Validating the Effectiveness of the Mandarin Pronunciation Guide among Malay Learners

Chong Ah Kow[*], Yong Ying Mei

Centre for Modern Languages & Human Sciences, Universiti Malaysia Pahang, Lebuhraya Tun Razak,
26300 Kuantan, Pahang, Malaysia

Abstract

This paper reports on a study which was conducted to validate the effectiveness of a guidebook entitled "Mandarin Pronunciation Guide with a Comparison of English and Malay words." Many authors (i.e. De Mente, 2006; Peters, 2006; Sharma, 2007) have used English phonetic to explain Mandarin pronunciation. However, no study has been conducted to prove the effectiveness of using English phonetic to learn Mandarin. Mandarin Pronunciation Guide, which content includes using similar corresponding English and Malay sounds, is a guidebook which is written for Malay and English speaking students who learn Mandarin as a foreign language. This study therefore aimed to verify the effectiveness of the guidebook as used among students of a public university in Malaysia. Participants were fifteen Malay students who were asked to use the guidebook. Pre-test and post-test were administered before and after the utilisation of the guidebook where participants were requested to record their pronunciation of 100 Chinese words. The results showed a significant improvement among participants which validated the effectiveness of the Mandarin Pronunciation Guide for use among Malay learners.

© 2014 Penerbit Universiti Malaysia Pahang

Keywords: Mandarin pronunciation; Mandarin as a foreign language

INTRODUCTION

The first step in learning to speak a foreign language is to learn to pronounce words in that language, and in doing so, learners tend to rely on their first language sound system (Flege, 1995; Eckman & Inverson, 1993). Research shows that the major factor influencing foreign language learners' pronunciation is the transfer of their first language phonology (Tarone, 2005). The transfer can be either positive or negative; those foreign words with syllables or phonemes which also exist in the first language will have a positive transfer, whereas words with syllables or phonemes which do not exist in the learners' first language will cause a negative transfer.

Observations and experiences of the researchers of this study indicated that transfer of the first language in Mandarin pronunciation of Malay students did occur. For example, the Malay students could pronounce Mandarin syllables like *ma*[1] [mʌ], *mu* [mu], *fu* [fu], *he* [xɤ], *ni* [ni], *ne* [ne], and *li* [li] easily

---

* Corresponding author: Tel.: +609-549-3081; Fax: +609-549-3112.
 E-mail addresses: cak1949@gmail.com, chongahkow@ump.edu.my [Chong, A.K.]; yingmei@ump.edu.my [Yong, Y.M.].

---

[1] Phonemes or syllables in this paper are using Mandarin alphabetical phonetic or Hanyu Pinyin (汉语拼音) spelling system. International Phonetic Alphabet will be added in bracket "[ ]" where necessary.

and correctly because these sounds are also found in the Malay language. However, in most cases, they would find difficulties in pronouncing syllables involving aspirated consonants (*p, t, q, ch, c, k*), palatal consonants *(j, q, x)* and also those syllables with apical vowels (*-i* [ɿ], *-i* [ʅ]) as well as rounded high-front vowel (*ü*) which although it is guided by the same roman alphabets for its pronunciation, do not exist in their first language.

These observations are similar with the findings by Goh (2007), who ranked *b, d, g m, n, l, f, s, h, a, e, i, o, u* as easy pronunciations for Malay learners, whereas *p, t, k, z, c, zh, ch, j, q, x, sh, r, ü, -i* [ɿ], and *-i* [ʅ] as difficult pronunciations. He stated that the difficulties are caused by the interference of the first language and confusion of Mandarin alphabetical phonetic, or *Hanyu Pinyin* (汉语拼音) spelling system.Therefore, in an effort to improve Mandarin pronunciation among Malay learners at the university, a group of teachers published a guidebook entitled Mandarin Pronunciation Guide. They claimed it has been written based on the ubiquitous learning principle of "from the known to the unknown" put forward by the American psychologist, David Ausubel (1968).

1.1 The Mandarin Pronunciation Guide

The Mandarin Pronunciation Guide uses similar corresponding English and Malay sounds to explain how a Mandarin syllable should be pronounced. The guidebook describes the pronunciation of a total of 416 Mandarin syllables listed in *Xiandai Hanyu Guifan Zidian* (Li, 1998), a dictionary published in 1998. Since Mandarin is a monosyllabic language and many English or Malay words are made up of more than one syllable, sometimes, only part of the pronunciation of an English word or a Malay word is used in the guidebook. For example, for the Mandarin syllable "*bang*", the English guide is put as 'punc' as in 'punctual' and the Malay guide 'pang' as in '*panggung.*' In cases where there is no phonetically similar English or Malay word or segment of word can be found, a combination of segmental pronunciation is used. For example, the English guide for the syllable "*lie*" is given as "start with 'li' as in 'litre', gliding smoothly into 'air'"; whereas its Malay word comparison is given as "start with 'li' as in '*licin*', gliding smoothly into 'e' as in '*ekor*'."

It is not difficult to note that there are obvious shortcomings in using the sounds of one language to pronounce the words of another language because no two languages share the same phonemes. Regardless of which language, there are a number of phonemes which do not exist in another language. For example, Goh (2007) listed 13 Mandarin consonants, 7 vowels and 8 diphthongs which do not exist in Malay language. Kan Qian (2007) in comparing the 23 initials and 36 finals of Mandarin speech sounds with English commented that some of the Mandarin sounds are quite similar to English sounds, but others are less so. Therefore, using English or Malay words as guide to produce Mandarin sounds can only be approximate.

Another distinct limitation of the guidebook is that Mandarin Chinese is a tonal language, where tones differentiate meanings, but English and Malay are not. Thus, using English or Malay words to indicate Mandarin pronunciation has its imperfection in producing the correct tone of a particular syllable, which is a distinctive feature in Chinese.

LITERATURE REVIEW

An experimental study conducted by Gao and Shi (2006), which explored the French students' first language transfer in learning Chinese reviewed that the students experienced a positive transfer in acquiring high-front vowels *i* and *ü*, and a clear negative transfer for *a, o, e, u* and apical vowels *-i* [ɿ], *-i* [ʅ]. To overcome the problem, the researchers suggested that teachers should indicate to students on tongue's position while teaching them to pronounce those vowels with negative transfer of their first language.

In another study, Yang (2005) discovered that phonetic errors made by Vietnamese students in learning Chinese were shown in certain particular initials, finals and tones, which are called *shengmu* (声

母), *yunmu* (韵母), and *shengdiao* (声调) respectively in the Mandarin language. She concluded that the interference of first language and overgeneralization of certain phonetic rules of the target language were the main factors that contributed to the errors. She recommended that teachers should use suitable teaching techniques to help students develop new pronunciation habit in order to avoid such errors.

Although the introduction of Chinese Phonetic Scheme, or *Hanyu Pinyin* spelling system, to some extent has helped many foreigners to pronounce Chinese words (Chong, 2009), Wang (2007) pointed out a few limitations of the scheme, such as its spelling rules and its phonetic symbols. The spelling rule of omitting two dots above the character *ü* [y] in syllables such as *yu, ju, qu* and *xu* can cause confusion to learners and lead to mispronunciation of *ü* [y] as [u]. In addition, the phonetic symbol *i* represents three different phonetic values of [i], [ɿ] and [ʅ], which many learners simplified and pronouncing them as [i]. Wang (2007) recommended an improvement in the Chinese Phonetic Scheme to minimize possible confusion generated by its spelling rules and phonetic symbols.

Tracey, Ron and Murray (2006) studied the English pronunciation and fluency development in Mandarin and Slavic speakers. Recorded speech samples at three different points of time over a period of ten months were assessed by 20 native listeners to evaluate the respondents' pronunciation and fluency improvement. In fact, electronic audio apparatus has made research in language speech much easier and convenient, because speech samples recorded at different points of time can be assessed and compared by researcher at his convenience.

Many researchers (De Mente, 2006; Peters, 2006; Sharma, 2007; Kan Qian, 2007) have used English phonetic to explain Mandarin pronunciation. Sharma (2007) tabulated Chinese Phonetic alphabets side by side with English sounds in terms of keywords. De Mente (2006) used an adapted Wade-Giles system and common English words to show the pronunciation of the 405 Chinese syllables; Peters (2006) used easy-to-read vowel symbols to help its readers to pronounce about 500 Chinese words. However, no study so far has been carried out to verify the effectiveness of these reference materials among the readers or learners.

OBJECTIVE OF THE STUDY

The main objective of the study was to verify the effectiveness of the guidebook for learners whose first language is Malay. With the guidebook, the study aimed:
1. To identify Mandarin syllables that are commonly mispronounced by the Malay students;
2. To ascertain the effectiveness of the Mandarin Pronunciation Guide in improving the Mandarin pronunciation of the Malay students; and
3. To suggest ways to supplement the Mandarin Pronunciation Guide in order to further improve the Mandarin pronunciation of the Malay students.

METHODOLOGY

4.1 Participants

A total of 15 Malay students volunteered as participants of the study. They were second year undergraduate engineering students and had no Mandarin language experiences except attending a one credit hour Mandarin for Beginners course. The Mandarin course is one of the communicative foreign language courses offered by the university. Their proficiency in English were average as all of them passed the English paper in Malaysia Certificate of Education (SPM) with grades ranging from C5 to A2.

4.2   Research Materials

The research materials of the study include 1) the table of 100 Mandarin syllables, 2) the Mandarin Pronunciation Guide, and 3) students' questionnaire.

4.2.1   The Table of 100 Mandarin Syllables

The study used the Table of 100 Mandarin Syllables (refer Appendix A) formulated by a group of researchers to elicit the articulation of foreign students learning Mandarin Language. The table was developed in Peking University, Beijing, and was published in Mandarin Pronunciation Learning Strategies for Foreign Students (外国学生汉语语音学习对策) by Zhu Chuan (朱川) and his colleagues in 1997. The Table of 100 Mandarin Syllables was used because it comprises all the 32 phonemes found in Mandarin syllables and a well distribution in terms of combinations of initials and finals. The recording of these syllables were used as the pre-test and post-test instrument in the study.

4.2.2   The Mandarin Pronunciation Guide

Extracts of 100 syllables as used in study were taken from the Mandarin Pronunciation Guide, and assembled into a booklet of about 17 pages. Please refer to Appendix C for sample of the extracts.

4.2.3   Students' Questionnaire

The questionnaire consisted of two parts: Part A required the subjects to fill in their demographic data including their language background; Part B required them to answer 3 objective questions of their opinion towards the guidebook based on its extracts.

4.3   Research Procedures

A Multimedia Language Laboratory (MLL) was used to record the pronunciation produced by the participants. The lab is equipped with 30 computers with audio recording facilities. The participants were familiar with the audio equipment including its operation in the MLL as they had attended language lessons in the labs.

A one group pre-test and post-test design was used in the study. The participants were gathered at the MLL, and were first advised to sit in alternate seating in order to sit for the tests and record their own pronunciation at their own pace. The procedure began first with the participants receiving the Table of 100 Mandarin Syllables, where they needed to read, record, save and send their recordings to the researcher via e-mail. This recording is treated as the Pre-test data of the study. Secondly, the participants were requested to use the guidebook, after which they would do the second reading and recording and sent their post-test recording to the researchers via the same email address. They were told to answer the questionnaire after the post recording.

FINDINGS AND DISCUSSION

Two researchers listened to the recording and determined the correctness of the articulations. They had earlier decided not to take "tone" into consideration in determining the correctness of the sound because it was not described in the guidebook. The results were recorded in a specially designed form (refer Appendix B) and a simple percentage calculation was used to verify the outcome of the study. The findings of the study are presented in the following sections.

5.1 Mispronunciation of Mandarin Syllables

The results of the pre-test showed that more than 50% of the participants mispronounced the 21 syllables listed in Table 1.

Table 1: 21 highest mispronounced Mandarin syllables based on the pre-test results.

No.	Syllables in *pinyin*	No. of students who mispronounced (total *n* = 15)	% of students
1	*ju*	14	93.33
2	*qun*	14	93.33
3	*yu*	14	93.33
4	*zi*	13	86.67
5	*nü*	13	86.67
6	*lü*	13	86.67
7	*quan*	13	86.67
8	*qu*	12	80
9	*ci*	11	73.33
10	*si*	11	73.33
11	*zhi*	10	66.67
12	*zhe*	10	66.67
13	*xue*	10	66.67
14	*ri*	9	60
15	*qi*	9	60
16	*peng*	8	53.33
17	*da*	8	53.33
18	*ta*	8	53.33
19	*chi*	8	53.33
20	*ge*	8	53.33
21	*ye*	8	53.33

The finding confirmed a portion of what have been observed by researchers of the study that Malay students faced difficulties in pronouncing syllables involving palatal consonants *(j, q, x)*, aspirated consonants *(p, t, q, ch, c, k)*, syllables with apical vowels (-*i* [ɿ], -*i* [ʅ]) and rounded high- front vowel (*ü*). Table 1 shows that more than 80% of the subjects could not correctly pronounce the syllables: *ju, qun, yu, nü, lü, quan, qu* and *xue*, which have high-front rounded vowel (*ü*). These were the only syllables with high-front rounded vowel (*ü*) in the 100 syllables tested, which has a well distribution in terms of initials and finals, i.e., inclusion of all possible combinations of initials and finals. Thus, it is safe to state that Mandarin syllables with high-front rounded vowel (*ü*) are difficult for Malay students to pronounce correctly.

In addition, syllables with apical vowels (-*i* [ɿ], -*i* [ʅ]) like *zi, ci, si, zhi, chi, ri,* were also difficult sounds for them to produce correctly. There are a total of seven syllables with apical vowels in Mandarin and all were tested in the study. From Table 1, the mispronounced percentage for these syllables *zi, ci, si, zhi, chi, ri* were in the range of 53.33% to 86.67%. The mispronounced percentage for syllable *shi,* which is not shown in the table, was 46.67%. Thus, it is safe to state that Mandarin syllables with apical vowels (-*i* [ɿ], -*i* [ʅ]) are difficult too for Malay speaking students to pronounce.

Apical vowels (-*i* [ɿ], -*i* [ʅ]) and rounded high-front vowel (*ü*) are phonemes which do not exist in Malay students' first language. Hence, the finding supported the statement that foreign language learners tend to rely on their first language sound system and would experience difficulties in pronouncing syllables with phonemes which do not exist in learners' first language (Eckman & Inverson, 1993;Flege, 1995; Goh, 2007).

Obviously, the 21 syllables listed in the Table 1 cannot be the accurate number for commonly mispronounced syllables by Malay learners because Mandarin has a total of about 410 syllables whereas

the study only tested 100 of them. In fact, other than syllables containing high-front rounded vowel (*ü*) and apical vowels (*-i* [ɿ], *-i* [ʅ]), no conclusion can be drawn from the study with respect to syllables involving palatal consonants (*j, q, x*) and aspirated consonants (*p, t, q, ch, c, k*). Table 2 shows that there were a total of 18 syllables with palatal consonants (*j, q, x*) tested and at least two third of the subjects managed to pronounce correctly *jie, xiong, xiao, ji, jia, jin, jing jian.* Moreover, Table 3 shows that a total of 18 syllables with aspirated consonants (*p, t, q, ch, c, k*) were tested and at least two third of the subjects managed to pronounce correctly *ku, ke, kuai, chan, chen, cheng* and *chun.*

Table 2: Percentage of mispronounced syllables with palatal consonants (*j, q, x*).

Syllables in *Pinyin*	No. of participants	Percentage (%) of Mispronunciation
qun	14	93.33
ju	14	93.33
quan	13	86.67
qu	12	80
xue	10	66.67
qi	9	60
xiu	7	46.67
xiang	7	46.67
xian	6	40
jie	5	33.33
xiong	5	33.33
xiao	5	33.33
jiu	3	20
ji	2	13.33
jia	1	6.67
jin	0	0
jing	0	0
jian	0	0

Table 3: Percentage of mispronounced syllables with aspirated consonants (p, t, q, ch, c, k) by the participants.

Syllables in *Pinyin*	No. of participants	Percentage (%) of Mispronunciation
qun	14	93.33
quan	13	86.67
qu	12	80
ci	11	73.33
qi	9	60
peng	8	53.33
ta	8	53.33
chi	8	53.33
ti	7	46.67
pa	6	40
piao	6	40
ku	5	33.33
ke	5	33.33
kuai	2	13.33
chan	1	6.67
chen	1	6.67
cheng	1	6.67
chun	0	0

In addition, unexpectedly more than half of the subjects were unable to pronounce correctly syllables *zhe, da, ge, ye,* as these sounds exist in Malay too. The reason was most probably that they

confused Chinese phonetic spelling with Malay syllables, as Goh (2007) put it, and had pronounced them as Malay syllables. In Mandarin, *zh* [tʂ], *d* [t], *g* [k] are voiceless consonants and are close to j, t, k respectively in Malay. The *e* in *ye* should be mid-high front vowel [ɛ] and may confuse with [ɤ] by the subjects. As shown in Table 4, almost all rectified their pronunciation for the four syllables in the post-test, which can be an excuse to exclude these sounds from "commonly mispronounced syllables."

5.2   Effectiveness of the Guidebook

The performance in the post-test indicated a significant improvement in comparison with the pre-test, which validated the effectiveness of the Mandarin Pronunciation Guide among Malay learners.

Table 4: Percentage of improvement of the 21 mispronounced Mandarin syllables based on the pre-test and post-test results.

No.	Syllables in *Pinyin*	No. of students with correct pronunciation		% of students with correct pronunciation		Percentage (%) of improvement
		Pre-test	Post-test	Pre-test	Post-test	
1	*ju*	1	13	6.67	86.67	80.00
2	*qun*	1	14	6.67	93.33	86.66
3	*yu*	1	8	6.67	53.33	46.66
4	*zi*	2	10	13.33	66.67	53.34
5	*nü*	2	14	13.33	93.33	80.00
6	*lü*	2	14	13.33	93.33	80.00
7	*quan*	2	12	13.33	80.00	66.67
8	*qu*	3	14	20.00	93.33	73.33
9	*ci*	4	14	26.67	93.33	66.66
10	*si*	4	10	26.67	66.67	40.00
11	*zhi*	5	13	33.33	86.67	53.34
12	*zhe*	5	13	33.33	86.67	53.34
13	*xue*	5	14	33.33	93.33	60.00
14	*ri*	6	13	40.00	86.67	46.67
15	*qi*	6	15	40.00	100.0	60.00
16	*peng*	7	15	46.67	100.0	53.33
17	*da*	7	15	46.67	100.0	53.33
18	*ta*	7	15	46.67	100.0	53.33
19	*chi*	7	15	46.67	100.0	53.33
20	*ge*	7	14	46.67	93.33	46.66
21	*ye*	7	14	46.67	93.33	46.66

The participants demonstrated a tremendous (40-80%) improvement in the post-test in pronouncing correctly the 21 Mandarin syllables mispronounced in pre-test after they had gone through the extracts of Mandarin Pronunciation Guide. Table 4 shows that more than 80% of the participants pronounced correctly the syllables *ju, qun, nü, lü, quan, xue* and *qu*, which have high-front rounded vowel (*ü*), and at least two third of them got the sounds correct for syllables with apical vowels (*-i* [ɿ], *-i* [ʅ]) *zi, ci, si, zhi, chi, ri* in the post-test. It is worthy to mention that syllables *qi, peng*, *da, ta* and *chi* were pronounced correctly by all the 15 subjects in the post-test after using the Mandarin Pronunciation Guide.

The finding tallied with the responses of the subjects to items in Part B of the questionnaire as shown in Table 5. For example, with respect to "usefulness of the guidebook to help students learning Mandarin", 13 subjects responded "Very useful", 2 "Useful" and none for "Not sure" or "Not useful". Hence it is safe to deduce that the Mandarin Pronunciation Guide is very useful and effective in improving the Mandarin pronunciation of Malay students.

Table 5: Students' perceptions of the Mandarin Pronunciation Guide utilisation.

Item	Usefulness of the guidebook to help students learning Mandarin			
	Very Useful	Useful	Not Sure	Not useful
Responses	13 (86.67%)	2 (13.33%)	0 (0%)	0 (0%)
Item	The most useful column of the guidebook			
	Malay word comparison	English word comparison	Phonetic description	None
Responses	8 (53.33%)	7 (46.67%)	0 (0%)	0 (0%)
Item	Easiness of the English explanation of the guidebook easy			
	Very easy	Easy	Difficult	Very difficult
Responses	5 (33.33%)	10 (66.67%)	0 (0%)	0 (0%)

Although the effectiveness of the guidebook in improving the subjects' Mandarin pronunciation cannot be denied, but the post-test performance in Table 4 shows that, except *qi, peng, da, ta, chi,* which they scored 100% correct, the participants' Mandarin pronunciations require further improvement. Moreover, Table 5 also shows that in Item related to the most useful column of the guidebook, no respondent put "phonetic description" as most useful, which may mean that the column on phonetic description of the Guide was rarely or never referred by the participants.

Undoubtedly, the above findings are useful guide for teachers who are teaching Mandarin as foreign language as well as writers who are writing textbook for the same purpose, particularly when the targeted learners are Malay with some English background. With the findings as a guide they should foresee what are the sounds which their students will likely face difficulties, and therefore, suitable learning activities can be prepared beforehand. The findings also provide useful hints for teacher trainers to include in teacher training programme the scope of knowledge of the target language.

CONCLUSION AND RECOMMENDATIONS

The study has two obvious limitations. Firstly, Mandarin is a tone language but the study has omitted it in its analysis and secondly, a data sample of 15 subjects may be too small a number to make a generalization. In spite of that, with respect to the main aim of the study, the findings showed convincing conclusion that the Mandarin Pronunciation Guide is a very useful and effective tool among the Malay students in improving their Mandarin pronunciation.

Based on limitations of the Guide book and findings discussed above, the researcher would like to make the following recommendations:

Firstly, with respect to the Mandarin Pronunciation Guide, the pronunciation description column was never referred to by the respondents as shown in Table 5 above. It is recommended that the descriptions should be in bilingual instead of English only since the targeted readers or users of the guidebook are the Malay speakers, and thus Malay language will be more appealing and friendly to them.

Secondly, the presentation or page layout of the guidebook should have a more attractive, appealing and user friendly design. Meaningful pictures or sketches providing hints in correct pronunciation could be added to catch the users' attention, especially for those syllables like *yu, zi,*and *si,* which were mispronounced by quite a portion of the subjects in the post-test. In addition, an easy to use audio pronunciation tool may be included.

Tone is an integral part of a Chinese syllable and thus any study or guidebook on Chinese pronunciation without mentioning tone can be considered as incomplete. It is thus recommended that the

Mandarin Pronunciation Guide should provide guidance in producing correct tones which differentiate meanings in the language.

In regard to further study, it is suggested that a bigger sample of 50 respondents should be used and all syllables containing phoneme which do not exist in the respondents' first language should be tested in order to convincingly verify the effectiveness of any guidebook of this kind. In the case of tonal language like Chinese, tone has to be part of the study.

Further study in how, and to what extent, is the influence of Malay speakers' first language in learning Chinese as a foreign language should also be carried out.

REFERENCES

Sharma, A. (2007). *Learn Chinese through English*. Kuala Lumpur: Crescent News (K.L.) Sdn. Bhd.

Ausubel, D.P. (1968). *Educational psychology: A cognitive view*. New York: Holt, Rinehart & Winston.

Chong, A.K. (2009). *Intermediate Mandarin*. Kuantan: Penerbit Universiti Malaysia Pahang.

Chong, A.K., Wan Jumani, F., Yong, Y.M., Lim, K.S. & Chan, M.L. (2011). *Mandarin pronunciation guide with a comparison of English & Malay words* (Unpublished Manuscript) Kuantan: Centre for Modern Languages and Human Sciences, Universiti Malaysia Pahang.

De Mente, B.L. (2007). *Chinese in plain English*. McGraw Hill, USA.

Peters, C.E. (2006). *Say it right in Chinese*. USA: EPLS Publishing, McGraw Hill.

Eckman, F. & Iverson, G. (1993). Sonority and markedness among onset clusters in the interlanguage of ESL learners. *Second Language Research, 9,*234-252.

Flege, J.E. (1995). Second language speech learning: Theory, findings, and problems. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues cross linguistic research* (pp.233-277). Timonium, MD: York Press.

Gao Yujuan & Shi Feng, (2006). An experimental study on French students' first language transfer in Chinese vowels acquisition. *Journal of Yunnan Normal University, 4,*(4), 33-36.

Goh Suat Bee, (2007). *Analisis kontrastif system fonetik Bahasa Mandarin dan Bahasa Melayu* (Unpublished Master's Thesis), Fakulti Bahasa dan Linguistik, Universiti Malaya.

Hinkel, Eli (2005). *Handbook of research in second language teaching and learning*. New Jersey, USA, Lawrence Erlbaum Associates.

Kan Qian, (2007). *Colloquial Chinese: The Complete Course for Beginners*. Routledge, Abingdon, Oxon, UK.

Li Xingjian (Ed.), (1998). *Xiandai hanyu guifan zidian (现代汉语规范字典)*. Beijing: Yuwen Chubanshe.

Tarone, E., (2005). Speaking in a second language. In Hinkel, Eli (Ed.), *Handbook of Research in Second Language Teaching and Learning* (pp.485-502). New Jersey, USA, Lawrence Erlbaum Associates.

Derwing, T. M., Thomson, R. I., & Munro, M. J. (2006). English pronunciation and fluency development in Mandarin and Slavic speakers. *System 34 (2006) 183–193*

Yang Na, (2005). An analysis of the regular phonetic errors made by the Vietnamese in learning Chinese. *Journal of Yunan Normal University, 3,*(1), 35-38.

Wang Jing. (2007). Hanyu Pinyin Fang'an Zai Duiwai Hanyu Jiaoxue Rongyi Xingcheng de Ruogan Wuqu（汉语拼音方案 在对外汉语教学中容易形成的若干误区）. *Modern Chinese, 2007.01*, 106-107.

Zhu Chuan, Ye Jun, Chui Liang & Lin Xiaoqin (1997). *Waiguo Xuesheng Hanyu Yuyin Xuexi Duice (外国学生汉语语音学习对策)*. Beijing: Yuwen Chubanshe.