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WING-WING OR WIN-WIN: A CASE STUDY OF THE INFLUENCES OF CHINESE  
SOUTHWESTERN DIALECTS IN ENGLISH PRONUNCIATION

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WING-WING OR WIN-WIN: A CASE STUDY OF THE INFLUENCES OF CHINESE  
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## Abstract

This case study investigated the influence of Chinese speakers' Southwestern dialects, which do not distinguish alveolar nasal sounds /an/, /en/, /in/ and velar nasal /ang/, /eng/, /ing/ sounds in *Pinyin*, on their English pronunciation in words contain these sounds, as well as whether or not native speakers who speak more standard Mandarin would pronounce more accurate English. Furthermore, the study provides implications of teaching Chinese Southwestern dialects speakers acquiring English sounds that contain alveolar nasal sounds and velar nasal sounds. The implications discussed are anchored in sociocultural theories of Second Language Acquisition, specifically focusing on the Zone of Proximal Development to provide appropriate scaffolding to English learners with Chinese Southwestern dialects background acquiring velar nasal sounds in English. The findings of the study indicated that most of Chinese Southwestern dialects speakers cannot perform velar nasal sounds in Mandarin Chinese and it influences speakers' performance of velar nasal sounds in English. However, the findings of the study did not conclude that people who speak more standard Mandarin Chinese would speak more accurate English.

Key words: First language; English as a second language; second language acquisition; Chinese dialects; Mandarin; alveolar nasal sounds; velar nasal sounds; Zone of Proximal Development

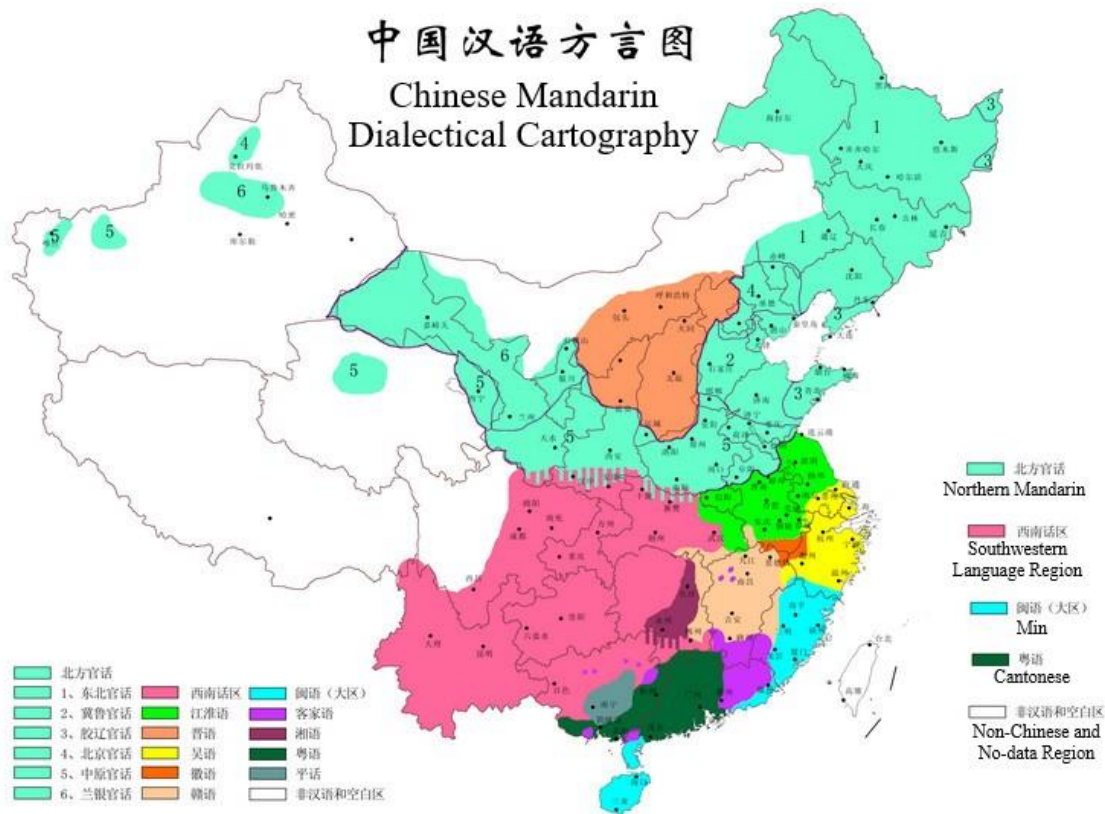
## Chapter 1: Introduction

China has fifty-six ethnic groups with the Han Chinese as the majority and the other 55 groups as minorities. Many minorities have their own languages and Chinese government encourages minorities to use their own languages in the regions where they live (Zhou, 2003). Chinese language consists of many varieties. Tang and Heuven (2009) stated that Chinese dialectologists classified various Chinese dialects based on phonological features and tones which include several regional dialects within each language group. Chinese can be divided into two branches: Mandarin and Southern. The Southern branch includes Wu, Gan, Xiang, Min, Hakka, and Cantonese. The mutual unintelligibility of Chinese language characteristics demands a common language that people from different regions can communicate and understand. Standard Mandarin, also called Putonghua (meaning common speech), is the language spoken in China by the majority group.

However, Mandarin branch comprises dialects from Northern and Southwestern China. Although Southwestern dialects belong to the Mandarin system, they have very different pronunciations compared to Mandarin. Some Southwestern dialects do not distinguish between side nasal sounds /n/ and /l/, flat tongue sounds /z/, /c/, /s/ and /zh/, /ch/, /sh/, alveolar nasal sounds /an/, /en/, /in/ and velar nasal sounds /ang/, /eng/, /ing/. I was born and grew up in Yunnan province in China where I speak Yunnan dialect, which does not differentiate alveolar nasal sounds and velar nasal sounds, especially in my daily conversations with my parents, friends, classmates, teachers outside of class, and local people. Before I went to Beijing for college, at the age of 18, I had never lived in a place that Mandarin is a prominently spoken language. The only opportunities I could receive Mandarin input were either from watching TV or in class from teachers' lecture. The only Mandarin output for me was answering questions or



participating in class discussions. After I moved to Beijing and started to use Mandarin on a daily basis, I met my college peers who are from the same region as I am.



**Figure 1.** Chinese Dialect Map (<http://blog.sciencenet.cn/blog-556556-685682.html>).

For example, people from Yunnan, Sichuan, or Guizhou (see **Figure 1**), have the same issue of pronouncing velar nasal sounds /ang/, /eng/, /ing/; some of them who are from Sichuan or Guizhou have issues distinguishing /n/ and /l/. Once I asked one of my roommates who speak Mandarin to have some “ma la tang”, a delicious Chinese food, she told me she understood what I said, but it was unfamiliar for her to hear I say “ma la **tan**” instead of “ma la **tang**”. We both majored in English in our undergraduate study, so I started to wonder, if her pronunciation in English words that contain alveolar nasal sounds and velar nasal sounds would be more accurate than mine; if she would have more advantages of acquiring English words that contain alveolar nasal sounds and velar nasal sounds; or, if my pronunciation of English words that contain

consonants /n/ and /l/ would be more accurate than my peers whose dialects do not distinguish /n/ and /l/.

Pronunciation has been a crucial role in effective and successful communication in output and input aspects. Bang (1999) claimed that pronunciation has been a common concern in terms of confidence and encouragement in speaking language among second language (L2) learners. Intelligible pronunciation is one of the fundamental features of learners' capacity and ability as well as one of the most significant language instructions. Understandable pronunciation promotes learning efficiency whereas ambiguous pronunciation leads to great difficulties and challenges in language learning (Gilakjain, 2012). According to a study regarding English pronunciation accuracy conducted among Malaysian ESL teachers by Rajadurai (2001), over 80% of ESL teachers agreed with that pronunciation is an essential and critical feature in speaking and communication. Since pronunciation in classroom teaching decides the level of understanding for students in the process of receiving instructions, many educators emphasize on facilitating students' pronunciation in language proficiency.

In China, English is not only a subject matter for high school students, but also a required language to achieve a bachelor's degree, attain a job, and more importantly, a necessary language skill in a globalized society. In Chinese high school, the score that students receive in the Chinese National College Entrance Examination, *Gaokao*, determines which university students can be admitted. The English subject in *Gaokao* shares the same amount of significance with Chinese and Mathematics, as it makes up 150 points out of the 750-total score. Besides, most undergraduate students in Chinese universities who do not major in English are required to pass College English Test Band 4 to meet the graduation requirement. In addition, English is a required language skill for most professions that also require a bachelor's degree. China has the

largest population in the world with plenty of Chinese speakers whose first language (L1) is Mandarin, such as Northeastern Mandarin, Beijing Mandarin, and central area Mandarin, who all learn English as a L2. However, many dialects are also spoken in China, for example, Cantonese, Min, Hakka, etc. Some dialects are similar to Mandarin syllabically, but are different from Mandarin phonemically. *Pinyin* is a standard Romanization System that transcribes Mandarin Chinese character into the Latin alphabet as the segments of morpheme of Mandarin (Godfroid, Lin & Ryu, 2017). This present study uses *Pinyin* to identify different pronunciations between Mandarin and various dialects of Chinese.

The purpose of this study is to investigate whether or not Chinese speakers' Southwestern dialects, which do not distinguish alveolar and velar nasal sounds in *Pinyin*, affect these speakers' English pronunciation in words containing these sounds. Additionally, this study explores the implications for teaching English language learners with Chinese Southwestern dialects background. Lastly, this study aims to investigate whether or not Chinese native speakers who speak more standard Mandarin (referring to the Mandarin Proficiency Test rubric definition) would have more accurate English pronunciation (referring to the IELTS rubric definition).

## Chapter 2: Literature Review

This chapter contains a review of the literature discussing the influence of first language (L1) to second language (L2), second language acquisition (SLA), dialects of Chinese, and sociocultural theories of SLA to investigate whether or not Chinese speakers who speak more standard Mandarin would have more accurate English pronunciation. It also discusses the influence of Chinese Southwestern dialect in English pronunciation, and analyzes the implications of teaching English learners with Chinese Southwestern dialects.

This chapter evaluates the effect of L1 in SLA, linguistic transfer, and interlanguage that has played a crucial part in phonological, orthographic, as well as literacy acquisition of second language, to indicate the influence of L1 to L2. For example, Linguistic Interdependence Hypothesis and Linguistic Threshold Hypothesis were presented to explain the relationship between L1 and L2 literacy and development, which could ideally provide the interdependence and similarities between two languages. The hypotheses also focused on students' communicative and reading skills in L1 in relation to English speaking and literacy ability in L2, once their L2 reached a certain level of proficiency (Huang, 2010; Kim, Liu, & Cao, 2017; Ortega, 2013; Odlin, 2006; Cui & Heuven, 2011; Wang et al., 2003; Backman, 1979; Barlow, 1998; Lepetit, 1989; Luo, 2017; Mennen, 2007; Yang & Chan, 2010; Ueyama, 2000; Willems, 1982; Cummins, 1978).

Furthermore, other studies showed that L1 and L2 were interrelated considering linguistic distance and mutual intelligibility of languages. For example, Chinese as L1 and English as L2 have a wide range of differences in lexicon, semantics, and syntax. Many Chinese language varieties are low in mutual intelligibility with Mandarin Chinese. If one's Chinese dialect has low mutual intelligibility with Mandarin, their acquisition of English as L2 is mainly influenced

by their dialects (Huang, 2010; Tang & Heuven, 2009; Li & Wayland, 2006). In addition, this chapter introduces the sociocultural theory in SLA, Zone of Proximal Development (ZPD), and reading strategies in promoting oral language development in second language learning to demonstrate the correlation between ESL students' English pronunciation and their cultural identity. This chapter also presents possible approaches and reading strategies that teachers can use to promote students' oral communication in classroom (Pullen, 2011; Vygotsky, 1978; Kurniasari & Santoso, 2016; Wardle, 2003; Kormos, 1999; Mann, 2013).

### ***The Effect of L1 and Linguistic Transfer in Second Language Acquisition***

It is widely observed that learners' L1 influences learners' L2 acquisition as L2 learning is dependent on the interaction between the previously learned L1 systems and new acquiring L2 system (Huang, 2010; Kim, Liu, & Cao, 2017). According to Ortega (2013), every process of acquiring L2 required the knowledge and experience of learners' L1, or other languages learners have acquired. Previous knowledge and experience of the language learners played significant roles and had important influences on L2 acquisition. According to Odlin (2006), linguistic transfer was the outcome, which was caused by the differences and similarities between the formerly acquired language and the target language, and had an acceleration or inhibition effect on the learners' acquisition of another language. The transfer was divided into two types: positive transfer and negative transfer (Cui & Heuven, 2011). For example, the negation rules of L1 can be incongruent with that of L2, which can lead to a delay in the development of negation rules in L2 acquisition.

Wang et al. (2003) investigated two groups of English as Second Language (ESL) college students, consisting of Korean ESL learners with an alphabetic L1 background and Chinese ESL

learners with a non-alphabetic L1 background. An alphabetic language system refers to a language which selects phonemes or syllables to represent the spoken language, while a non-alphabetic language system refers to a language which selects words or morphemes. The aim of the study was to clarify the relationship between orthography to phonology in reading literature. The study combined self-rated English proficiency in Listening and Reading, familiarity ratings of the test materials, as well as conducting Van Orden's Experiment, to explore phonological and spelling similarity. The researchers found that Korean or Chinese reading skills influenced English reading. Korean speakers approached phonologically in their L1 reading (alphabetic system) and performed better in achieving phonological information in English, while Chinese speakers approached orthographically in their L1 reading (non-alphabetic) and performed better to gain orthographic information in English. In the field of language learning, phonological awareness was defined as the ability that allowed learners to recognize the sounds of small phonological units and analyze these units (Yang, Cooc, & Sheng, 2017).

In the study by Chien et al (2008), there were 82 children in Taiwan, ages 10-11, that participated. This study investigated the role of phonological awareness development of Chinese English language learners through six tests, such as syllable awareness, initial phoneme oddity, final phoneme oddity, medial phoneme oddity, final phoneme deletion, and initial phoneme deletion. The study showed cross-linguistic transfer from Chinese as L1 to English as L2 among phonological awareness mainly at the phoneme and syllable levels. Researchers summarized that Chinese phonological awareness was predictable to English phonological awareness.

Gittardo, Koh, Chen, and Jia (2017) studied 117 Chinese-English bilingual high school and college students residing in a metropolitan center in Canada, where all resided in Canada for over six months. Participants were divided into two groups according to the length of residence in

Canada, tested through both English vocabularies, word-formation, sentence structure and grammar to examine the models of English and Chinese word reading. The result of this study was that reading in English was affected by L1 among Chinese speaking adolescents and young adults. The study tested reading in terms of vocabulary measures, morphological awareness, and phonological awareness in English and Chinese to adolescents and young adults who recently immigrated to Canada. The results showed that the word reading processes are similar in both languages.

Many people who speak Chinese as their L1 were learning English as their L2 in the United States, Canada, United Kingdom, and China. Linguistic researchers were motivated to explore the linguistic dynamics and relations between Chinese and English, because transfer played a significant role in SLA (Yang, Cooc, & Sheng, 2017). In multilingual contexts, language learners from a variety of cultural, ethnic, and linguistic backgrounds learn another language or languages other than their first language. Eckman (2004) stated that all the languages in the world had voiceless stops but only some of the languages had both voiceless and voiced stops. In the case of voiceless and voiced stops, both English and German had same voiceless and voiced consonants. Whereas, in English, voiceless and voiced consonants appeared in the final position of a word, while in German, voiced consonants in final position were pronounced as voiceless consonants and voiced stops did not appear in the word's final position. Thus, L1 German speakers who learned English as L2 had difficulties pronouncing English words that ended with voiced consonants, learners usually devoiced the final consonant. For example, a German as L1 speaker might pronounce the English word "log /lɒg/" as "/lɒk/".

However, not all L1 influence on L2 is negative. Research evidence on cross-linguistic transfer sheds light on L1's positive influence in L2 or foreign language learning. For instance, a

laboratory study designed to resolve whether native speakers of a tonal language had advantages in learning another tonal language compared to learners with non-tone language background. In the study, participants were 6 Thai native speakers, 6 English native speakers, 6 Taiwanese native speakers, and 1 Mandarin Chinese native speaker. All of the participants were tested through minimal pairs (e.g., /pan/ = to share and /pàn/= to pedal) in order to contrasted the low and the mid tones of Thai. The study illustrated that participants whose L1 was a tonal language, for example, Mandarin, were better identifying and distinguishing between low and mid Thai tones than participants whose L1 was not a tonal language, for example, English. (Wayland et al., 2004)

A number of studies of cross-linguistic transfer explored the process of L2 learning in alphabetic languages. Studies showed that bilingual children's linguistic skills in their native language predict their acquisition of English as L2. Other studies revealed that children whose first languages were alphabetical system, for example, Spanish, French, and Italian, promote their learning of English as L2. (Yang, Cooc, & Sheng, 2017). In addition, the word "university" in French is "université" while in Chinese is "大学(daxue)," thus, learners whose French L1 can facilitate proficiency in English as L2 compare to learners whose L1 is Chinese.

### ***Interlanguage in Second Language Acquisition***

Ortega (2013) stated that learners' language could be posited as interlanguage, which referred to temporary developmental solutions that L1 and L2 learners tried to figure out the working of a new language. It also can be explained as the language level that learner constructed during their development of the language, or the language level that learner actual produced when they used the language. To be more specific, interlanguage is the language forms



that appear when children acquiring their native language or when young or old learners acquiring their L2. Odlin (2006) defined interlingual identification as the conscious or strategic choice that something in the target language and in the native language were similar. Three factors that influence interlingual identification were “(a) the nature of the specific L2 phenomenon influenced and the universal forces that shape its natural development; (b) learners’ perceived distance between the L1 and L2 and their intuitions of what is transferable or not; and (c) their relative proficiency level” (Ortega, 2013, p.33-34). For children who acquired their L1 without pre-existing language to rely on, these forms could not be picked up from their caretakers; for young and old learners who acquired their L2, these forms neither could be traced back to their first language. SLA researchers demonstrated that these forms were invented by children and adults independently when they were acquiring a new language. Moreover, the mother tongue language might facilitate or delay the progress of acquiring the target language. Foreign language instructors can emphasize on differences between L1 and L2 and different learners’ L1 background, when they structure the course contents. It will be more efficient to acquire the target language if the instructional framework considers the pre-existing knowledge and cross-linguistic influences, as the pre-existing knowledge may influence interlanguage development, cross-linguistic influences can occur at all language levels, and knowledge of two or more languages can promote the learning of another one.

Other researchers have studied that L1 influenced both phonetic level and phonological level of L2 acquisition (Backman, 1979; Barlow, 1998; Lepetit, 1989; Luo, 2017; Mennen, 2007; Yang & Chan, 2010; Ueyama, 2000; Willems, 1982). For example, a falling pitch in English indicates predicative statements while it indicates both statements and questions in Mandarin Chinese. Likewise, a rising pitch represents questions in English, whereas it indicates statements

and questions in Mandarin Chinese. English speakers learning Mandarin are more sensitive in perceiving information when intonation and tone are compatible.

Huang (2010) stated that Chinese native speakers might have challenges in speaking English from different linguistic features between Chinese and English. For instance, Chinese lexicon expands by combining two characters while English expands by meaning expansion (e.g., “马” [ma] in Chinese means horse and “上” [shang] in Chinese means up, combining these two characters together means “immediate”; in English, combining “warm” and “heart” together means “sympathetic” and “kind”). Moreover, Chinese is a topic-prominent language while English is a subject-prominent language, for example, in English “I have finished dinner”, but in Chinese “dinner finished”.

### ***The Impact of L1 Literacy on L2 Literacy***

Although L1 and L2 have a large number of differences on syntax, lexicon, and phonology, most people acquire L2 literacy based on the development of their L1 literacy (Hudson, 2007). The process of acquiring L2 has been influenced by many factors, and L1 was one of the greatest factors. Many minority groups have their own dialects in China which creates challenges in pronouncing various sounds in Mandarin. In this case, the minority groups’ L1 dialects have influences on their L2 Mandarin, which is a fact among Chinese people. People who are from Southern China usually speak Mandarin with an accent of their dialects. Phonologically, the reason why they speak with an accent is that they have difficulties pronouncing some particular sounds or syllables in Mandarin. In other words, some sounds, words, or phrases are missing in their dialects as L1. When people who rarely speak Mandarin are exposed to a more comprehensive and complex Mandarin speaking environment, their

dialects as L1 will be a big factor that affect their Mandarin as L2. Thus, their speaking of Mandarin has an accent compared to people who speak Mandarin as L1. For example, the phoneme /sh/ is missing in Guizhou and Sichuan dialects, when people from these regions communicate in Mandarin, they mispronounce /sh/ as /s/. Similarly, speakers who speak Chinese as L1 influences the acquisition of English as L2. For example, many Chinese native speakers pronounce “thank you” as “sank you” since /θ/ is missing in Mandarin Chinese.

Language is transferrable, L1 can be transferred greatly to L2. When people learn a new language, their previously acquired language, to some degree, influences the process of learning the new language. Corder (1973) proposed that SLA was the accumulation of action. In the process of accumulation, the interference of L1 was an expression of negative transfer. When people learned a L2, their L1 might hinder their L2 learning. On the other hand, the L1 was helpful to the target language learning, which was called language positive transfer. Both language learning situations explained transfer among different languages. In addition, language transfer occurred not only in words or sounds, but also in syntax and culture.

The Linguistic Interdependence Hypothesis, which refers to “L2 language proficiency, as opposed to L1 reading abilities, it is not critical to the development of L2 reading,” and L2 students “can have weak L2 language proficiency, but use all of their L1 academic reading skills to carry out L2 academic reading tasks successfully” (Grabe, 2009, p. 141). This hypothesis acknowledges the relationship between L1 literacy and L2 literacy. The Linguistic Interdependence Hypothesis, as developed by Cummins (1978), argued that certain L1 knowledge could be positively transferred during the process of L2 acquisition. Conforming to this hypothesis, L1 literacy is the fundamental basis for the literacy of L2. The hypothesis also considers that L1 shares central and elemental similarities with L2. Reading as one of the crucial

literacy features in L1 and L2 is interdependent (Bernhardt & Kamil, 1995). An integral component of this hypothesis is that L1 has been sufficiently developed prior to the extensive exposure to the L2. Moreover, students who have high levels of literacy in their L1 carry those skills in reading to help provide a solid L2 literacy. For example, when students receive new words in L2 reading that maybe not exist in their L1, they can use their affluent native language to guess or explain it in a similar way. In other words, language literacy can be transferred across languages.

Once learners have acquired one language effectively, it is also accessible for language learners to explore the context and literacy of another language. Verhoeven (1991) examined 138 first-grade children from Turkey in the Netherlands. The study aimed to explore the processes of bi-literacy development. All participants were divided into two groups, one group of participants studied in L2 submersion course which provided L2 literacy instruction first. The other group of participants was taught in transitional course, which provided literacy instruction by L1 and L2 at the same time. The results from this study illustrated that transitional participants had stronger transfer from L1 to L2, and submersion participants had transfer from L2 to L1.

The Linguistic Threshold Hypothesis, which was based on the idea that when L2 literacy falls below a certain level, the reading ability of L1 did not have much correlation with the level of L2 reading. However, readers were more likely to use reading skills and strategies and prior knowledge developed in L1 when L2 achieved a certain level (Cummins, 1978). Reading, one of the literacy abilities in L2 is influenced by the L1 reading comprehension and understanding. In the process of learning L2, learners need to develop their language ability to reach a certain level of language proficiency before L1 transfer occurs. One example of literacy transfer was investigated in a study by Brisbois (1995). Participants included 131 English native speakers

learning French as L2. Participants were in beginning and upper level reading proficiency in French, they were assessed through: Nelson-Denny Reading Test, French grammar Test, French vocabulary Test, and recall protocol procedure of English reading comprehension, and French reading comprehension test. The study illustrated that upper level participants achieved higher on all L2 tests and L1 reading.

### ***Linguistic Distance, Mutual Intelligibility of Language, and Chinese Language Varieties***

Languages may differ based on their morphology, syntax, phonology, or lexicon. Tang and Heuven (2009) proposed that linguists considered two languages to be dialects of one language when these two languages only had trivial differences, and two languages were classified as two different languages when they had relatively large differences between each other. For instance, German and Dutch were classified as sibling languages of West-Germanic languages, but Danish and Dutch were classified as two different branches of Germanic. Perceived Linguistic Distance was measured through the method that subjects listen to a speech of a language variety and were asked to rate how different the language variety was from their own language variety on a rating scale.

Tang and Heuven (2009) advanced the term of Mutual Intelligibility as a meaningful way to argue about linguistic distance. The researchers purported that if the degree of mutual intelligibility between two languages was high, then the linguistic differences between the two languages was low. On the contrary, if the degree of mutual intelligibility between two languages was low, the linguistic differences between the two languages must be radical. Based on the characteristics of tone and phonology of Chinese dialects, Chinese dialectologists proposed various classifications of the Chinese language varieties and agreed that Chinese language could

divide into Mandarin branch and Southern branch. Generally, the degree of mutual intelligibility between language varieties within the Southern branch is much lower than those language varieties' intelligibility within the Mandarin branch.

There are several reasons that explain the degree of mutual intelligibility among Chinese language varieties. For example, the land of Northern part of China is flatter and easier for travelling and transportation, while the Southern part of China is more mountainous and more difficult with travelling. Tang and Heuven (2009) reproduced a “Chinese linguistic group” map showing that Chinese Southwestern language varieties belonged to the Mandarin branch. However, Southwestern region is also very mountainous, especially Yunnan Province and Guizhou Province, which is further away to the Northern Mandarin region than other regions, such as Zhongyuan, Beijing, Northeastern etc. Although Southwestern language varieties belong to Mandarin branch, the degree of mutual intelligibility of Southwestern language are much lower than the degree of mutual intelligibility of Zhongyuan Mandarin, Beijing Mandarin, or Northeastern Mandarin.

### ***Dialects of Chinese and the Influences in English Pronunciation***

Under-resourced languages, were defined as languages that “lack of a unique writing system or stable orthography, limited presence on the web, lack of linguistic expertise, and lack of electronic resources for speech and language profession” (Besacier et al., 2014, p. 87). Chinese is defined as anything but an under-resourced language since nearly one fourth of the population in the world speaks Chinese as a native language, and Chinese is one of the most widely spoken languages (Hua, 2002). However, contrary to well-resourced Mandarin Chinese, many Chinese dialects are still under-resourced Chinese (Wu et al., 2015). There are many

dialects spoken in China, such as Cantonese, Min, Wu, Hakka, and Ping. Most children whose families speak dialects in China learn to speak the local dialect and Mandarin since they were born. Children speak dialects with their family members, friends, and other local people, while Mandarin is spoken at school or only in class. Cui and Heuven (2011) stated that Chinese dialects shared similar pronunciation features, but they were linguistically different from each other, such as certain European languages (Spanish, Portuguese, and Italian) within the same language system.

Oral language as one of the basic skills for language learners plays an important role in language learning, and pronunciation plays a foundational role in communication. For learners learning English as L2, mastering English pronunciation is one of the most important aspects to achieve high English proficiency. However, every language has its own characteristics and rules. Based on second language acquisition theory, learners' L1 has influences on the acquisition of L2. Even though Mandarin Chinese is the common language used in China, the varieties of Chinese dialects also influence the learners' process of acquiring English.

Based on earlier research, Cui and Heuven (2011) stated that when English learners with same native language background communicated with each other, their mutual intelligibility was better compared to communication with different native language background English learners. This mutual intelligibility is called Interlanguage Speech Intelligibility Benefits. Their study addressed the effect of L1 Chinese on L2 English production and perception. More specifically, their study confirmed Chinese English learners' pronunciation of English vowels was different based on learners' dialects background. Besides, Li and Wayland (2006) demonstrated that native speakers whose dialects did not distinguish /n/ and /l/ have difficulty of distinguishing these two sounds in English.

### *Sociocultural Approaches to Language Learning*

In Vygotsky's Sociocultural Theory (1978), he stated that social interaction was dependent on social growth, cultural development, and human cognition. Language and other methods of communication mediate individuals' construction of ideas, thoughts, and knowledge in the social environment. Learning included language, culture, and context, and was associated with social and cultural elements to make the meaning. A Zone of the Proximal Development (ZPD), as one of the essential concepts in Sociocultural Theory, was defined by Vygotsky as "the distance between the actual development level as determined by independent problem solving, and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Expert assistance can facilitate the completion of novice individuals' potential ability to learn. For example, Vygotsky (1978) proposed that when two children of the same mental age were provided with problems which were harder than they could solve, the child who received assistance solved the problem, while the other child only solved a part of the problem. The distance between the child's actual level and the level the child reached with assistance is ZPD.

Based on sociocultural theory, Mehrdad (2011) indicated that instructional implication, as one of the three major educational implications, viewed learning as occurring through cooperation, which benefited students' language communication and skills. Children's language development occurs during the interaction and cooperation between the children and their parents or caregivers. Adults support this development by responding to infants' vocal attempts. As children grow older, the communication between children and adults increases. In a school setting, teachers are the adults that support students' language development.



Pullen (2011) conducted a study about the relationship between English pronunciation and cultural identity of English as Foreign Language (EFL) learners. 145 students from different departments at a university in Turkey, specifically freshmen and sophomores, participated in this study. In order to examine the relationship, three methods were involved: a questionnaire of cultural identity and language background including general cultural, politics, history, and national loyalty; a form of pronunciation elicitation; and a rubric of pronunciation rating. The results indicated the correlation between English pronunciation in EFL context and students' self-cultural identity, but more evidence was needed.

Kurniasari and Santoso (2016) illustrated that supporting ZPD was one of the approaches classroom teachers could apply to support students' oral communication skills. In their study, the researchers indicated teachers could use six strategies to support ZPD in the classroom: 1), identifying the target level of knowledge for students to achieve; 2), developing the progression for students to follow to reach the goal; 3), creating tasks for students to show what they are learning; 4), observing and assessing students' performance; 5), modifying instruction based on students' performance; and 6), promoting students' thinking through guiding, modeling, or demonstrating. For example, in a world language classroom setting with the content of emotion vocabulary, the teacher identifies the target level of knowledge when students express emotions in the target language. Then, the teacher develops the progress for students to reach the goal as students are able to understand the vocabulary and phrases of emotions in the target language. The teacher creates tasks for students to show what they are learning by asking students to describe the emotions of Disney characters, and the teacher assesses students' performance through their descriptions. In addition, teacher can modify their instruction by students

describing one's own emotions to make them feel involved and engaged. Last, the teacher can promote students' performance through students reading after teacher expressing emotions.

In the present study, numerous approaches are provided to improve language learning and to promote oral development in second language learning. Language learning is not only about the language itself or four language skills, but sociocultural interaction and human cognition as well. Abounding class activities for teachers and learning methods for students render language learning and language proficiency efficient. The role of teachers in class becomes a facilitator and listener, and students will be the major group, learning different approaches and strategies to enhance their L2 pronunciation based on their L1 proficiency.

### ***Approaches of Promoting Oral Language Development***

Traditional Chinese education is teacher-centered. A large number of teachers in China still use silent reading, lectures, and repetition as teaching activities in class. According to this current language-teaching situation, an abundance of literature described the advantages of reading aloud for enhancing students' oral language abilities. When reading aloud, one was pronouncing words, and activating language processing mechanisms on many different domains, such as syntactic, phonological, and lexical (O'Brien et al., 2006). Since reading aloud involves the process of input and output by receiving the pronunciation and speaking up with a ready flow, it can cultivate students' internal listening skills and improve their speaking voice. By reading the authentic L2 language, students can practice oral L2 proficiency in production, or the capability to communicate and discuss with other people. Reading aloud combines reading, speaking and listening at the same time, activating an awareness of proper language. In other words, the whole process of reading aloud can motivate students' reading, listening, and

speaking smoothly, fluently, and with confidence. Students who always practice in this way can detect authentic dialogue and flowing narrative.

Kormos (1999) stated that the strategy of reading aloud helped students use appropriate grammar, sentence structure, and other features of L2 because the language learner would notice the possibilities of combinations in lexicon, phonology and syntax. It also provided students with the ability to combine different language skills to achieve the high efficiency of oral fluency and accuracy in learning L2. Mann (2013) tested whether or not the continuous practice of reading aloud could influence L2 oral fluency. The participants of this study were four intermediate level international students who were studying at a university-level English program in the United States. Mann designed the study into pre-test and post-test sections. Each participant was trained and practiced reading passages twice a week over seven weeks. Researchers recorded and measured whether or not the participants made any progress in L2 reading. Reading aloud has a positive effect on the development of L2 oral proficiency.

The practice and repetitive usage of reading aloud will provide language learner the capability of processing information with organization and logic as well as the future goal of learning second language. "Learning a language entails a stage wise progression from initial awareness and active manipulation of information and learning processes to full automaticity in language use" (O'Malley and Chamot, 1991, p.217). The active role of students themselves is also significant in their L2 oral development because they need to try to combine with different abilities that may help them self-monitor and self-study. Practicing some phonemes in L2 repeatedly results in oral fluency, because the concertation through the process of repetition strengthen the impression and physical memorization subconsciously. For example, the interdental sound /θ/ in English does not exist in Chinese alphabet, but if practicing is regarded

as an active repetition, the activation of vocalizing and pronouncing may work for students who had a hard time to pronounce it. Since reading aloud is one part of speaking, by practicing this strategy, a learner can integrate the reading and speaking to improve L2 proficiency and carry the potential of speaking by reading.

In a classroom setting, teacher could facilitate students' language development through several approaches, such as listening to children's speaking carefully and responsively, reading books to children, and supporting children's drama play (Wardle, 2003). In a means of world language pronunciation, listening to children's speaking carefully and responsively gives important information. In other words, teachers can get authentic response from students and provide effective feedback, so that students realize the strength and weakness of their speaking. Observing and listening how the students speak and talk can be utilized for planning instructions and activities to promote students' language development. Listening carefully to students' pronunciation and speaking in the target language, a teacher can provide activities that facilitate students' acquisition of learning the language. For example, for students whose first language is Mandarin, English teacher can teach the pronunciation of letter "I" as "ai", which means "love", in Chinese. Additionally, maintaining a certain distance when speaking with students is important. Within a certain distance, students will be able to see teacher's facial expressions and lips movement, making eye contact with teacher, and hearing teacher's pronunciation clearly. On the other hand, within a certain distance, teachers will be able to listen to students more carefully and give more accurate assessment and response to promote students' language development.

### *Summary of Literature Review*

Overall, previous researchers have studied the theory of L1 influences on learner's L2 acquisition and the influences of Chinese as L1 to English as L2 which included phonological awareness, reading processes, vocabulary measures, phonetic level and phonological level (Huang, 2010; Kim, Liu, & Cao, 2017; Wang, et al., 2003; Gittardo, et al., 2007; Backman, 1979; Barlow, 1998; Lepetit, 1989; Luo, 2017; Mennen, 2007; Yang & Chan, 2010; Ueyama, 2000; Willems, 1982). One study introduced the backgrounds of distances between languages, mutual intelligibility of languages, and Chinese language varieties (Tang & Heuven, 2009). Other studies showed that Chinese English language learners' pronunciation of English vowels was different due to their different Chinese dialects background (Cui & Heuven, 2011). Another study observed that Chinese dialects did not distinguish /n/ and /l/ which led to the difficulty of distinguishing these two sounds in English (Li & Wayland, 2006).

The studies above supported the existence of a language threshold and interdependence. Both hypotheses (Linguistic Interdependence Hypothesis and Linguistic Threshold Hypothesis) mentioned above have empirical evidence by different researches, investigation and case study. According to these hypotheses, both L1 reading ability and L2 language proficiency contributed significantly to L2 reading ability. Primarily, when learners have a low language proficiency, they often rely on L2 knowledge to promote their L2 reading comprehension. However, once learners have an advanced L2 proficiency, L1 becomes a central role in improving L2 reading comprehension.

Many researches have employed investigation on how L1 positively affect L2 proficiency and reading ability. There were six sociocultural approaches discussed above that support ZPD classroom in order to facilitate student's individual communicative ability and phonological

awareness in both L1 and L2. Specifically, reading aloud helps to cultivate students' oral development. Reading aloud combines three different English skills, promotes the potential of combining various learning methods, and creates the possibilities of using proper grammar and sentence structure in language learning. Students need to practice continuously to activate their self-study and self-monitor. Reading aloud can not only develop students' learning strategies but also their language awareness. Learning English as a second language for Chinese students can be a big challenge, as students are not provided the opportunity to practice their speaking under the traditional Chinese education curriculum. Thus, reading aloud in English can develop Chinese' speaking ability.

The term of ZPD was suggested by researchers to promote students' language communication skills through cooperation and supporting ZPD in classroom setting (Mehrdad, 2011; Kurniasari & Santoso, 2016). A study also presented approaches of promoting oral language development (Wardle, 2003). However, these studies does not point out if Chinese speaker's Southwestern dialect, which do not distinguish flat tongue sounds /z/, /c/, /s/ and /zh/, /ch/, /sh/ (e.g., Guizhou dialect), alveolar nasal sounds /an/, /en/, /in/ and velar nasal sounds /ang/, /eng/, /ing/ (e.g., Southwestern dialects including Sihuan dialect, Guizhou dialect, and Yunnan dialect), influences speakers' pronunciation regarding to English words containing these sounds, or utilizes ZPD to facilitate English pronunciation and speaking ability.

Thus, the aim of this study is to investigate, whether or not Chinese speakers' Southwestern dialects influence their English pronunciation in words containing these sounds, and if Chinese native speakers who speak more standard Mandarin will have more accurate English pronunciation. Additionally, the study provides the implications of utilizing ZPD to

teach English pronunciation to learners with Southwestern dialect language backgrounds and promote learners' language development.

### Chapter 3: Methodology

This chapter describes the participants and the setting of the study. Studies have introduced the effect of L1 to L2, and previously mastered language may influence positively or negatively during the process of acquiring another language. Other studies illustrated that pronunciation in second language learning played a crucial role in developing learners' language proficiency. Moreover, although Mandarin Chinese is the official language used in China, there are many dialects of Chinese existed, some of the Chinese dialects have low mutual intelligibility with Mandarin. Many people in China speak their regional dialects as their L1, thus, their L1 may have influenced their speaking of Mandarin as L2 and English as L3. Several studies investigated that English learners with different Chinese dialects backgrounds performed differently in pronunciation of English vowels, and English learners who did not distinguish /n/ and /l/ in their dialects had challenges of distinguishing these two sounds in English (Huang, 2010; Kim, Liu, & Cao, 2017; Ortega, 2013; Odlin, 2006; Cui & Heuven, 2011; Cummins, 1978; Tang & Heuven, 2009; Li & Wayland, 2006). This study aims to investigate whether or not English learners' Chinese Southwestern dialects, which do not distinguish alveolar nasal sounds and velar nasal sounds, influence their pronunciation in English words that contain these sounds. It is expected that Chinese native speakers who speak more standard Mandarin will have more accurate English pronunciation. The following research questions were developed to guide the research:

1. Do Mandarin Chinese speakers have more accurate pronunciation regarding alveolar nasal /an/, /en/, /in/ and velar nasal /ang/, /eng/, /ing/ sounds in English than Chinese Southwestern dialects speakers?



2. Do Chinese speakers who achieve a higher level on the Mandarin Proficiency Test can achieve a higher level on International English Language Testing System (IELTS) Speaking-pronunciation?

There were short sentences in Chinese characters and in English, and two short passages in Chinese and English were used in the process of collecting the data. The research analyzed the frequencies of participants' performance of alveolar and velar nasal sounds by groups (Southwestern and Northern) and by individuals. Two instruments were used to analyze participants' proficiency in Mandarin Chinese and English. The purpose of the study is to investigate whether or not Chinese speakers' Southwestern dialects, which do not distinguish alveolar and velar nasal in *Pinyin*, affect these speakers' English pronunciation in words that contain these sounds, as well as the implication for teaching English language learners with Chinese Southwestern dialect language backgrounds.

According to Yin (2003), a case study is to function as a valuable tool for answering the real-world issues and investigating contemporary phenomenon in a practical setting. According to Creswell and Creswell (2018), a case study develops intensive analysis of a single case or cases and the researcher begins with general questions based on observed phenomena and experience. The researcher collects data for a certain amount of time and activity, and the goal of a case study is to understand a larger group with similar units. Moreover, in a case study, the purpose is based on and specified by the research questions.

This research uses a case study design to investigate the influence of Chinese Southwestern dialects in English pronunciation. It focuses on alveolar nasal sounds and velar nasal sounds of Chinese Southwestern dialects when speakers read aloud in both Mandarin and English. Besides, the study investigates if Chinese native speakers who speak more standard

Mandarin will have more accurate English pronunciation. In addition, the study presents potential implications for teaching English learners with Chinese Southwestern dialects background based on sociocultural theory, ZPD, and reading strategies.

### ***Participants***

Snowball sampling is a common sampling method in a qualitative research in various social science fields. One of the most general definitions of snowball sampling refers to one participant provides the researcher a list of one or more potential participants, then, that participant gives the researcher another list of one or more potential participants, and so on. Snowball sampling method was used in this research to recruit twenty participants, between ages 18-19, from Southwestern language region and Northern Mandarin region of China to explore if Southwestern dialects have more influences on English compared to Mandarin Chinese. Ten of the participants, marked as Southwest 1-10, were recruited from the Southwestern language region. The other ten participants, marked as North 1-10, were recruited from the Northern Mandarin region. There are several reasons for controlling participants' population: 1) students who are ages 18-19 are mainly seniors in high school or first year students at college; 2) high school students learn English as a *Gaokao* subject, which only contains Listening, Reading and Writing, so recruiting senior high school students or first year college students reduces the possibility that participants' English Speaking has been trained; 3) most high school students attend high school in the same region where they were born, so recruiting them as participants eliminates the possibility that Southwestern participants have lived in Mandarin-speaking region; and 4) even if participants go to Mandarin-speaking region for college, as first year students, they only have a short period of time using Mandarin in their daily life.

In the interview, the research found that even though participant North 8 was recruited from the Northern region of China, yet she was originally from Sichuan province (located at Southwestern region of China) and moved to Northern region of China for college. The participant North 8 did not meet the requirement of the research and her data was not included in the research. Therefore, the participants of this research consisted of nine participants from the Northern region of China and ten participants from the Southwestern region of China.

### **Data Collection**

Short sentences in Chinese (**Appendix 1.1**) and English (**Appendix 1.2**) that contain alveolar nasal sounds and velar nasal sounds were provided to test participants' English and Chinese pronunciation. **Appendix 1.1** consists of 12 short Chinese sentences that contains sounds: /an/, /ang/, /en/, /eng/, /in/, and /ing/. For example:

我们一起吃饭吧。[Wǒ men yī qǐ chī fàn ba.] (Let's have lunch/dinner together.)  
今天的海浪很大。[Jīn tiān dì hǎi làng hěn dà.] (Today's waves are very rough.)  
这本书太陈旧了。[Zhè běn shū tài chén jiù le.] (This book is too old.)  
祝你生日快乐! [Zhù nǐ shēng rì kuài lè!] (I wish you a happy birthday.)  
这就是失败的原因。[Zhè jiù shì shī bài de yuán yīn.] (This is the reason of failure.)  
他只是个平凡的人。[Tā zhǐ shì yī gè píng fán de rén.] (He is an ordinary person.)

**Appendix 1.2** consists of 12 short English sentences which contains sounds: /æn/, /æŋ/, /ən/, /eŋ/, /ɪn/, and /ɪŋ/. For example:

This is my study **plan**.  
**Hang** the picture on the wall.  
I also like this **wooden** board.  
A book is not judged only on its **length**.  
She has beautiful **skin**.  
We **sing** to please her.

A short Chinese passage from the Mandarin Proficiency Test (**Appendix 2.1**) and a short English passage (**Appendix 2.2**) were provided to test participants' Mandarin proficiency and accuracy of English pronunciation. For example: (*Pinyin* was not provided for participants)

[*Yī wèi fǎngměi zhōngguó nǚzuòjiā, zài niǔyuē yù dào yī wèi mài huā de lǎo tài tai.*]  
一位 访美 中国 女作家, 在 纽约 遇到 一位 卖花 的 老太太。

*“Saturday morning was come, and all the summer world was bright and fresh, and brimming with life. There was a song in every heart; and if the heart was young, the music issued at the lips. There was cheer in every face and a spring in every step.” – Mark Twain, The Adventures of Tom Sawyer*

After participants read aloud the short sentences and passages in Chinese and English, then the participants were interviewed if they have dialects and their experience of speaking Mandarin to ensure that the participants were from targeted regions.

All Chinese texts were only provided in Chinese Characters; *Pinyin* is only provided in this paper to help readers identify the testing sounds. Short sentences in English were randomly ordered to reduce the possibility that participant could differentiate alveolar nasal sounds and velar nasal sounds consciously when both types of sounds were put together. Ordered short sentences in English were only provided in this paper to help readers contrast the differences among testing sounds. The researcher and two high school teachers sent out the recruitment message in China, and potential participants who were interested in participating in this research could contact the researcher or refer the recruitment message to their peers. The researcher recorded participants' reading voice in person or through WeChat. All the recordings were kept in a safe folder with a password protection. The study was approved by Institutional Review Board of the university as the requirement to conduct human subjects research.

## *Data Analysis*

While participants read aloud of short sentences in Chinese and in English, the researcher circled the performed sounds if participants performed alveolar nasal or velar nasal sounds; if participants could not perform the alveolar nasal or velar nasal sounds, the researcher crossed out the sounds. In group analysis, the researcher used the number of circled sounds of each phoneme to divide total number of sounds of each phoneme, to analyze the frequencies of performed sounds between two groups. In individual analysis, the researcher used the number of individuals' sounds to divide the total number of sounds they produced as analysis of the frequencies of each individual performed sound in each group. Moreover, two instruments were adopted in the research to analyze participants' language proficiency by reading short Chinese and English passages aloud. The instrument used to analyze short Chinese passage was the Mandarin Proficiency Test Standards from the Ministry of Education of the People's Republic of China website ([www.moe.gov.cn](http://www.moe.gov.cn)), for example:

- Advanced-low*      *When reading and talking spontaneously, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth. Occasionally there are words and mistakes.*
- Intermediate-high*      *When reading and talking freely, the rhythm is standard, the tone is natural, and the expression is smooth. There are some mistakes in a few difficult sounds (flat tongue, alveolar nasal and velar nasal sounds, side nasal sounds, etc.) Words and grammar are rarely mistaken.*

The entire Mandarin Proficiency Test Standards rubric can be found in **Appendix 3.1**.

A public version of Speaking Band Description of IELTS ([www.ielts.org](http://www.ielts.org)) was also used as an instrument to analyze the short English passage. The study aimed to investigate pronunciation, thus the researcher only adopted Pronunciation column of IELTS Speaking Test, for example:

- Uses a wide range of pronunciation features*
- 8 *Sustains flexible use of features, with only occasional lapses*  
*Is easy to understand throughout; L1 accent has minimal effect on intelligibility*
- 7 *Shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8*  
*Uses a range of pronunciation features with mixed control*  
*Shows some effective use of feature but this is not sustained*
- 6 *Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*

The entire IELTS Speaking-pronunciation rubric can be found in **Appendix 3.2**.

## Chapter 4: Findings

To answer the first research question, the researcher analyzed if participants who performed alveolar nasal sounds and velar nasal sounds in short Chinese sentences would also perform these sounds in short English sentences. Firstly, **Table 4.1** and **Table 4.2** show two groups' frequencies of performances for alveolar and velar nasal sounds in short Chinese and English sentences.

**Table 4.1** Performances for alveolar and velar nasal sounds in short Chinese sentences. (Group)

North	Frequencies (%)	Southwest	Frequencies (%)
/an/	18 (100%)	/an/	20 (100%)
/ang/	18 (100%)	/ang/	4 (20%)
/en/	18 (100%)	/en/	19 (95%)
/eng/	18 (100%)	/eng/	0 (0%)
/in/	18 (100%)	/in/	20(100%)
/ing/	18 (100%)	/ing/	0 (0%)

Reading short Chinese sentences, all nine Northern participants, North 1-7 and North 9-10, all performed alveolar nasal sounds and velar nasal sounds. In Southwestern participants, there were only two, Southwest 4 and Southwest 7, who could perform velar sound /ang/:

今天的海浪很大。[Jīn tiān de hǎi **làng** hěn dà.] (Today's waves are rough.)  
他把车驶入了小巷。[Tā bǎ chē shǐ rù le xiǎo **xiàng**.] (He drives the car to the alley.)

However, one participant, Southwest 4, performed alveolar nasal sound /en/ as velar nasal sound /eng/:

石头打破了你的花盆。[Shí tou dǎ pò le nǐ de huā **pén(g)**.] (The rock broke your flowerpot.)

None of the Southwestern participants performed alveolar nasal sound /eng/ or alveolar nasal sound /ing/:

祝你生日快乐! [Zhù nǐ **shēng** rì kuài lè!] (I wish you a happy birthday.)  
我在整理材料。[Wǒ zài **zhěng** lǐ cái liào.] (I am arranging the materials.)

他只是个平凡的人。 [Tā zhǐ shì yī gè **píng fán** de rén.] (He is an ordinary people.)  
 这是一个幸福的时代。 [Zhè shì yī gè **xìng fú** de shí dài.] (This is a generation of happiness.)

**Table 4.2** Performances for alveolar and velar nasal sounds in short English sentences. (Group)

North	Frequencies (%)	Southwest	Frequencies (%)
/æn/	16(89%)	/æn/	20(100%)
/æŋ/	9(100%)	/æŋ/	2(20%)
/en/	18(100%)	/en/	20(100%)
/eŋ/	14(78%)	/eŋ/	4(20%)
/ɪn/	17(94%)	/ɪn/	19 (95%)
/ɪŋ/	27(100%)	/ɪŋ/	4(13%)

In short English sentences, there was one Northern participant, North 2, who performed alveolar nasal sound /æn/ as velar nasal sound /æŋ/.

*This is my study **plan(g)**.*  
*If it's hot, turn on the **fan(g)**.*

Participants North 1 and North 7 could not perform velar nasal sound /eŋ/ of the word “length” while participant North 5 could perform neither words of velar nasal sound /eŋ/:

*A book is not judged only on its **length**.*  
*He used all his **strength**.*

Participant North 1 could not perform one word from alveolar nasal sound /ɪn/:

*I believe it is a **sin**.*

In addition, in the population of Southwestern participants, only Southwest 3 and Southwest 9, could perform the velar nasal sound /æŋ/:

***Hang** the picture on the wall.*

Only participant Southwest 4 performed the alveolar nasal sound /eŋ/ and participant Southwest 5 and Southwest 7 rarely performed the sound from word “length”:

*A book is not judged only on its **length**.*  
*He used all his **strength**.*



Besides, for the alveolar nasal sound /ɲ/, participant Southwest 5 could not perform it from the word “skin”:

*She has beautiful **skin**.*

Moreover, there were six participants, Southwest 1-2, Southwest 6-7, Southwest 9-10, who could not perform velar nasal sound /ŋ/; participant Southwest 3 could perform velar nasal sound /ŋ/ from the words “writing” and “king”; participant Southwest 4 could only perform velar nasal sound /ŋ/ from the word “king”; participants Southwest could only perform velar nasal sound /ŋ/ from the word ‘writing’:

*He has good **handwriting**.*

*The **King** trusts his people.*

*We **sing** to please her.*

As Li and Wayland (2006) stated, Chinese native speakers whose dialects do not distinguish /n/ and /l/ have difficulty of distinguishing these two sounds in English. In this research, the researcher found out that there were three Southwestern participants who could not distinguish /n/ and /l/ in Chinese and English sentences:

Southwest 5: 我在整理材料。 [Wǒ zài zhěng lǐ cái liào(niào).]  
(I am arranging the materials.)  
A book is not(lot) judged only on its length(nength).

Southwest 7: 我在整理材料。 [Wǒ zài zhěng lǐ cái liào(niào).]  
(I am arranging the materials.)  
A book is not judged only(onny) on its length(nength).

Southwest 9: 我在整理材料。 [Wǒ zài zhěng lǐ cái liào(niào).]  
(I am arranging the materials.)  
A book is not(lot) judged only on its length(nength).

Then, **Table 4.3** and **Table 4.4** show the individual participants’ frequencies of performance for alveolar and velar nasal sounds in short Chinese and English sentences.

**Table 4.3** Performances for alveolar and velar nasal sounds in short sentences. (North)

<b>Participant</b>	<b>Frequencies of (Chinese)</b>	<b>Frequencies (English)</b>
North 1	12(100%)	10(83%)
North 2	12(100%)	10(83%)
North 3	12(100%)	12(100%)
North 4	12(100%)	12(100%)
North 5	12(100%)	10(83%)
North 6	12(100%)	12(100%)
North 7	12(100%)	11(92%)
North 9	12(100%)	12(100%)
North 10	12(100%)	12(100%)

All Northern participants from north region of China could perform alveolar nasal sounds and velar nasal sounds in short Chinese sentences, whereas participant North 1 could not perform two of the words from velar nasal sound /eŋ/ and /ɪŋ/ in short English sentences:

*A book is not judged only on its **length**.  
He has good **handwriting**.*

Participant North 2 performed alveolar nasal sound /æŋ/ as /æŋ/ in short English sentences:

*This is my study **plan(g)**.  
If it's hot, turn on the **fan(g)**.*

Participant North 5 could not perform the velar nasal sound /eŋ/ in short English sentences:

*A book is not judged only on its **length**.  
He used all his **strength**.*

Participant North 1 could not perform one word from velar nasal sound /eŋ/ in short English sentences:

*A book is not judged only on its **length**.*

**Table 4.4** Performances for alveolar and velar nasal sounds in short sentences. (Southwest)

<b>Participant</b>	<b>Frequencies of (Chinese)</b>	<b>Frequencies (English)</b>
Southwest 1	6(50%)	6(50%)
Southwest 2	6(50%)	6(50%)
Southwest 3	6(50%)	9(75%)
Southwest 4	7(58%)	9(75%)
Southwest 5	6(50%)	7(58%)
Southwest 6	6(50%)	6(50%)
Southwest 7	8(67%)	7(58%)
Southwest 8	6(50%)	7(58%)
Southwest 9	6(50%)	7(58%)
Southwest 10	6(50%)	6(50%)

Participants Southwest 1, Southwest 2, Southwest 6, Southwest 10 could not perform all velar nasal sounds in short Chinese sentences and all velar nasal sounds in short English sentences:

今天的海浪很大。[Jīn tiān de hǎi **làng** hěn dà.] (Today's waves are rough.)  
他把车驶入了小巷。[Tā bǎ chē shǐ rù le xiǎo **xiàng**.] (He drives the car to the alley.)

祝你生日快乐! [Zhù nǐ **shēng** rì kuài lè!] (I wish you a happy birthday.)  
我在整理材料。[Wǒ zài **zhěng** lǐ cái liào.] (I am arranging the materials.)

他只是个平凡的人。[Tā zhǐ shì yī gè **píng** fán de rén.] (He is an ordinary people.)  
这是一个幸福的时代。[Zhè shì yī gè **xìng** fú de shí dài.] (This is a generation of happiness.)

*Hang the picture on the wall.*

*A book is not judged only on its **length**.  
He used all his **strength**.*

*He has good **handwriting**.  
The **King** trusts his people.  
We **sing** to please her.*

Participants Southwest 3 could not perform all velar nasal sounds in short Chinese sentences, or two words from velar nasal sound /ŋ/ and one word from /ŋ/ in short English sentences:

今天的海浪很大。[Jīn tiān de hǎi **làng** hěn dà.] (Today's waves are rough.)  
他把车驶入了小巷。[Tā bǎ chē shǐ rù le xiǎo **xiàng**.] (He drives the car to the alley.)

祝你生日快乐! [Zhù nǐ **shēng** rì kuài lè!] (I wish you a happy birthday.)  
我在整理材料。[Wǒ zài **zhěng** lǐ cái liào.] (I am arranging the materials.)

他只是一个平凡的人。[Tā zhǐ shì yī gè **píng** fán de rén.] (He is an ordinary people.)  
这是一个幸福的时代。[Zhè shì yī gè **xìng** fú de shí dài.] (This is a generation of happiness.)

*A book is not judged only on its **length**.  
He used all his **strength**.*

*We **sing** to please her.*

Participants Southwest 4 could not perform one word from alveolar nasal sound /en/ or velar nasal sounds /eng/ and /ing/ in short Chinese sentences, and the participant could not perform the velar nasal sound /æŋ/ or two words from velar nasal sound /ŋ/ in short English sentences:

石头打破了你的花盆。[Shí tou dǎ pò le nǐ de huā **pén**.] (The rock broke your flowerpot.)

祝你生日快乐! [Zhù nǐ **shēng** rì kuài lè!] (I wish you a happy birthday.)  
我在整理材料。[Wǒ zài **zhěng** lǐ cái liào.] (I am arranging the materials.)

他只是一个平凡的人。[Tā zhǐ shì yī gè **píng** fán de rén.] (He is an ordinary people.)  
这是一个幸福的时代。[Zhè shì yī gè **xìng** fú de shí dài.] (This is a generation of happiness.)

***Hang** the picture on the wall.*

*He has good **handwriting**.  
We **sing** to please her.*

Participants Southwest 5 could not perform all the velar nasal sound in short Chinese sentences, and the participant could not perform the velar nasal sound /æŋ/, one word from velar

nasal sound /eŋ/, one word from alveolar nasal sound /ɲ/, or two of the words from velar nasal sound /ŋ/ in short English sentences:

今天的海浪很大。[Jīn tiān de hǎi **làng** hěn dà.] (Today's waves are rough.)  
他把车驶入了小巷。[Tā bǎ chē shǐ rù le xiǎo **xiàng**.] (He drives the car to the alley.)

祝你生日快乐! [Zhù nǐ **shēng** rì kuài lè!] (I wish you a happy birthday.)  
我在整理材料。[Wǒ zài **zhěng** lǐ cái liào.] (I am arranging the materials.)

他只是一个平凡的人。[Tā zhǐ shì yī gè **píng** fán de rén.] (He is an ordinary people.)  
这是一个幸福的时代。[Zhè shì yī gè **xìng** fú de shí dài.] (This is a generation of happiness.)

*Hang* the picture on the wall.

He used all his **strength**.

She has beautiful **skin**.

The **King** trusts his people.

We **sing** to please her.

Participant Southwest 7 could not perform velar nasal sounds /eng/ and /ing/ in short Chinese sentences, and the participant could not perform the velar nasal sound /æŋ/, one word from velar nasal sound /eŋ /, or the velar nasal sound /ŋ/ in short English sentences:

祝你生日快乐! [Zhù nǐ **shēng** rì kuài lè!] (I wish you a happy birthday.)  
我在整理材料。[Wǒ zài **zhěng** lǐ cái liào.] (I am arranging the materials.)

他只是一个平凡的人。[Tā zhǐ shì yī gè **píng** fán de rén.] (He is an ordinary people.)  
这是一个幸福的时代。[Zhè shì yī gè **xìng** fú de shí dài.] (This is a generation of happiness.)

*Hang* the picture on the wall.

He used all his **strength**.

He has good **handwriting**.

The **King** trusts his people.

We **sing** to please her.

Participant Southwest 8 could not perform all the velar nasal sound in short Chinese sentences; the participant could not perform the velar nasal sounds /æŋ/ and /eŋ /, or two words from velar nasal sound /ŋ/ in short English sentences:

今天的海浪很大。[Jīn tiān de hǎi **làng** hěn dà.] (Today's waves are rough.)  
他把车驶入了小巷。[Tā bǎ chē shǐ rù le xiǎo **xiàng**.] (He drives the car to the alley.)

祝你生日快乐! [Zhù nǐ **shēng** rì kuài lè!] (I wish you a happy birthday.)  
我在整理材料。[Wǒ zài **zhěng** lǐ cái liào.] (I am arranging the materials.)

他只是个平凡的人。[Tā zhǐ shì yī gè **píng** fán de rén.] (He is an ordinary people.)  
这是一个幸福的时代。[Zhè shì yī gè **xìng** fú de shí dài.] (This is a generation of happiness.)

*Hang* the picture on the wall.

A book is not judged only on its **length**.  
He used all his **strength**.

The **King** trusts his people.  
We **sing** to please her.

Participant Southwest 9 could not perform all the velar nasal sound in short Chinese sentences, and the participant could not perform the velar nasal sounds /eŋ/ or /ŋ/ in short English sentences:

今天的海浪很大。[Jīn tiān de hǎi **làng** hěn dà.] (Today's waves are rough.)  
他把车驶入了小巷。[Tā bǎ chē shǐ rù le xiǎo **xiàng**.] (He drives the car to the alley.)

祝你生日快乐! [Zhù nǐ **shēng** rì kuài lè!] (I wish you a happy birthday.)  
我在整理材料。[Wǒ zài **zhěng** lǐ cái liào.] (I am arranging the materials.)

他只是个平凡的人。[Tā zhǐ shì yī gè **píng** fán de rén.] (He is an ordinary people.)  
这是一个幸福的时代。[Zhè shì yī gè **xìng** fú de shí dài.] (This is a generation of happiness.)

A book is not judged only on its **length**.  
He used all his **strength**.

*He has good handwriting.*  
*The **King** trusts his people.*  
*We **sing** to please her.*

To answer the second research question, the researcher analyzed if participants who scored higher levels in the short Chinese passage based on the Mandarin Proficiency Test Standards would also score higher levels in the short English passage based on IELTS Speaking-pronunciation. There are six levels in total for the Mandarin Proficiency Test Standards, from the highest level to the lowest level: Advanced-high, Advanced-low, Intermediate-high, Intermediate-low, Foundation-high, and Foundation-low. All participants in the research reached levels from Foundation-high to Advanced-low. There are seven bands from IELTS Speaking-Pronunciation, from the highest band to the lowest band: from Band 9 to Band 3. All participants in this research reached from Band 4 to Band 7. **Table 4.5** and **Table 4.6** show two groups' frequencies of levels on the Mandarin Proficiency Test and IELTS Test-Speaking.

**Table 4.5** Levels Achieved on the Mandarin Proficiency Test. (Group)

<b>North</b>	<b>Frequencies (%)</b>	<b>Southwest</b>	<b>Frequencies (%)</b>
Advanced-high	1(11%)	Advanced-high	0
Advanced-low	8(89%)	Advanced-low	0
Intermediate-high	0	Intermediate-high	7(70%)
Intermediate-low	0	Intermediate-low	2(20%)
Foundation-high	0	Foundation-high	1(10%)

There was one Northern participant, North 3, who achieved level Advanced-high, and the rest of eight Northern participants achieved level Advanced-low on the Mandarin Proficiency Test:

*Advanced-high*    *When reading and talking spontaneously, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth.*

*Advanced-low* When reading and talking spontaneously, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth. Occasionally there are words and mistakes.

None of Southwestern participants achieved neither Advanced-high nor Advanced-low level on the Mandarin Proficiency Test. The majority participants from Southwestern region of China, Southwest 1-4, Southwest 7-8, and Southwest 10, achieved Intermediate-high level, as the participants could not differentiate alveolar nasal sounds and velar nasal sounds in reading short Chinese passage:

*Intermediate-high* When reading and talking freely, the rhythm is standard, the tone is natural, and the expression is smooth. There are some mistakes in a few difficult sounds (flat tongue, alveolar nasal and velar nasal sounds, side nasal sounds, etc.) Words and grammar are rarely mistaken.

For Southwestern participants, there were two participants, Southwest 5 and Southwest 6, who achieved Intermediate-low level, as the participants could not differentiate side nasal sounds /n/ and /l/. Participant Southwest 9 achieved Foundation-high level because the participant could not differentiate alveolar nasal sounds, velar nasal sounds, side nasal sound, and flat tongue. The participant's dialect tone was obvious on the Mandarin Proficiency Test:

*Intermediate-low* When reading and talking freely, some of the individual tones and the pronunciation of the consonants and vowels are not accurate. There are more mistakes in difficult sounds (flat tongue sound, alveolar nasal and velar nasal sounds, side nasal sounds, fu-hu, z-zh-j, i-ü are not differentiated, etc.). The dialect tone is not obvious. There are situations where dialect words and dialect grammars are used.

*Foundation-high* When reading and talking freely, there are more errors in consonants and vowels, and the mistakes of difficult sounds are out of the usual range. The tone adjustment is not accurate. The dialect tone is obvious. There are mistakes in words and grammar.



**Table 4.6 Bands Achieved on IELTS Speaking-pronunciation. (Group)**

<b>North</b>	<b>Frequencies (%)</b>	<b>Southwest</b>	<b>Frequencies (%)</b>
Band 7	5(56%)	Band 7	3(30%)
Band 6	3(33%)	Band 6	2(20%)
Band 5	1(11%)	Band 5	3(30%)
Band 4	0	Band 4	2(20%)

In the population of Northern participants, five of them, North 1, North 4-6, and North 9, achieved Band 7, and three participants, North 2-3 and North 7, achieved Band 6, and one participant, North 10, achieved Band 5 from IELTS Speaking-pronunciation:

- 8 *Uses a wide range of pronunciation features*  
*Sustains flexible use of features, with only occasional lapses*  
*Is easy to understand throughout; L1 accent has minimal effect on intelligibility*
- 7 *Shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8*
- 6 *Uses a range of pronunciation features with mixed control*  
*Shows some effective use of feature but this is not sustained*  
*Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*
- 5 *Shows all the positive feature of Band 4 and some, but not all, of the positive features of Band 6*

In the population of Southwestern participants, three of them, Southwest 1-2 and Southwest 4, achieved Band 7 on IELTS Speaking-pronunciation. One participant Southwest 8, achieved Band 6; four participants, Southwest 2, Southwest 5-6, and Southwest 10, achieved Band 5, and two participants, Southwest 7 and Southwest 9, achieved Band 4 on IELTS Speaking-pronunciation:

- 8 *Uses a wide range of pronunciation features*  
*Sustains flexible use of features, with only occasional lapses*  
*Is easy to understand throughout; L1 accent has minimal effect on intelligibility*
- 7 *Shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8*

- 6 *Uses a range of pronunciation features with mixed control  
Shows some effective use of feature but this is not sustained  
Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*
- 5 *Shows all the positive feature of Band 4 and some, but not all, of the positive features of Band 6*
- 4 *Uses a limited range of pronunciation features  
Attempts to control features but lapses are frequent  
Mispronunciations are frequent and causes some difficulty for the listener*

Then, **Table 4.7** and **Table 4.8** show the individual participant’s achievements on the Mandarin Proficiency Test and IELTS Speaking-pronunciation.

**Table 4.7** Achievements on the Mandarin Proficiency Test and IELTS Speaking-pronunciation. (Northern)

<b>Participant</b>	<b>Mandarin Proficiency Test</b>	<b>IELTS Speaking-pronunciation</b>
North 1	Advanced-low	Band 7
North 2	Advanced-low	Band 6
North 3	Advanced-high	Band 6
North 4	Advanced-low	Band 7
North 5	Advanced-low	Band 7
North 6	Advanced-low	Band 7
North 7	Advanced-low	Band 6
North 9	Advanced-low	Band 7
North 10	Advanced-low	Band 5

In the population of Northern participants, five participants, North 1, North 4-6, and North 9, achieved Advanced-low on the Mandarin Proficiency Test and Band 7 on IELTS Speaking-pronunciation test, as the participants showed occasional mistakes, and the tone was natural in reading the short Chinese passage. The participants showed occasional lapses, but listener could easily understand when they read the short English passage:

*Advanced-low* When reading and talking spontaneously, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth. Occasionally there are words and mistakes.

- 8 *Uses a wide range of pronunciation features*  
*Sustains flexible use of features, with only occasional lapses*  
*Is easy to understand throughout; L1 accent has minimal effect on intelligibility*
- 7 *Shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8*
- 6 *Uses a range of pronunciation features with mixed control*  
*Shows some effective use of feature but this is not sustained*  
*Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*

Two participants, North 2 and North 6, achieved Advanced-low level on the Mandarin Proficiency Test and Band 6 on IELTS Speaking-pronunciation test. The participants showed occasional mistakes and the tone was natural in reading the short Chinese passage, and the participants showed some mispronunciation of a few words but listener could understand generally when the participants read the short English passage:

*Advanced-low* *When reading and talking spontaneously, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth. Occasionally there are words and mistakes.*

- 6 *Uses a range of pronunciation features with mixed control*  
*Shows some effective use of feature but this is not sustained*  
*Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*

A participant, North 3, achieved Advanced-high level on the Mandarin Proficiency Test and Band 6 on IELTS Speaking-pronunciation as the participant phonetic standards, words and grammar were correct in reading short Chinese sentences. The participant showed a few mispronunciation and mistakes in sounds and words, but listener could generally understand when the participant read the short English passage:

*Advanced-high* *When reading and talking spontaneously, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth.*

- 6 *Uses a range of pronunciation features with mixed control  
Shows some effective use of feature but this is not sustained  
Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*

A participant, North 10, achieved Advanced-low on the Mandarin Proficiency Test and Band 5 on IELTS Speaking-pronunciation because the participant showed occasional mistakes in reading short Chinese passage, and showed frequent lapses and mispronunciations but listener could understand generally when the participant read the short English passage:

*Advanced-low When reading and talking spontaneously, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth. Occasionally there are words and mistakes.*

- 6 *Uses a range of pronunciation features with mixed control  
Shows some effective use of feature but this is not sustained  
Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*

- 5 *Shows all the positive feature of Band 4 and some, but not all, of the positive features of Band 6*

- 4 *Uses a limited range of pronunciation features  
Attempts to control features but lapses are frequent  
Mispronunciations are frequent and causes some difficulty for the listener*

**Table 4.8** Achievements on the Mandarin Proficiency Test and IELTS Speaking-pronunciation. (Southwestern)

<b>Participant</b>	<b>Mandarin Proficiency Test</b>	<b>IELTS Speaking-pronunciation</b>
Southwest 1	Intermediate-high	Band 7
Southwest 2	Intermediate-high	Band 5
Southwest 3	Intermediate-high	Band 7
Southwest 4	Intermediate-high	Band 7
Southwest 5	Intermediate-low	Band 5
Southwest 6	Intermediate-low	Band 6
Southwest 7	Intermediate-high	Band 4
Southwest 8	Intermediate-high	Band 6
Southwest 9	Foundation-high	Band 4
Southwest 10	Intermediate-high	Band 5

In the population of Southwestern participants, three participants, Southwest 1 and Southwest 3-4, achieved Intermediate-high level on the Mandarin Proficiency Test and Band 7 on IELTS Speaking-pronunciation. The participants showed a few mistakes, and could not differentiate alveolar nasal sounds and velar nasal sounds in reading short Chinese sentences. The participants showed occasional lapses and a few mistakes in reading short English passage:

<i>Intermediate-high</i>	<i>When reading and talking freely, the rhythm is standard, the tone is natural, and the expression is smooth. There are some mistakes in a few difficult sounds (flat tongue, alveolar nasal and velar nasal sounds, side nasal sounds, etc.) Words and grammar are rarely mistaken.</i>
8	<i>Uses a wide range of pronunciation features Sustains flexible use of features, with only occasional lapses Is easy to understand throughout; L1 accent has minimal effect on intelligibility</i>
7	<i>Shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8</i>
6	<i>Uses a range of pronunciation features with mixed control Shows some effective use of feature but this is not sustained Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times</i>

There were participants, Southwest 2 and Southwest 10, who achieved Intermediate-high on the Mandarin Proficiency Test and Band 5 on IELTS Speaking-pronunciation. The participants could not differentiate alveolar nasal sounds and velar nasal sounds, and mispronounced a few words in reading the short Chinese passage. The participants showed mispronunciation of some words, sounds, and frequent lapses in English reading:

<i>Intermediate-high</i>	<i>When reading and talking freely, the rhythm is standard, the tone is natural, and the expression is smooth. There are some mistakes in a few difficult sounds (flat tongue, alveolar nasal and velar nasal sounds, side nasal sounds, etc.) Words and grammar are rarely mistaken.</i>
6	<i>Uses a range of pronunciation features with mixed control Shows some effective use of feature but this is not sustained Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times</i>

- 5 *Shows all the positive feature of Band 4 and some, but not all, of the positive features of Band 6*
- 4 *Uses a limited range of pronunciation features*  
*Attempts to control features but lapses are frequent*  
*Mispronunciations are frequent and causes some difficulty for the listener*

The participant Southwest 5 achieved Intermediate-low level on the Mandarin Proficiency Test and Band 5 on IELTS Speaking-pronunciation as the participants could not differentiate alveolar nasal, velar nasal sounds, and side nasal sound in reading the short Chinese passage. The participant showed mispronunciation of some words, sounds, and frequent lapses in English reading:

- Intermediate-low* *When reading and talking freely, some of the individual tones and the pronunciation of the consonants and vowels are not accurate. There are more mistakes in difficult sounds (flat tongue sound, alveolar nasal and velar nasal sounds, side nasal sounds, fu-hu, z-zh-j, i-ü are not differentiated, etc.). The dialect tone is not obvious. There are situations where dialect words and dialect grammars are used.*
- 6 *Uses a range of pronunciation features with mixed control*  
*Shows some effective use of feature but this is not sustained*  
*Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*
- 5 *Shows all the positive feature of Band 4 and some, but not all, of the positive features of Band 6*
- 4 *Uses a limited range of pronunciation features*  
*Attempts to control features but lapses are frequent*  
*Mispronunciations are frequent and causes some difficulty for the listener*

Participant Southwest 6 achieved Intermediate-low level on the Mandarin Proficiency Test and Band 6 on IELTS Speaking-pronunciation as the participant could not differentiate flat tongue sounds, alveolar nasal, velar nasal sounds, and side nasal sounds in reading the short Chinese passage. The participant showed mispronunciation of a few word and sounds, but listener could generally understand throughout:

*Intermediate-low* When reading and talking freely, some of the individual tones and the pronunciation of the consonants and vowels are not accurate. There are more mistakes in difficult sounds (flat tongue sound, alveolar nasal and velar nasal sounds, side nasal sounds, fu-hu, z-zh-j, i-ü are not differentiated, etc.). The dialect tone is not obvious. There are situations where dialect words and dialect grammars are used.

6 Uses a range of pronunciation features with mixed control  
Shows some effective use of feature but this is not sustained  
Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times

The participant Southwest 7 achieved Intermediate-high on the Mandarin Proficiency Test and Band 4 on IELTS Speaking-pronunciation as the participant could not differentiate a few alveolar nasal sounds, velar nasal sounds, and flat tongue sounds in reading in the short Chinese passage. The participant showed limited range of pronunciation and caused difficulty for listener to understand in reading short English passage:

*Intermediate-high* When reading and talking freely, the rhythm is standard, the tone is natural, and the expression is smooth. There are some mistakes in a few difficult sounds (flat tongue, alveolar nasal and velar nasal sounds, side nasal sounds, etc.) Words and grammar are rarely mistaken.

4 Uses a limited range of pronunciation features  
Attempts to control features but lapses are frequent  
Mispronunciations are frequent and causes some difficulty for the listener

The participant Southwest 8 achieved Intermediate-high on the Mandarin Proficiency Test and Band 6 on IELTS Speaking-pronunciation. The participant could not differentiate a few alveolar nasal sounds and velar nasal sounds, and had a few mistakes in reading the short Chinese passage while showing some effective use of feature. The participant had mispronunciation of a few words that reduced clarity in reading the short English passage:

*Intermediate-high* When reading and talking freely, the rhythm is standard, the tone is natural, and the expression is smooth. There are some mistakes in a few difficult sounds (flat tongue, alveolar nasal and velar nasal sounds, side nasal sounds, etc.) Words and grammar are rarely mistaken.

- 6 *Uses a range of pronunciation features with mixed control  
Shows some effective use of feature but this is not sustained  
Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times*

Participant Southwest 9 achieved Foundation-high on the Mandarin Proficiency Test and Band 4 on IELTS Speaking-pronunciation as the participant showed more errors and mistakes in words and sounds, and dialect tone was obvious in reading short Chinese passage. In the short English passage, the participant used a limited range of pronunciation features and showed frequent mispronunciations in sounds:

- Foundation-high* *When reading and talking freely, there are more errors in consonants and vowels, and the mistakes of difficult sounds are out of the usual range. The tone adjustment is not accurate. The dialect tone is obvious. There are mistakes in words and grammar.  
Uses a limited range of pronunciation features*
- 4 *Attempts to control features but lapses are frequent  
Mispronunciations are frequent and causes some difficulty for the listener*



## Chapter 5: Discussion

This study investigated if Chinese Southwestern dialects, which do not distinguish alveolar nasal sounds and velar nasal sounds, influence English pronunciation in words containing these sounds, and whether or not Chinese native speakers who speak more standard Mandarin would have more accurate English pronunciation. The findings of this study showed that Chinese Southwestern dialects have influences on English word pronunciation regarding velar nasal sounds, but there was a serious discrepancy between speaking more standard Mandarin and having more accurate English pronunciation.

### *Chinese Southwestern dialects influence English pronunciation in words containing velar nasal sounds*

The results of **Table 4.1** indicated that all participants from the Northern region of China could perform alveolar and velar nasal sounds in Chinese. Southwestern participants performed all alveolar nasal sounds in short Chinese sentences. However, Southwestern participants only performed 20% velar nasal sounds with /a/ vowel and none of the Southwestern participants performed velar nasal sounds with /e/ vowel or /i/ vowel. The result of **Table 4.2** illustrated that Northern participants performed all velar nasal sounds with /æ/ vowel, /ɪ/ vowel, and 78% velar nasal sounds with /e/ vowel in reading short English sentences. Southwestern participants only performed 20% velar nasal sounds with /æ/ vowel, /e/ vowel, and 13% velar nasal sounds with /ɪ/ vowel.

Also, the results of **Table 4.3** and **Table 4.4** indicated the range of frequencies of performance for alveolar and velar nasal sounds in reading short Chinese and English sentences. All Northern participants performed alveolar nasal sounds and velar nasal sounds in short

Chinese sentences, and performed 83% - 100% of alveolar and velar nasal sounds in short English sentences. However, Southwestern participants performed 50% - 67% of alveolar nasal sounds and velar nasal sounds in short Chinese sentences, and performed 50% -75% alveolar and velar nasal sounds in short English sentences.

Furthermore, in this study, some Southwestern participants could not distinguish /n/ and /l/ in reading Mandarin Chinese aloud, and they could not distinguish /n/ and /l/ in reading English aloud. Thus, in this study, the majority of speakers with Chinese Southwestern dialects background could not perform velar nasal sounds when they read Mandarin Chinese aloud, and Chinese Southwestern dialects affected speakers' pronunciation in English words that contain velar nasal sounds. Chinese speakers whose dialects did not differentiate /n/ and /l/ also had difficulty of differentiating these two sounds in English (Li and Wayland, 2006).

*It cannot be generalized that people who speak more standard Mandarin would speak more accurate English*

**Table 4.5** shows the majority of Northern participants (89%) achieved Advanced-low, and one Northern participant (11%) achieved Advanced-high on the Mandarin Proficiency Test, while none of the Southwestern participants achieved Advanced level. 70% of Southwestern participants achieved Intermediate-high; 20% of Southwestern participants achieved Intermediate-low; 10% of Southwestern participants achieved Foundation-low on the Mandarin Proficiency Test in this study. However, **Table 4.6** shows, in the population of Northern participants, 56% achieved Band 7, and 33% achieved Band 6, and 11% achieved Band 5 on IELTS Speaking-pronunciation. In the population of Southwestern participants, 30% achieved

Band 7, and 2% achieved Band 6, and 30% achieved Band 5, and 20% achieved Band 4 on IELTS Speaking-pronunciation.

In addition, **Table 4.7** shows individual Northern participants' levels of the Mandarin Proficiency Test and IELTS Speaking-pronunciation, but the levels participants achieved on both rubrics were not consistent. For instance, participant North 3 achieved Advanced-high on the Mandarin Proficiency Test, but only achieved Band 6 on the IELTS Speaking-pronunciation. Participants North 1 and North 4-6 achieved Advanced-low on the Mandarin Proficiency Test, but achieved Band 7 on the IELTS Speaking-pronunciation. Moreover, **Table 4.8** shows individual Southwestern participants' levels of the Mandarin Proficiency Test and the IELTS Speaking-pronunciation, and the levels were not consistent either. For example, participant Southwest 6 achieved Intermediate-low on the Mandarin Proficiency Test and Band 6 on the IELTS Speaking-pronunciation. Participant Southwest 7 achieved Intermediate-high on the Mandarin Proficiency Test, whereas the participant achieved Band 4 on the IELTS Speaking-pronunciation. In this study, participants who achieved higher levels on the Mandarin Proficiency Test did not achieve higher levels consistently on the IELTS Speaking-pronunciation, thus, the findings of this study could not generalize that people who speak more standard Mandarin would speak more accurate English. **Table 6.1** shows the inconsistencies of Northern and Southwestern participants' achievement on the Mandarin Proficiency Test and the IELTS Speaking-pronunciation:

**Table 6.1** Inconsistent achievement on the Mandarin Proficiency Test and the IELTS Speaking-pronunciation.

<b>Participant</b>	<b>Mandarin Proficiency Test</b>	<b>IELTS Speaking-pronunciation</b>
North 1	Advanced-low	Band 7
North 3	Advanced-high	Band 6
North 4	Advanced-low	Band 7
North 5	Advanced-low	Band 7
North 6	Advanced-low	Band 7
Southwest 6	Intermediate-low	Band 6
Southwest 7	Intermediate-high	Band 4

***Implications for teaching students with Chinese Southwestern dialects background***

An English teacher with a Mandarin-speaking background teaching English pronunciation to students with Chinese Southwestern dialects background can use the method of sociocultural theory, ZPD, and reading strategies to help students acquire alveolar nasal sounds and velar nasal sounds in Mandarin. The teacher can also help students build the acquisition of alveolar nasal sounds and velar nasal sounds in English. An English teacher with Chinese Southwestern dialects background can practice Mandarin to facilitate students' acquisition of alveolar nasal sounds and velar nasal sounds in both Mandarin and English. For instance, an English teacher can create tasks for students to show students' performance of alveolar nasal and velar nasal sounds in English, then, the teacher could observe students' performance and mark if students performed these sounds in English. Later, the teacher can modify their instruction based on students' performance. For example, the teacher can help students distinguish alveolar nasal and velar sounds in Mandarin Chinese and transfer the distinguished principles into English, and learn how to pronounce alveolar nasal sounds and velar nasal sounds in English.

## Chapter 6: Conclusion

China has a large number of ethnic minority groups and many minorities have their own language. Researchers classified various Chinese dialects based on phonological tones and features of each language group. Even though Chinese government encourages ethnic minorities to use their own dialect in their region, it is demanded to have a common language for people from different places to communicate. In the Southwestern region of China, many dialects do not distinguish side nasal sounds /n/ and /l/, some dialects do not differentiate flat tongue sounds /z/, /c/, /s/ and /zh/, /ch/ /sh/, most of dialects do not distinguish alveolar nasal sounds and velar nasal sounds /an/, /en/, /in/ and /ang/, /eng/, /ing/.

It is commonly observed that L1 influences L2 acquisition and linguistic researchers demonstrated that the differences and similarities between previously acquired language and target language can cause linguistic transfer, including a positive transfer and a negative transfer. Researchers also believe that there are many factors influence acquisition of L2, whereas, L1 has the biggest influences on L2 and L1 literacy plays a foundational role in L2 literacy. Oral language is the fundamental part of communication and it is important to promote pronunciation of L2 to achieve a proficient level. Although a large number of populations in China speak Mandarin Chinese, there still are groups of minorities who speak with different dialects. The dialects as their L1 also influence their learning of English as L2. Researchers indicated that Chinese English learner's pronunciation of English vowels are different based on the learner's background, and Chinese native speakers whose dialects do not distinguish side nasal sounds /n/ and /l/ also have difficulty distinguishing these sounds in English.

In order to investigate a contemporary phenomenon in a real-world context, a case study is designed to examine the influences of Chinese Southwestern speakers' dialect in English

pronunciation. This study used short sentences in Chinese and English to investigate whether or not Chinese speakers' Southwestern dialects, which do not distinguish alveolar nasal /an/, /en/, /in/ and velar nasal /ang/, /eng/, /ing/ sounds in *Pinyin*, influenced their pronunciation in English words that contain these sounds. Then, this study used short passages in Chinese and English to test if Chinese native speakers, who speak more standard Mandarin, would have more accurate English pronunciation. Besides, from sociocultural theory and Vygotsky's ZPD, this research stated the implications for teaching Chinese Southwestern dialects speakers acquiring English sounds regarding alveolar nasal sounds and velar nasal sounds. The findings of this study demonstrated that, first, most of Chinese Southwestern dialects could not perform velar nasal sounds in Mandarin Chinese and it influenced speakers' performance of velar nasal sounds in English; second, the study confirmed Li and Wayland (2006)'s study that Chinese Southwestern dialects speakers whose dialects did not distinguish /n/ and /l/, could not distinguish these two sounds in English as well. However, the findings of this study could not generalize that those who spoke more standard Mandarin Chinese would speak more accurate English, as English speaking may be determined by multiple elements such as: physical hearing ability, years of learning English, English proficiency, or educational level of learning English. Later, the study utilized the method of ZPD to provide an instructional implication for teachers to help students with Chinese Southwestern dialects background acquire velar nasal sounds in English. For example, a teacher can create tasks to assess students' performance of alveolar nasal sounds and velar nasal sounds in English. For the alveolar and velar nasal sounds that students cannot perform, the teacher can help the students to acquire these sounds in Mandarin first, then facilitate the students to transit the skill into English.

### ***Validity of the Study***

The researcher used multiple procedures to ensure the validity of the study. First, the researcher recruited participants in high school and college from Southwestern and Northern regions of China to ensure that the participants' speaking habits of Mandarin were natural, and that the participants did not receive any training in speaking English. Second, *Pinyin* was not provided in Chinese research materials, in order to ensure that the participants' reading was naturally from their own language background. The short English sentences were in random order to guarantee that the participants would not differentiate alveolar nasal sounds and velar nasal sounds consciously when the two sounds were listed together. In Chinese and English research materials, all alveolar nasal sounds and velar nasal sounds were matched with different vowels to assure that the participants had multiple chances to produce and perform these sounds while reading aloud, and to assure that the researcher had multiple resources to analyze the data. Finally, interviewing questions were proposed to ensure that participants were from the regions where they were recruited. Moreover, the researcher analyzed data from different perspectives. The researcher analyzed Northern participants and Southwestern participants as two groups, and then analyzed Northern participants and Southwestern participants' individual performance. In addition, the researcher provided thick descriptions and detailed evidences to convey the findings of the study. All these procedures enhanced the validity of the findings.

### ***Limitations and Future Directions***

However, this research study recruited 20 participants, which was a small sample size from the Southwestern region and Northern region of China. Another deficit of the selected

participants in this study was that one of the participants recruited from the Northern region of China was from Sichuan Province, located in the Southwestern region of China, so the participant's data could not be adopted into this study. Future researchers can enlarge the participants' sampling size, and review participants' language backgrounds before recording participants reading aloud. Future studies can explore the influences of other Chinese dialects, such as Cantonese, Wu, Min, etc. in English pronunciation. Future studies can examine if Chinese dialects that do not distinguish flat tongue sounds, such as /z/ /zh/, /c/ /ch/, and /s/ /sh/, will influence pronunciation in English words containing these sounds. Furthermore, future researchers may use similar methodology and implications to investigate and facilitate Chinese language learners with English background, and to acquire alveolar nasal sounds and velar nasal sounds in Mandarin Chinese.



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## Appendix

### Appendix 1.1 Short sentences in Chinese contains alveolar nasal sounds and velar nasal sounds.

<b>an</b>	我们一起吃饭吧。[Wǒ men yī qǐ chī <b>fàn</b> ba.] (Let's have lunch/dinner together.)
	你们不必为我担心。[Nǐ men bù bì wèi wǒ <b>dān</b> xīn.] (You don't have to worry about me.)
<b>ang</b>	今天的海浪很大。[Jīn tiān dì hǎi <b>làng</b> hěn dà.] (Today's waves are rough.)
	他把车驶入了小巷。[Tā bǎ chē shǐ rù le xiǎo <b>xiàng</b> .] (He drives the car to the alley.)
<b>en</b>	这本书太陈旧了。[Zhè běn shū tài <b>chén</b> jiù le.] (This book is too old.)
	石头打破了你的花盆。[Shí tou dǎ pò le nǐ de huā <b>pén</b> .] (The rock broke your flowerpot.)
<b>eng</b>	祝你生日快乐! [Zhù nǐ <b>shēng</b> rì kuài lè!] (I wish you a happy birthday.)
	我在整理材料。[Wǒ zài <b>zhěng</b> lǐ cái liào.] (I am arranging the materials.)
<b>in</b>	信誉就是一切。[ <b>Xìn</b> yù jiù shì yī qiè.] (Honor is everything.)
	这就是失败的原因。[Zhè jiù shì shī bài de yuán <b>yīn</b> .] (This is the reason of failure.)
<b>ing</b>	他只是个平凡的人。[Tā zhǐ shì yī gè <b>píng</b> fán de rén.] (He is an ordinary people.)
	这是一个幸福的时代。[Zhè shì yī gè <b>xìng</b> fú de shí dài.] (This is a generation of happiness.)

**Appendix 1.2** Short sentences in English contains alveolar nasal sounds and velar nasal sounds.

/æŋ/	This is my study <b>plan</b> .
	If it's hot, turn on the <b>fan</b> .
/æŋ/	<b>Hang</b> the picture on the wall.
/ən/	I also like this <b>wooden</b> board.
	There was a <b>sudden</b> flash.
/eŋ/	A book is not judged only on its <b>length</b> .
	He used all his <b>strength</b> .
/ɪn/	She has beautiful <b>skin</b> .
	I believe it is a <b>sin</b> .
/ɪŋ/	He has good <b>handwriting</b> .
	The <b>King</b> trusts his people.
	We <b>sing</b> to please her.

## Appendix 2.1 Short passage in Chinese from Mandarin Proficient test

Yī wèi fǎngměi zhōngguó nǚzuòjiā, zài niǚyuē yùdào yíwèi mài huā de lǎo tài tai. Lǎo tài tai  
一位 访美 中国 女作家, 在 纽约 遇到 一位 卖花 的 老太太。老太太

chuānzhuó pòjiù, shēntǐ xūruò, dàn liǎnshàng de shénqíng què shì nà yàng xiánghé xīngfèn.  
穿着 破旧, 身体虚弱, 但 脸上 的 神情 却是 那样 祥和 兴奋。

Nǚzuòjiā tiāole yī duǒ huā shuō: “Kàn qǐ lái, nǐ hěn gāoxìng.” Lǎo tài tai miàndài wéixiào  
女作家 挑了 一 朵 花 说: “看起来, 你很高兴。” 老太太 面带 微笑

de shuō: “Shì de, yī qiè dōu zhè me měi hǎo, wǒ wèi shé me bù gāo xìng ne?” Duì fán nǎo, nǐ  
地 说: “是的, 一切 都 这么 美好, 我 为什么 不 高兴 呢?” “对 烦恼, 你  
dào zhēn néng kàn dé kāi. Nǚzuòjiā yòu shuō le yí jù. Méi liào dào, lǎo tài tai de huí dá gèng lìng  
到 真 能 看得 开。”女作家 又 说 了 一 句。没料到, 老太太 的 回答 更令

nǚzuòjiā dà chī yí jīng: “Yē sū zài xīng qí wǔ bèi dīng shàng shí zì jià shí, shì quán shì jiè zuì  
女作家 大吃 一 惊: “耶稣 在 星期 五 被 钉 上 十字 架 时, 是 全世界 最

zāo gāo de yī tiān, kě sān tiān hòu jiù shì fù huó jié. Suǒ yǐ, dāng wǒ yù dào bù xìng de shí hòu,  
糟糕 的 一 天, 可 三 天 后 就 是 复活 节。所以, 当 我 遇到 不幸 的 时候,

jiù huì děng dài sān tiān, zhè yàng yī qiè jiù huī fù zhèng cháng le.” “Děng dài sān tiān”, duō me  
就 会 等 待 三 天, 这 样 一 切 就 恢 复 正 常 了。” “等 待 三 天”, 多 么

fù yú zhé lǐ de huà yǔ, duō me lè guān de shēng huó fāng shì. Tā bǎ fán nǎo hé tòng kǔ pāo xià,  
富 于 哲 理 的 话 语, 多 么 乐 观 的 生 活 方 式。它 把 烦 恼 和 痛 苦 抛 下,

quán lì qù shōu huò kuài lè.  
全 力 去 收 获 快 乐。



**Appendix 2.2** Short passage in English

“Saturday morning was come, and all the summer world was bright and fresh, and brimming with life. There was a song in every heart; and if the heart was young, the music issued at the lips. There was cheer in every face and a spring in every step. The locust-trees were in bloom, and the fragrance of the blossoms filled the air. Cardiff Hill, beyond the village and above, it was green with vegetation, and it lay just far enough away to seem a Delectable Land, dreamy, reposeful, and inviting.” –Mark Twain, *The Adventures of Tom Sawyer*

### Appendix 3.1 Mandarin Proficiency Test Standards

Advance-1	When reading and talking freely, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth.
Advanced-2	When reading and talking freely, the phonetic standards, words and grammar are correct, the tone is natural, and the expression is smooth. Occasionally there are words and mistakes.
Intermediate-1	When reading and talking freely, the rhythm is standard, the tone is natural, and the expression is smooth. There are some mistakes in a few difficult sounds (flat tongue, alveolar nasal and velar nasal sounds, side nasal sounds, etc.) Words and grammar are rarely mistaken.
Intermediate-2	When reading and talking freely, some of the individual tones and the pronunciation of the consonants and vowels are not accurate. There are more mistakes in difficult sounds (flat tongue sound, alveolar nasal and velar nasal sounds, side nasal sounds, fu-hu, z-zh-j, i-ü are not differentiated, etc.). The dialect tone is not obvious. There are situations where dialect words and dialect grammars are used.
Foundation-1	When reading and talking freely, there are more errors in consonants and vowels, and the mistakes of difficult sounds are out of the usual range. The tone adjustment is not accurate. The dialect tone is obvious. There are mistakes in words and grammar.
Foudation-2	When reading and talking freely, there are plenty errors in consonants and vowels. The dialect feature is prominent and dialect tone is obvious. There are many mistakes in words and grammar. Listeners' who are not from the same region may not understand a part of the conversation.

### Appendix 3.2 IELTS: Speaking Band Description – Pronunciation

<b>Band</b>	<b>Pronunciation</b>
9	<ul style="list-style-type: none"><li>• Use a full range of pronunciation feature with precision and subtlety</li><li>• Sustains flexible use of features throughout</li><li>• Is effortless to understand</li></ul>
8	<ul style="list-style-type: none"><li>• Uses a wide range of pronunciation features</li><li>• Sustains flexible use of features, with only occasional lapses</li><li>• Is easy to understand throughout; L1 accent has minimal effect on intelligibility</li></ul>
7	<ul style="list-style-type: none"><li>• Shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8</li></ul>
6	<ul style="list-style-type: none"><li>• Uses a range of pronunciation features with mixed control</li><li>• Shows some effective use of feature but this is not sustained</li><li>• Can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times</li></ul>
5	<ul style="list-style-type: none"><li>• Shows all the positive feature of Band 4 and some, but not all, of the positive features of Band 6</li></ul>
4	<ul style="list-style-type: none"><li>• Uses a limited range of pronunciation features</li><li>• Attempts to control features but lapses are frequent</li><li>• Mispronunciations are frequent and causes some difficulty for the listener</li></ul>
3	<ul style="list-style-type: none"><li>• Speech is often unintelligible</li></ul>