

# Chinese as a Second Language Pronunciation Teaching Survey

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## Abstract

This survey study aims to provide an overview of Chinese as a second language (CSL) pronunciation teaching in the higher educational institutions in the US. 80 respondents participated in and completed an online survey. The survey elicited the participants' responses in the following constructs: the context of Chinese pronunciation teaching, the status of Chinese pronunciation teaching, the CSL learners' motivation and goal of Chinese pronunciation teaching, approach of *pinyin* teaching, difficulties in segments and suprasegmentals, and issues related to the training of Chinese pronunciation teaching. Not only have the findings from the study shed new light on many important issues in Chinese pronunciation teaching, they also have important pedagogical implications for all parties in CSL teaching: learners, instructors, researchers, textbook compilers, and administrators. While this study raises more questions than answers in Chinese pronunciation teaching, the survey highlights some critical issues that entail the joint efforts of the CSL field and points to the direction of further studies on Chinese pronunciation and Chinese pronunciation teaching.

**Key words:** Chinese as a second language, CSL pronunciation teaching, pinyin, tone, teacher training.

## 1. Introduction

The field of applied linguistics has seen a recently renewed interest and enthusiasm in the teaching and learning of second language (L2) pronunciation (Derwing and Munro, 2015; Levis, 2016). L2 pronunciation is important in that not only does pronunciation affect normal communication and contribute to the perception of foreign accent, it also shapes the interpersonal interaction in the social setting (Levis and Moyer, 2014). While some consensus has been reached on the pronunciation teaching of English as a Second Language (ESL), the field of Chinese as a Second Language (CSL) has yet to catch up, including the teaching and learning of CSL pronunciation.

In tandem with the ever increasing enrollment of Chinese learners in the US higher educational institutions (from 34,153 in 2002 to 61,055 in 2013, according to the MLA language enrollment survey, [https://apps.mla.org/map\\_main](https://apps.mla.org/map_main)), research into CSL is gaining steady momentum. The main focus of CSL research has been on the acquisition of linguistic aspect (Han, 2014; Wen, 2008, 2011; Xing, 2006; Yang, 2013, 2014, 2016 a and b; Zhang, 2011, 2013, among many others), and affective aspect (i.e., attitude, motivation, and anxiety) (Luo, 2013; Wen, 1997, 2011; Xie, 2014, and many others). Chinese pronunciation, as an integral and important component in learning Chinese, has also attracted attention from researchers, but mainly on the acquisition of tones (Tao and Guo, 2010; Miracle, 1989; White, 1981; Sun, 1998; Yang, 2014, 2016a; Zhang, 2013) and segments, such as vowels (Shi and Wen, 2009; Wang, 2001; Xie, 2010, 2013; Yang and Ni, 2016) and affricates (Lai, 2009; Huang, 2013). The acquisition studies on segmental and suprasegmental phenomena mainly adopted the experimental design that was separated from the regular classroom setting. While the focus on the L2 learners in such experimental setting sheds lights on the interaction of first language (L1), second language (L2), and linguistic universals in L2 acquisition, there is no telling of the instructors' perspectives. As Zhang (2013) and Yang (2011, 2016b) have shown, instructors' pedagogy and teaching practice have great impact on CSL learners' tone production outcomes. Therefore, it is

of great importance to know CSL instructors' perspectives in teaching Chinese pronunciation so that CSL researchers can better align with and integrate their research into CSL teaching and learning.

Attempting to fill in this crucial gap in CSL teaching, this survey study was conducted, with the hope of identifying the instructors' perspectives on Chinese pronunciation teaching. It is expected that this study will provide an overview of Chinese pronunciation teaching in the US and reveal issues in Chinese pronunciation teaching and help CSL practitioners make research-informed decisions on important issues in CSL.

## **2. Background and Questionnaire Design**

Most survey studies on language pronunciation teaching were conducted on English as a Second Language (ESL), such as in Canada (Foote et al., 2011), in Ireland (Murphy, 2011), in Australia (Burns, 2006; MacDonald, 2002), in UK (Burgess and Spencer, 2000), and in European countries (Henderson, Curnick, Frost, Kautszsch, et al., 2015). These ESL survey studies examined the status of pronunciation teaching, students' motivation, instructors' training on ESL pronunciation and pronunciation teaching, models of English pronunciation (American English, British English, and other varieties of English), ESL pronunciation difficulties, and pronunciation assessment. Due to the lack of similar studies on CSL pronunciation teaching, these previous survey studies on English pronunciation teaching were very instrumental in designing the current study on Chinese pronunciation teaching.

The questionnaire used in this study consists of two sections (See the Appendix for the complete questionnaire). Section 1 is to elicit the demographic information of the survey respondents, including gender, age, native vs. non-native status, highest academic degree, years of teaching Chinese, and the US state of current teaching. Section 2 is the main part of the survey. Drawing on the European English pronunciation teaching survey (Henderson, Frost

et al.)<sup>1</sup> and Burges and Spencer (2000), as well as the researchers' own teaching experience, the following six constructs were designed.

- (1) Teaching context: The items in this construct aim to get an overview of the context of CSL teaching.
- (2) Status of Chinese pronunciation teaching: The items in this construct seek instructors' opinions on the status of Chinese in foreign/second language education in the US, as compared to other languages, and the status of pronunciation teaching in CSL.
- (3) CSL learners' motivation: This construct is to approach learners' motivation from the instructors' perspective as shown in their daily performance in and out of class and to complement previous studies which focus on the learners' perspectives (Wen, 1997, 2011; Xie, 2014).
- (4) Specific issues in CSL pronunciation teaching
  - a. *Pinyin* teaching in general: The items in this sub-construct concern how pinyin, the Romanization system specifying Chinese pronunciation, is taught and used.
  - b. Methods of pronunciation teaching and changes over years
  - c. Segment teaching
  - d. Suprasegmental teaching, including tones
- (5) Teacher training on pronunciation teaching
- (6) Pronunciation teaching goal: This construct is to examine the ultimate attainment of native or near-native Chinese pronunciation among the CSL learners.

The survey was conducted online ([www.wenjuan.com](http://www.wenjuan.com)). The participants were recruited by announcing the survey to several mail lists for Chinese language instructors in the US, such as the Chinese Language Teachers Association in the US, the New England Chinese Language Teachers Association, the Chinese Language Teachers Association of California, the Chinese Language Teachers

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<sup>1</sup> Our thanks to Prof. Alice Hendersen at Savoie University in France for sending us the e-version of their survey and granting the permission to use the survey, which was a joint project by many ESL instructors in European countries.

Association of Texas, and the Chinese Language Teachers Association of Virginia, and through friends and friends' friends.

### **3. Survey Results**

#### **3.1 Demographics of Respondents**

The questionnaire remained active online for around two months. Altogether 82 respondents completed the survey<sup>2</sup> although many more people tried to complete the survey but dropped eventually. To maintain the homogeneity of the respondents, one respondent from Canada and one high school teacher in the US were removed and only the respondents who were teaching at the college/university level in the US at the time of the survey were included in the data analysis.

Of the 80 respondents, 75 are female and 5 are male; 75 are native speakers of Chinese (7 of which are from Taiwan) and 5 are non-native speakers; the average age is 38.7 (std. = 10.1).

All respondents except one with a BA in Teaching Chinese as a Second Language were working on or have postgraduate or advanced degrees (49 with a Ph.D. or ABD in Chinese linguistics/pedagogy, English linguistics, TESOL, SLA, or education, 30 with an MA in a related area). In addition to the academic training, all respondents were experienced CSL instructors, with 11.6 years of teaching experience on the average (std. = 9 years). Many instructors have taught Chinese courses at various levels, ranging from the beginning level to the graduate level. It can be seen that the Chinese instructors in the US higher educational institutions have very good credentials.

Since this survey targets at the college/university instructors in the US, we would like the respondents to be representative of as many states in the US as possible. While we do not have respondents

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<sup>2</sup> Namely, a 20% completion rate. Considering the average completion time of 30 minutes or longer, this is a decent response rate

from every single state in the US, the respondents are from 26 states (3 respondents did not mention their states of residence). Several states have 10 or more respondents, such as California, Georgia, Massachusetts, and Iowa, which happen to be the states in which there are relatively more higher education institutions. In this sense, the responses obtained in this survey are overall representative of the CSL field at the higher educational institutions in the US.

### 3.2 CSL Teaching Context

In terms of the proportion of heritage learners, while some universities have special tracks for heritage learners, most others mix non-heritage L2 learners and heritage learners in the same class, due to reasons such as limited staffing or resources. Therefore, the percentage of heritage learners in the classes of the respondents varied drastically, ranging from none to 100%. The average percentage of heritage learners in the respondents' classes was 18.9% (std. = 26.8%). It can be seen that most CSL classes have some Chinese heritage learners.

As for meeting hours of the CSL classes, the majority of classes (81.25%) meet 3-5 hours per week, 15% of classes meet 6-8 hours per week, and the remaining classes meet less than 3 hours a week.

Regarding placement tests, around 60% of the respondents reported using some form of placement test for those learners who had prior Chinese learning experience and were new to the language program at the institution. The placement tests could take the form of written (including online tests), oral, or both written and oral tests, or just a brief meeting with a faculty member. It seems that the placement tests vary with programs drastically, both in content and formality.

With respect to the English use in a typical Chinese class, most CSL instructors (62.5%) used English for less than 20% of the class time, 13.75% of the instructors only used Chinese in class, and

very few instructors (13.75%) used English for above 40% of the time in a typical CSL class.

### **3.3 Status of Chinese and Chinese Pronunciation in CSL Teaching**

38.75% of the respondents did not think that Chinese is more important than other foreign/second languages taught in American colleges/universities. By contrast, only 18.75% of the respondents believed that Chinese is more important than other foreign languages taught in the US. The rest of the respondents were non-committal in this item.

With respect to the status of CSL speaking, including pronunciation, 30% of the respondents did not think that pronunciation is more important than other aspects of CSL, such as reading and writing, 31.25% believed the opposite, and the rest remained neutral in this issue. It should be noted that some respondents might be considering speaking, instead of pronunciation, when making their choice. Pronunciation mainly refers to the articulation of consonants, vowels, tones, and suprasegmental aspects, such as stress, rhythm, and intonation in speech. Although pronunciation relates to speaking, they are two different entities and speaking encompasses much more than pronunciation. Pronunciation is closely related to intelligibility, comprehensibility and accentedness in L2 speech, though. Similar to the previous question on the status of Chinese among the foreign/second languages, the respondents seemed to be equally divided in this issue.

Regarding the difficulty of pronunciation teaching in CSL, while 22.5% of the respondents remained non-committal in this issue, 66.25% of the respondents thought that it was not easy to teach CSL pronunciation.

### 3.4 CSL Learners' Motivation and Pronunciation Learning Goal

Two thirds of the respondents reported that their students were highly motivated to speak Chinese, suggesting their learners' strong motivations; however, around one third of the respondents were non-committal on this question.

57.5% of the respondents reported that their learners endeavored to achieve native-like pronunciation, 16.25% did not think so, while 26.25% were non-committal. It should be noted, however, that aspiring to achieve near-native pronunciation is different from the actual attainment of such pronunciation. What is important is that the instructors' assessment of learners' attitude/motivation was mainly based on the learners' class performance and observed efforts, which provide a different picture than the learners' perspective.

81.25% of the respondents (strongly) agreed that good comprehensibility is the goal of pronunciation teaching.<sup>3</sup> By contrast, 50% of the respondents considered the goal of L2 Chinese pronunciation teaching to be native-like or accent-free.

### 3.5 Specific Issues in CSL Pronunciation Teaching

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<sup>3</sup> Three questions on the relationship between intelligibility, comprehensibility, and accentedness, were asked. According to Derwing (2010), intelligibility refers to how much of the speaker's speech is recognized, which can be measured by asking the listeners to transcribe what they hear (actual understanding may be different from the word-by-word transcription), whereas comprehensibility refers to the degree of easiness/difficulty in understanding a speaker's speech. Accentedness refers to the degree of similarity between the L1 and L2 speech. The more different the L2 speech is from L1, the more accented it is. It should be pointed out that there is still disagreement on how to define and interpret these concepts (Pickering, 2006, and many references therein). Due to the possible confusion between intelligibility and comprehensibility, we did not report the results on the role of intelligibility.

### 3.5.1 Pinyin teaching in general

One question is whether to teach pinyin separately or integrate pinyin teaching in the course curriculum of the beginning level courses. 60% of the respondents reported teaching pinyin separately, while the rest incorporated pinyin teaching in the regular curriculum. The respondents were also asked to justify their approach of pinyin teaching. Almost all respondents who taught pinyin separately emphasized that pinyin was the “basic”, the “fundamental”, “the foundation”, and very difficult for L2 learners, because learners’ “cognitive capacity may be overloaded”, and they believed that spending one or two weeks on pinyin would help CSL learners lay a solid foundation for further learning. While pinyin is different from both pronunciation and speaking, as pointed out by some respondents, the knowledge and mastery of pinyin would surely help learners acquire a good pronunciation in the long run. Some instructors stressed, however, that while they spent one or two weeks on pinyin teaching, they contextualize the learning of pinyin in the classroom instructions to facilitate the learning process. On the other hand, the respondents who did not advocate the separation of *pinyin* teaching from the regular curriculum argued that it “is boring to teach *pinyin* separately”, “goes against the principle of communicative teaching approach”, and “will easily disengage learners if they do not engage in meaningful communicative activities”. Instead they preferred to blend *pinyin* teaching and learning in content/vocabulary learning and have students practice *pinyin* in situational contexts. A few instructors mentioned that they had experimented with teaching *pinyin* both separately and integratively and found no difference in learning outcomes. As a result, they strongly advocated for the contextualized teaching of *pinyin*.

Another question related to *pinyin* is on the use of *pinyin* to replace Chinese characters in quizzes or tests. Only 24% of the respondents would accept *pinyin* and give students full credit to *pinyin* in quizzes/exams if they did not know the corresponding characters, while the rest (76%) would not give credit (at least not full credit) to *pinyin* which was used for replacing characters. The main argument against giving full credit to *pinyin* use is that *pinyin* is only a learning

tool and using *pinyin* means that one can speak, but not necessarily can write (or read), namely, he/she might still be illiterate. A few respondents even cautioned about the negative consequence of accepting *pinyin* for characters. That is to say, doing so may discourage CSL learners from learning to use and write characters and eventually create “illiterate” CSL learners. Some respondents pointed out that whether to accept *pinyin* for characters depends on the level of learners and the course types. A few instructors mentioned that their Chinese programs have both speaking track and reading & writing track. In the former track, students only use *pinyin*, because reading and writing is not part of their learning objectives; in this track, *pinyin* is surely accepted in quizzes and tests. As for the reading and writing courses, these instructors mentioned that using *pinyin* to replace characters would not earn full credit, since the course objective was to acquire Chinese literacy. Interestingly, some respondents mentioned that due to the double workload in learning Chinese characters, both pronunciation and writing, they gave learners a transition period before only accepting characters in quizzes/exams. For example, some would allow the learners to use a low percentage of *pinyin* (say 15%, or not more than 3 in a quiz), in order to earn full credit, while others would give partial credit.

Some respondents who accepted *pinyin* in quizzes/exams argued that characters were difficult to learn, and in order not to discourage learners, it was advisable to accept *pinyin*. It was also argued that *pinyin* is part of the learning. Therefore, these respondents gave full or partial credit to *pinyin* which was used for replacing Chinese characters. Interestingly, some instructors mentioned that native speakers do not use *pinyin* when they write. While this is a true statement, Chinese children do learn *pinyin* as a learning facilitatory tool in developing literacy and may even mix *pinyin* and characters in their writing.

Another question regarding pronunciation teaching is whether the respondents have a systematic approach to teaching *pinyin*/pronunciation. 39% of the respondents reported using a systematic approach to teaching Chinese pronunciation, not necessarily with a separate pronunciation teaching syllabus, because

the systematic approach is “more systematic/focused”, “easier to implement”, and works better and more effectively. These instructors used textbooks, their self-prepared pronunciation teaching materials, or a specific schedule in their pronunciation teaching. The remaining 61% of the respondents did not have a systematic approach to teaching Chinese pronunciation and merely incorporated pronunciation teaching in the regular curriculum. However, some of the respondents pointed out that it would be advisable to have such a systematic approach in order to teach more effectively.

As regards when to give students corrective feedback, 85% of the respondents reported that they dealt with pronunciation problems as they arose. These instructors believed that accuracy in pronunciation was very important, especially at the beginning level, and argued that constant corrective feedback was conducive to learners’ pronunciation improvement and would prevent the occurrence of fossilization in pronunciation. However, other instructors preferred not to correct students’ pronunciation problems as soon as they occurred, as this would impede the in-class interaction and discourage learners from actively participating in class activities. Some respondents distinguished the drill sessions from role-play sessions, and only in the drill sessions did they correct students’ pronunciation problems. Several instructors argued that experienced instructors should be able to predict the pronunciation problems that L2 learners may have and work on these issues even before they occur. However, as previous studies have shown, no contrastive analysis can predict all the problems that L2 learners may have (Edward and Zampini, 2008, p. 1; Eckman, 1977, 1991). Also, since the focus of this question is whether to tackle pronunciation problems as they arise, it is a different issue. .

### **3.5.2 Methods of teaching pronunciation and changes over years**

Table 1 lists a series of activities that the respondents used in teaching speaking and pronunciation. It can be seen that drills are the most frequently used method of teaching pronunciation, followed by chanting, minimal pairs, videos, group work, etc.

*Table 1: Activities for teaching speaking, including pronunciation*

Method	Frequency (out of 80)/percentage
Back-chaining	22/27.5
Chanting	44/55
Cuisenaire rods	4/5
Drama	13/16.25
Drills	68/85
Group work	35/43.75
Language laboratory	27/33.75
Minimal pairs	43/53.75
Role play	30/37.5
Videos	36/45
Others. Please be specific	18/22.5

As for the approach of teaching pronunciation, 61.25% of the respondents reported that their way of teaching Chinese pronunciation had changed in some way over the years. One salient change among many respondents is that they preferred to teach pronunciation in a meaningful context and in an integrative and systematic approach, instead of teaching separately. Another change is that they came to know the areas of pronunciation difficulty better and know how to help CSL learners improve their pronunciation, both segments and tones. More and more use of technology in pronunciation teaching is another change reported by some respondents, although there was no mentioning of how technology was used. Another remarkable change is that some respondents became more flexible with individual variations in pronunciation and more tolerant with learners' pronunciation errors and, therefore, did not correct every single pronunciation problem. Interestingly, a few respondents reported, however, that they started to pay more attention to pronunciation accuracy and provide more corrective feedback in class over the years.

### 3.5.3 Segment and suprasegmental teaching

Table 2 lists the segments and suprasegmentals that the respondents believed pose most difficulty for CSL learners.

Table 2: Difficult segments for CSL learners

Segments (pinyin/IPA)	Frequency/Percentage
j /tɕ/	41/51.25
q /tɕʰ/	51/63.75
x /ɕ/	41/51.25
z /ts/	23/28.75
c /tsʰ/	37/46.25
s /s/	11/13.75
zh /tʂ/	30/37.5
ch /tʂʰ/	28/35
sh /ʂ/	20/25
r /ʐ/	42/52.5
i /ɿ/ or /ʅ/ (as in zi, ci, si, or zhi, chi, shi)	19/23.75

As shown in Table 2, j/tɕ/, q/tɕʰ/, x/ɕ/, c/tsʰ/, r/ʐ/ zh/tʂ/, and two apical vowels [ɿ] and [ʅ] were considered to pose the greatest difficulty for L2 learners. In addition to the segments provided, some respondents specified other segments which they believed to be difficult, mainly vowels in some phonological contexts, such as *u* as in *qu* [tɕʰy] and *zhu* [tʂu], [i] in *ji* [tɕi], and medials (i.e., *i* [j] as in *jian* [tɕian]). Some respondents pointed out that it is important to distinguish sounds which are themselves difficult, such as /y/ or /ʐ/, from those whose difficulty are derived from pinyin or orthography, such as pinyin *i* as in *bi* and *zhi* and *pinyin* *o* as in *bo*.

With respect to the lexical tones, most instructors considered Tone 2, Tone 3 and Tone 4 to be more difficult than Tone 1 and the neutral tone, as shown in Table 3.

*Table 3:* Difficult tones for CSL learners

Tone categories	Frequency/Percentage
Tone 1	26/32.5
Tone 2	51/63.75
Tone 3	54/67.5
Tone 4	49/61.25
Neutral tone	19/23.75

Tone 3 poses big challenge for CSL learners (Shen, 1989; Zhang, 2013, etc.) and there is wide discussion on whether to teach Tone 3 as a low-dipping tone or as a low tone in the literature (Zhang, 2013; Yang, 2011, 2016). Several questions were designed for the questionnaire with respect to the teaching of Tone 3 and Tone 3 sandhis, namely, the change of Tone 3 to Tone 2 when it precedes another Tone 3 (the Third-Tone sandhi), and the change of Tone 3 to a low tone when it precedes a non-Tone 3 (the Half-Third sandhi). 54% of the respondents taught Tone 3 as a low tone and 20% taught Tone 3 as a low-dipping tone. As for the two Tone 3 sandhis, 86% of the respondents taught the Third-Tone sandhi, while only 53% of them taught the Half-Third (note that one instructor can teach both Tone 3 sandhis).

Due to the particular status of tones in Mandarin Chinese, two more questions were designed to elicit the respondents' attitudes towards tone accuracy and methods of teaching tones. 46% of the respondents (strongly) agreed that tone accuracy is of the utmost importance in learning Chinese and 21% thought tone accuracy is not that important. Interestingly, 85% of the respondents (strongly) agreed that they stressed tone accuracy in their teaching and only

2.5% of the respondents (strongly) disagreed that they stressed tone accuracy in teaching.

Regarding the context of tone practice, 70-80% of the respondents reported having learners practice tones in various contexts, such as monosyllables, disyllables, phrases, and sentences (slightly less at the sentence level).

In addition to the lexical prosody, more than half of the respondents reported teaching rhythm, stress and intonation in their teaching, namely, the phrasal and sentential prosody.

### **3.5.4 Teacher training of Chinese pronunciation teaching**

Around 70% of the respondents reported that they had received good training in Chinese pronunciation, while only 55% of the respondents replied that they had received adequate training in teaching Chinese pronunciation, and only 47.5% of them thought that their training in teaching Chinese pronunciation was good/excellent. Their training in teaching Chinese pronunciation takes different forms:

- 1) By taking courses in Chinese phonetics, phonology, linguistics and applied linguistics, comparative linguistics in Chinese and English, and courses in related graduate programs;
- 2) By receiving training through teacher training programs offered by the Confucius Institute Headquarters (Hanban);
- 3) By talking to colleagues/peers and listening to presentations and attending workshops at academic conferences;
- 4) By reading related books/journal articles and self-reflection;
- 5) By observing peers/master teachers' teaching and self-reflection;
- 6) By drawing on one's own teaching experiences and self-reflection.

#### 4. Summary and discussion

This study surveyed the views and perspectives of CSL instructors on CSL pronunciation teaching and learning in the US higher educational institutions. In this section, we summarize and further discuss the findings of the survey.

In terms of the CSL teaching context, most CSL classes meet 3-5 hours per week and have some form of placement test. Meanwhile, most CSL instructors endeavored to create a Chinese-speaking environment for learners, which accords with the communicative orientation of language learning. One issue that merits further attention is about heritage learners, namely, whether to mix heritage learners with non-heritage learners in the class. Due to their prior experience, heritage learners tend to have some advantage over L2 learners, especially in speaking and pronunciation (Xiao, 2006). More importantly, Chinese heritage learners seem to be on the increase in many programs ([https://apps.mla.org/flsurvey\\_search](https://apps.mla.org/flsurvey_search)). Therefore, placing both heritage learners and non-heritage learners in one class may create some problems between these two groups of learners. Further study should examine the different learning outcomes between separating the two groups and mixing them together.

With respect to the status of Chinese and Chinese pronunciation, most respondents did not think Chinese is more important than other foreign languages taught in the US. These responses coincide with the bigger context of language teaching in the US. Spanish is the largest second language used and taught in the US and other foreign languages, such as German and French, have a long tradition of instruction, for which Chinese is no match. Meanwhile, while CSL learners are increasing year by year, the total number of CSL learners is much lower than that of Spanish (790, 756 in 2013 according to the MLA enrollment survey

[https://apps.mla.org/flsurvey\\_search](https://apps.mla.org/flsurvey_search)). Although Chinese is rising as a major critical language taught in the American colleges/universities, its status is closely connected to China's rising importance in the economic world and political arena and such inter-connectedness is and will be closely contingent upon China's economic sustainability.

As for CSL learners' motivation and pronunciation learning goals, two thirds of the respondents reported that their students were highly motivated in speaking Chinese and more than half of the respondents believed their students endeavored to achieve native-like pronunciation, and the majority of respondents considered good comprehensibility to be the goal of pronunciation teaching, instead of accent-free. The respondents' responses to these questions showed their emphasis on the communicative function of L2 Chinese; whether the L2 learners can speak in the same manner as the native speakers, however, is not as important. This finding also coincides with the trend in ESL/EFL, namely, the goal of ESL/EFL pronunciation is to produce more intelligible/comprehensible L2 English and whether there is accent in the speech is not equally important (Derwing, 2010; Jenkins, 2012; Munro and Derwing, 1995). However, as Yang (2016) found, comprehensibility in L2 Chinese is highly negatively correlated with L2 accentedness (the more tone errors, the more foreign-accented the L2 speech sounds, and the less comprehensible it is). Therefore, in order for the CSL learners to produce more comprehensible L2 speech, they also need to reduce the foreign accent, especially the foreign accent deriving from tone errors. In this sense, CSL is different from ESL/EFL.

As regards the teaching of pinyin, the ratio of the respondents who taught pinyin separately to those who taught it in the regular curriculum is 6:4. While either group justified their teaching approach, it makes more sense to teach pinyin more integratively in the curriculum, in that language learning should be contextualized. Meanwhile, regardless of the different pronunciation

teaching strategies (i.e. separate vs. integrative), it would be necessary and advisable for Chinese instructors to prepare a systematic approach to teach pronunciation/pinyin so that pinyin learning can be more focused and effective. Most CSL instructors would not give credit (at least not full credit) to pinyin used for replacing characters in quizzes/exams, although the rest of instructors were also justified in their treatments of pinyin in replacement of characters. Considering the diverse ways of mixing pinyin and characters, every CSL language program needs to lay out clear guidelines for such practice for in-service instructors so that all instructors would follow these guidelines and be consistent in their teaching. It is expected that such guidelines will be of great significance for the sustainable development of Chinese language programs. Similarly, those instructors who do not accept pinyin to replace characters also need to come up with ways to help learners overcome the difficulty of character learning, especially at the beginning stage.

As for corrective feedback in pronunciation, the majority of the instructors corrected pronunciation issues as they arose. However, it is equally important for the instructors to judge what pronunciation issues to correct and when. At the lower-level classes, it is necessary and important for the instructors to make frequent corrective feedback to prevent the fossilization of pronunciation problems. When it comes to higher-level classes, the instructors may need to decide when to do so. Frequent corrections definitely interfere with the normal communicative activities; however, it is necessary to correct patterned pronunciation problems even in the higher-level classes. It may be advisable to summarize the patterns of pronunciation issues and set aside time in class for the whole class to practice.

The respondents reported some changes in their CSL pronunciation teaching, such as knowing the areas of difficult pronunciation better and starting to use an integral approach to teaching pronunciation, such as in meaningful communications, and greater flexibility in handling the problems/issues in learners' pronunciation. These changes suggest that the CSL instructors' teaching has become more communication-oriented, in accordance with Levis and Grant's (2003) principles for pronunciation teaching in ESL, namely to develop genuine communication skills.

In terms of segment learning,  $j/t\epsilon/$ ,  $q/t\epsilon^h/$ ,  $x/\epsilon/$ ,  $c/ts^h/$ ,  $r/\text{ɹ}/$ ,  $zh/t\text{ʂ}/$ , and two apical vowels [ɿ] and [ʅ] were reported to pose most difficulty for CSL learners. The difficulty of the various consonants and vowels may be due to different reasons, one of which being the perceptual assimilation between Chinese sounds and English ones (Flege, 1995; Best, 1995; Best and Tyler, 2007). Since Mandarin Chinese has three pairs of affricates (i.e., dental, retroflex and palatal) and English only has one pair of post-alveolar affricates, Chinese retroflexes and palatals may be perceptually assimilated to English post-alveolar affricates and, as a result, pose difficulty for L2 learners. Meanwhile, pinyin Romanization system may cause learning difficulty for learners as well, in that pinyin system may not reflect the phonemic or allophonic status of some sounds. For example, the same pinyin symbol *i* has three allophones, namely [ɿ] after dentals, [ʅ] after retroflexes, and [i] in all other phonological contexts. Therefore, *i*'s in *ji* and *zhi* are actually two allophones of one vowel. As for the same pinyin symbol *u* in *qu* and *zhu*, they are actually two different vowels, i.e. /y/ and /u/. Such one-to-two and one-to-three correspondence between pinyin and the actual phonetic realizations may add to learners' confusion and hence pose difficulty in their L2 pronunciation. In this sense, the knowledge of Chinese phonetics is not only necessary, but also significant for Chinese instructors.

For tones, Tone 2, Tone 3, and Tone 4 were considered to be more difficult than Tone 1 and the neutral tone. These results confirmed the findings related to the difficulty of the tones in previous studies (Tao and Guo, 2010; Miracle, 1989; White, 1981; Sun, 1998; Yang, 2014, 2016a; Zhang, 2013). As for Tone 3, more than 50% of the instructors teach Tone 3 as a low tone and teach the Third-Tone sandhi more than the Half-Third sandhi, which is expected in that more instructors teach Tone 3 as a low tone and they do not need to teach the Half-Third sandhi. However, these responses are somewhat at “odds with” the mainstream textbooks in CSL - in the better way, though. Most of these textbooks teach Tone 3 as a low-dipping tone and discuss the two Tone 3 sandhis. However, as Zhang (2013) and Yang (2011, 2016) have shown, to teach Tone 3 as a low-dipping tone not only adds extra workload to L2 learners, it also leads to more tone errors in L2 Mandarin Chinese. Since many instructors have already started to initiate this way of teaching Tone 3, maybe the textbook compilers should follow suit as well. Meanwhile, as compared to the proportions of respondents in their attitude towards tone accuracy in Chinese learning, more instructors stressed tone accuracy and far fewer deemphasized tone accuracy in actual teaching, revealing the inconsistency in their attitude and teaching practice. This inconsistency suggests that, whether consciously believing the importance of tone accuracy or not, most instructors tended to attach great importance to tone accuracy in teaching practice, due to the important role of tones in Chinese.

In terms of training on teaching CSL pronunciation, while half of the CSL instructors have received good training in teaching Chinese pronunciation, the rest of the instructors either have not had such training or have not received adequate training. While effective teacher training may not be available to many instructors due to different reasons, the CSL as a field should work together to provide such training. Actually, the lack of pronunciation teacher training in

ESL is also a salient issue (Derwing and Munro, 2015, p. 78, 80-81). It is expected that such effective and much needed training will furnish inexperienced instructors with the knowledge, techniques, and strategies for CSL pronunciation instruction and classroom implementation.

## 5. Implications for CSL and Chinese Pronunciation Teaching

The profound implications of this survey study are multifold. First of all, while each instructor is unique in terms of academic training, teaching experience, and teaching philosophy, keeping up with the latest state of the art of the field is of great importance. The analysis of the approach to teaching *pinyin*, the attitude towards the use of *pinyin* to replace characters, the timing and approach of corrective feedback in segments and prosody and the goal change towards pronunciation teaching has demonstrated the communicative orientation of language teaching in the era of globalization. While the approach adopted by more instructors does not guarantee that it is a better or more effective one, it would be worth reflecting upon it and exploring the possible impact of such alternative teaching approaches.

Secondly, for teacher trainers and administrators, the survey results clearly showed that many instructors are lacking in the systematic training for CSL teaching, pronunciation teaching included. In comparison to ESL/ TESOL, CSL is a very young discipline. As a result, more research-informed programs of teacher training should be designed and implemented. Specifically, the training on pronunciation teaching should include the following components: 1) to acquaint the CSL instructors with knowledge of the sound system of Chinese, including consonants and vowels, tones, rhythm, stress, and intonation; 2) to highlight the sounds that tend to pose difficulty for L2 learners and differentiate the sounds

which are themselves difficult to produce from those which are difficult due to other external factors, such as the influence of pinyin Romanization, and so on; 3) to prepare differentiated pronunciation teaching syllabi for non-heritage and heritage learners to cater to their different learning needs; 4) to introduce the use of technology in pronunciation teaching. For example, Praat can be introduced to help students visually check their tone production. Voicethread and other similar programs can be used in class to appeal to the technology-savvy L2 learners in the 21<sup>st</sup> century; 5) to train CSL instructors on how to provide effective corrective feedback at the beginning, intermediate, and advanced levels (i.e., when, how, and what to correct); 6) to highlight the difference of pronunciation teaching at different stages, such as at the beginning, intermediate, and advanced stages; 7) to discuss the role and relative importance of intelligibility, comprehensibility, and accentedness in L2 speech; and 8) to train CSL instructors on how to assess CSL pronunciation. Meanwhile, program administrators should provide guidelines on important pronunciation-related issues to maintain the consistency and homogeneity across classes in the same language program. Some possible issues are: 1) whether to integrate *pinyin* teaching in the regular curriculum; 2) how to teach Tone 3 (i.e., as a low tone or a low-dipping tone) and the corresponding Tone 3 sandhi(s); 3) whether to accept *pinyin* to replace characters in quizzes/tests; 4) what is the goal of Chinese pronunciation teaching, and 5) how to assess students' speaking proficiency (i.e., standard-based or performance-based).

Thirdly, for CSL researchers, teacher-researchers included, the findings in this study provide some research agenda. For example, contrastive studies are worth conducting in order to differentiate the sounds that are themselves difficult from those that are difficult due to the interference from the Romanization system or orthography, or other factors. Following such studies, action research (or experimental studies) on specific pedagogical practice addressing the

difficult areas in L2 Chinese pronunciation can be implemented in the classroom setting, such as to teach Tone 3 as a low tone vs. to teach Tone 3 as a low-dipping tone; to try out the new pedagogy for its applicability and effectiveness, feedback to pedagogy, and to provide problem areas and directions for future studies (Coghland and Brannick, 2010).

Fourthly, the findings of this study are also of great significance to the textbook authors/compiler. While textbook authors/compiler are guided by their practical and theoretical frameworks, the voices from the language instructors should be taken into consideration as well. For example, both theoretical linguistics and language pedagogy have shown that if Tone 3 is taught as a low tone, then only the Half-Third sandhi needs to be taught, which will greatly alleviate the processing load on L2 learners. However, the CSL textbook authors/compiler either stick with the traditional way of teaching Tone 3 (Tone 3 is a low dipping tone) and only teach the Third-Tone sandhi, or adopt a new way of teaching Tone 3 as a low-dipping tone and teaching both the Third-Tone sandhi and the Half-Third sandhi. To the best of our knowledge, no CSL textbooks teach Tone 3 as a low tone, which is totally in contradiction with more than 50% of the instructors' approach of teaching Tone 3 in practice. Another area of Chinese pronunciation also merits the textbook authors/compiler's attention, namely, to incorporate stress, rhythm, and intonation into Chinese textbooks.

Note that this study has one limitation, namely, the lack of interview data. Some issues in this study can be addressed better via an interview method, issues such as "changes in the way the CSL instructors teach pronunciation", and teachers' qualifications and competence in pronunciation instruction, or at least supplemented by interview data. We will, however, leave the interview to future studies.

## 6. Implications for other less commonly taught languages (LCTLs)

Since this survey study focuses on Chinese as a second language, some findings are only relevant to CSL instructors, such as issues related tone teaching. Even some seemingly CSL-specific issues, such as *pinyin* teaching, may be relevant to instructors of some less commonly taught languages (LCTLs), such as Arabic or Korean, due to the use of some kind of Romanization systems. The more general issues covered in this study are not Chinese specific and are relevant to instructors of other LCTLs. Firstly, LCTL instructors and practitioners need to set up their goals of pronunciation teaching, namely the role of intelligibility, comprehensibility, and accentedness in their programs. Secondly, as this study shows, the lack of systematic training of Chinese pronunciation and pronunciation teaching is striking among CSL instructors. It is expected that other LCTL instructors may have the same problem and, as a result, should be provided with such important training. Equally important is the training on how pronunciation is assessed in that assessment is an integral component of any instruction. Thirdly, the role and importance of corrective feedback in pronunciation teaching should be emphasized and guidelines on when and what to correct should be provided, especially to the new instructors in the profession. However, it is important that similar survey studies should be conducted on other LCTLs so that more specific issues in each LCTL can be identified and brought to the attention of each LCTL field.

## 7. Concluding Remarks

This study surveys the current state of Chinese pronunciation teaching in the higher educational institutions in the US. The results of this survey study provide an overview of the context of Chinese pronunciation teaching, the status of Chinese pronunciation teaching, the CSL learners' motivation and goal of Chinese pronunciation teaching from the instructors' perspective, approach of *pinyin* teaching, difficulties in segments and suprasegmentals, and issues related to training of Chinese pronunciation teaching. Not only have findings from this survey study shed new light on many important issues in Chinese pronunciation teaching, they also have significant implications for all parties in CSL teaching, learners, instructors, researchers, textbook compilers, and program administrators. While this study raises, rather than answers, many questions in Chinese pronunciation teaching, the survey highlights some critical issues that entail the joint efforts of the CSL field and points to the direction of further studies on Chinese pronunciation and Chinese pronunciation teaching.

While pronunciation teaching has always been an important component in second language and foreign language teaching and research, only in recent years has this become an independent field in applied linguistics. There is even a new journal dedicated to this field, *Journal of Second Language Pronunciation*. It is hoped that this study in Chinese pronunciation teaching will trigger more similar efforts in the field to better align the CSL field (as well as other LCTL fields) with the field of applied linguistics and provide CSL researchers and practitioners with a new starting point for further research on CSL pronunciation teaching and learning.

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## Appendix: CSL pronunciation teaching in the US survey

Welcome to this CSL (Chinese as a Second Language) pronunciation teaching survey. The purpose of this survey is to get to know the current state of L2 Chinese pronunciation teaching in the US so that we can help teachers teach better and learners learn better. Your participation in this survey is of great importance to the CSL field and is greatly appreciated.

The survey has 52 questions. For open-end questions, you can use either English or Chinese.

1. Gender       Male                               Female
  
2. Age
  
3. Are you a native speaker of Chinese?  
 Yes               No
  
4. Where were you born?
  
5. What is your highest academic degree? In what area?
  
6. How many years have you been teaching Chinese?
  
7. At which state are you teaching currently?
  
8. Which level of Chinese classes are you teaching at your institution?
  
9. Are there Chinese heritage learners in your class? If so, what is the rough percentage of Chinese heritage learners in your class?
  
10. How many hours of Chinese instruction do your learners receive per week?  
 1 hour per week  
 2 hours per week  
 3 hours per week  
 4 hours per week  
 5 hours per week

- 6 hours per week
- 7 hours per week
- 8 hours per week and more

11. Did your learners receive a placement test before they took your class?

- Yes       No       Some       I don't know

12. If learners received placement test, how was the placement test given? If no, just write "No"

13. Approximately how much English is used in a typical class?

- 0%
- 1%-10%
- 11%-20%
- 21%-40%
- 41%-60%
- 61%-80%
- 81%-100%

14. How much do you agree with the following statement? "I believe that Chinese is more important relative to other foreign languages, such as French, German, Italian, etc. "

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

15. How much do you agree with the following statement? "I believe that speaking, including pronunciation, is more important relative to other language skills, such as reading and writing. "

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

16. How much do you agree with the following statement? "I think that it is easy to teach Chinese pronunciation. "

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

17. How much do you agree with the following statement? "I think that my Chinese pronunciation is excellent."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

18. How much do you agree with the following statement? "I am aware of my learners' goals of learning Chinese."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

19. How much do you agree with the following statement? "I think that my students are highly motivated to speak Chinese."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

20. How much do you agree with the following statement? "I think that my students aspire to acquire native or near-native pronunciation of Chinese."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

21. How much time do you spend teaching pronunciation in every class?

- 0-20%  
 21%-40%  
 41%-60%  
 61%-80%  
 81%-100%

22. Do you agree with the following statement? "I teach pinyin separately, such as spending one or two weeks teaching pinyin."

- Yes                       No

23. Regarding your response in Q22, why so?

24. Do you agree with the following statement? "I accept pinyin and give students full credit to pinyin in quizzes/exams if they do not know how to write characters"

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

25. Regarding your response in Q24, why so?

26. Do you agree with the following statement? "I teach pinyin integratively with other components of the course, not separately."

- Yes                       No

27. Regarding your response in Q26, why so?

28. Do you agree with the following statement? "I have a systematic approach to teaching Chinese pronunciation, such as a separate pronunciation teaching syllabus."

- Yes                       No

29. Regarding your response in Q28, why so?

30. Do you agree with the following statement? "I deal with pronunciation problems as they arise."

- Yes                       No

31. Regarding your response in Q30, why so?

32. What do you think are the main difficulties in teaching Chinese pronunciation?

33. Which of the following methods do you use in your teaching of Chinese pronunciation (can choose more than one)?

- Back-chaining
- Chanting
- Cuisenaire rods
- Drama
- Drills
- Group work
- Language laboratory
- Minimal pairs
- Role play

- Videos
- Others. Please be specific \_\_\_\_\_

34. How do you think that your Chinese pronunciation teaching has changed over the years?

35. How much do you agree with the following statement? "I believe that tone accuracy is of the utmost importance in learning Chinese."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

36. How much do you agree with the following statement? "I stress the accuracy of tones in my teaching."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

37. How much do you agree with the following statement? "I always correct students' tone errors."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

38. How much do you agree with the following statement? "I teach Tone 3 as a low tone (半三声)."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

39. How much do you agree with the following statement? "I teach Tone 3 as a low-dipping tone (全三声)."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

40. How much do you agree with the following statement? "I teach Tone 3 sandhi (三声变调), namely, to change Tone 3 to a rising tone when it occurs before another T3."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

41. How much do you agree with the following statement? "I teach Half Tone 3 sandhi (半三声变调), namely, to change Tone 3 to a low tone when it occurs before a non-T3."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

42. How much do you agree with the following statement? "I teach stress and intonation (重音和语调) in Chinese class."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

43. How much do you agree with the following statement? "I teach rhythm (节奏) in Chinese class."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

44. I teach tones in \_\_\_\_\_ (can choose more than one)

- monosyllables (单音节)     disyllables (双音节)     phrases (短语)     sentences (句子)

45. I think that L2 Chinese learners have relatively more difficulty with: (can choose more than one)

- Tone 1     Tone 2     Tone 3     Tone 4     Neutral tone

46. I think that L2 Chinese learners have relatively more difficulty with the following (pinyin): (can choose more than one)

- j  
 q  
 x  
 z  
 c  
 s  
 zh  
 ch

- sh
- r
- i in zhi, chi, shi, zi, ci, si
- If others, please specify \_\_\_\_\_

47. How much do you agree with the following statement? "I have received adequate training of Chinese pronunciation."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

48. How much do you agree with the following statement? "I have received adequate training of TEACHING Chinese pronunciation."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

49. How much do you agree with the following statement? "My training on teaching Chinese pronunciation is excellent."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

50. How much do you agree with the following statement? "I think that the goal of Chinese pronunciation teaching is to make L2 Chinese speech more intelligible."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

51. How much do you agree with the following statement? "I think that the goal of Chinese pronunciation teaching is to make L2 Chinese speech more comprehensible."

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree

52. How much do you agree with the following statement? "I think that the goal of Chinese pronunciation teaching is to make L2 Chinese speech more native-like or accent free, including intonation and rhythm"

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree  
5. Strongly agree