meaning | Meixian | | Hsing Ning | Fengshun & Dabu | Jie Yang or Kiet Yong (Kik Io) |
	Pattern 1	Pattern 2			
goose					/ŋɔ²/ [ŋɔ³⁵]
grandfather	/kuŋ¹/ [kuŋ³³]				
grandmother			/tsia³ pho²/ [tsia⁵³ pho¹¹]		
(to) grow				/thai⁴/ [thai²¹]	
(to) hack			/tsam³/ [tsam⁵³]		
hand				/siɛu⁴/ [siɛu⁴⁴]	/siu²/ [siu³⁵]
(to) happen				/khi³/ [khi⁵²]	
happiness	/hɛn⁴ fu³/ [hɛn⁴⁴ fu³¹]	/ hɛn⁴ fu³/ [hɛn⁴⁴ fu³¹]	/fuk⁶/ [fuk⁵⁵]	/fuk⁵/ [fuk²¹]	/fuk⁷/ [fuk⁴⁴]
haste	/kiɛk²/ [kiɛk²¹]	/kiɛk⁴/ [kiɛk³²]	/khuai³/ [khuai⁵³]		
		/kuai⁵/ [kuai⁴⁴]			
hat	/mou³/ [mou³¹]				
hate	/tu² pok⁵/ [tu²¹ pɔk⁵]				
(to) have				/jiu¹/ [jiu³³]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
he / she		/ki²/ [ki²³]		/kɯ²/ [kɯ¹³]	
head				/thɛu²/ [thɛu¹³]	
heart				/sim⁴/ [sim⁴⁴]	
high				/ko¹/ [ko³³]	
horn			/kok⁵/ [kok³³]		
horse					/ma¹/ [ma⁵²]
hot		/jɛt⁶/ [jɛt⁵⁵]	/ŋiɛt⁶/ [ŋiɛt⁵⁵]	/ŋiɛt⁴/ [ŋiɛt⁴⁴]	
house			/tshiɛn²/ [tshiɛn¹¹]	/wuk⁵/ [wuk²¹]	
hulled rice			/mi³/ [mi⁵³]	/mi³/ [mi⁵²]	/mi³/ [mi¹⁴]
hurry	/kiɛk²/ [kiɛk²¹]	/kiɛk⁴/ [kiɛk³²]	/khuai³/ [khuai⁵³]		
		/kuai⁵/ [kuai⁴⁴]			
husband	/lau⁴ kuŋ¹/ [lau⁴⁴ kuŋ³³]	/kaŋ⁵ fu³/ [kaŋ⁴⁴ fu²¹]	/fu¹/ [fu²²]	/fu⁴/ [fu⁴⁴]	/fu¹/ [fu⁵²]
	/tsoŋ⁴ fu¹/ [tsoŋ⁴⁴ fu³³]				
I	/ŋai²/ [ŋai²¹]	/ŋai³/ [ŋai²¹]		/ŋai²/ [ŋai¹³]	/ŋai²/ [ŋai³⁵]

| Meaning | Meixian | | Hsing Ning | Fengshun & Dabu | Jie Yang or Kiet Yong (Kik Io) |
	Pattern 1	Pattern 2			
ice	/siɛt^5/ [siɛt^{32}]	/siɛt^4/ [siɛt^{32}]			/pin^1/ [pin^{52}]
	/pin^1 kuai^4/ [pin^{33} kuai^{44}]				
illness			/fat^5 sau^1/ [fat^{33} sau^{22}]		
intelligent			/tshuŋ^1/ [tshuŋ^{22}]		
iron	/tiɛt^2/ [tiɛt^{21}]	/tiɛt^3/ [tiɛt^{21}]			
jade			/ŋiok^6/ [ŋiok^{55}]		
jar		/fu^3/ [fu^{21}]	/fu^2/ [fu^{11}]		
(be) jealous	/tu^4 khi^2/ [tu^{44} khi^{21}]				
(to) jump			/thiɛu^4/ [thiɛu^{44}]	/thiau^3/ [thiau^{52}]	/thiau^4/ [thiau^{31}]
(to) keep up				/nam^3/ [nam^{52}]	
(to) kneel			/khui^3/ [khui^{53}]		
king					/ti^5/ [ti^{22}]
(to) knock					/kau^5/ [kau^{22}]
(to) know			/ti^1/ [ti^{33}]	/ti^1/ [ti^{33}]	/sit^6/ [sit^{24}]

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
land	/thi^4 phi^2/ [thi^{44} phi^{21}]		/thi^4/ [thi^{44}]	/thi^5/ [thi^{21}]	
large storage jar					/ʔaŋ^1/ [ʔaŋ^{52}]
late morning			/tsu^4/ [tsu^{44}]		
laugh					/siau^4/ [siau^{31}]
(to) leak			/lɛu^4/ [lɛu^{44}]		
leg				/kiɔk^5/ [kiɔk^{21}]	
lift	/ha^4 hi^4 loi^2/ [ha^{44} hi^{44} loi^{21}]	/thoi^1 khi^4/ [thoi^{23} khi^{32}]			
	/thoi^3 hi^1 loi^3/ [thoi^{21} hi^{33} loi^{21}]				
like			/hap^6/ [hap^{55}]		/hap^7/ [hap^{44}]
lion					/sɯ^1/ [sɯ^{52}]
liquor			/tsiu^3/ [tsiu^{53}]		
look				/khon^3/ [khon^{52}]	
loud crying sound of a child like that of a demon					/kuɛ^2/ [kuɛ^{35}]
louse			/sɛt^6/ [sɛt^{55}]		

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
(to) love	/ʔoi⁴/ [ʔoi⁴⁴]				/siak²/ [siam³⁵]
low				/ʔɛ³/ [ʔɛ⁵²]	
lucky	/hɛn⁴ fu³/ [hɛn⁴⁴ fu³¹]	/ hɛn⁴ fu³/ [hɛn⁴⁴ fu³¹]	/fuk⁶/ [fuk⁵⁵]	/fuk⁵/ [fuk²¹]	/fuk⁷/ [fuk⁴⁴]
lung			/fi⁴/ [fi⁴⁴]		/fi¹/ [fi⁵²]
man	/tsoŋ⁴ fu¹/ [tsoŋ⁴⁴ fu³³]	/nam³/ [nam²¹]	/fu¹/ [fu²²]		/fu¹/ [fu⁵²]
mango					/sai⁵/ [sai²²]
map		/phin¹ ti⁵/ [phin²³ ti⁴⁴]			
marriage		/kiɛk⁴ fun³/ [kiɛk³² fun²¹]		/fun¹/ [fun³³]	
mattress			/jiuk⁶/ [iuk⁵⁵]		
(to) measure	/liɔŋ²/ [liɔŋ²¹]	/liɔŋ³/ [liɔŋ²¹]			
meat					/ŋiuk²/ [ŋiuk³⁵]
medicine				/jɔk⁴/ [jɔk⁴⁴]	/jɔk⁷/ [jɔk⁴⁴]
milk					/nɛn⁴/ [nɛn³¹]

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
month				/ŋiɛt⁴ lioŋ⁵/ [ŋiɛt⁴⁴ lioŋ²¹]	
moon				/ŋiɛt⁴ lioŋ⁵/ [ŋiɛt⁴⁴ lioŋ²¹]	
mother			/ma¹/ [ma²²]	/ma¹/ [ma³³]	
mountain			/san¹/ [san²²]		
mouse			/tshu⁴/ [tshu⁴⁴]	/tshu³/ [tshu⁵²]	
mouth			/tsoi⁴/ [tsoi⁴⁴]		
move rapidly		/pot⁴ tshiu¹ tsun¹/ [pot³² tshiu³³ tsun³³]			
mushroom	/kiun¹/ [kiun³³]			/ku⁴/ [ku⁴⁴]	
name			/miaŋ²/ [miaŋ¹¹]	/miaŋ²/ [miaŋ¹³]	/miaŋ²/ [miaŋ³⁵]
need			/ʔoi⁴/ [ʔoi⁴⁴]		
new				/sin⁴/ [sin⁴⁴]	
night			/ʔam⁴/ [ʔam⁴⁴]	/ʔam³/ [ʔam⁵²]	/ʔam⁴/ [ʔam³¹]
nine				/kiu³/ [kiu⁵²]	/kiu³/ [kiu¹⁴]
north		/pɛt⁴/ [pɛt³²]	/pɛt⁶/ [pɛt⁵⁵]	/pɛt⁵/ [pɛt²¹]	
northern		/pɛt⁴ foŋ³/ [pɛt³² foŋ²¹]			

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
nose		/phi⁵ kuŋ¹/ [phi⁴⁴ kuŋ³³]		/phi⁵/ [phi²¹]	/phi⁵/ [phi²²]
not	/m̩²/ [m̩²¹]	/m̩³/ [m̩²¹]	/m̩²/ [m̩¹¹]		/m̩²/ [m̩³⁵]
office					/khiuk⁷/ [khiuk⁴⁴]
oil	/jiu²/ [jiu²¹]	/jiu³/ [jiu²¹]			
old			/lau³/ [lau⁵³]	/lau²/ [lau¹³]	
older brother				/kɔ⁴/ [kɔ⁴⁴]	
older brother of mother					/khiu¹/ [khiu⁵²]
older sister			/tsi³/ [tsi⁵³]	/tsɛ²/ [tsɛ¹³]	
(to) open				/khɔi⁴/ [khɔi⁴⁴]	
orange					/kam¹/ [kam⁵²]
out, outside					/ŋuai⁵/ [ŋuai²²]
over				/soŋ¹ poi⁴ / [soŋ³³ poi⁴⁴]	
ox					/ŋiu²/ [ŋiu³⁵]
paper				/tsi³/ [tsi⁵²]	/tsi³/ [tsi¹⁴]
paste					/kɔ²/ [kɔ³⁵]

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
peaceful	/phiaŋ²/ [phiaŋ²¹]	/pian² ŋi²/ [pian²¹ ŋi²³]			
(to) peel			/phai¹ [phai²²]		/phai¹/ [phai⁵²]
(to) peel off					/thɔt⁶/ [thɔt²⁴]
pen, pencil	/pit⁵/ [pit³²]	/pit⁴/ [pit³²]	/pit⁵/ [pit³²]	/pit⁵/ [pit²¹]	/pit⁶/ [pit²⁴]
pen	/koŋ⁴ pit⁵/ [koŋ⁴⁴ pit³²]	/koŋ¹ pit⁴/ [koŋ³³ pit³²]			
peaceful				/phin²/ [phin¹³]	
phlegm			/tham²/ [tham¹¹]		
(to) pick					/tsak⁷/ [tsak⁴⁴]
pick something by hand	/na¹/ [na³³]				
(to) pick up					/kiam³/ [kiam¹⁴]
piece				/kai³/ [kai⁵²]	/kai⁴/ [kai³¹]
					/liap⁶/ [liap²⁴]
place			/thi⁴/ [thi⁴⁴]	/thi⁵/ [thi²¹]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
(to) place	/foŋ^1/ [foŋ^{33}]		/fioŋ^4/ [fioŋ^{44}]	/pioŋ^3/ [pioŋ^{52}]	
(to) pluck					/tsak^7/ [tsak^{44}]
poison	/thuk^6/ [thuk^{55}]	/thuk^4 jok^6/ [thuk^{32} jok^{55}]	/thuk^6/ [thuk^{55}]	/thuk^4/ [thuk^{44}]	
pot		/fu^3/ [fu^{21}]	/fu^2/ [fu^{11}]		
powder	/fun^3/ [fun^{31}]	/fun^4/ [fun^{32}]		/fun^3/ [fun^{52}]	
(to) pray			/pai^3/ [pai^{53}]		
province		/fu^5/ [fu^{44}]			
put	/foŋ^1/ [foŋ^{33}]		/fioŋ^4/ [fioŋ^{44}]	/pioŋ^3/ [pioŋ^{52}]	
quickly		/kip^4/ [kip^{32}]			
rabbit	/thu^4 tsai^4/ [thu^{44} tsai^{44}]			/thu^4/ [thu^{44}]	
rain			/ji^3/ [ji^{53}]		
raise	/thoi^3 hi^1 loi^3/ [thoi^{21} hi^{33} loi^{21}]	/thoi^1 khi^4/ [thoi^{23} khi^{32}]			
rat			/tshu^4/ [tshu^{44}]	/tshu^3/ [tshu^{52}]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
raw			/saŋ¹/ [saŋ²²]		
(to) reach					/tau⁴/ [tua³¹]
(to) recognize					/sit⁶/ [sit²⁴]
red			/fuŋ²/ [fuŋ¹¹]		
release	/foŋ¹/ [foŋ³³]		/fioŋ⁴/ [fioŋ⁴⁴]	/pioŋ³/ [pioŋ⁵²]	
rent			/tsɯ¹/ [tsɯ²²]		/sɔi⁵ / [sɔi²²]
reside	/tshu⁴/ [tshu⁴⁴]				
respect		/kin¹tshuŋ¹/ [kin³³ tshuŋ³³]			
(to) ride					/khi¹/ [khi⁵²]
right side				/jiu³/ [iu⁵²]	
ring worn on arm or ankle					/ʔak⁶/ [ʔak²⁴]
rise	/ha⁴ hi⁴ loi²/ [ha⁴⁴ hi⁴⁴ loi²¹]				/fat⁶/ [fat²⁴]
(to) roast				/jaŋ³/ [jaŋ⁵²]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
rotten	/fu²/ [fu²¹]	/fu¹/ [fu³³]		/fu⁴/ [fu⁴⁴]	/fu⁵/ [fu²²]
	/fu¹ lan⁴/ [fu³³ lan⁴⁴]				
(to) run away			/tsɛu⁴/ [tsɛu⁴⁴]		/tsɛu³/ [tsɛu¹⁴]
sand			/sa¹/ [sa²²]	/sa¹/ [sa³³]	/sa¹/ [sa⁵²]
same	/thuŋ² jaŋ⁴/ [thuŋ²¹ jaŋ⁴⁴]	/ʔi¹ joŋ⁵/ [ʔi³³ joŋ⁴⁴]			
	/tshioŋ¹/ [tshioŋ³³]	/tshioŋ⁵/ [tshioŋ⁴⁴]			
		/hou³ tshioŋ⁵/ [hou²¹ tshioŋ⁴⁴]			
saw	/ki⁴/ [ki⁴⁴]	/ki⁵/ [ki⁴⁴]	/ki⁴/ [ki⁴⁴]	/ki³/ [ki⁵²]	/ki⁵/ [ki²²]
say					/kɔŋ³/ [kɔŋ¹⁴]
scrub					/tshiu⁵/ [tshiu²²]
season				/thiɛn¹/ [thiɛn³³]	
see				/khon³/ [khon⁵²]	
segment on section	/thuŋ² jaŋ⁴/ [thuŋ²¹ jaŋ⁴⁴]	/ji⁵ kuan²/ [ji⁴⁴ kuan²³]			
(to) sell				/mai⁵/ [mai²¹]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
(to) set	/foŋ¹/ [foŋ³³]		/fioŋ⁴/ [fioŋ⁴⁴]	/pioŋ³/ [pioŋ⁵²]	
seven					/tshit⁷/ [tshit⁴⁴]
share	/fun⁵/ [fun²¹]				/fun⁵/ [fun²²]
sharp			/li⁴/ [li⁴⁴]	/li⁵/ [li²¹]	/li⁵/ [li²²]
sharp-pointed				/tsiam¹/ [tsiam³³]	
she / he		/ki²/ [ki²³]		/kɯ²/ [kɯ¹³]	
shed	/pat⁶/ [pat⁵⁵]	/pat⁴/ [pat³²]			
short				/ʔɛ³/ [ʔɛ⁵²]	
shoulder				/kɔi⁴/ [kɔi⁴⁴]	
shout			/kua²/ [kua¹¹]		
shrimp			/ha²/ [ha¹¹]	/ha²/ [ha¹³]	/ha³/ [ha¹⁴]
(to) sift					/tshɛ¹/ [tshɛ⁵²]
silk					/si¹/ [si⁵²]
silver			/ŋiun²/ [ŋiun¹¹]		

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
six	/liuk^5/ [liuk^{32}]				
skin		/phi^2/ [phi^{23}]	/phi^2/ [phi^{11}]		/phi^3/ [phi^{14}]
(to) sleep					/sɔi^5/ [sɔi^{22}]
sleepy					/wat^7/ [wat^{44}]
slip down			/tsho^4/ [tsho^{44}]		
slipper			/hai^2 tou^1/ [hai^{11} tou^{22}]		
slow	/man^4/ [man^{44}]	/man^5/ [man^{44}]			
smile					/siau^4/ [siau^{31}]
smoke					/ʔan^1/ [ʔan^{52}]
smooth	/phiaŋ^2/ [phiaŋ^{21}]	/pian^2 ŋi^2/ [pian^{21} ŋi^{23}]		/phin^2/ [phin^{13}]	
	/pin^1/ [pin^{33}]				
snow					/siat^7/ [siat^{44}]
sock					/mat^6/ [mat^{24}]
soldier	/kuan^1 ŋin^2/ [kuan^{34} ŋiŋ^{21}]			/kuon^4 tui^5/ [kuon^{44} tui^{21}]	

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
son			/lai³/ [lai⁵³]		
soul		/lin² fun²/ [lin²³ fun²³]		/fun²/ [fun¹³]	
soup				/tsip⁶/ [tsip²⁴]	
south southern	/nam²/ [nam²¹]	/nan²/ [nan²³]			/nam²/ [nam³⁵]
(to) sow					/wɛ⁵/ [wɛ²²]
spoon					/si²/ [si³⁵]
(to) sprinkle	/kiu¹ sui³/ [kiu²³ sui²¹]	/kiu¹ sui³/ [kiu²³ sui²¹]			
	/sa⁴/ [sa⁴⁴]				
(to) stand			/khi¹/ [khi²²]		
(to) start	/khoi² sɯ³ / [khoi²³ sɯ²¹]	/khi³ fu⁵/ [khi²¹ fu⁴⁴]		/tshoi⁴ tshi⁴/ [tshoi⁴⁴ tshi⁴⁴]	
(to) steal			/thɛu¹/ [thɛu²²]		/thɛu¹/ [thɛu⁵²]
(to) steam			/tsɯŋ¹/ [tsɯŋ²²]		
steel	/tiɛt²/ [tiɛt²¹]	/tiɛt³/ [tiɛt²¹]			
stomach			/tu³/ [tu⁵³]	/tu³/ [tu⁵²]	/tu³/ [tu¹⁴]

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
stop	/kiai⁴/ [kuai⁴⁴]	/kiai⁵/ [kuai⁴⁴]			
stranger			/khɛk⁶/ [khɛk⁵⁵]	/khak⁵/ [khak²¹]	
(to) suck			/tshon¹/ [tshon²²]		
supervise		/kuan³ tsɯ⁴/ [kuan²¹ tsɯ³²]			
(to) support				/nam³/ [nam⁵²]	
(to) swear					/si⁵/ [si²²]
sweep					/sau⁴/ [sau³¹]
sweet				/thiam²/ [thiam¹³]	
table			/tsok⁵/ [tsok³³]		
(to) take					/na¹/ [na⁵²]
(to) take off					/thɔt⁶/ [thɔt²⁴]
tall				/ko¹/ [ko³³]	
(to) taste			/tshɯ⁴/ [tsho⁴⁴]		
tea			/tsha²/ [tsha¹¹]		

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
(to) teach					/kau¹/ [kua⁵²]
tell					/kɔŋ³/ [kɔŋ¹⁴]
thin			/sɛu⁴/ [sɛu⁴⁴]	/sɛu⁴/ [sɛu⁴⁴]	/sɛu⁴/ [sɛu³¹]
(to) think				/sioŋ⁵/ [sioŋ²¹]	
thousand			/tshian¹/ [tshian²²]		
three	/sam¹/ [sam³³]		/sam¹/ [sam²²]		
tiger	/fu³/ [fu³¹]	/fu⁴/ [fu³²]	/fu³/ [fu⁵³]		/fu³/ [fu¹⁴]
		/lau⁵ fu³ / [lau⁴⁴ fu²¹]			
tongue					/sat⁷/ [sat⁴⁴]
top				/soŋ¹ poi⁴ / [soŋ³³ poi⁴⁴]	
tooth				/ŋa²/ [ŋa¹³]	/ŋa²/ [ŋa³⁵]
town			/saŋ²/ saŋ¹¹]		
trace					/tsiak²/ [tsiak³⁵]
(to) turn,			/wan¹/ [wan²²]		/piɛn³/ [piɛn¹⁴]

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
turn on			/koi^1 / [koi^{22}]		/khɔi^2/ [khɔi^{35}]
two					/ŋi^5/ [ŋi^{22}]
(to) understand	/ti^1/ [ti^{33}]	/min^2 pai^3/ [min^{23} pai^{21}]	/ti^1/ [ti^{33}]	/ti^1/ [ti^{33}]	
(to) use			/juŋ^4/ [juŋ^{44}]		
vegetable			/tshoi^4/ [tshoi^{44}]		
visitor			/khɛk^6/ [khɛk^{55}]	/khak^5/ [khak^{21}]	
want			/ʔoi^4/ [ʔoi^{44}]		
warm		/non^2/ [nɔn^{23}]	/non^1/ [non^{22}]		
(to) wash					/sɛ^3/ [sɛ^{14}]
(to) watch			/tsok^6/ [tsok^{55}]		
water	/sui^3/ [sui^{31}]	/sui^3/ [sui^{21}]	/sui^3/ [sui^{53}]	/sui^3/ [sui^{52}]	/sui^3/ [sui^{14}]
west		/si^2/ [si^{23}]			/si^1/ [si^{52}]
white			/phak^6/ [phak^{55}]		
wide				/khuat^5/ [khuat^{21}]	/khuat^6/ [khuat^{24}]

Meaning	Meixian		Hsing Ning	Fengshun & Dabu	Jie Yang or Kiet Yong (Kik Io)
	Pattern 1	Pattern 2			
wife	/thai⁴ thai⁴/ [thai⁴⁴ thai⁴⁴]	/thai⁵ thai⁵/ [thai⁴⁴ thai⁴⁴]		/tshi¹/ [tshi³³]	
wife of older brother					/sɔ¹/ [sɔ⁵²]
(to) win the lottery	/tsuŋ¹ piau¹/ [tsuŋ³³ piau³³]				
wind				/fuŋ⁴/ [fuŋ⁴⁴]	
winter	/tuŋ¹/ [tuŋ³³]	/tuŋ³/ [tuŋ²¹]			
	/tuŋ¹ thian¹/ [tuŋ³³ thian³³]				
(to) wipe			/tshut⁶/ [tshut⁵⁵]		
woman					/ŋiui⁵/ [ŋiui²²]
wrap					/pau¹/ [pau⁵²]
wriggle		/pot⁴ tshiu¹ tsun¹/ [pot³² tshiu³³ tsun³³]			
year				/nian²/ [nian¹³]	/ŋian²/ [ŋiaa³⁵]
yellow	/woŋ²/ [woŋ²¹]	/woŋ³/ [woŋ²¹]		/wɔŋ²/ [wɔŋ¹³]	/wɔŋ²/ [wɔŋ³⁵]
yes					/hɛ⁴/ [hɛ³¹]
you	/ŋi²/ [ŋi²¹]	/ŋi³/ [ŋi²¹]	/ŋi²/ [ŋi¹¹]	/ŋi²/ [ŋi¹³]	
younger brother of mother					/khiu¹/ [khiu⁵²]

Teochew, Hainanese, Hokkien and Hokchew Dialects Word List

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
(to) add	/kia^1/ [kia^{33}]				
afraid			/kiã^1/ [kiã^{33}]	/kiã^1/ [kiã^{33}]	/kiaŋ^1/ [kiaŋ^{55}]
age	/kɛ̃^{1}/ [kɛ̃^{33}]				
alcohol			/tsiu^3/ [tsiu^{52}]	/tsiu^3/ [tsiu^{52}]	
ant	/hia^4/ [hia^{24}]	/hia^3/ [hia^{31}]			
army			/pɛŋ^1/ [pɛŋ^{33}]		/piŋ^1/ [piŋ^{55}]
aunt (father's sister)	/kou^1/ [kou^{33}]		/ko^1/ [ko^{33}]	/kɔ^1/ [kɔ^{33}]	/ko^4/ [ko^{52}]
aunt (mother's sister)			/ʔi^2/ [ʔi^{24}]	/ʔi^2/ [ʔi^{23}]	/ʔi^1/ [ʔi^{55}]
					/toi^2 ʔi^5/ [toi^{33} ʔi^{21}]
bad smell		/siaŋ^4/ [siaŋ^{24}]			
banana	[kiŋ 33] Subdialect1 [kɛŋ 33] Subdialect2				
basket		/na^2/ [na^{21}]		/na^2/ [na^{23}]	
beans	/tau^6/ [tau^{21}]		/tau^4/ [tau^{21}]	/tau^5/ [tau^{21}]	
beat				/phaʔ^5/ [phaʔ^{21}]	/phaʔ^5/ [phaʔ^{21}]
bee	/bik^2/ [bik^{44}]				
big	/tuə^6/ [tuə^{21}]		/tua^4/ [tua^{21}]	/tua^5/ [tua^{21}]	/tuai^6/ [tuai^{24}]
bill				/tuã^3/ [tuã^{52}]	
bird	/tsiau^3/ [tsiau^{52}]			/tsiau^3/ [tsiau^{52}]	/tsɛu^4/ [tsɛu^{52}]
bite		/ka^3/ [ka^{31}]			

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
bittle and harsh to taste, ill-favoured		/tiap⁶/ [tiap⁴⁴]			
black				/ʔou¹/ [ʔou³³]	
blood		/huai⁵/ [huai⁴⁵³]	/huiʔ⁵/ [huiʔ⁴⁴]	/hoiʔ⁵/ [hoiʔ²¹]	/hɛk⁵/ [hɛk²¹]
blue		/lam²/ [lam²¹]	/lam²/ [lam²⁴]		
boat	/tsuŋ²/ [tsuŋ⁴]	/tun¹/ [ton³³]			
bold				/kã³/ [kã⁵²]	
bone	/kuk⁶/ [kuk²¹]			/kut⁵/ [kut²¹]	
book		/tu⁴/ [tu²⁴]			/phɔ⁵/ [phɔ²¹]
bored	/ʔui⁶/ [ʔui²¹]				
(to) borrow				/tsioʔ⁵/ [tsioʔ²¹]	/tsioʔ⁵/ [tsioʔ²¹]
box	/ʔap²/ [ʔap⁴⁴]			/ʔaʔ⁶/ [ʔaʔ⁴⁴]	
brain	/nau³/ [nau⁵²]		/thau⁴ lou³/ [thau²¹ lou⁵²]		
branch	/ki¹/ [ki³³]		/ki¹/ [ki³³]	/ki¹/ [ki³³]	
				/tshiu⁵ ki¹/ [tshiu²¹ ki³³]	
bright					/kuoŋ¹/ [kuoŋ⁵⁵]
brother in law					/tsia⁵ hu⁶/ [tsia²¹ hu²⁴]
bruised				/sioŋ³/ [sioŋ⁵²]	
brush		/tuat⁶/ [tuat⁴⁴]			
bucket			/thaŋ³/ [thaŋ⁵²]		
buffalo	/gu²/ [gu⁴⁴]	/gu²/ [gu²¹]			
burn		/tio¹/ [tio³³]			
buy	/boi³/ [boi⁵²]	/boi²/ [boi²¹]	/boi³/ [boi⁵²]		/mɛ⁴/ [mɛ⁵²]

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
cage		/laŋ²/ [laŋ²¹]			
(to) call	/kio¹/ [kio³³]				
canal	/khəi¹/ [khəi³³]				
candle		/tsiak⁶/ [tsiak⁴⁴]			
car		/sia⁵/ [sia²⁴]			/tshia¹/ [tshia⁵⁵]
card			/tio¹/ [tio³³]	/tɛ⁵/ [tɛ²¹]	/thɛk⁵/ [thɛk²¹]
(to) carry	/pho³/ [pho³¹]				
cat	/ŋiau¹/ [ŋiau³³]			/miau¹/ [miau³³]	
catch a cold		/kam¹ mau¹/ [kam³³ mau³³]			
(to) change	/thuŋ¹/ [thuŋ³³]			/huan²/ [huan²³]	
cheap	/phĩ¹/ [phĩ³³]		/phĩ¹/ [phĩ³³]		
			/pɛn⁴ji²/ [pɛn²¹ji²⁴]		
			/kɛ¹ tsi²/ [kɛ³³ tsi²⁴]		
chopsticks			/tɯ⁴/ [tɯ²¹]	/tɯ⁵/ [tɯ²¹]	
chicken	/koi¹/ [koi³³]		/koi¹/ [koi³³]		
Chinese mile	/li²/ [li⁴⁴]				
Chinese noodle		/mi⁴/ [mi²⁴]	/mi⁴/ [mi²¹]	/mi⁵/ [mi²¹]	/miaŋ⁶/ [miaŋ²⁴]
Chinese peach					/thɔ⁶/ [thɔ⁵²]
Chinese sweetmeat, cake	/piã²/ [piã⁴⁴]			/piã³/ [piã⁵²]	
(to) chop		/dok⁶/ [dok⁴⁴]			
cigarette		/ʔin⁴/ [ʔin²⁴]			

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
classifier for bars			/ki^1/ [ki^{33}]		
classifier of horses	[phik 21] Subdialect1 [phɛk 21] Subdialect2				
clothing	/ʔi^1 hok^2/ [ʔi^{33} hok^{44}]				
cloud	/hung^2/ [hung^{44}]				
coat button	/niu^3/ [niu^{52}]				
cold	/ŋaŋ^2/ [ŋaŋ^{44}]				
color			/sit^5/ [sik^{44}]		
(to) come			/lai^4/ [lai^{21}]		/li^2/ [li^{33}]
(to) compare	/pi^3/ [pi^{52}]				
cooked rice	/puɯŋ^6/ [puɯŋ^{21}]				
correct					/tuɯaʔ^1/ [tuɯaʔ^{55}]
could		/hon^1/ [hon^{33}]			
count	/siau^6/ [siau^{21}]			/sui^3/ [sui^{52}]	
cow	/gu^2/ [gu^{44}]	/gu^2/ [gu^{21}]		/gu^2/ [gu^{23}] Group 1 /ŋu^2/ [ŋu^{23}] Group 2	
crab		/hoi^3/ [hoi^{31}]			
crawl	/pɛ̃^{2}/ [pɛ̃^{44}]				
(to) creep	/pɛ^2/ [pɛ^{44}]				
(to) cut			/ka^1/ [ka^{33}]		
dark			/ʔam^4/ [ʔam^{21}]		

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
day		/jiat²/ [jiat²¹] Bun Siau /jiat²/ [jiat²¹] Kheng Tua & some Bun Siau			
dead		/ti³/ [ti³¹]		/si³/ [si⁵²]	/si⁴/ [si⁵²]
deep	/tsim¹/ [tsim³³]				
deer		/diak⁶/ [diak⁴⁴]			
defeat			/su¹/ [su³³]	/su¹/ [su³³]	
descend	/loʔ⁵/ [lɔʔ⁴⁴]				
dinner					/siat¹ maŋ²/ [siat⁵⁵ maŋ³³]
disappear		/kak⁷/ [kak²²]			
(to) do		/toʔ⁶/ [toʔ⁴⁴]	/tso⁴/ [tso²¹]	/liau⁵ li³/ [liau²¹ li⁵²]	/tsoʔ¹/ [tsoʔ⁵⁵]
dog		/kau³/ [kau³¹]	/kau³/ [kau⁵²]	/kau³/ [kau⁵²]	/khɛŋ⁴/ [khɛŋ⁵²]
don't have		/liau²/ [liau²¹]			
dot				/tiam³/ [tiam⁵²]	
(to) drag			/thuã¹/ [thuã³³]		
drama	/hi⁶/ [hi²¹]			/hi⁵/ [hi²¹]	
drawer				/kek⁶ ʔa³/ [kek⁴⁴ ʔa⁵²]	
(to) drill				/tshau¹/ [tshau³³]	
drink	/luʔ²/ [luʔ⁴⁴]				
dry			/tã¹/ [tã³³]	/ta¹/ [ta³³]	/ta²/ [ta³³]
duck			/ʔaʔ⁵/ [ʔaʔ⁴⁴]		/ʔak⁵/ [ʔak²¹]

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
dumb					/ʔiau⁴ khə²/ [ʔiau⁵² khə³³]
ear		/hi³/ [hi³¹]	/hi²/ [hi²⁴]		
east		/daŋ¹/ [daŋ³³]			
easy			/jon⁴/ [jon²¹]		
(to) eat			/tsiaʔ⁶/ [tsiaʔ²¹]		/siat¹/ [siat⁵⁵]
egg			/nɯɯŋ⁴/ [nɯɯŋ²¹]	/nui⁴/ [nui²¹]	
eight	/poiʔ⁶/ [poiʔ²¹]		/poiʔ⁵/ [poiʔ⁴⁴]	/pɛʔ⁵/ [pɛʔ²¹]	/pɛk⁵/ [pɛk²¹]
elephant	/chiõ⁶/ [tshiõ¹⁵]	/sio³/ [sio³¹]			
enter	/zip²/ [zip⁴⁴] or [jip⁴⁴]				
(to) exercise				/tshau¹/ [tshau³³]	
expensive	/kui⁶/ [kui²¹]		/kui⁴/ [kui²¹]	/kui⁵/ [kui²¹]	/kui⁵/ [kui²¹]
eyebrow	/bai²/ [bai⁴⁴]				
eyes		/mak⁶/ [mak⁴⁴]	/bak⁴ tsiau¹/ [bak²¹ tsiau³³]		
face	/miŋ⁶/ [miŋ²¹]	/min¹/ [min³³]			
fall	/puəʔ⁴/ [puəʔ⁴⁴]				
falling down		/kham³/ [kham³¹]			
fan	/huaŋ¹ si⁶/ [huaŋ³³ si²¹]	/waŋ¹ ti²/ [waŋ³³ ti²¹]			
(to) fan	/si⁶/ [si²¹]		/ʔiat⁵/ [ʔiat⁴⁴]	/sĩ⁵/ [sĩ²¹]	
far		/hui³/ [hui³¹]			
fast				/khuai⁵/ [khuai²¹]	/tsiŋ⁴ khɛ⁵/ [tsiŋ⁵² khɛ²¹]
fat	/pui²/ [pui⁴⁴]	/pui²/ [pui²¹]	/pui²/ [pui²⁴]		/pui²/ [pui³³]

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
father	/tia¹/ [tia³³]	/dɛ⁴/ [dɛ²⁴]		/pa²/ [pa²³]	/pa²/ [pa³³]
					/ti²/ [ti³³]
fear	/kiã¹/ [kiã³³]	/kia⁴/ [kia²⁴]		/kia¹/ [kia³³]	
(to) feed	/tshi⁶/ [tshi²¹]			/tshi⁵/ [tshi²¹]	
feel numb				/ba²/ [ba²³]	/kua⁶/ [kua²⁴]
(to) fight				/phaʔ⁶ bu³/ [phaʔ⁴⁴ bu⁵²]	
finish		/liau²/ [liau²¹]			
fish		/hu²/ [hu²¹]	/hɯ̃²/ [hɯ̃²⁴]		/ŋɯ¹/ [ŋɯ⁵⁵]
five		/ŋou³/ [ŋou³¹] Kheng Tua &some BunSiau /ŋau³/ [nau³¹] Bun Siau		/gɔ⁵/ [gɔ²¹] Group 1 /ŋɔ²/ [ŋɔ²¹] Group 2	/ŋu⁶/ [ŋu²⁴]
(to) fix				/tiã⁵ hoi⁵/ [tiã²¹ hoi²¹]	
flat			/pɛ̃²/ [pɛ̃²⁵]	/pɛ̃²/ [pɛ̃²³]	
flower		/hua¹/ [hua³³]	/huai¹/ [huai³³]		
(to) fly	/puai¹/ [puai³³]	/buai¹/ [buai³³]			
follow up	/ziau⁶/ [ziau²¹] or [jiau²¹]				
foolish	/ŋa⁶/ [ŋa²¹]				
four	/si⁶/ [si²¹]		/sĩ³/ [sĩ⁵²]	/si⁵/ [si²¹]	/si⁵/ [si²¹]
freeze					/tɛŋ⁶/ [tɛŋ²⁴]
fruit	/kuai³/ [kuai⁵²]				

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
(to) fry		/sa²/ [sa²¹]			
full	/ti̍⁴/ [ti̍²⁴]				
ginger	/kiõ¹/ [kiõ³³]	/kio¹/ [kio³³]			
(to) go		/khu²/ [khu²¹]	/khi⁴/ [khi²¹]	/khi⁴/ [khi²¹]	/khɯə⁵/ [khɯə²¹]
go down		/lo³/ [lo³¹]		/loʔ⁶/ [loʔ⁴⁴]	
go out		/sot⁶/ [sot⁴⁴]			
goat			/ʔiũ²/ [ʔiũ²⁴]	/ʔiũ²/ [ʔiũ²³]	
gold		/kiam¹/ [kiam³³]	/kim¹/ [kim³³]	/kim¹/ [kim³³]	
good		/ho²/ [ho²¹]	/ho³/ [ho⁵²]		/ho⁴/ [ho⁵²]
goose	/go²/ [gɔ⁴⁴]	/go²/ [go²¹]	/go²/ [go²⁵]		
grandchildren			/sun¹/ [sun³³]		
grandfather	/koŋ¹/ [koŋ³³]	/go²/ [go²¹]			
grandfather, father's mother		/wuai² koŋ¹/ [wuai²¹ koŋ³³]			
grandmother	/mã³/ [mã⁵²]		/ma³/ [ma⁵²]	/ma³/ [ma⁵²]	/ma⁴/ [ma⁵²]
grasses	/tshau³/ [tshau⁵²]	/sau²/ [sau²¹]	/tshau³/ [tshau⁵²]	/tshau³/ [tshau⁵²]	
great grandson	/tiat⁶/ [tiat 44] Bun Siau /tit⁶/ [tit 44] Kheng Tua & some Bun Siau				
green	/tshɛ¹/ [tshɛ³³]		/tshi¹/ [tshi³³]	/tshɛ¹/ [tshɛ³³]	
guest			/khɛʔ⁵/ [khɛʔ⁴⁴]		
gun					/tshioŋ⁵/ [tshioŋ²¹]

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
hair		/thau² mo²/ [thau²¹ mo²¹]	/muɯŋ²/ [muɯŋ²⁴]		/thau² muak¹/ [thau²¹ muak⁵⁵]
			/thau⁴ muɯŋ²/ [thau²¹ muɯŋ²⁴]		
half	/puɜ̃⁶/ [puɜ̃²¹]				
hand	/tshiu³/ [tshiu⁵²]	/siu²/ [siu²¹]	/tshiau³/ [tshiau⁵²]	/tshiau³/ [tshiau⁵²]	/tshiu⁴/ [tshiu⁵²]
(to) hang			/tiau⁴/ [tiau²¹]	/tiau⁵/ [tiau²¹]	
hate		/won⁴/ [won²⁴]			
have	/ʔu⁴/ [ʔu²⁴]	/pu⁴/ [pu²⁴]	/ʔu²/ [ʔu²³]		
he	/ʔi¹/ [ʔi³³]				
head	/thau²/ [thau⁴⁴]				/tham⁵/ [tham²¹]
(to) hear			/thiã¹/ [thiã³³]		
heavy			/taŋ⁴/ [taŋ²¹]	/taŋ⁵/ [taŋ²¹]	
(to) help					/tshə⁶/ [tshə²⁴]
here					/tsian¹ nə¹/ [tsian⁵⁵ nə⁵⁵]
hide				/thau⁵ bi¹/ [thau²¹ bi³³]	/pi⁴/ [pi⁵²]
high			/kuan²/ [kuan²⁴]	/kuai²/ [kuai²³]	
(to) hit		/pha⁵/ [pha⁴⁵³]	/phaʔ⁵/ [phaʔ⁴⁴]	/phaʔ⁵/ [phaʔ²¹]	/phaʔ⁵/ [phaʔ²¹]
holy		/lɛŋ²/ [lɛŋ²¹]			
honey			/bit⁶/ [bit²²]	/bit⁶/ [bit⁴⁴]	
hook			/kau¹/ [kau³³]	/kau¹/ [kau³³]	
horn		/kak⁶/ [kak⁴⁴]	/kak⁵/ [kak⁴⁴]	/kak⁵/ [kak²¹]	
horse			/bɛ³/ [bɛ⁵²]		/ma⁵/ [ma²¹]

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
hot		/jua³/ [jua³¹]	/luʔ⁶/ [luʔ²²]	/juaʔ⁶/ [juaʔ⁴⁴]	
house		/su⁵/ [su²⁴]		/tshu⁵/ [tshu²¹]	/tshua⁵/ [tshua²¹]
human	/naŋ²/ [naŋ⁴⁴]	/naŋ²/ [naŋ²¹]		/laŋ²/ [laŋ²³]	/nəŋ¹/ [nəŋ³³]
hundred				/pɛʔ⁶/ [pɛʔ²¹] Subdialect 1	/paʔ⁵/ [paʔ²¹]
hungry	/ʔiau¹/ [ʔiau³³]				
hurt				/thiã⁴/ [thiã²¹]	
I		/gua³/ [gua³¹]		/wa³/ [wa⁵²]	/siʔ¹ ŋuai⁴/ [siʔ⁵⁵ ŋuai⁵²]
ice	/sɯŋ¹/ [sɯŋ³³]			/sɯŋ¹/ [sɯŋ³³]	/piŋ¹/ [piŋ⁵⁵]
(to) invite				/tsiã³/ [tshiã⁵²]	
island			/to³/ [to⁵²]	/to³/ [to⁵²]	
jade	/gɛk²/ [gɛk⁴⁴]		/gɛk⁶/ [gɛk²²]		
jog			/tsau³/ [tsau⁵²]		
joss stick		/hio¹/ [hio³³]	/hiũ¹/ [hiũ³³]	/hiũ¹/ [hrũ³³]	
(to) keep				/siu¹/ [siu³³]	
keep in the mouth		/kam²/ [kam²¹]			
king			/ʔɔŋ⁴ tɛ⁴/ [ʔɔŋ²¹ tɛ²¹]		
(to) knock	/khɛk⁶/ [khɛk²¹]				
knife			/to¹/ [to³³]	/to¹/ [to³³]	
(to) laugh	[tshio 213] Subdialect1 [tshia 213] Subdialect2		/tshiau⁴/ [tshiau²¹]		/tshiau⁵/ [tshiau²¹]
(to) lead				/tshua⁵ lɔ⁵/ [tshua²¹ lɔ²¹]	
leg	/kha¹/ [kha³³]			/kha¹/ [kha³³]	/kha²/ [kha³³]

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
(to) lend				/tsioʔ⁵/ [tsioʔ²¹]	/tsioʔ⁵/ [tsioʔ²¹]
letter			/pou¹/ [pou³³]		
light					/kuoŋ¹/ [kuoŋ⁵⁵]
lion			/sai³/ [sai⁵²]	/sai³/ [sai⁵²]	
little		/tsioʔ⁷/ [tsioʔ²²]			
liver	/kuə̃¹/ [kuə̃³³]				
long			/tɯɯŋ²/ [tɯɯŋ²⁴]		
long (in time)				/ku³/ [ku⁵²]	
(to) look , look at, look after			/khua³/ [khua⁵²]	/khua²/ [khua²³]	/khaŋ⁵/ [khaŋ²¹]
(to) look for				/tshoi⁵/ [tshoi²¹]	
louse		/tat⁶/ [tat⁴⁴]			
low	/kɛ⁴/ [kɛ²⁴]		/ʔui²/ [ʔui²⁴]		
lunch					/siat¹tau⁵/ [siat⁵⁵ tau²¹]
male			/ta¹ bo¹/ [ta³³ bo³³]		
man			/ta¹ bo¹/ [ta³³ bo³³]		
(to) manage				/liau⁵ li³/ [liau²¹ li⁵²]	
many			/tsɛ⁴/ [tsɛ²¹]		
marry		/sin¹/ [sin³³]			
maternal uncle					/nɯɯŋ⁵ ŋu⁶/ [nɯɯŋ²¹ ŋu²⁴]
meat			/baʔ⁵/ [baʔ⁴⁴]	/baʔ⁶/ [baʔ⁴⁴]	
newspaper					/po¹ tsai²/ [po⁵⁵ tsai³³]

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
milk		/ni¹/ [ni³³]	/ni¹/ [ni³³]		/ni⁶/ [ni²⁴]
mirror			/po¹ lɛ²/ [po³³ lɛ²⁵]	/kiã⁴/ [kiã³¹]	
mist	/bu⁶/ [bu²¹]				
(to) mix	/hung⁴/ [hung²⁴]				
money	/tsĩ²/ [tsĩ⁴⁴]	/tsi¹/ [tsi³³]			/tsiaŋ¹/ [tsiaŋ⁵⁵]
monk	/huk⁴/ [huk⁴⁴]				
monkey	/kau²/ [kau⁴⁴]			/kau²/ [kau²⁴] Subdialect 1 /kau²/ [kau²³] Subdialect 2	
moon	/guaiʔ²/ [guaiʔ⁴⁴]				
morning		/ta²/ [ta²¹]		/tsa³/ [tsa⁵²]	
mosquito	/maŋ³/ [maŋ⁵²]	/maŋ²/ [maŋ²¹]	/baŋ³/ [baŋ⁵²]		
mother	/ʔai²/ [ʔai⁴⁴]				
mountain	/suə̃¹/ [suə̃³³]			/suã¹/ [suã³³]	/saŋ¹/ [saŋ⁵⁵]
mouth					/tshɯ⁵/ [tshɯ²¹]
much			/tsɛ⁴/ [tsɛ²¹]		
nail	/kaʔ⁶/ [kaʔ²¹]	/kaʔ⁶/ [kaʔ⁴⁴]			
name		/mia²/ [mia²¹]			
narrow	/ʔoiʔ²/ [ʔoiʔ⁴⁴] Subdialect1 /ʔəiʔ²/ [ʔəiʔ⁴⁴] Subdialect2				
nephew	/suŋ¹/ [suŋ³³]		/sun¹/ [sun³³]		

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
neck	/ʔam⁴/ [ʔam²⁴]				
needle			/tsiam¹/ [tsiam³³]		/tshiam¹/ [tshiam⁵⁵]
new				/sin¹/ [sin³³]	
niece	/suŋ¹/ [suŋ³³]		/sun¹/ [sun³³]		
nine		/kau³/ [kau³¹]			/kau⁴/ [kau⁵²]
nose	/phĩ⁶/ [phĩ²¹]	/phi⁴/ [phi²⁴]	/phĩ⁴/ [phĩ²¹]	/phĩ⁵/ [phĩ²¹]	
not	/m̩⁶/ [m̩²¹]		/bo⁴/ [bo²¹]	/m̩⁵/ [m̩²¹]	/mo¹/ [mo³³]
	/mai⁶/ [mai²¹]				
(not) yet	/buai⁶/ [buai²¹]				
oil				/ʔiu²/ [ʔiu²³]	
old					/lau⁶/ [lau²⁴]
older brother	/hia¹/ [hia³³]	/kɔ¹/ [kɔ³³]	/kɔ¹/ [kɔ³³]	/ko¹/ [ko³³]	
older sister		/tsɛ¹/ [tsɛ³³]	/tsi³/ [tsi⁵²]	/tsi³/ [tsi⁵²]	/tsi⁴/ [tsi⁵²]
one	/tsɛk²/ [tsɛk⁴⁴]				/ʔit⁵/ [ʔit²¹]
(to) open		/khui¹/ [khui³³]		/khui¹/ [khui³³]	/khui¹/ [khui⁵⁵]
oppose			/tui³ khɔŋ⁴/ [tui⁵² khɔŋ²¹]		
orange	/kã¹/ [kã³³]		/kam¹/ [kam³³]		
(to) order as goods				/tiã⁵ hoi⁵/ [tiã²¹ hoi²¹]	
outside			/wua⁴/ [wua²¹]		
paddy rice	/tshɛk⁶/ [tshɛk²¹]				
pagoda			/thaʔ⁵/ [thaʔ⁴⁴]	/thaʔ⁵/ [thaʔ²¹]	
paint				/pai²/ [pai²³]	

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
paper		/tau³/ [tau³¹]	/tsua³/ [tsua⁵²]		
pen, pencil	/pik⁶/ [pik²¹]		/pit⁶/ [pit²²]	/pit⁵/ [pit²¹]	
person	/naŋ²/ [naŋ⁴⁴]				
(to) pick, pick up	/khioʔ²/ [khioʔ⁴⁴]				/tɔ² sɯəŋ⁶/ [tɔ³³ sɯəŋ²⁴]
piece	/kai²/ [kai⁴⁴]	/kai²/ [kai²¹]			
		/khuai²/ [khuai²¹]			
pig	/tɯ¹/ [tɯ³³]	/du¹/ [du³³]	/tɯ¹/ [tɯ³³]	/tu¹/ [tu³³]	/tɯ¹/ [tɯ⁵⁵]
(to) pinch		/niam³/ [niam³¹]			
		/nau⁵/ [nau⁴⁵³]			
plate			/puã²/ [puã²⁴]	/puã²/ [puã²³]	
(to) play					/tshɛŋ⁵/ [tshɛŋ²¹]
pounded rice	/bi³/ [bi⁵²]	/bi²/ [bi²¹]			
(to) pour out				/to⁴/ [to³¹]	
powder	/hung³/ [hung⁵²]		/hun³/ [hun⁵²]	/lat⁶/ [lat⁴⁴]	
(to) press		/ʔat⁶/ [ʔat⁴⁴]			
profound	/tsim¹/ [tsim³³]				
(to) pull			/thuã¹/ [thuã³³]		
(to) put			/paŋ⁴/ [paŋ²¹]	/paŋ⁴/ [paŋ²¹]	/paŋ²/ [paŋ³³]
put down				/pai²/ [pai²³]	
quick				/khuai⁵/ [khuai²¹]	/tsiŋ⁴ khɛ⁵/ [tsiŋ⁵² khɛ²¹]
rabbit	/thou⁶/ [thou²¹]				

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
rain	/hou^4/ [hou^{24}]				
(to) reach				/kau^4/ [kau^{31}]	
(to) read		/thak^6/ [thak^{44}]	/khua^3/ [khua^{52}]		
record				/ki^4/ [ki^{31}]	
red		/ʔaŋ^2/ [ʔaŋ^{21}]			
relative					/hian^2 ni^3 jo^1/ [hian^{33} ni^{33} jo^{55}]
remember				/ki^4/ [ki^{31}]	
(to) rest				/tɛŋ^2/ [tɛŋ^{23}]	
(to) return				/to^3 tui^3/ [to^{52} tui^{52}]	
rich		/pu^4/ [pu^{24}]			
right (correct)					/tɯaʔ^1/ [tɯaʔ^{55}]
ripe			/sek^5/ [sek^{44}]		
(to) rise	/khi^3/ [khi^{52}]				
road		/lou^4/ [lou^{24}]		/lɔ^5/ [lɔ^{21}]	/tua^6/ [tua^{24}]
rope			/soʔ^6/ [soʔ^{22}]		
rotten	/mi^2/ [mi^{44}]				
round		/ʔi^2/ [ʔi^{21}]			
rub		/sua^5/ [sua^{453}]			
run		/tau^5/ [tau^{453}]	/tsau^3/ [tsau^{52}]		/tsau^4/ [tsau^{52}]
(to) sail	/phaŋ^2/ [phaŋ^{44}]				
saliva	/nua^4/ [nua^{24}]	/nua^3/ [nua^{31}]			

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
Salix babylonica Linn			/liu³ tshiu¹/ [liu⁵² tshiu³³]		
salt	/ʔiam²/ [ʔiam⁴⁵]			/ʔim²/ [ʔim²³]	
salty		/kiam²/ [kiam²¹]	/kiam²/ [kiam²⁴]	/kiam²/ [kiam²³]	
sand	/suə¹/ [suə³³]			/sua¹/ [sua³³]	
Sandal with a thick sole of wood				/kiaʔ⁶/ [kiaʔ⁴⁴]	
saw	/kɯ¹/ [kɯ³³]	/tiu⁴/ [tiu²⁴]			
sea	/hai³/ [hai⁵²]	/hai²/ [hai²¹]			
see	[thoi 52] Subdialect1 [thəi 52] Subdialect2	/ki⁴/ [ki²⁴]			
seed		/liap⁷/ [liap²²]	/liap⁶/ [liap²²]	/liap⁶/ [liap⁴⁴]	/tsi⁴/ [tsi⁵²]
			/tsi³/ [tsi⁵²]	/tsi³/ [tsi⁵²]	
(to) sell				/bɛ⁵/ [bɛ²¹]	
seven	/tshik⁶/ [tshik²¹]				
(to) scratch	/pɛ²/ [pɛ⁴⁴]				
share	/hung⁵/ [hung²¹³]				
(to) share	/hung¹/ [hung³³]				
sharpen		/li²/ [li²¹]			
she	/ʔi¹/ [ʔi³³]				
sheep			/ʔiũ²/ [ʔiũ²⁴]	/ʔiũ²/ [ʔiũ²³]	
shell		/liom⁵/ [liom⁴⁵³]			
shop			/tiam⁴/ [tiam²¹]	/tiam⁵/ [tiam²¹]	

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
short (high)	/kɛ⁴/ [kɛ²⁴]		/ʔui²/ [ʔui²⁴]		
short (length)	/ʔoi²/ [ʔoi⁴⁴]		/tɯŋ²/ [tɯŋ²⁴]	/tai³/ [tai⁵²]	
			/tə²/ [tə²⁴]		
shoulder	[kãĩ 33] Kik-Io [kõĩ 33] Theng-Hai [kə̃ĩ 33] Tio-Ang& Phou-Leng				
shrimp		/hɛ²/ [hɛ²¹]			
silent	/tsɛ̃⁴/ [tsɛ̃²⁴]				
silver	/ŋiŋ²/ [ŋiŋ⁴⁴] Subdialect1		/gɯɯn²/ [gɯɯn²⁴]	/ŋin²/ [ŋin²³] Group 2	
	/ŋɯɯŋ²/ [ŋɯɯŋ⁴⁴] Subdialect2				
(to) sing				/tshiau¹/ [tshiau³³]	/tshioŋ²/ [tshioŋ³³]
sister in law			/so³/ [so⁵²]	/so³/ [so⁵²]	/so⁴/ [so⁵²]
(to) sit			/tsɛ⁴/ [tsɛ²¹]		
six	/lak²/ [lak⁴⁴]			/lak⁵/ [lak²¹]	
skin			/phɯ²/ [phɯ²⁴]	/puai⁵ hu¹/ [puai²¹ hu³³]	
sky	/thĩ¹/ [thĩ³³]	/khi¹/ [khi³³]	/thĩ¹/ [thĩ³³]	/thĩ¹/ [thĩ³³]	/thiaŋ¹/ [thiaŋ⁵⁵]
slice			/tio¹/ [tio³³]	/tɛ⁵/ [tɛ²¹]	
slow		/di²/ [di²¹]	/ban⁴/ [ban²¹]	/ban⁴/ [ban²¹]	
small		/toi²/ [toi²¹]	/sɛ¹/ [sɛ³³]	/sɛ⁵/ [sɛ²¹]	
				/sɛu¹/ [sɛu³³]	
				/siau³/ [siau⁵²]	

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
smear				/tiam³/ [tiam⁵²]	
smile			/tshiau⁴/ [tshiau²¹]		/tshiau⁵/ [tshiau²¹]
(to) smoke					/pak¹/ [pak⁵⁵]
smooth			/pɛ̃²/ [pɛ̃²⁵]	/pɛ̃²/ [pɛ̃²³]	
snake		/tua²/ [tua²¹]			
snow	/sɔʔ⁶/ [sɔʔ²¹]				
sock				/ɓoi³/ [ɓoi⁵²]	
soft		/nui⁴/ [nui²⁴]			
soft boiled rice			/ɓə²/ [ɓə²⁴]	/moi²/ [moi²³]	
soil	/thou²/ [thou⁴⁴]	/hoi²/ [hoi²¹]			
soldiers			/pɛŋ¹/ [pɛŋ³³]		/piŋ¹/ [piŋ⁵⁵]
son				/kiã³/ [kiã⁵²]	/kiaŋ²/ [kiaŋ³¹]
song	/ko¹/ [kɔ³³]			/kua¹/ [kua³³]	/kɔ¹/ [kɔ⁵⁵]
sound		/tia⁴/ [tia²⁴]			
sour			/sɯŋ¹/ [sɯŋ³³]		
soup			/thʊ̃ŋ¹/ [thʊ̃ŋ³³]		
speak	/ta⁶/ [ta²¹]				
spill		/tua⁵/ [tua⁴⁵³]			
(to) stand				/khia⁵/ [khia²¹]	
(to) stand up	/khi³/ [khi⁵²]		/khi⁴/ [khi²¹]		
star	/chɛ̃¹/ [tshɛ̃³³]				

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
stick	/ki^1/ [ki^{33}]				
stomach	/tou^3/ [tou^{52}]				
stone			/tsioʔ^6/ [tsioʔ^{21}]		
stop				/tɛŋ^2/ [tɛŋ^{23}]	
strange			/kuai^3/ [kuai^{52}]		
stream	/khəi^1/ [khəi^{33}]				
street		/lou^4/ [lou^{24}]			
strength				/lat^6/ [lat^{44}]	
stud	/niu^3/ [niu^{52}]				
(to) study		/thak^6/ [thak^{44}]			
stupid			/goŋ^4/ [goŋ^{21}]		
suck		/kam^2/ [kam^{21}]			
suddenly	/huk^6/ [huk^{21}]				
sugar				/thɯŋ^2/ [thɯŋ^{23}]	
sugar cane	/tsia^6/ [tsia^{21}]				
surname				/sɛ̃^{3}/ [sɛ̃^{52}]	
(to) swallow	/thuŋ^1/ [thuŋ^{33}]				
sweep				/sau^5/ [sau^{21}]	
sweet	/ti^1/ [ti^{33}]		/tɨ^1/ [tɨ^{33}]	/tɨ^1/ [tɨ^{33}]	/tian^1/ [tian^{55}]
table		/so^2/ [so^{21}]		/toʔ^5/ [toʔ^{21}] Subdialect 1 /toʔ^5/ [toʔ^{21}] Subdialect 2	

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
tall			/kuan²/ [kuan²⁴]	/kuai²/ [kuai²³]	/kɛŋ¹/ [kɛŋ³³]
taste		/si²/ [si²¹]			
(to) teach	/ka⁶/ [ka²¹]			/ka⁵/ [ka²¹]	
teacher					/siaŋ⁵ naŋ¹/ [siaŋ²¹ naŋ⁵⁵]
ten		/tap¹/ [tap³³]	/tsap⁶/ [tsap²²]	/tsap⁶/ [tsap⁴⁴]	/sɛk¹/ [sɛk⁵⁵]
ten thousand			/ban⁴/ [ban²¹]		/siat⁵ waŋ⁶/ [siat²¹ waŋ²⁴]
thick	/kau⁴/ [kau²⁴]		/kau⁴/ [kau²¹]	/kau⁴/ [kau²¹] Subdialect 1 /kau⁵/ [kau²¹] Subdialect 2	
thicken	/kɛk²/ [kɛk⁴⁴] Kik-Io [kik 44] Theng-Hai [kɯk 44] Tio-Ang& Phou-Leng				
thin					/soi¹/ [soi⁵⁵]
thing			/kia⁴/ [kia²¹]		
think	/siõ⁶/ [siõ¹⁵]				
thousand	[chãĩ 33] Kik-Io [chõĩ 33] Theng-Hai [chǝĩ 33] Tio-Ang& Phou-Leng	/sai¹/ [sai³³]	/tsit⁶ tshiŋ¹/ [tsit²² tshiŋ³³]		
three			/sã¹/ [sã³³]	/sã¹/ [sã³³]	
throat	/ʔam⁴/ [ʔam²⁴]				
(to) tie	/bak⁷/ [bak²²]				

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
trample			/taʔ⁵/ [taʔ⁴⁴]	/taʔ⁶/ [taʔ⁴⁴]	
travel					/kha² liu⁴/ [kha³³ liu⁵²]
tray			/puã²/ [puã²⁴]	/puã²/ [puã²³]	
(to) tread			/taʔ⁵/ [taʔ⁴⁴]	/taʔ⁶/ [taʔ²²] Subdialect 1 /taʔ⁶/ [taʔ⁴⁴] Subdialect 2	
tree	/tshiu⁶/ [tshiu²¹]				
(to) turn				/to³ tui³/ [to⁵² tui⁵²]	
turtle	/ku¹/ [ku³³]				
twinkle			/niʔ⁵/ [niʔ⁴⁴]		
two	/zi⁶/ [zi²¹] or [ji²¹]	/ji⁵/ [ji⁴⁵³]	/ji⁴/ [li²¹]	/ji⁵/ [li²¹]	/ni⁶/ [ni²⁴]
umbrella		/tua⁴/ [tua²⁴]			
uncle father's elder brother			/pɛʔ⁵/ [pɛ⁴⁴]	/pɛʔ⁵/ [pɛʔ⁴⁴] Subdialect 1 /pɛʔ⁵/ [pɛ²¹] Subdialect 2	
uncle father's younger brother			/pɛʔ⁵/ [pɛ⁴⁴]	/tsɛk⁵/ [tsɛk²¹]	
(to) understand			/tsai¹/ [tsai³³]		
unit	/kai²/ [kai⁴⁴]				
unreal		/kɛ²/ [kɛ²¹]		/kɛ⁴/ [kɛ⁴⁴]	
urine				/jiau⁵/ [jiau²¹]	
valuable			/tsu¹ po³/ [tsu³³ po⁵²]		

| Meaning | Teochew | Hainanese | Hokkien | | Hokchew or Fuzhou |
			Subdialect1	Subdialect2	
vegetable				/tshai¹/ [tshai³³]	
waist			/ʔɛu¹/ [ʔɛu³³]		/ʔiau¹/ [ʔiau⁵⁵]
			/ʔio¹/ [ʔioʔ³³]		
(to) wait			/tan³/ [tan⁵²]	/tan³/ [tan⁵²]	
(to) walk				/kia²/ [kia²³]	/kiaŋ²/ [kiaŋ³³]
want	/ʔai⁶/ [ʔai²¹]				
(to) wash	/soi³/ [soi⁵²] Subdialect1 /səi³/ [səi⁵²] Subdialect2		/soiʔ³/ [soi⁵²]		
watch					/tshiu⁴ piau⁵/ [tshiu⁵² piau²¹]
water	/tsui³/ [tsui⁵²]	/tui³/ [tui³¹]	/tsui³/ [tsui⁵²]		
way				/lɔ⁵/ [lɔ²¹]	
wealth					/thau⁵ wa²/ [thau²¹ wa³³]
weight			/taŋ⁴/ [taŋ²¹]	/taŋ⁵/ [taŋ²¹]	
wear				/tshɛŋ⁴/ [tshɛŋ³¹]	
wet			/tam²/ [tam²⁴]	/tam²/ [tam²³]	
white				/pɛʔ⁶/ [pɛʔ²¹] Subdialect1 /pɛʔ⁶/ [pɛʔ⁴⁴] Subdialect 2	/paʔ¹/ [paʔ⁵⁵]
wide		/khua⁴/ [khua²⁴]			
wind				/hoŋ¹/ [hoŋ³³]	/huŋ¹/ [huŋ⁵⁵]
wife				/bo³/ [bo⁵²]	/lau¹ma³/ [lau⁵⁵ ma³¹]

Meaning	Teochew	Hainanese	Hokkien		Hokchew or Fuzhou
			Subdialect1	Subdialect2	
wife of father's elder brother			/m̩³/ [m̩⁵²]	/m̩³/ [m̩⁵²]	
wife of father's younger brother					/sɛ⁵ ka²/ [sɛ²¹ ka³³]
wing		/tit⁷/ [tit²²]			
wink			/niʔ⁵/ [niʔ⁴⁴]		
(to) wipe	/tshik⁶/ [tshik²¹]				
winter					/kaŋ²/ [kaŋ³³]
worm		/thaŋ²/ [thaŋ²¹]			
worship				/pai⁴/ [pai³¹]	
(to) wrap			/pau¹/ [pau³³]		
(to) write				/sia³/ [sia⁵²]	
wrong (mistake)					/mo² təʔ¹/ [mo³³ təʔ⁵⁵]
year	/nĩ²/ [nĩ⁴⁴]				/kaŋ²/ [kaŋ³³]
yellow		/ʔui²/ [ʔui²¹]			
yes		/ti⁵/ [ti⁴⁵³]			
you	/lɯ³/ [lɯ⁵²]			/lu³/ [lu⁵²]	/nɯ⁴/ [nɯ⁵²]
younger brother	/ti⁴/ [ti²⁴]		/ti⁵/ [ti²¹]	/ti²/ [ti²³]	/tia⁶/ [tia²⁴]
				/sɛu¹ ti⁵/ [sɛu³³ ti²¹]	
younger brother of your mother		/ku³/ [ku³¹]	/ku⁴/ [ku²¹]		/nɯŋ⁵ ŋu⁶/ [nɯŋ²¹ ŋu²⁴]
younger sister	/muai⁶/ [muai²¹]				/muai⁵/ [muai²¹]

Cantonese and Guangsai Dialects Word List

Meaning	Cantonese			Guangsai
	Guangzhou	**Zhongshan**	**Foshan**	
airplane			/fɛi⁵ kəi⁵/ [fəi³³ kəiː³³]	
already		/liu⁴ si⁵/ [liːu³³ siː²²]	/tso⁴/ [tsoː²⁴]	
also	/tsou⁶/ [tsou²²]			
ant	/ŋai⁵/ [ŋaːi²⁴]	/ŋai⁵/ [ŋaːi²²]	/ŋai⁵/ [ŋaːi³³]	/ŋai⁵/ [ŋai²⁵]
ash			/lou³ fui⁵/ [lou²¹ fuiː³³]	
at			/tsɔ⁵/ [tsɔː³³]	
back		/pui⁴/ [puːi³³]	/pui¹ tsuoʔ²/ [puːi⁵² tsuoʔ⁴⁴]	
banana				/koŋ¹ tiau³/ [koŋ³³ tiau⁵²]
bar (classifier)		/thiu⁵/ [thiːu²²]		
bay		/wan⁴/ [waːn³³]		
beans	/tau⁵/ [taːu²⁴]	/tau³/ [taːu²⁴]	/tau⁴/ [taːu²⁴]	/tau⁴/ [tau²²]
benefit			/tsan³/ [tsaːn²¹]	
big			/tai⁶/ [taːi²²]	/tai⁷/ [tai²¹]
(to) bind				/biaŋ¹/ [biaŋ³³]
bird		/niɛu⁴/ [niɛu³³]		
(to) bite				/jau⁵/ [jau²⁵]
bitter		/fu³/ [fuː²⁴]		/wu¹/ [wu³³]
black				/hak³/ [hak⁵³]
blind		/maŋ²/ [maːŋ¹¹]		
(to) blow				/sin²/ [sin³¹] /tshui³/ [tshui⁵³]

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
(to) boil by heat		/kwan^3/ [kwaːn^{24}]		/bou^3/ [bou^{53}]
bone	/kwat^1/ [kwaːt^{44}]	/kwat^6/ [kwaːt^{44}]	/kwat^2/ [kwaːt^{44}]	
book				/sui^3/ [sui^{53}]
box				/ʔap^4/ [ʔap^{44}]
(to) break				/pau^1/ [pau^{33}]
(to) breathe in				/khap^6/ [khap^{44}]
breast		/hoŋ^1/ [hoːŋ^{52}]		
Buddha			/san^6/ [saːn^{22}]	
(to) buy			/mai^5/ [maːi^{33}]	/mai^6/ [mai^{21}]
car				/tshɛ^4/ [tshɛ^{22}]
(to) carry	/thɔk^1/ [thɔːk^{44}]	/pho^2/ [phoː^{11}]	/phou^5/ [phou^{33}]	/phau^5/ [phau^{25}]
				/mɛ^3/ [mɛ^{53}]
(to) carry by hand	/maŋ^1/ [maːŋ^{44}]	/maŋ^4/ [maːŋ^{33}]		/lai^3/ [lai^{53}]
(to) carry on the back			/toi^3/ [toi^{21}]	
cat		/mau^4/ [maːu^{33}]		/mau^2/ [mau^{31}]
charcoal		/than^5/ [thaːn^{22}]	/than^3/ [thaːn^{21}]	/than^6/ [than^{44}]
chest		/hoŋ^1/ [hoːŋ^{52}]		
(to) chop		/phɔ^4/ [phɔː^{33}]		/pho^4/ [phɔ^{22}]
clear				/thau^6 mɛŋ^1/ [thau^{44} mɛŋ^{33}]
clever			/pan^5 lai^2/ [paːn^{33} laːi^{44}]	
chair	/ji^3/ [jiː^{13}]		/ji^4/ [jiː^{24}]	
			/ i^4 tsɯ^3/ [iː^{24} tsɯː^{21}]	

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
(to) chance			/fan⁵/ [faːn³³]	
chicken	/kai¹/ [kaːi⁴⁴]	/kai¹/ [kaːi⁵²]	/kai¹/ [kaːi⁵²]	/kai⁶/ [kai⁴⁴]
chief				/tau⁴/ [tau²²]
children				/noŋ⁵/ [noŋ²⁵]
chili			/lat⁶ tsiu⁵/ [laːt²² tsiːu³³]	
Chinese lute		/kham²/ [khaːm¹¹]		
Chinese people name			/fan²/ [faːn⁴⁴]	
(to) close			/tshan¹/ [tshaːn⁵²]	
cloth	/pou⁴/ [pou³³]	/pou⁵/ [pou²²]	/pou⁵/ [pou³³]	/bu³/ [bu⁵³]
clothing	/ji¹ fok⁶ / [jiː⁴⁴ foːk²²]			
cocoyam	/wu⁶ thau⁵/ [wuː²² thaːu²⁴]	/wu⁴ thau³/ [wuː²² thaːu²⁴]	/wu³ thau⁴/ [wuː²¹ thaːu²⁴]	/ wu⁴ tau⁵/ [wu²² tau²⁵]
color	/sɛk¹/ [sɛːk⁴⁴]	/sɛk⁶/ [sɛːk⁴⁴]	/sɛk²/ [sɛːk⁴⁴]	/sɛk⁶/ [sɛk⁴⁴]
correct				/tui³/ [tui⁵³]
(to) cough	/khat¹/ [khaːt⁴⁴]	/khat⁶/ [khaːt⁴⁴]	/khat²/ [khaːt⁴⁴]	/khat⁶/ [khat⁴⁴]
(to) crawl	/lan²/ [laːn³¹]			/pa⁵/ [pa²⁵]
(to) cry		/hok⁶/ [hoːk⁴⁴]		
(to) cure	/ji¹/ [jiː⁴⁴]			/ji³/ [ji⁵³]
(to) cut				/tin¹/ [tin³³]
daytime				/jat⁴ tau⁶/ [jat²² tau⁴⁴]
deep				/sam³/ [sam⁵³]
deer	/lok⁶/ [loːk²²]	/lok⁵/ [loːk²²]	/lok⁶/ [loːk²²]	/lok¹/ [lok³³]

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
(to) deposit		/kɛi^4/ [kɛi^{33}]		
(to) die		/sɛi^3/ [sɛi^{24}]	/sɛi^4/ [sɛi^{24}]	
difficult	/nan^6/ [naːn^{22}]	/nan^5/ [naːn^{22}]	/nan^6/ [naːn^{22}]	/nan^5/ [nan^{25}]
(to) dig	/kwat^4/ [kwaːt^{33}]	/kwat^5/ [kwaːt^{22}]		/wiat^4/ [wiat^{22}]
diligent		/khan^2/ [khaːn^{11}]		
(to) divide			/fan^1/ [faːn^{52}]	
dog			/kau^4/ [kaːu^{24}]	
drug				/jiaŋ^7/ [jiaŋ^{21}]
(to) dry by shining		/sai^4/ [saːi^{33}]		/sai^4/ [sai^{22}]
duck	/phat^1/ [phaːt^{44}]	/phat^1/ [phaːt^{44}]		
	/ap^6/ [aːp^{22}]	/ap^6/ [aːp^{44}]	/ap^2/ [aːp^{44}]	
dust		/tshan^5/ [tshaːn^{22}]		
ear	/ji^5/ [jiː^{24}]		/ji^4/ [jiː^{33}]	
egg		/tan^3/ [taːn^{24}]	/tan^4/ [taːn^{24}]	
egg plant		/khɛ^3/ [khɛː^{24}]		
eight	/pat^4/ [paːt^{33}]	/pat^5/ [paːt^{22}]	/pat^5/ [paːt^{33}]	/ɓat^4/ [ɓat^{22}]
elephant	/tsəŋ^6/ [tsəːŋ^{22}]			
entwine			/kyn^3/ [kyːn^{24}]	
expectorate		/thou^4/ [thou^{33}]		
expensive			/kwai^5/ [kwaːi^{33}]	/kuaiʔ^4/ [kuaiʔ^{22}]
eyes				/ŋan^5/ [ŋan^{25}]

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
(to) fall	/loi⁶ / [loːi²²]			
(to) fan				/sin²/ [sin³¹]
far				/hɯɯŋ⁵/ [hɯɯŋ²⁵]
fast				/wai⁶/ [wai⁴⁴]
feather		/mou⁵/ [mou²²]		
field				/tsy³/ [tsy⁵³]
finger		/sau³ tsi³/ [saːu²⁴ tsiː²⁴]		
finished		/liu⁴ si⁵/ [liːu³³ siː²²]		
fire	/fɔ³/ [fɔː¹³]	/fɔ³/ [fɔː²⁴]		/wo¹/ [wɔ³³]
five	/ŋ³/ [ŋ¹³]	/ŋ⁵/ [ŋ²²]	/m̩⁶/ [m̩³³]	/ŋɯɯŋ⁵/ [ŋɯɯŋ²⁵]
flour		/fan³/ [faːn²⁴]	/fan⁴/ [faːn²⁴]	/fan¹/ [fan³³]
flower	/fa⁴/ [faː³³]	/fa⁴/ [faː³³]	/fa⁵/ [faː³³]	/wa³/ [wa⁵³]
(to) fly	/fɛi⁴/ [fɛi³³]	/fɛi⁴/ [fɛi³³]	/fɛi⁵/ [fɛi³³]	/fi³/ [fi⁵³]
foolish				/so⁴/ [sɔ²²]
forehead				/ŋak¹ tau⁴/ [ŋak³³ tau²²]
forest				/san⁴ pa⁶/ [san²² pa⁴⁴]
four	/səi⁴/ [səi³³]	/səi⁴/ [səi³³]	/si⁵/ [siː³³]	/si⁶/ [si⁴⁴]
full				/mun⁵/ [mun²⁵]
(to) give	/pəi⁵/ [pəi²⁴]			
ginger	/kəŋ¹/ [kəːŋ⁴⁴]			
gold				/kam⁶/ [kam⁴⁴]
good	/hou⁵/ [hou²⁴]	/hou³/ [hou²⁴]		

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
grandfather		/ŋæ^5/ [ŋæː^{22}]		
grandson			/syn^2/ [syːn^{44}]	
grave			/fan^3/ [faːn^{21}]	/fan^3/ [fan^{53}]
green	/tshæŋ^4/ [tshæːŋ^{33}]			
grieved		/sioŋ^1/ [sioŋ^{52}]	/sioŋ^5/ [sioŋ^{33}]	
grill	/siu^4/ [siːu^{33}]			
(to) guess		/tshai^1/ [tshaːi^{52}]		
hair	/thau^6 fat^6/ [thaːu^{22} faːt^{22}]	/thau^2/ [thaːu^{11}]	/thau^3/ [thaːu^{21}]	/tau^4 fat^6/ [tau^{22} fat^{44}]
hand	/sau^5/ [saːu^{24}]		/sau^4/ [saːu^{24}]	/sau^1/ [sau^{33}]
head				/tau^4/ [tau^{22}]
heart	/sam^4/ [saːm^{33}]			
hole	/jau^6/ [jaːu^{22}]			
horn	/kɔʔ^1/ [kɔːʔ^{44}]			/ŋau^4 kua^1/ [ŋau^{22} kua^{33}]
horse	/ma^3/ [maː^{13}]	/ma^4/ [maː^{33}]	/ma^5/ [maː^{33}]	
hot	/lat^6/ [laːt^{22}]			
human			/jan^3/ [jaːn^{21}]	
husked rice				/mai^5/ [mai^{25}]
I	/ŋɔ^3/ [ŋɔː^{13}]	/ŋɔ^3/ [ŋɔː^{24}]	/ŋɔ^3/ [ŋɔː^{21}]	/ki^5/ [ki^{25}]
			/khəi^4/ [khəi^{33}]	
idea	/səŋ^5/ [səːŋ^{24}]			
	/ji^4 kyn^4/ [jiː^{33} kyːn^{33}]			

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
ink		/mak^5/ [mak^{22}]		
iron			/thit^6/ [thiːt^{22}]	/thit^6/ [thit^{44}]
(to) itch			/han^3/ [haːn^{21}]	
(to) jest		/wan^4 siu^4/ [waːn^{22} siːu^{33}]		
(to) keep in the mouth	/ham^3/ [haːm^{13}]	/ham^3/ [haːm^{24}]	/ham^3/ [haːm^{21}]	
kidney	/kon^4 jiu^4/ [koːn^{33} jiːu^{33}]	/san^5/ [saːn^{22}]		
knife		/tou^1/ [tou^{52}]	/tou^5/ [tou^{33}]	/dou^3/ [dou^{53}]
label		/phai^2/ [phaːi^{11}]		
		/tsiɛu^1 phai^5/ [tsiɛu^{52} phaːi^{22}]		
(to) laugh		/siu^4/ [siːu^{33}]	/siu^5/ [siːu^{33}]	/siu^6/ [siu^{44}]
lazy		/lan^5/ [laːn^{22}]		/lan^5/ [lan^{25}]
leaf	/jip^4/ [jiːp^{33}]	/jip^5/ [jiːp^{22}]	/jip^6/ [jiːp^{22}]	/si^{4}jiap^1/ [si^{22} jiap^{33}]
left		/tsɔ^3/ [tsɔː^{24}]		
leg			/kiok^6/ [kiok^{22}]	
line		/pai^5/ [paːi^{22}]		
liquor				/tau^1/ [tau^{33}]
(to) listen	/thɛŋ^4/ [thɛːŋ^{33}]	/thiaŋ^4/ [thɛːŋ^{33}]		
long		/tshioŋ^2/ [tshioŋ^{11}]	/tshioŋ^3/ [tshioŋ^{21}]	/hau^1/ [hau^{33}]
(to) loose		/sy^4/ [tsyː^{33}]		
love		/oi^5 / [oːi^{22}]		/ʔuaiʔ^1/ [ʔuaiʔ^{33}]

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
low	/tin^3/ [tiːn^{13}]	/tin^3/ [tiːn^{24}] /tai^1/ [taːi^{52}] /tɯn^3/ [tɯːn^{24}]		/ʔai^5/ [ʔai^{25}]
man			/jan^3/ [jaːn^{21}]	
mat		/tsiak^5/ [tsiːak^{22}]		
meat	/jok^6/ [joːk^{22}]			
medicine				/jiaŋ^7/ [jiaŋ^{21}]
milk	/nai^3/ [naːi^{13}]		/nai^4/ [naːi^{33}]	
moon	/jyt^6 kɔŋ^1/ [jyːt^{22} kɔːŋ^{44}]			/jit^4 kuoŋ^3/ [jit^4 kuoŋ^{53}]
monk			/san^6/ [saːn^{22}]	
monkey	/ma^6 lou^1/ [maː^{22} lou^{44}]		/ma^5 lau^2/ [maː^{33} laːu^{44}]	
morning		/tsou^3/ [tsou^{24}]	/tsou^4 san^3/ [tsou^{24} saːn^{21}]	
mountain		/san^1/ [saːn^{52}]	/san^1/ [saːn^{52}]	
mouse				/lau^4 sy^1/ [lau^{22} sy^{33}]
mouth			/tsoi^3/ [tsoi^{24}]	/tui^1/ [tui^{33}]
mushroom	/ku^4/ [kuː^{33}]	/ku^6/ [kuː^{33}]		
narrow	/tsak^6/ [tsaːk^{22}]		/tsa^2/ [tsaː^{44}]	
near			/khan^5/ [khaːn^{33}]	
neck		/kiaŋ^3/ [kiaŋ^{24}]		
necklace		/sɔ^3 lin^3/ [sɔː^{24} liːn^{24}]		
nest		/tshou^2/ [tshou^{11}]		
night	/jɛ^6 man^5/ [jɛː^{22} maːn^{24}]	/ŋɛ^5 man^4/ [ŋɛː^{22} maːn^{33}]	/jɛ^6 man^5/ [jɛː^{22} maːn^{33}]	/ʔam^1/ [ʔam^{33}]

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
nine	/kau⁵/ [kau̱²⁴]		/kau³/ [kaːu²⁴]	/kau¹/ [kau³³]
noon		/tsoŋ⁴ m̩⁵/ [tsoːŋ³³ m̩²²]		
not	/m̩⁶/ [m̩²²]	/mo⁴/ [moː³³]	/m̩³/ [m̩²¹]	/ma⁵/ [ma²⁵]
obedient			/pan⁵ lai²/ [paːn³³ laːi⁴⁴]	
oil				/jau¹/ [jau³³]
one		/jat⁶/ [jaːt⁴⁴]	/jat²/ [jaːt⁴⁴]	
(to) open			/san⁵/ [saːn³³]	
outside				/ʔa⁴ ŋai⁷/ [ʔa²² ŋai²¹]
path		/lou⁵/ [lou²²]		
(to) peel		/phai¹ phəi⁵/ [phaːi⁵² phəi²²]		
pen			/pat²/ [paːt⁴⁴]	
perfect tense		/taʔ⁶/ [taʔ⁴⁴]		
pig	/tsy⁴/ [tsyː³³]		/tsy¹/ [tsyː⁵²]	/tsy³/ [tsy⁵³]
pot				/bau⁵/ [bau²⁵]
(to) pound				/tsui⁴/ [tsui²²]
powder		/tshan⁵/ [tshaːn²²]		/fan¹/ [fan³³]
pure				/thau⁶ mɛŋ¹/ [thau⁴⁴ mɛŋ³³]
quickly				/wai⁶/ [wai⁴⁴]
rabbit	/thou³/ [thou³³]		/thou⁵/ [thou³³]	
rain	/ju⁶/ [juː²²]	/ju³/ [juː²⁴]		/luaʔ⁴ sui¹/ [luaʔ²² sui³³]
rat				/lau⁴ sy¹/ [lau²² sy³³]

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
red	/hoŋ⁶ sɛk¹/ [hoːŋ²² sɛːk⁴⁴]	/hoŋ⁶/ [hoːŋ²²]		
(to) remove				/thyt⁶/ [thyt⁴⁴]
rice				/fan⁷/ [fan²¹]
ripe		/suk⁴/ [suːk³³]		/sok⁶/ [sok⁴⁴]
(to) roast	/siu⁴/ [siːu³³]			/wui³/ [wui⁵³]
(to) roll		/lok⁶/ [loːk⁴⁴]		
route		/lou⁵/ [lou²²]		
row		/pai⁵/ [paːi²²]		
(to) rub	/saŋ³/ [saːŋ²⁴]			/tshat⁴/ [tshat²²]
to rub (pot)				/saŋ¹/ [saŋ³³]
salt	/jim⁶/ [jiːm²²]			/jim¹/ [jim³³]
sand		/sa¹/ [saː⁵²]	/sa¹/ [saː⁵²]	/sa³/ [sa⁵³]
scrape	/sou⁴/ [sou³³]	/sou⁴/ [sou³³]		
(to) scratch			/phai³/ [phaː²¹]	/ŋau³/ [ŋau⁵³]
			/jau¹/ [jaːu⁵²]	
scrub off		/saŋ³/ [saːŋ²⁴]		/tshat⁴/ [tshat²²]
scrub off (pot)				/saŋ¹/ [saŋ³³]
(to) see	/kyn⁴/ [kyːn³³]			/muai⁴/ [muai²²]
seed				/wat⁶/ [wat⁴⁴]
(to) send			/soŋ⁵/ [soːŋ³³]	
seven	/tshat¹/ [tshaːt⁵⁵]	/tshat⁶/ [tshaːt⁵⁵]	/tshat²/ [tshaːt⁴⁴]	

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
(to) sew		/foŋ⁵/ [foːŋ²²]		
shallow				/thin⁶/ [thin⁴⁴]
(to) share			/fan⁶/ [faːn²²]	/fan⁶/ [fan⁴⁴]
short (low)	/tin³/ [tiːn¹³]	/tin³/ [tiːn²⁴] /tai¹/ [taːi⁵²] /tɯn³/ [tɯːn²⁴]		/ʔai⁵/ [ʔai²⁵]
silver	/ŋan³/ [ŋaːn¹³]	/ŋan³/ [ŋaːn²⁴]	/ŋan³/ [ŋaːn²¹]	
six		/lok⁴/ [loːk³³]	/lok⁶/ [loːk²²]	
skin	/phəi⁶/ [phəi²²]	/phəi⁵/ [phəi²²]	/phəi⁶/ [phəi²²]	
	/phəi⁶ fu¹/ [phəi²² fuː⁴⁴]	/phəi⁵ fu⁴/ [phəi²² fuː³³]		
small		/sai⁴/ [saːi¹³]	/sai⁵/ [saːi³³]	
(to) smell bad				/tsau³/ [tsau⁵³]
smoke	/jyn⁴/ [jyːn³³]		/jin¹/ [jiːn⁵²]	
snail		/lɔ³/ [lɔː²⁴]		
snake	/sæ⁶/ [sæː²²]	/sæ⁵/ [sæː²²]	/sæ⁶/ [sæː²²]	/sɛ⁵/ [sɛ²⁵]
soft				/nam⁴ nam⁶/ [nam²² nam⁴⁴]
sound		/siaŋ¹/ [siaŋ⁵²]	/sɛŋ²/ [sɛːŋ⁴⁴]	/sɛŋ²/ [sɛŋ³¹]
soup				/muo⁶/ [muo⁴⁴]
(to) sow		/san⁴/ [saːn³³]		
spicy	/lat⁶/ [laːt²²]	/lat⁵/ [laːt²²]		
(to) spit		/thou⁴/ [thou³³]		
(to) split		/phɔ⁴/ [phɔː³³]		/phɔ⁴/ [phɔ²²]
(to) spread out			/san⁵/ [saːn³³]	

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
star		/sɛŋ⁴/ [sɛːŋ³³]		
stick		/kwan⁴/ [kwaːn³³]		
stone	/saʔ⁶/ [saʔ²²]	/siak⁵/ [siak²²]	/tsuoʔ²/ [tsuoʔ⁴⁴]	
storey		/tshaŋ²/ [tshaːŋ¹¹]		
strong		/ŋaŋ⁵/ [ŋaːŋ²²]		
stupid				/so⁴/ [sɔ²²]
sun				/ŋat⁴ tau¹/ [ŋat²² tau³³]
				/thai² jiaŋ⁴/ [thai³¹ jiaŋ²²]
suspicious	/ji²/ [jiː³¹]		/ji³/ [jiː²¹]	
(to) sweep	/sou⁴/ [sou³³]	/sou⁴/ [sou³³]		
(to) sweep house		/su⁵ tiaŋ³/ [suː³³tiaŋ²⁴]	/su⁵ tiaŋ³/ [suː³³tiaŋ²⁴]	
sweet	/thim⁶/ [thiːm²²]	/thim⁶/ [thiːm²²]	/thim⁶/ [thiːm²²]	/tim¹/ [tim³³]
swelling	/tsoŋ⁵/ [tsoːŋ²⁴]			
(to) swing				/jiu¹/ [jiu³³]
tag		/phai²/ [phaːi¹¹]		
		/tsiɛu¹ phai⁵/ [tsiɛu⁵² phaːi²²]		
tail				/mi³/ [mi⁵³]
(to) take			/nɯŋ²/ [nɯːŋ⁴⁴]	
taro	/wu⁶ thau⁵/ [wuː²² thaːu²⁴]	/wu⁴ thau³/ [wuː²² thaːu²⁴]	/wu³ thau⁴/ [wuː²¹ thaːu²⁴]	/ wu⁴ tau⁵/ [wu²² tau²⁵]
tea	/tsha²/ [tshaː³¹]		/tsha³/ [tshaː²¹]	
ten	/sap¹/ [saːp⁴⁴]	/sap⁴/ [saːp³³]	/sap⁶/ [saːp²²]	/sap¹/ [sap³³]
thick				/hau⁵/ [hau²⁵]

Meaning	Cantonese			Guangsai
	Guangzhou	Zhongshan	Foshan	
thin		/pɔʔ⁵/ [pɔʔ²²]	/pɔʔ⁶/ [pɔʔ²²]	
thing	/jɛ⁴/ [jɛː³³]			
thousand	/man⁶/ [maːn²²]	/man⁵/ [maːn²²]	/man³/ [maːn²¹]	/tian⁶/ [tian⁴⁴]
three		/sam¹/ [saːm⁵²]	/sam¹/ [saːm⁵²]	/sam¹/ [sam³³]
(to) tie				/biaŋ¹/ [biaŋ³³]
tiger	/fu⁵/ [fuː²⁴]	/fu³/ [fuː²⁴]	/fu⁴/ [fuː²⁴]	
tired	/kui⁶/ [kuːi²²]	/kui²/ [kuːi¹¹]	/pa¹ lam⁶/ [paː⁵² laːm²²]	
tongue	/lɛi⁶/ [lɛi²²]			/li²/ [li²¹]
tooth				/ŋa⁵/ [ŋa²⁵]
				/tshɯ⁴/ [tshɯ²²]
(to) train				/fan²/ [fan³¹]
(to) tremble		/tsan⁴/ [tsaːn³³]		
(to) trickle (water tears)	/tou⁵/ [tou²⁴]			
(to) twist			/kyn³/ [kyːn²⁴]	
two	/ji⁶/ [jiː²²]	/ji⁵/ [jiː²²]	/ji⁶/ [jiː²²]	
umbrella				/tsɛ⁶/ [tsɛ⁴⁴]
uncle				/bɛk⁶/ [bɛk⁴⁴]
up (take something up)			/suoŋ⁵/ [suoŋ³³]	
voice		/siaŋ¹/ [siaŋ⁵²]	/sɛŋ²/ [sɛːŋ⁴⁴]	/sɛŋ²/ [sɛŋ³¹]
(to) walk		/haŋ²/ [haːŋ²²]		
water	/soi⁵/ [soːi²⁴]	/soi³/ [soːi²⁴]	/soi⁴/ [soːi²⁴]	

Meaning	Cantonese			Guangsai
	Guangzhou	**Zhongshan**	**Foshan**	
wear out	/kui^6/ [kuːi^{22}]	/kui^2/ [kuːi^{11}]	/pa^1 lam^6/ [paː^{52} laːm^{22}]	
white			/pak^6/ [paːk^{22}]	
wide	/hou^5 fu^6/ [hou^{24} fuː^{22}]			
(to) win				/jɛŋ^5/ [jɛŋ^{25}]
wind	/fou^1/ [fou^4]	/foŋ^1/ [foːŋ^{52}]	/foŋ^1/ [foːŋ^{52}]	/foŋ^3/ [foŋ^{53}]
wing	/jɛk^6/ [jɛːk^{22}]			
yellow		/wɔŋ^2/ [wɔːŋ^{22}]	/wɔŋ^3/ [wɔːŋ^{21}]	/wuaŋ^5/ [wuaŋ^{25}]
	/wɔŋ^2 sɛk^1/ [wɔːŋ^{31} sɛːk^{44}]		/wɔŋ^3 sɛk^2/ [wɔːŋ^{21} sɛːk^{44}]	
younger brother	/sai^4 lou^5/ [saːi^{33} lou^{24}]			/fai^7 lau^6/ [fai^{21} lau^{44}]
younger sister			/mui^4/ [muːi^{24}]	

APPENDIX B

GLOSSARY OF CHINESE WORD

	Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Amoy or Xiamen	Amoy is Hokkien dialect which originally comes from Southern Fujian province (in Southeast China), in the area centered around the city of Xiamen.	Xiàmén	Xia Men	厦门
Anfu	Anfu is an administrative district of the province of Jiangxi, China.	Ānfú	Anfu	安福
Anhua	Anhua is a place in Hunan.	Ānhuà	An Hua	安化
Anhui	Anhui province (Anhwei) in south central China	Ānhuī Mandarin pronunciation: [ánxwéi]	Anhui, Anhwei	安徽
Anren	Anren is a county of Chenzhou, Hunan, China.	Ānrénxiàn	Anren	安仁县
Anxiang	Anxiang is a county of Hunan, China.	Ānxiāng	An Xiang	安乡
Anyi	Anyi is a city of Nanchang, Jiangxi, China.	Ānyì	Anyi	安逸
Asia, Asian	Asia, Asian	yàzhōu	Asia; Asian	亚洲
Baojing	Baojing is a county of Hunan, China.	Bǎojìng	Baojing	保靖
Beijing	Beijing is a capital of People's Republic of China; one of the four municipalities	Běijīng	Beijing, Peking	北京
Beijing (Peking) Mandarin Group	Beijing Mandarin is the standard Chinese language in China.	Běijīngyǔyán	Beijing Yuyan	北京语言
Bobai	Bobai is a county of Guangxi, China	Bóbái	Bo Bai	博白
Central Min	Central Min according to wikipedia composed of Sanming prefecture	Mǐnzhōng	Min Zhong	闽中
Chaling	Chaling is a county of Hunan, China.	Chálíng	Chaling	茶陵
Changning	Changning is a city district of Hunan, China.	Chángníngshì	Changning	常宁市
Changsha	Changsha is the capital city of Hunan, a province of south-central China.	Chángshā	Changsha, Ch'angsha	长沙
Changsha city		Chángshāshì	Changshashi	长沙市
Changzhou	Changzhou is a prefecture-level city in southern Jiangsu province	Chángzhōu	Changzhou, Changchow	常州

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Changyi is a city prefecture of Weifang in the Chinese province of Shandong.	Chāngyì or Chángyì	Chang Yi	长益
Chao'an a county in eastern Guangdong Province.	Cháo'ān xiàn	Chao'an, Tio Ang, Tie Ang	潮安县
Cháoshàn refers to the linguistic and cultural region in the east of Guangdong, a southeastern province of China. It also consists of the cities of Shantou and Jieyang.	Cháoshān	Chao Shan	潮汕
Chaoyang is a district of Beijing, China.	Cháoyáng Qū	Chao Yang, Tio Io (Teochew)	潮阳区
Chaozhou is a city in eastern Guangdong province.	Cháozhōu	Chaozhou, Chiu Chow	潮州
Chengbu is a city of Hunan, China.	Chéngbù	Chengbu	城步
Chenghai or Tenghai is a district of the city of Shantou, Guangdong Province.	Chénghǎi, Thèng Hǎi	Cheng Hai, Theng Hai	澄海
Chengjiang county is located in Yuxi, Yunnan Province.	Chéngjiāng Xiàn	Chengjiang	澂江县, 澄江县
Chenxi is a city of Hunan, China.	Chénxī	Chenxi	辰溪
Chongren is a city of Jiangxi, China.	Chóngrén	Chongren	崇仁
Chongyang is a county of Hubei, China	Chóngyáng	Chongyang	重洋
Chuqu is a group of Southern Wu dialects.	Chùqú	Chuqu	处衢
Chuanshan is a district of Sichuan Province, China.	Chuánshān	Chuanshan	船山
Colloquial speech or spoken language of Chinese people.	Kuóyǔ	Kou Yu	口语

(Leftmost column — Name)

- Changyi
- Chao'an, Tio Ang, TieAng
- Chaoshan
- Chaoyang or Tio Io
- Chaozhou
- Chengbu
- Chenghai or Tenghai
- Chengjiang County
- Chenxi
- Chongren
- Chongyang
- Chuqu
- Chuanshan
- Colloquial speech

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Danyang is a county-level city administered by Zhenjiang in Jiangsu.	Dānyáng Shì	Danyang	丹阳市
Daye is a county-level city within the prefecture-level city of Huangshi, in eastern Hubei, China.	Dàyě	Daye	大冶
De'an is a city of Jiangxi, China.	Dé An	De An	德安
Dongkou is a county and a city in Hunan province in China.	Dòngkǒu	Dong Kou	洞口县
Dong'ou is a subdialect of Wu Chinese	Dōng Ōu	Dong Ou	东瓯片
Dongxiang is a county of Jiangxi, China.	Dōngxiāng	Dongxiang	东乡
Dongzhi is a county of Anhui, China.	Dōngzhìxiàn	Dongzhi	东至县
Duchang is a county under Jiujiang City in Jiangxi Province, China.	Dūchāng	Duchang	都昌
Eastern Min according to wikipedia composed of Fuzhou and Ningde prefectures.	Mǐndōng	Min Dong	闽东
Enping is a county-level city in Guangdong Province, China.	Ēnpíng	En Ping	恩平
Fengshun is a county in Meizhou, Guangdong Province.	Fēngshùn	Fengshun, Hongsung	丰顺
Fengxin is an administrative district of the province of Jiangxi, China.	Fèngxīn	Fengxin	奉新
Fenyi	Fēnyí	Fenyi	分宜
Fujian is a province on the southeast coast of China	Fújiàn	Fujian, Fukien	福建
Fuzhou is the capital and the largest municipality of Fujian.	Fúzhōu	Fuzhou	福州
Gan dialects are found mainly within Jiāngxǐ province	Gàn Yǔ	Gan	赣语
Gansu is between Xinjiang and Inner Mongolia in north China	Gānsù	Kansu, Gansu	甘肃
Gao'an is a city in the province of Jiangxi, China.	Gāo'ān	Gao An	高安
Gaolei is a subgroup of Yue dialect.	Gāoléixì	Gaoleixi	高雷系
Gaoyang is a subgroup of Yue dialect.	Gāoyángpiàn	Gaoyang	高扬片
Gaozhou is a county-level city in Maoming City, Guangdong province of southwest China.	Gāozhōu	Kochow, Gaozhou	高州

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Gengma Dai and Va Autonomous County is located in Lincang Prefecture, Yunnan, China.	Gěngmǎ dǎizú wǎzú Zìzhìxiàn	Gengma daizu wazu zizhixian	耿马傣族佤族自治县
Goulou is a subgroup of Yue dialect.	Gōulóupiàn	Gouloupian	勾漏片
Guangfu is a subgroup of Yue dialect.	Guǎngfǔpiàn	Guangfupian	广府片
Guangxi - Guangxi Zhuang autonomous region (Zhuang: Gvangjsih Bouxcuengh Swcigih) in southwest China on the border with Vietnam	Guǎngxī	Guangxi, Guangsi	广西 (广西壮族自治区)
Guanyang county in Guilin, Guangxi.	Guānyáng	Guang Yang	灌阳
Guangchang is a city of Jiangxi, China.	Guǎngchāng	Guangchang	广昌
Guangdong or Guangtung is a province on the southern coast of People's Republic of China.	Guǎngdōng Shěng	Guangdong, Guangtung	广东省
Guangzhou is subprovincial city and capital of Guangdong province in south China	Guǎngzhōu	Guangzhou	广州
Guichi is a city of Chizhou, Anhui, China.	Guīchí	Guichi	贵池
Guinan is a subgroup of Yue dialect			
Guixi is a county-level city in Yingtan Municipality, Jiangxi Province, in southeastern China.	Guìxī	Guixi	贵溪
Guizhou province in south central China	Guìzhōu	Kweichow, KwaiZhou	贵州
Guzhang is a place in Hunan.	Gǔzhàng	Guzhang	古丈
Haifeng is a county in southeastern China, and is part of Shanwei prefecture in Guangdong province.	Hǎifēng	Haifeng	海丰
Hainan is the smallest province of China.	Hǎinán	Hainan or Hailam	海南
Hangzhou is a city and capital of Zhejiang province in southeast China	Hángzhōu	Hang Zhou	杭州

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Hengdong is a county of Hunan, China.	Héngdōng	Heng Dong	衡东
Hengfeng is a county of Jiangxi, China.	Héngfēng	Hengfeng	横峰
Hengnan is a county of Hunan, China.	Héngnán	Heng Nan	衡南
Hengshan is a county of Hunan, China.	Héngshān	Heng Shan	衡山
Hengyang is the second largest city of China's Hunan Province.	Héngyáng	Heng Yang	衡阳
Hengyangyang	Héngyángyáng	Hengyangyang	衡阳阳
Hongjiang is a county-level city of Huaihua, Hunan, China.	Hóngjiāng	Hong Jiang	洪江
Hongjiang city	Hóngjiāngshì	Hongjiangshi	洪江市
Hong Kong is one of two special administrative regions (SARs) of the People's Republic of China (PRC).	Xiānggǎng	Hong Kong	香港
Huaining is a county in Anhui under the jurisdiction of Anqing city.	Huáiníng	Huaining	怀宁县
Huarong is the north-western county of Yueyang city in Hunan province, China.	Huáróng Xiàn	Huarong	华容县
Huayuan is a county of Hunan, China.	Huāyuán	Hua Yuan	花垣
Hubei province in central China	Húběi	Hupei	湖北
Huilai is a county under jurisdiction of Jieyang City, located in the southern Chinese province of Guangdong.	Huīlái	Hui Lai	惠来
Huitong is a city of Hunan, China.	Huìtóng	Huitong	会同
Huizhou is a subgroup of Hakka dialect.	Huìzhōupiàn	Huizhoupian	惠州片
Hukou is a city of Jiangxi, China.	Húkǒu	Hukou	户口
Hunan province in south central China.	Húnán	Hunan	湖南
Hunanese is a Chinese language spoken mainly in Hunan province	Húnánhuà	Hunan Hua	湖南话
Huzhou is a prefecture-level city in northern Zhejiang province	Húzhōu	Hu Zhou	湖州
Ji'an is a prefecture-level city in Jiangxi province of China.	Jí'ān	Ji'an	吉安
Jianggangshan is a city of Jiangxi, China.	Jiānggǎngshān	Jianggangshan	江冈山

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Jianghuai Mandarin or Xiajiang Mandarin	Jiānghuáihuà, Jiānghuái Yǔyán, Xiàjiāng Yǔyán	Jiang Huai	江淮话, 江淮语言, 下江语言
Jiangshan is a county-level city located in Quzhou prefecture, Zhejiang Province, China.	Jiāngshān	Jiangshan	江山
Jiangshan dialect is a dialect of the Chuqu Wu dialects	Jiāngshānhuà	Jiangshanhua	江山话
Jiangsu province in southeast China	Jiāngsū	Kiangsu	江苏
Jiangxi province in southeast China	Jiāngxī	Kiangsi	江西
Jiangyin is a city in China's Jiangsu province on the Yangtze River.	Jiāngyīn	Kiangyin, Jiangyin	江阴
Jiangyu is a city of Hubei, China.	Jiāngyù	Jiangyu	江郁
Jianli is a county of Jiangzhou, Hubei province, China.	Jiānlìxiàn	Jianli	监利县
Jianning lies in the municipal region of Sanming, Fujian.	Jiànníngxiàn	Jianning	建宁县
Jian'ou is a county-level city of Nanping in the Fujian of China.	Jiàn'ōu	Jian Ou	建瓯
Jianyang is a county-level city in Nanping prefecture in the northern part of Fujian province.	Jiànyáng	Jian Yang	建阳
Jiaoliao Mandarin is a dialect of Mandarin Chinese spoken on the Shandong, from Qingdao to Yantai, and Liaodong Peninsulas, from Dalian to Dandong, in northeast China)	Jiāoliáo guānhuà, Jiāoliáo Yǔyán	Jiaoliao guanhua, Jiaoliao Yuyan	胶辽官话, 脚镣语言
Jiaxing is a prefecture-level city in northern Zhejiang province	Jiāxīng	Jiaxing, Chia-hsing	嘉兴
Jieyang prefecture level city in Guangdong.	Jiēyáng	Jie Yang (Mandarin) Kiet Yong (Hakka) Kik Io (Teochew)	揭阳
Jiaying cluster is in Yuetai subgroup of Hakka dialect.	Jiāyíngxiǎopiàn	Jiaying xiaopian	家蝇小片

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Jilu Mandarin is Mandarin dialect spoken in the Chinese provinces of Hebei and Shandong	Jìlǔguānhuà	Jilu guanhua	冀鲁官话
Jin dialect is one subdialect of Madarin dialects group	Jìn Yǔ	Jin Yu	晋语
Jing'an is in Yichun of Jiangxi, China.	Jìng'ān	Jing'an	靖安
Jingdezhen is a prefecture-level city, previously a town, in Jiangxi Province, China.	Jǐngdézhèn	Jingdezhen	景德镇
Jingjiang is a county-level city in China's Jiangsu province.	Jìngjiāng	Jing Jiang	靖江
Jingle is a county in Xinzhou, Shanxi.	Jìnglè	Jingle	静乐
Jinhua is a prefecture level city in Zhejiang	Jīnhuá	Jinhua, Chin-hua	金华
Jinxi is a city of Jiangxi, China.	Jǐnxī	Jinxi	金溪
Jinxian is a city of Jiangxi, China.	Jìnxián	Jinxian	进贤
Jinxiang dialect is in a Taihu Wu dialect.	Jīnxiāng	Jinxiang	金厢话
Jishou is a county-level city and the seat of Xiangxi Tujia and Miao Autonomous Prefecture in Hunan province.	Jíshǒu	Ji Shou	吉首
Jishui is a county located on the Gan River Ji'an city, Jiangxi province, China.	Jíshuǐ Xiàn	Jishui	吉水县
Jiujiang is a prefecture level city in Jiangxi	Jiǔjiāng	Chiuchiang, Kiukiang	九江
Jixu is a subdialect of Xiang Chinese.	Jíxù	Jixu	吉溆
Kaiping is a county-level city in Guangdong Province, southern China.	Kāipíng	Kai Ping	开平
Kunming is a capital city of Yunnan.	Kūnmíng	Kunming	昆明
Lannang is the Philippine variant of Hokkien.	Lán-nâng-ōe	Lannang	咱人話
Lan-Yin Mandarin spoken in Gansu province and Ningxia autonomous region	Lányīnhuà, Lányīn Yǔyán	Lan -Yin	兰因话, 兰因语言

(Row labels, first column:) Jilu Mandarin; Jin Dialects; Jing'an; Jingdezhen; Jingjiang; Jingle; Jinhua; Jinxi; Jinxian; Jinxiang dialect; Jishou; Jishui; Jiujiang; Jixu; Kaiping; Kunming; Lannang; Lan Yin Mandarin

	Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Le'an	Le'an is a county of Fuzhou, Jiangxi, China.	Lè'ān	Le'an	乐安
Leiyang	Leiyang is a county-level city in Hengyang, Hunan in China.	Léiyáng	Leiyang	耒阳
Leizhou	Leizhou is a county-level city in Guangdong in southern China.	Léizhōu Shì	Lei Zhou	雷州市
Lengshuijiang	Lengshuijiang is a county-level city in Hunan province.	Lěngshuǐjiāng	Leng Shui Jiang	冷水江市
Leping	Leping is a city district of Jiangxi, China.	Lèpíng	Leping	乐平
Lianhua	Lianhua is a city of Jiangxi, China.	Liánhuā	Lianhua	莲花
Lianyuan	Lianyuan is a city in Loudi, Hunan province in China.	Liányuán	Lian Yuan	涟源
Liling	Liling is a county-level city in the eastern part of Hunan, China.	Lílíng	Liling	醴陵
Linchuan	Linchuan is an administrative district of Jiangxi, China.	Línchuān Qū	Linchuan	临川区
Linxian	Linxian is a city of Hunan, China.	Línxiàn	Linxian	邻县
Linxiang	Linxiang is a city of Yueyang, Hunan, China.	Línxiāngshì	Linxiang	临湘市
Lishui	Lishui is a city in Zhejiang, China.	Lìshuǐ	Lishui	丽水
Liuyang	Liuyang is a county-level city in Changsha, the capital of Hunan.	Liúyáng	Liu Yang	浏阳
Longhui	Longhui is a county of Hunan, China.	Lónghuí	Long Hui	隆回
Longling	Longling is one city in Yunnan.	Lónglíng Xiàn	Long Ling	龙陵县
Loudi	Loudi is a city located in central Hunan province, China.	Lóudǐ	Lou Di	娄底
Loushao	Loushao is a subdialect of Xiang Chinese.	Lóushào	Loushao	娄邵
Lufeng	is located in Chuxiong Yi Autonomous Prefecture, Yunnan province, China.	Lùfēng Xiàn	Lu Feng Xian	陆丰县
Luhai	Luhai is a subgroup of Chaozhou dialect.	Lùhǎi	Luhai	陆海
Luqi	Luqi is a subdialect of Xiang Chinese.	Lúqī	Luqi	泸溪
Makau, Macau	Makau or Macau is one of China's two special administrative regions, China.	Àomén	Makau, Macau	澳门
Manchuria	Manchuria	Mǎnzhōu	Manchuria	满洲
Mandarin	Mandarin	Guān Huà / Běifāng Huà	Guan Hua / Bei Fang Hua	官话: / 北方话

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Mayang — Mayang Miaozu autonomous county in Hunan Mayang Miaozu autonomous county in Hunan.	Máyáng	Ma Yang	麻阳
Meihsien, Meixian — Meixian county is in Meizhou, Guangdong. It is standard Hakka.	Méixiàn	Moi-yan, Mei-hsien, Mei-Xian	梅县
Min dialect — Min or Min is the name of Chinese language which is spoken by Chinese people in the southeastern Chinese province of Fujian.	Min yǔ	Min Yu	闽语
Miluo — Miluo is a county-level city in China in the Province of Hunan.	Mìluó	Mi Luo	汨罗
Muang Hai — Muang Hai is the city of Xishuagbanna Autonomous Region of Tai Ethnic Group in Yunnan.	Měnghǎi	Muang Hai	孟海县
Nan Ao — Nan'ao county is in Shantou, Guangdong.	Nán'ào	Nan Ao	南澳
Nanchang	Nánchāng	Nanchang	南昌
Nanchang city — Nanchang is the capital of Jiangxi Province in southeastern China.	Nánchāngshì	Nanchangshi	南昌市
Nancheng — Nancheng is a city of Jiangxi, China.	Nánchéng Xiàn	Nancheng	南城县
Nanfeng — Nanfeng is a city of Jiangxi, China.	Nánfēng	Nanfeng	南丰
Nanning — Nanning is a prefecture level city and capital of Guangxi Zhuang autonomous region in south China	Nánníng	Nanning	南宁 (广西壮族自治区)
Nanping — Nanping is a prefecture-level city in northwestern Fujian, China.	Nánpíng	Nanping	南平
Nan'ao or Nam Or — Nan'ao is a county in Shantou, Guangdong, China	Nán'ào xiàn	Nan'ao xian, Nam Or (Teochew)	南澳县
Nanxian — Nanxian is a city of Xiang Chinese.	Nánxiàn	Nanxian	南县
Nantong — Nantong is a prefecture-level city in Jiangsu province	Nántōng	Nantung, Tongzhou	南通
Ningbo — Ninbo is a seaport with sub-provincial administrative status and is located on the northeastern of Zhejiang province, China	Níngbō	Ning-po	宁波
Ningde — Ningde is a prefecture-level city located along the northeastern coast of Fujian province, China.	Níngdé	Ningde	宁德
Ninggang — Ninggang is a city of Jiangxi, China.	Nínggǎng	Ninggang	宁冈
Ninglong subgroup — Ninglong is a subgroup of Hakka dialect.	Nínglóngpiàn	Ninglongpian	宁龙片

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Ningxia Hui autonomous region in Gansu	Níngxià	Ningsia	宁夏
Ningxiang is a county of Changsha, the capital of Hunan province.	Níngxiāng	Ning Xiang	宁乡
Northeastern Mandarin has been renamed as Jilu Mandarin	Dōngběi Yǔyán, Dōngběihuà	Dong Bei Yu Yan, Dongbeihua	东北语言, 东北话
Northern Mandarin or Beijing Mandarin	Běifāng Yǔyán, Běifānghuà	Bei Fang Yu Yan, Beifanghua	北方语言, 北方话
Northern Min according to Bramer (2000) composed of Jianyang, Jian ou, Shaowu, and etc.	Mǐnběi fāngyán	Minbei fangyan	闽北方言
Oujiang is a subdialect of Wu Chinese.	Ōujiāng	Oujiang	瓯江
Pengze is a county under Jiujiang City in Jiangxi Province, China.	Péngzé	Pengze	彭泽县
Pingjiang is a county in the municipal region of Yueyang, Hunan.	Píngjiāng	Ping Jiang	平江
Pingxiang is a medium-sized prefecture-level city located in western Jiangxi province, China.	Píngxiāng	Pingxiang, Ping-Shang	萍乡
Poyang located in Jiangxi, China.	Póyáng	Poyang	鄱阳
Puning is a county-level city in the municipal region of Jieyang, Guangdong.	Púníng	Puning (mandarin) Phouleng(Teochew)	普宁市
Putian is a prefecture-level city in eastern Fujian province.	Pǔtián	Pu Tian	莆田
Puxian is a subcategory of Min Chinese.	Púxiān huà	Puxian	莆仙话
Puxin is a city of Hubei, China.	Pǔxīn	Puxin	浦新
Qianshan is a county in Anhui under the jurisdiction of Anqing.	Qiánshān	Qianshan	潜山县
Qianyang is a county of Baoji, Shanxi, China.	Qiányáng	Qianyang	黔阳
Qidong is a county of Hunan, China.	Qidōng	Qi Dong	祁东
Qihai is a Wu Chinese dialect spoken in Tongzhou and Haimen.	Qíhǎihuà	Qihaihua	齐海话
Qinghai province in west China	Qīnghǎi shěng	Tsinghai, Qinghai	青海省
Qingjiang is a city of Jiangxi, China.	Qīngjiāng	Qingjiang	清江
Qingtiang dialect is a dialect of the Chuqu Wu dialects	Qīngtiánhuà	Qingtianhua	菁田话

(Row labels from leftmost column: Ningxia Hui, Ningxiang, Northeastern Mandarin, Northern Mandarin, Northern Min, Oujiang, Pengze, Pingjiang, Pingxiang, Poyang, Puning or Phouleng, Putian, Puxian Min, Puxin, Qianshan, Qianyang, Qidong, Qihai, Qinghai, Qingjiang, Qingtian dialect)

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Qinlian group	Qinlian is a subgroup of Yue dialect.	Qínliánxī	Qinlianxi	钦廉希
Qinzhou	Qinzhou is a municipal region in Guangxi.	Qīnzhōu	Ch'in-chou, Qinzhou	钦州
Qiongwen	Qiongwen is a variety of Min Nan Chinese spoken in the southern Chinese island province of Hainan	Qióngwén	Qiongwen	琼文
Qiongzhou	Qionzhou is one of the four county-level districts which make up the city of Haikou, the capital of Hainan province of China.	Qióngzhōu	Qiongzhou	琼州
Qiyang	Qiyang is a county of Hunan, China.	Qíyáng	Qi Yang	祁阳
Quanzhou	Quanzhou prefecture level city in Fujian.	Quánzhōu	Quang Zhou	泉州
Quzhou	Quzhou is a prefecture-level city in southwestern Zhejiang, China.	Qúzhōu	Qu Zhou	衢州
Quzhou dialect	Quzhou dialect is a dialect of the Chuqu Wu dialects.	Qúzhōuhuà	Quzhouhua	衢州话
Raoping or Jiaopheng	Raoping is a county in eastern Guangdong Province.	Ráopíng Xiàn	Rao Ping, Jiaopheng(Teochew)	饶平县
Rongxian	Rongxian is a county in Yulin, in the province of Guangxi.	Róngxiàn	Rong Xian	容县
Sanming	Sanming is a prefecture-level city in western Fujian, China.	Sānmíng	Sanming	三明
Sichuan	Sichuan province in southwest China	Sìchuān shěng	Szechuan, Szechwan	四川省
Shandong	Shandong province in northeast China	Shāndōng	Shantung	山东
Shanggao	Shanggao is a city of Jiangxi, China.	Shànggāo	Shanggao	上高
Shanghai	Shanghai is a municipality in southeast China	Shànghǎi	Shang Hai	上海
Shanghainese	Shanghai dialect is a dialect of Wu Chinese spoken in the city of Shanghai and the surrounding region.	Shànghǎihuà	Shanghaihua	上海话
Shangrao	Shangrao is a medium-sized prefecture-level city located in the northeast of China's Jiangxi province.	Shàngráo	Shangrao	上饶
Shantou	Shantou is a city in coastal Eastern Guangdong.	Shàntóu	Swatow or Suatao	汕头
Shanwei	Shanwei is a prefecture-level city in Guangdong province.	Shànwěi	Shan Wei	汕尾
Shanxi	Shanxi province in north China between Hebei and Shaanxi	Shānxī	Shansi, Shanxi	山西

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Shaodong — Shaodong is a county of Hunan, China.	Shàodōng	Shao Dong	邵东
Shaojiang — Shaojiang is a collection of mutually intelligible dialects of Min Chinese centered on eastern Nanping in northwestern Fujian, China.	Shàojiāng	Shaojiang	邵将
Shaonan cluster — Shaonan cluster is in Yuetai subgroup of Hakka dialect.	Shàonánxiǎopiàn	Shaonan xiaopian	绍南小片
Shaowu — Shaowu county level city in Nanping, Fujian.	Shàowǔ	Shaowu	邵武
Shaoxing — Shaoxing is a prefecture level city in Zhejiang	Shàoxīng	Shao-hsing	绍兴
Shaoyang — Shaoyang is a prefecture-level city in Hunan province.	Shàoyáng	Shao Yang	邵阳
Shaoyang city	Shàoyángshì	Shaoyangshi	邵阳市
Shexi — Shexi is a town in Jiangxi in China.	Shèxī	Shexi	社溪
Shitai — Shitai is a county of Chizhou, Anhui, China.	Shítáixiàn	Shitai	石台县
Shuangfeng — Shuangfeng is a dialect of the Xiang language family which spoken in Hunan.	shuāngfēng huà	Shuangfenghua	双峰话
Sichuan — Sichuan is a province in Southwestern China with its capital in Chengdu.	Sìchuān	Szechwan or Szechuan	四川
Simao district — Simao is one district of Yunnan.	Sīmáo Qū	Si Mao	思茅区
Sino – Tibetan language family	hàn zàng	Han Zang	汉藏
Si Yi, Sze Yup, Sze Yap, Seiyap — Si Yi (in Mandarin) refers to the four counties of Xinhui, Taishan, Kaiping and Enping in the Pearl River Delta, in southern Guangdong Province, China.	Sì-Yì	Si Yi	西邑
Southern Min — Southern Min according to Branner (2000) composed of Amoy, Teochew and Taiwan.	Mǐnnán fāngyán	Minnan fangyan	閩南方言
Spoken language — Spoken language or Colloquial speech	Kuóyǔ	Kou Yu	口语
Suining — Suining is a prefecture-level city within mountainnous Sichuan province in the South of China.	Suíníng	Suining	遂宁

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Southwestern Mandarin or called Xi Nan Mandarin group	Xīnánhuà, Xīnán Yǔyán	Xinanhua Xinan Yu Yan	西南话, 西南语言
Suichuan is an administrative district of the province of Jiangxi, China.	Suíchuānxiàn	Suichuan	遂川县
Susong is a county of Anhui, China.	Sùsōngxiàn	Susong	宿松县
Suahou is a prefecture-level city on the lower reaches of the Yangtze River and on the shores of Taihu Lake in Jiangsu.	Sūzhōu	Suzhou, Suchou	苏州
Swatou or Swatow is is a city in coastal Eastern Guangdong, China.	Shàntóu	Shantou	汕头
Taihe is an administrative district of Jiangxi, China.	Tàihé Xiàn	Taihe	泰和县
Taihu lake near Wuxi City.	Tàihú	Taihu	太湖
Taining is a county in Sanming City, Fujian Province of China.	Tàiníng Xiàn	Taining	泰宁县
Taishan is a giant panda born at the Smithsonian National Zoological Park.	Tàishān	Taishan	泰山
Taiwan is an island situated in East Asia in the Western Pacific Ocean and located off the southeastern coast of mainland China.	Táiwān	Taiwan	台湾
Taizhou is a prefecture-level city in middle eastern Zhejiang.	Tàizhōu	Taizhou	台州
Taojiang is a city which spoken Xing Chinese.	Táojiāng	Taojiang	桃江
Teochew language is spoken in Chaozhou of Guangdong.	Cháozhōuhuà	Chaozhou, Chiu Chow	潮州话
Tingzhou is a subgroup of Hakka dialect.	Tīngzhōupiàn	Tingzhoupian	汀州片
Tongcheng is the governmental seat and namesake of a county in Xianning Municipality, Hubei, China.	Tōngchéng	Tongcheng	通城
Tongshan is a county within the Municipality of Xianning, Hubei Province of China.	Tōngshān Xiàn	Tongshan	通山县

(Row labels left column: Southwestern Mandarin; Suichuan; Susong; Suzhou; Swatou, Swatow, Shantou; Taihe; Taihu; Taining; Taishan; Taiwan; Taizhou; Taojiang; Teochew; Tingzhou subgroup; Tongcheng; Tongshan)

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Tonggu is an administrative district of the province of Jiangxi, China.	Tónggǔ	Tonggu	铜鼓
Wan'an is an administrative district of the province of Jiangxi, China.	Wàn'ān Xiàn	Wan'an	万安县
Wangcheng is a county of Changsha, the capital of Hunan, China.	Wàngchéng xiàn	Wang Cheng	望城县
Wangjiang is county in Anqing, Anhui, China	Wàngjiāng xiàn	Wangjiang	望江县
Wannian is a county under the jurisdiction of Shangrao City in Jiangxi, China.	Wànnián	Wannian	万年
Wanzai is a county of Yichun in the Chinese province of Jiangxi.	Wànzài	Wanzai	万载
Wenzhou is a prefecture level city in Zhejiang	Wēnzhōu	Wen Zhou	温州
Wuning is a county under Jiujiang City in Jiangxi Province, China	Wǔníng	Wuning	武宁
Wugang is a city of Hunan, China.	Wǔgāng	Wugang	武冈
Wuhua is a subgroup of Yue dialect.	Wúhuàpiàn	Wuhuapian	吴化片
Wuxi is an old city in Jiangsu province	Wúxī	Wuxi, Wusi, Wushi	无锡
Wuzhou is a prefecture-level city in China's Guangxi Zhuang Autonomous Region.	Wúzhōu	Wuzhou	梧州
Xiajiang is an administrative district of the province of Jiangxi, China.	Xiájiāng Xiàn	Xiajiang	峡江县
Xiang is a Chinese language spoken mainly in Hunan province.	Xiāng Yǔ	Xiang or Hsiang	湘语
Hsingan or Xing'an county in Guilin , Guangxi.	Xīng'ān	Xing An	兴安
Xiangtan is a city in China's Hunan Province that is located on the lower reaches of Xiang river.	Xiāngtán	Xiangtan, Hsiang-tan	湘潭
	Xiāngtánshì	Xiangtanshi	湘潭市
Xiangxiang is city in Hunan.	Xiāngxiāng	Xiang Xiang	湘乡
Xiangyin is a county of Hunan, China. It is under the administration of Yueyang city.	Xiāngyīn	Xiang Yin	湘阴

Name and Meaning	Pinyin	Wade—Giles (English speaking)	Simplified Chinese
Xianning is a prefecture-level city in China's Hubei province.	Xiánníng	Xianning	咸宁
Xiamen also known as Amoy is a coastal city in southeastern China.	Xiàmén	Xia Men	厦门
Xi River is the western tributary of the Pearl River in China.	Xījiāng	Xijiang	西江
Xingan is an administrative district of the province of Jiangxi, China.	Xīngān	Xingan	新干
Xinghua cluster is in Yuetai subgroup of Hakka dialect.	Xìnghuàxiǎopiàn	Xinghua xiaopian	兴化小片
Xingzi is a county under Jiujiang City in Jiangxi Province, China.	Xīngzǐ	Xingzi	星子
Xinhua is a city and county in Hunan.	Xīnhuà	Xin Hua	新化
Xinhui is a City district of the City of Jiangmen in the province of Guangdong in southern China.	Xīnhuì	Xin Hui	新会
Xinhui cluster is in Yuetai subgroup of Hakka dialect.	Xīnhuìxiǎopiàn	Xinhui xiaopian	新惠小片
Xinjian is a city of Jiangxi, China.	Xīnjiàn	Xinjian	新建
Xinning is a place in Hunan.	Xīnníng	Xin Ning	新宁
Xinshao is a county of Hunan, China.	Xīnshào	Xin Shao	新邵
Xinyu is a prefecture-level city in west-central Jiangxi province.	Xīnyú	Xinyu	新余
Xishuagbanna Autonomous Region of Tai Ethnic Group is one ethnic group in Yunnan.	Xīshuāngbǎnnà dǎizú Zìzhìzhōu	Xishuagbanna	西双版纳傣族自治州
Xiushui is a city of Jiangxi, China.	Xiùshuǐ	Xiushui	秀水
Xuancheng is a prefecture-level city in southeastern Anhui province.	Xuānchéng	Xuancheng	宣城
Xuanzhou is a district in Anhui under the jurisdiction of Xuancheng.	Xuānzhōu (Qū)	Xuan Zhou	宣州（区）
Xupu is a county of Hunan, China.	Xùpǔ	Xu Pu	溆浦
Yangxin is a county within the prefecture-level city of Huangshi in China's Hubei province.	Yángxīn Xiàn	Yangxin	阳新县
Yichun is a mountainous prefecture-level city in the Chinese province of Jiangxi.	Yíchūn	Yichun, I-ch'un	宜春

Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Yifeng	Yifeng is an administrative district of the province of Jiangxi, China.	Yífēng	Yifeng	宜丰
Yihuang	Yihuang is a county of Jiangxi, China.	Yíhuáng	Yihuang	宜黄
Yingtan	Yingtan is a prefecture-level city in the east part of China's Jiangxi	Yīngtán	Yingtan	鹰潭
Yiyang	Yiyang is a city at the Zi River in Hunan province.	Yíyáng	Yi Yang	益阳
Yiyang city	Yiyang is a city at the Zi River in Hunan province.	Yìyángshǐ	Yiyangshi	益阳市
Yong'an	Yong'an is a county-level city in Fujian province.	Yǒng'ān	Yung-an	永安
Yongfeng	Yongfeng is an administrative district of the province of Jiangxi, China.	Yǒngfēng Xiàn	Yongfeng	永丰县
Yongkang	Yongkang is a county-level city located in the central part of Zhejiang Province.	Yǒngkāng	Yongkang, Yungk'ang	永康
Yongxin	Yongxin is a county of Jiangxi, China.	Yǒngxīn	Yongxin	永新
Yongxing	Yongxing is a county of Chengzhou, Hunan, China.	Yǒngxīngxiàn	Yongxing	永兴县
Yongxiu	Yongxiu is a county in Jiujiang, Jiangxi, China.	Yǒngxiū	Yongxiu	永修
Youxian	Youxian is a county of Hunan, China.	Yōu Xiàn	Youxian	攸县
Yuanjiang	Yuanjiang is a county-level city of Yiyang, Hunan, in China.	Yuánjiāng	Yuan Jiang	沅江
Yuanling	Yuanling is a county of Hunan, China.	Yuánlíng	Yuan Ling	沅陵
Yuebei subgroup	Yuebei is a subgroup of Hakka dialect.	Yuèběipiàn	Yuebeipian	粤北片
Yuehai group	Yuehai group is a subgroup of Yue dialect.	Yuèhǎixì	Yuehaixi	粤海系
Yuetai subgroup	Yuetai subgroup of Hakka dialect.	Yuètáipiàn	Yuetaipian	粤台片
Yuexi	Yuexi is a county in Anhui under the jurisdiction of Anqing City.	Yuèxī Xiàn	Yuexi	岳西县
Yueyang	Yueyang is a prefecture-level city in the Hunan province of China.	Yuèyáng	Yueyang, Yüeh-yang, Yochow	岳阳
Yueyang city	Yueyang is a prefecture-level city in the Hunan province of China.	Yuèyángshǐ	Yueyangshi	岳阳市
Yue Yu	Yue or Cantonese dialect is spoken in the southern part of China.	Yuèyǔ	Yue Yu	粤话
Yuezhong subgroup	Yuezhong is a subgroup of Hakka dialect.	Yuèzhōngpiàn	Yuezhongpian	粤中片
Yugan	Yugan is an administrative district of Jiangxi, China.	Yúgān Xiàn	Yugan	余干县

	Name and Meaning	Pinyin	Wade–Giles (English speaking)	Simplified Chinese
Yugui subgroup	Yugui is a subgroup of Hakka dialect.	Yúguìpiàn	Yuguipian	于桂片
Yujiang	Yujiang is a county in Jiangxi, China.	Yújiāng	Yujiang	余江
Yulin	Yulin is one of the fourteen prefecture-level cities of Guangxi autonomous region, in China.	Yùlín	Yulin	玉林
Yunnan	Yunnan province in southwest China	Yúnnán	Yunnan	云南
Yushan	Yushan is a county in the northeast of Jiangxi province, China.	Yùshān	Yushan	玉山
Zhangzhou	Zhangzhou is a prefecture-level city in southern Fujian, China.	Zhāngzhōu	Zhangzhou	漳州
Zhejiang	Zhejiang is in the east of China	Zhèjiāng	Chekiang, Che-chiang	浙江
Zhenjiang	Zhenjiang is a prefecture-level city in the southwestern Jiangsu.	Zhènjiāng	Chen-chiang	镇江
Zhenkang	Zhenkang is located in Lincang Prefecture, Yunnan, China.	Zhènkāngxiàn	Zhenkang	镇康县
Zhongyuan Mandarin	Zhongyuan Mandarin is a dialect of Mandarin Chinese spoken in the central part of Shaanxi, Henan, and southern part of Shandong.	Zhōngyuán guānhuà, Zhōngyuán Yǔyán	Zhongyuan	中原官话, 中原语言
Zhoushan	Zhongshan is a prefecture-level city in northeastern Zhejiang.	Zhōushān	Zhou Shan	舟山
Zhuzhou	Zhuzhou is a city in Hunan Province.	Zhūzhōu	Zhu Zhou	株洲
Zixi	Zixi is a city of Jiangxi, China.	Zǐxī	Zixi	资溪
Zixing	Zixing is a city of Chengzhou, Hunan, China.	Zǐxīng	Zixing	资兴市
Ziyuan	Ziyang is a county of Guangxi, China.	Zǐyuán	Zi Yuan	资源

APPENDIX C
THE LIST OF INFORMANT

1. List of Yunnanese Informants

    1. Mr. Phichai Taveeapiradeewiroj   ages 63   Chiangmai

    2. Mrs. Nawak Sae Na   ages 77   Chiangrai

    3. Mrs. Meiling Sae Hwang   ages 59   Chiangrai

    4. Mrs. Wáng Pí Yīn   ages 79   Chiangrai

    5. Mrs. Patcharee Charoensuk   ages 41   Chiangrai

    6. Mr. Zhang Guo Qiang   ages 56   Chiangrai

    7. Mr. Nikorn Masakul   ages 55   Chiangrai

    8. 岳永延 (Yuè Yǒng Yán)   ages 40   Chiangrai

    9. Mr. Paisal Phongmaksuk   ages 42   Bangkok

    10. Ms. Péng Húa   ages -   Samutprakan

2. List of Hakka Informants

    11. Mr. Suichan Sae Liew   ages 76   Chiangmai

    12. Mr. Krit Yiammethakorn   ages 42   Chiangmai

    13. Mr. Boonthong Yothawut   ages 76   Chiangrai

    14. Ms. Noi at Hongsun Association Lampang ages 50   Lampang

    15. Mr. Suraphong Lorlerttham   ages 60   Nakhonsawan

    16. Mr. Lor Phutthikulangkoon   ages 76   Nan

    17. Mrs. Matchima Theerathanakorn   ages 50   Phayao

    18. Mrs. Surangkhana Weerayakietyeunyong ages 66   Phayao

    19. Mr. Wanchai Korwutthiphong   ages 65   Phitsanulok

    20. Mr. Prasat Nopparatkosai   ages -   Phrae

    21. Mr. Kaew Sae Kor   ages 53   Sukhothai

22. Mr. Suraphol Atsawawirunkan	ages	-	Uthaithani
23. Mr. Mongchiang Sae Tiew	ages	81	Uttaradit
24. Mr. Suphoj Wattanawongsathien	ages	-	Buriram
25. Mr. Boonsong Janewechprasert	ages	57	Khonkaen
26. Mr. Thanakit Srisantisuk	ages	65	Nakhonratchasima
27. Mr. Taweesak sanpechudayan	ages	71	Surin
28. Mr. Nopporn Aungsaichua	ages	63	Ubonratchathani
29. Mr. Suppachai Chansuriyawich	ages	69	Udonthani
30. Mr. Wibool Thanawiboolphol	ages	79	Bangkok
31. Mrs. Pornpinun Kositsornwanee	ages	58	Bangkok
32. Mr. Wichian Tangsathitkiet	ages	66	Bangkok
33. Mr. Surasak Wongwiwatwaithaya	ages	-	Nakhon Pathom
34. Mr. Nitasakorn Shiwaruangrote	ages	55	Pathumthani
35. Mr. Taweesak Thanasanthamrongsak	ages	71	Phetchaburi
36. Mr. Phongphiphat Chatupattanakul	ages	54	Ayutthaya
37. Mr. Charuphong K.Srisuwan	ages	70	Ratchaburi
38. Mrs. Siewki Rojrungruang	ages	65	Samutsakhon
39. Mr. Wicha Phanomrattanarak	ages	-	Saraburi
40. Mr. Thaisilp Siwichai	ages	78	Saraburi
41. Mrs. Fungchaw Sae Jie	ages	67	Suphanburi
42. Mrs. Oraphin Tangtichaiwanich	ages	59	Rayong
43. Mr. Liú Taò Huá	ages	41	Chumphon
44. Mr. Chailert Thamsrattha	ages	64	Nakhonsrithammarat
45. Mr. Chusak Liewlak	ages	60	Narathiwat
46. Mr. Issara Leehacharoenkul	ages	71	Pattani
47. Mr. Wattana Cheewamitreewong	ages	60	Phuket
48. Mr. Kriangkri Nukulwut-o-phas	ages	59	Songkhla
49. Mr. Phichai Naraweerawut	ages	63	Suratthani
50. Mr. Thanin Lautrangsakul	ages	66	Trang
51. Mr. Kaj Sirithanawat	ages	68	Yala

3. List of Teochew Informants

52. Mr. Suphoj Khuttathep　　　　　ages 62　Chiangmai
53. Mrs. Aree Sae Ngow　　　　　ages 48　Lamphun
54. Mrs. Xǐ Jīn Yàn　　　　　ages 61　Nakhonsawan
55. Mrs. Somjring Phuwanawiroj　　　ages 55　Phichit
56. Mr. Wisal Tanjaphatkul　　　　ages 64　Phitsanulok
57. Mr. Kaew Sae Kor　　　　　ages 53　Sukhothai
58. Mrs. Huai Sae Li　　　　　ages 74　Uttaradit
59. Mrs. Suphornthip Thanaphatjirachot　ages 51　Chaiyaphum
60. Mr. Somphong Adulwattanachai　　ages 54　Khonkaen
61. Mr. Suphoj Saptanarat　　　　ages 76　Nakhonratchasima
62. Ms. 倸何诖　　　　　ages 52　Nakhonphanom
63. Mrs. Sujua Taesuwan　　　　ages 79　Sakonnakhon
64. Mr. Chindanai Chawsirikul　　　ages 42　Sisaket
65. Ms. Duangduan Sae Lim　　　　ages 56　Udonthani
66. Mr. Khung Sae Lee　　　　　ages 70　Bangkok
67. Ms. Atipa Thanajirawat　　　　ages 50　Bangkok
68. Mrs. Somchit Sae Khow　　　　ages 53　Chachoengsao
69. Mrs. Ranee Charoenphoj　　　ages 63　Nakhon Pathom
70. Mr. Pratheep Thanapethai　　　ages 70　Ayutthaya
71. Mr. Wasan Luangbongkoch　　　ages 66　Pachinburi
72. Mrs. Uraiwan Likhitcharoentham　ages 61　Ratchaburi
73. Mrs. Malee Adulyatham　　　ages 70　Samutprakan
74. Mr. Anop Korcharoenchai　　　ages 48　Samutsakhon
75. Mr. Thaworn Sikkhakosol　　　ages　Suphanburi
76. Mr. Nawin Luangkamoljinda　　ages 56　Chonburi
77. Mrs. Siew Ngek　　　　　ages 77　Rayong
78. Mr. Yáng Zhěn Tián　　　　ages 73　Trang
79. Mr. Wanich Loprakhong　　　ages 55　Yala
80. Mr. Praphong Anchansrichat　　ages 59　Yala

4. List of Hainanese Informants

81. Mr. Jiejua Sae Nai	ages 69	Chiangmai
82. Mr. Poj Hanchainitayaphan	ages 70	Lampang
83. Mrs. Somjring Phuwanawiroj	ages 55	Nakhonsawan
84. Mr. Tian Luangnalaphee	ages 70	Phayao
85. Mr. Wichai Akkharawanichlert	ages 72	Phichit
86. Ms. Wannee Dansawang	ages 77	Phitsanulok
87. Mr. Honghub Sae Hlim	ages 79	Sukhothai
88. Mr. Taehun Sangki	ages 78	Uttaradit
89. Mrs. Kimyong Sae Han	ages 76	Uttaradit
90. Mr. Amlung Chongpattiyat	ages 81	Khonkaen
91. Mr. Kitiphat Tongsiri	ages 55	Mahasarakhom
92. Ms. Yuwadee Jirawithoonkij	ages 74	Nakhonratchasima
93. Mrs. Chuanphis Danwattanaphong	ages 58	Udonthani
94. Mr. Yanyong Kanwiphai	ages -	Bangkok
95. Mr. Somchai Rerksuphaphol	ages -	Nakhonnayok
96. Ms. Suphattra Chongsomjet-udom	ages 53	Nonthaburi
97. Mr. Aung Lok Duck	ages 68	Ayuttaya
98. Mr. Sawad Yanderm	ages 91	Prachinburi
99. Mr. Praphan Chairat	ages -	Saraburi
100. Mr. Rungroj Buakhaw	ages -	Chanburi
101. Mr. Kek Khui Sae Lim	ages -	Nakhonsithammarat
102. Mr. Louis	ages 55	Pattani
103. Mr. Chauwaphong Metharakkul	ages 65	Phuket
104. Mr. Hongphing Sae Lim	ages 82	Songkhla
105. Mr. Jimmy at Hainan Association Hadyai	ages 63	Songkhla
106. Mr. Suphoj Thanaphanang	ages 69	Songkhla
107. Mr. Dullayadech Talapha	ages 63	Trang
108. Mr. Jane Anatrerk	ages 60	Yala

5. List of Hokkien Informants

109. Ms. He Jin Chan	ages 46	Sukhothai
110.Mr. Anek Phanpherk	ages -	Bangkok
111. Mrs. Sung Aiew Tiang	ages 92	Ayuttaya
112. Ms. Tan Joo Chee	ages 63	Phuket
113. Ms. Somthaya Wangkhaiman	ages 59	Phuket
114. Mr. Prasit Koysiriphong	ages 57	Phuket
115. Mr. Lee Kei Hee	ages 57	Songkhla
116. Mr. Wichit Patiwech	ages 76	Trang
117. Mr. Sutham Triprakhong	ages 71	Yala
118. Mr. Phitphat Ratchatasetkul	ages 71	Yala

6. List of Fuzhou or Hokchew Informants

119. Mr. Weerachai Treetrakulchai	ages 61	Rayong
120. Mr. Boonmee Suamanotham	ages 54	Nakhonsrithammarat

7. List of Cantonese Informants

121. Mr. Chinyong Lokphongphan	ages 73	Chiangmai
122. Ms. At C. Phochana	ages 84	Chiangmai
123. Mr. Siriphong Ruangtheprach	ages 67	Nakhonsawan
124. Mr. Aram Nititham	ages 87	Nan
125. Mr. Chongni Sae Jang	ages 76	Phitsanulok
126. Ms. Wiphawadee Surarojprachak	ages 57	Nakhonratchasima
127. Mrs. Jintana Sae Lee	ages 42	Bangkok
128. Mr. Diroj Lertanekkul	ages 70	Phuket
129. Mr. Chainarong Tantisattayanon	ages 64	Phuket
130. Mrs. Sawittri Chanphakorn	ages 73	Songkhla
131. Mr. Hon Chanphakorn	ages 80	Songkhla
132. Mr. Surasak Hongsuwanwatthana	ages 72	Songkhla
133. Mr. Chauwalert Wattanachatsut	ages 65	Yala

8. List of Guangsai Informants

134. Mr. Wiwat Thananonphirak ages 63 Bangkok

135. Mr. Surachai Chiewphiphat ages 56 Songkhla

136. Mr. Chauwalit Yingsatjatham ages 63 Yala

BIOGRAPHY

NAME	Zirivarnphicha Thanajirawat
DATE OF BIRTH	18 February 1977
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INSTITUTIONS ATTENDED	Naresuan University, 1994-1997
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