American K-12 CFL Teachers' Expected Competence, Actual Qualifications, and Needs for Professional Training: A Concurrent Mixed-method Study

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Abstract

In recent years, there has been a growing demand in the global labor market for proficiency in Chinese as a foreign or second language. Yet not much is known regarding how Chinese language education is provided by the U.S. schools in order to meet this demand. The present study investigated the competence that a Chinese teacher is expected to have as well as the qualification that currently in-service K-12 teachers of Chinese are actually possess. In addition, this research explored teaching philosophies, attitudes, pedagogy, challenges and needs for professional training among the Chinese teachers who are currently hired by U.S. K-12 schools. A concurrent mixed method design was employed in this study to collect both quantitative and qualitative data with a questionnaire from a sample of 45 Chinese teachers. Result showed that most U.S. K-12 schools have minimum and preferred qualifications specified for a long-term Chinese teaching position, however there is a gap between the preferred qualification from the perspective of employers and the actual qualifications that current K-12 Chinese teachers possess. Teachers' attitudes and beliefs about Chinese teaching competency are consistent with the expectations of their employers to some extent. Main finding suggests that K-12 Chinese teachers' teaching philosophies are influence by both traditional Chinese culture and modern western culture. Lastly but not least, the majority of the participants rated classroom management and pedagogy as the two areas where professional training is needed the most.

Keywords: Chinese as a Foreign Language (CFL), Qualification, Backgrounds, Attitudes, Beliefs, Professional Training, K-12 teachers of Chinese

Introduction

In accordance with the growing demand of Chinese learning, there is an increasing need for qualified Chinese language teachers in the United States. While the increasing growth of Chinese language programs in K-12 schools in the United States, finding qualified teachers is a major challenge for the employers. On one hand, the shortage of qualified Chinese teachers within the United States results in a vast majority of teachers being recruited from China or Taiwan who are lack of appropriate training to teach Chinese as a foreign language in K-12 setting in the United States (Xu, 2012). On the other, it was reported that only a very small proportion (10%) of graduates from teacher development programs were able to find a full-time teaching job in China and only a mere 1% of them have a chance to successfully find a teaching job overseas (Hu and

Feng, 2012). Clearly, rather than a lack of teachers, the shortage lies in hiring well-trained and qualified teachers of Chinese to work for the increasing growth of Chinese programs in K-12 schools. Undoubtedly more attention needs be given to the CFL teacher competency and professional development however the literature does not show sufficient research in this area.

Li, Pang, and Hu (2018) conducted a literature review to summarize the major findings in the literature of teacher competency especially focus on foreign language teacher competency. The study provided both holistic and horizontal perspective for further studies on teacher competency. In the second and foreign language teaching area. This literature review study initiates a series of exploratory research in CFL teacher competency studies by providing a comprehensive background description. As a part of the initiation, two researches are lunched. Wang, Liu, Li, and Luo (2018) investigated the professional guidelines, resources, standards for CFL education at both national level and state level in the U.S. including overview the U.S. government educational resources, guidelines and professional standards for CFL education. The current study captured voices from in-service teachers in K-12 schools through an in-depth questionnaire to exam the gap between required qualifications of K-12 schools and the actual qualification, as well as teachers' attitudes, believes and needs for professional training. Specifically, the following research questions are addressed:

- 1. What are the required qualifications of CFL teachers in U.S. K-12 schools?
- 2. What are the actual qualifications of CFL teachers in U.S. K-12 schools?
- 3. What are attitudes and beliefs about CFL teaching competency among CFL teachers in U.S. K-12 schools?
- 4. What are the teaching philosophies of CFL teachers in U.S. K-12 schools?
- 5. What kind of professional training is needed by CFL teachers in U.S.K-12 schools?

A concurrent mixed method design is used for the present study. The concurrent design is recommended when the researchers need to validate one form of data with the other form, to transform data for comparison, or to address different types of questions (Creswell & Plano-Clark, 2017). Both quantitative and qualitative data were collected from the same sample using a questionnaire consisting of structured and unstructured questions. While the structured questions allow us to easily collect and summarize data on required and actual qualifications of the participants and their beliefs about the importance of specific teaching skills, the unstructured questions allow the participants to enter extensive comments about their teaching philosophy and their needs for professional preparation and training. Using the concurrent mixed method design allows us to compare findings from the quantitative and qualitative data in order to reach a more comprehensive and realistic understanding of the expectations of K-12 schools and the expectations of CFL teachers, the discrepancy or conflicts between the two sets of expectations, and how we may reduce the discrepancy or resolve the conflicts. At the same time, we chose the concurrent design knowing that some of the structured questions in the questionnaire may not provide response options that are applicable to all participants. We developed the questionnaire based on the literature, policy study, and expert knowledge of the coordinators of CFL teacher training programs provided by the Confucius Institutes in several U.S. universities. Given the shortage of qualified and certified CFL teachers, current CFL teachers came from a great variety of educational and professional backgrounds that may or may not be captured by the response options provided in the questionnaire. The unstructured questions in the questionnaire can

therefore allow the participants to add to or clarify their responses to structured questions that do not apply to them well.

Method

Participants

There was a total of 46 participants completed and submitted the questionnaire that was designed for this study. The work location of one participant is out of the United States and therefore her data was not included in this study. Ultimately, the findings of the current research were based on the data draw from 45 Chinese teachers that distribute in 18 states in the U.S. It should be pointed out that not all questions on the questionnaire were required to answer in order to minimize response burden and maximize respondent motivation and accuracy. (National Research Council of the National Academics, 2013). Data analysis in this study was based on valid and actual response.

The majority of participants (n=25) work in a public school, 7 work in a private school, 1 in a charter school, 1 in an independent school, and 1 in an after-school program. In terms of school level, 17 of the 35 schools offer elementary grades, 16 offer middle school grades, 16 offer high school grades, and 7 offer pre-k grades. While some participants teach Chinese at a specific school level, many reported that they teach Chinese at multiple levels. Their self-reports showed that 21 of 35 participants were teaching elementary classes, 19 were teaching middle school classes, 16 were teaching high school classes, and 5 were teaching pre-K classes. In terms of instructional methods, only 6 of participants reported that their school adopts a language immersion model, while the majority of them (n=29) reported a non-immersion CFL program. The participants also reported that 80% of the CFL teachers in their school are native Chinese speakers while 20% are English and Chinese bilinguals.

Measures

An American K-12 CFL Teachers questionnaire was developed by Li, Cong, and Kline (2018). The questionnaire has four sections. Section I consists of 10 questions about requirements for CFL teachers at the school where the respondents teach and. Specifically, this section covers requirements for degree(s), major field of study, Chinese proficiency, English proficiency, teaching license or certificate, teaching experience, knowledge (i.e., Chinese linguistics, education, psychological foundations, and cultural knowledge), and skills (e.g., ability to effectively express and communicate in English and Chinese, classroom organization; and management, etc.). Section II focuses on school information such as location, type of school, grade levels, CFL program model, and CFL teachers. It has 5 questions. Section III consists of 8 questions about personal background of the respondents, including grade levels that they teach, highest degree, major field of study, English and Chinese proficiency, CFL license and certificate, CFL teaching experience, and teaching contract. Sections I-III consist of multiplechoice questions with an open field for alternative answers and/or explanations and elaborations. Section IV is about the perceived importance of specific knowledge and skills for CFL teaching, teaching philosophy, and specific needs for professional training. This section consists of two Likert-type scales with follow-up open-ended questions.

Procedures

The American K-12 CFL Teachers questionnaire was distributed online via Google Form. A link was created for the questionnaire and included in the invitation for research participation. The invitation was issued via WeChat, the most popular social media mobile app in China. One of the authors started a WeChat group and through mutual friends gradually added 120 CFL teachers in the United States to this group. An invitation for participating in the study was sent to all members of the WeChat group, with the link provided. Those who were willing to participate would follow the link to complete the questionnaire via Google Forms. A total of 45 valid responses were received.

Results

Research Question 1: What are the required qualifications of CFL teachers in U.S. K-12 schools?

A total of 45 teachers responded to questions about their school's requirements for a CFL teacher's Chinese proficiency and English proficiency. According to their self-reports, almost all schools (n=43, or 95.6%) require their CFL teacher to be a native speaker of Chinese while only 2 schools are willing to hire non-native speakers with an intermediate level of Chinese proficiency or above. In contrast, there are fewer requirements for a CFL teacher's English proficiency. Only 2 schools require their CFL teacher to be native or near native speaker of English, while the majority of the schools require either an intermediate level (n=28, or 62.2%) or an advanced level (n=15, or 33.3%) of English proficiency

The majority of the respondents indicate that their school has a minimum requirement for the education of their CFL teacher(s). Among the 45 respondents, 29 indicate that their school requires a bachelor's degree (64.4%), while 15 report a requirement for a master's degree (33.3%) and 1 indicates there is no specific requirement (2.7%). Regarding the field of study, the respondents indicate a wide variety of requirements. Among the 45 that respond to this question, 25 indicate a major in Chinese as a second language is required by their school, while 10 indicate a requirement for other education major, 15 indicate a requirement for Chinese language and literature major, 11 indicate a requirement for a language major including English or Chinese major, 1 indicates a requirement for a language or education major, and 2 indicate no specific requirement for major field of study at all.

U.S. schools that offer long-term full-time Chinese teaching positions also have requirements for teaching certificate/license and teaching experience, according to our participants. Among the 45 respondents, 9 indicate that their school requires a state teaching license be obtained upon hiring, 13 indicate that a state teaching license is required but can be obtained within a year after being hired, 14 indicate that they are not aware of any teaching certificate/license requirement, and 9 indicate that they don't know since there is no permanent full-time Chinese teaching position at the school that they are assigned to. In terms of teaching experience, 14 respondents indicate that they don't know if their school has any requirement, 8 indicate that there is no requirement and the remaining 23 respondents report a wide range of requirements. Specifically, 1 school allows

less than 1 year of teaching experience, 15 schools require 1-3 years of teaching experience, 5 schools require 3-5 years, and 2 schools require 5-10 years.

Research Question 2: What are the actual qualifications of CFL teachers in U.S. K-12 schools?

The participating Chinese teachers have a variety of backgrounds. Almost all of the respondents are native speakers of Chinese (n=42), while 3 respondents reported their Chinese proficiency as intermediate. Only one of them is a native or near native speaker of English. The remaining respondents reported their English proficiency as either intermediate (n=26) or advanced (n=18). Most of them have a master's degree in CFL or related fields (n=32) while some have a bachelor's degree only (n=13). In terms of the specific discipline of their degrees, about half of the respondents majored in a Chinese as a second language program (n=22), 9 in a second language program other than Chinese, 8 in a Chinese language and literature program, and 7 in other education programs. In terms of teaching licensure, 17 respondents have a CFL license, of which 15 was authorized by Confucius Institute Headquarter in China, 1 by Department of Education of Florida, and 1 by Department of Education of Kentucky. The number of years that they have held their CFL license varies from 1 year (n=4), 2 years (n=8), 3 years (n=2), 7 years (n=1), to 12 or 13 years (n=3). Regarding CFL teaching experience, 22 respondents had worked in the US for one year or less, while 16 had begun their second year working in the US, and 7 had worked for more than 2 years. For teachers sent to the US by Confucius Institute of China, they can serve up to two terms, consecutively or non-consecutively. Our respondents reported having served for one year of less (n=9), between 1 and 2 years (n=28), between 2 and 4 years with contract renewal (n=6), or over 4 years with change of visa from J-1 to H-1B.

Research Question 3: What are attitudes and beliefs about CFL competency among CFL teachers in U.S. K-12 schools?

As shown in Table 1, the participating CFL teachers rated the four areas of knowledge requirements for CFL teaching as very important or important. None of the participants rated any of the four areas as not important. There were a few teachers who rated Chinese linguistics (n=5), education (n=1), or psychology (n=5) as not very important. In the comments, one teacher noted that, though not required by the school, strong classroom management competency is also important.

Table 1 *CFL teachers' beliefs about the importance of different areas of knowledge*

Area of knowledge	Very	Important	Not very	Not Important
	important		Important	
Chinese linguistics	59.1% (26)	29.5% (13)	11.4% (5)	0.0% (0)
Education	56.8% (25)	40.9% (18)	2.3% (1)	0.0%(0)
Psychology	47.7% (21)	40.9% (18)	11.4% (5)	0.0% (0)
Cultural knowledge	59.1% (26)	40.9% (18)	0.0% (0)	0.0% (0)

Next, we explored the participants' perceived value of a list of five abilities of a CFL teacher at the school where they were teaching. As shown in Table 2, all five abilities were rated as *very important* by more than half of participants. Among the five abilities, classroom organization and

management ability received the highest rating, with 86.4% of the participants indicating that it is very important. The next two abilities with more than 70% of the participants rating as very important were: teaching skills (75%) and cultural adaptability and intercultural communication skills (70.5%). Finally, the ability to effectively express and communicate in English and the ability to effectively express and communicate in Chinese receive very similar ratings, with approximately 60% of the participating indicating those two abilities as very important. None of the participants rated any of the five abilities as not important, with the only exception of one participant giving this rating to the ability to effectively express and communicate in Chinese.

Table 2Perceived Value of the Abilities of a CFL Teacher at the Local School

Abilities	Very	Important	Not very	Not
	important		important	important
Classroom organization and management	86.4% (38)	9.1% (4)	4.5% (2)	0.0% (0)
Teaching skills (e.g., preparation for class, teaching, and assessment)	75.0% (33)	25.0% (11)	0.0% (0)	0.0% (0)
Cultural adaptability and intercultural communication skills	70.5% (31)	27.3% (12)	2.3% (1)	0.0% (0)
Ability to effectively express and communicate in English	61.4% (27)	36.4% (16)	2.3% (1)	0.0% (0)
Ability to effectively express and communicate in Chinese	59.1% (26)	29.5% (13)	9.1% (4)	2.3% (1)

Table 3Summary of Five Most Important Potentials for a CFL Teacher

Teaching potentials	n	%
Effective classroom management	40	88.9%
Effective teaching strategies and methods	39	86.7%
Good cross-cultural communication skills	36	80.0%
Excellent knowledge and skills of Chinese	34	75.6%
Good knowledge of students' growth and development		64.4%
Strong passion for the teaching career		57.8%
High proficiency in English		53.3%
Ability to use self-learning and self-reflection		40.0%

The participants were asked to choose five most important potentials of CFL teachers from a list of eight potentials. An additional option was also provided for them to add any potential that is not included in the list, though no one chose that option. We summarized the results in Table 3 by rank ordering the eight options by their frequency. As seen in Table 3, the three potentials that are chosen by over 80% of the participants are: effective classroom management (88.9%), effective teaching strategies and methods (86.7%), and good cross-cultural communication skills

(80%). The next four options were chosen by half to three quarters of the participants: excellent knowledge and skills of Chinese (75.6%), good knowledge of students' growth and development (64.4%), strong passion for the teaching career (57.8%), and high proficiency in English (53.3%). Ultimately, 40% of the participants chose ability to use self-learning and self-reflection as an important teaching potential.

Research Question 4: What are the teaching philosophies of CFL teachers in U.S. K-12 schools?

We conducted content analysis of the participants' responses to the open-ended question asking for a brief overview of their core teaching philosophy. Responses were coded and merged into broader categories independently by two of the authors. The two sets of codes and categories were compared and adjusted until a consensus was reached in subsequent discussions. Four themes were then generated to provide a meaningful summary of the codes and quotes for each category. To allow us to triangulate the qualitative data with the quantitative data, we also transformed the qualitative data by rank ordering the frequencies of codes for each category (see Table 4). In the following, we illustrate each of the four themes.

Theme 1: An effective CFL teacher have a range of positive dispositions.

A list of teaching dispositions is mentioned by the participants. A CFL teacher is described as someone who is patient, persistent, and focused, who loves his/her students, communicates well with them, and demonstrates enthusiasm and charisma, who is serious and conscientious about teaching, and who is fair. It is interesting that one specific disposition is mentioned here "不卑不亢" which is a Chinese idiom that means "neither overbearing nor servile". This disposition is probably brought up in the specific context of teaching Chinese as a foreign language in a developed country (the United States) as someone from a developing country (China) that speaks English as a foreign language, and is most likely related to concerns about their own competency for native language and culture and possible challenges that may arise consequently in teaching and communication.

There is some indication that our participants view teachers as life-long learners that engage in self-reflective practices. For example, two participants cited the idiom "教学相长 (Jiao xue xiang zhang)", which means teaching and learning are mutually beneficial for a person. This idiom comes from a collection of Confucius sayings and ideas written by one of his students Book of Rites (礼记 – 学记): "是故学然后知不足,教然后知困。知不足然后能自反也,知困然后能自强也。故曰教学相长也。Therefore, to learn makes us realize our deficiency, and to teach makes us know the difficulties. Having realized our deficiency, we may then come to reflect; having known the difficulties, we may be able to strengthen ourselves to overcome them. So, we say, to teach is to learn. (Qian, 2012)"

Theme 2: Engaged learning by creating a fun, student-centered environment and using individualized, differentiated teaching approaches

Half of the participants refer to constructivist, student-centered teaching as one of their core teaching philosophies. They emphasize student-teacher interaction and indicate that students play the major role and the CFL teacher plays a participatory role in the learning process by guiding

and facilitating the students. The participants also embrace the western instructional approaches that are consistent with constructivism, especially individualized and differentiated teaching. Quotes include "accurately know the individual progress of each student", "design the curriculum based on the learner's characteristics", "understand psychology of learning in high school students", "understand student background", "observing students in class (to see) if anyone has difficulties/is unhappy/learn efficiently/get bored". Once again, a Chinese idiom is cited: 因材施教(Yin cai shi jiao), which means to teach students in accordance of their aptitude. This idiom comes from a story about how Confucius explained why he gave different advice to two students regarding the same hypothetical situation based on their individual differences. Finally, many participants highlight the need for fun and engaged learning. Participants indicate that CFL learning shall be fun and based on student interest. Teachers should follow individual interest and use strategies such as games to instill fun in learning so that students can enjoy the learning process. One wrote, "For beginners interest fostering interest is more important than the acquisition of knowledge."

Theme 3: Situated learning in cultural contexts and real-life scenarios, with immersive experiences for students to learn and practice Chinese for social and communicational tasks

According to the participants in our study, foreign language learning should be integrated with cultural learning and situated in cultural contexts. Through task-based and case-based learning, students are guided to perform Chinese culture in a variety of real-life scenarios that they can relate to. To achieve culture-based learning, CFL teachers should use the target language (Chinese) more in the classroom. In addition, CFL teaching should emphasize practical skills for cross-cultural communications. Many participants believe that for U.S. students with little background in Chinese language learning, the teaching of listening and speaking skills should go before the teaching of reading and writing skills in CFL education. They also believe that intensive teaching should be followed by deliberate practice, with many opportunities for students to rehearse newly acquired social and communication skills.

Theme 4: Cultivation of the whole human being

The Confucius philosophy of "educating the whole human being" is highly influential in Chinese societies. This is reflected by the constant references by the participants to Confucius or neo-Confucius essays and sayings. For example, several participants cited the idiom "以人为本(Yi ren wei ben)", which means people oriented or people foremost. According to the Confucius humanistic perspective, the ultimate goal of education is to cultivate virtuous, fully realized human beings that are essential for the establishment and maintenance of a peaceful, harmonious society. Thus, the teacher's role goes beyond the teaching of domain-specific knowledge and skills. One of the participants cited "传道授业解惑(chuan dao shou ye jie huo)" to describe the role of a teacher. This citation comes from a classic essay 师说(On Teachers) by Yu Han, an essayist and poet from the Tang dynasty who had a strong influence on the development of Neo-Confucianism. It means that a teacher is "one who could propagate the doctrine (传道), impart professional knowledge (授业), and resolve doubts (解惑)". As can be seen in the order of a teacher's responsibilities, to propagate the doctrine (传道) is the most important. The Confucius doctrine encourages the pursuits of five essential virtues: 仁 ren (benevolence or humanity), 义

Table 4Codes and Themes based on Content Analysis of Responses to Q4 "*Please provide a brief overview of the core teaching philosophy in your opinion*"

Codes	Quotes	Frequency
Theme 1: Positive	teaching dispositions of a CFL teacher	
Teaching dispositions	Patient (耐心); Persistent (坚持), Focused (专注); Enthusiastic (热情); Charismatic (感染力); Serious (认真); Conscientious (负责); Compassionate (爱心); Good communication (良好沟通); Fair; Neither overbearing nor servile (不卑不亢); To teach is to learn (教学相长)	21
Theme 2: Engaged approaches	learning by creating a fun, student-centered environment and using individualized, differential	ted teaching
Student-centered teaching	Student centered (学生为中心,学生为主体); Student oriented (学生为主导); Teacherstudent interaction (师生互动); Teacher guidance (教师做引导); Teacher participatory model (参与式)	17
Individualized and differentiated teaching	Accurate knowledge of the progress of each student's learning (准确的知道每个学生的教学进度); understand the learning psychology of high school students (了解高中生学生的学习心理); design lessons based on the characteristics of the learners (根据受教者的特点设计的课); understand the students' situation (了解学生情况); teach students in accordance with their aptitude (因材施教); Keep observing students in class	10
Engaged learning	Have fun (有趣); Fun-based teaching and learning (快乐教学); Teaching by entertaining (寓教于乐); Learning as fun (在快乐中学); Enjoy learning as a process (乐在其中); Game-based learning (在游戏中学); Guided by interest (兴趣为先导); Start with student interest (从学生兴趣入手); Interest first (兴趣为先); Interest is more important than knowledge for beginners (对于初学者兴趣大过知识);	10
	learning in cultural contexts and real-life scenarios, with immersive experiences for students to or social and communicational tasks	learn and
Task-based and situated learning	Create real life scenarios (创设情境); Relate knowledge to students' lives; Situated learning (情景教学); Authentic language teaching (实际语言教学); Task-based teaching(任务型教学); Case-based teaching (案例分析),	5
Immersive classroom	Teach in target language (目的语教学); Integration of language and culture (语言与文化相结合); Intercultural communication (跨文化交际); Performance of culture (体演文化)	3
Oral communication oriented	Focus on listening and speaking skills of students with little background in Chinese learning (零基础汉语注重学生的听说能力); Listening and speaking first, reading and writing next (听说领先读写跟上); Emphasize cultivation of students' communication competency (注重学生交际能力培养)	5
Deliberate practice	Intensive teaching and extensive practice (精讲多练); Focus on practice (以练为主); Drill and practice (演练)	6
Theme 4: Cultivati	on of the whole human being	
Focus on character development	People oriented (以人为本); Propagate the doctrine, impart professional knowledge, and resolve doubts (传道授业解惑); Let students know that learning Chinese is essentially difficult (让他们知道学汉语的本质就是难的); Cultivate students' growth mindset through the difficulties and challenge in learning Chinese; Only a strict teacher can make distinguished students (严师出高徒)	5
Promote thinking skills and self-growth	Creativity; More encouragement (多鼓励); The art of education lies not in imparting knowledge but in awakening, encouraging, and inspiring the learner (教育的艺术不在于传授知识而在于唤醒激励和鼓舞); Cultivate self-study ability(培养自学能力)	4

yi (justice or righteousness), 礼 li (propriety or rite), 智 zhi (wisdom), and 信 xin (faithfulness) (Zhang, 2000). To hold the learners to such high moral standards, a good teacher is often seen as a strict teacher that has high expectations for the students. Not surprisingly, our study participants cited such proverbs as 严师出高徒 (yan shi chu gao tu), which means "only a strict teacher can make distinguished students".

At the same time, some participants refer to Western approaches to education that share the perspective of cultivating the whole human being (or the whole child). They mention many buzz words that are often used by educational transformationalists, such as creativity, self-study ability, inspired thinker, and self-growth through overcoming difficulties and challenges. In recent years, educational transformationalists have called for reshaping educational curriculums to promote 21st century skills that cut across disciplinary boundaries but are essential for long-term success. The organization of Partnership for 21st Century Skills (2009) presented a well-regarded framework that include three categories of 21st century skills: 1) learning and innovation, 2) life and career skills, and 3) information, media and technology. For example, the learning and innovation skills include creativity and innovation, critical thinking and problem solving, and communication and collaboration. The life and career skills include flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, d) productivity and accountability, and leadership and responsibility. Obviously, the CFL teachers in our study have been under the influence of innovative western teaching philosophies and developed some understanding of the 21st century skills that need to be promoted in K-12 education.

Research Question 5: What kind of professional training is needed by CFL teachers in U.S. K-12 schools?

According to the survey results, half of the participants reported that they need professional training in classroom management in K-12 settings (see Table 5). The second most frequently mentioned aspect of professional development is pedagogy, i.e., how to use effective instructional strategies to engage American K-12 students in Chinese language learning. The participants expressed particularly strong interest in learning about curriculum design and gamebased learning. The next category is pedagogy that is specific for CFL. Participants expressed a need for training in content knowledge, instructional contents, specific core language contents and skills, specific ways to integrate vocabulary and grammar learning as well as comprehension of Chinese texts in curriculum design and lesson plans. The next two categories are crosscultural communication competence and systematic sharing of instructional resources for CFL teachers, such as case studies of exemplary CFL teaching, providing multiple channels and platforms for CFL teachers to access shared instructional resources, especially regarding instructional methods. Finally, individual teachers indicate a need for training in spoken English for oral presentation and interaction in instructional settings, for traditional Chinese arts and crafts. One teacher expects training to improve professional quality without elaborating on which specific aspect of professional quality he/she is interested in.

Discussion

Overall, the current survey study used mixed methods to collect both quantitative and qualitative data on CFL teachers in the United States. We investigated the required qualifications vs. actual

Table 5Codes and Themes based on Content Analysis of Responses to Q5 "If there is a professional training of a professional organization for CFL teacher, what kinds of training contents will be expected?"

Codes	Quotes	Frequency
Classroom management	课堂管理,针对美国中小学的课堂管理,课堂管理及注意事项 Classroom management, classroom management for American primary and secondary schools, classroom management and related issues	25
General pedagogy	Teaching methods (教学方法); Fun American teaching methods (有趣的美国教学方式), Organization of classroom teaching and learning activities (组织课堂教学活动), How to teach Chinese effectively (如何进行高效的汉语教学); Game-based learning (教学游戏), Classroom activities (课堂活动), Lesson design (课堂活动的设计)	15
Cross-cultural communication	Cross-cultural communication (跨文化交际)	3
CFL pedagogy	Professional knowledge training (专业知识的培训), Chinese instructional contents (汉语教学内容), Classroom teaching (课堂教学), Specific ways to integrate vocabulary and grammar learning as well as comprehension of Chinese texts in curriculum design (具体的生词语法课文处理环节), Teaching of specific core language contents and skills (具体语言点教学)	4
Resource sharing	Sharing of exemplary teaching cases (优秀教学案例的共享), providing a variety of access to instructional resources (教学资源的多样化挖掘渠道), Sharing of Chinese instructional resources (中文教学资源方法分享)	3
Other	English training (教学上的英语口语表达培训); Training on oral English for teaching), Traditional arts (中华才艺); Traditional and cultural arts and skills, improve professional quality (提升自身业务素质)	1

qualifications of CFL teachers in U.S. K-12 schools. Our findings show interesting overlaps and contrasts. First, U.S. K-12 schools are more consistent and firmer with their requirement for native Chinese speaker status than their requirement for native English speaker status. According to the participating teachers' understanding, 95.6% of the schools require their CFL teachers to be native speakers of Chinese. All but two of the schools require just intermediate or advanced English proficiency. Second, U.S. schools typically have some requirements for educational background of CFL teachers that are similar to their requirement for regular teachers of other subjects. About two thirds require a bachelor's degree and one third requires a master's degree. Slightly more than half of the schools require a major in Chinese as a second language, while the

other half are much more flexible with a requirement of Chinese language and literature major, any educational major, or any language major. Third, schools that have a permanent CFL teacher position either waive the requirement for state teaching license or allow some time for the new CFL teacher to obtain it. Fourth, there is great variability and some arbitrariness when it comes to the requirement for teaching experience, with the most frequent requirement being 1-3 years of teaching experience.

The results indicate that most U.S. schools make a compromise when it comes to recruiting CFL teachers most likely due to the shortage of qualified CFL teachers on the market. This has something to do with the educational systems differences between U.S. and China. In the U.S., there are many higher education institutions that offer undergraduate, post baccalaureate, and graduate programs in English as a second language education and in foreign language education of popular foreign languages such as French and Spanish. Both the higher education system and the job market for teachers of English, French, and Spanish as a second/foreign language have been well established, with well-defined professional preparation options, clear career paths, and monitoring and supporting functions of state governments (standards, assessments, guidelines, funding, etc.). Compared to the U.S., China is relatively unprepared for an overseas need for CFL teachers. Since foreign language learning is generally considered the learning of languages other than Chinese in China, there are very few universities or colleges that offer undergraduate, post baccalaureate, or graduate programs in Chinese as a second or foreign language teaching. The growing size and importance of Chinese economy in the global market is a relatively new phenomenon in the past 20 years. Consequently, the evolving global market creates a need for 21st century work force in China to be proficient in English and for those in the U.S. and other English-speaking countries to be proficient in Chinese.

To better understand the teaching approaches of the CFL teachers in the U.S., we also examined their teaching philosophy. Based on content analysis of their responses to an open-ended question, we are able to generate several themes. First, an effective CFL teacher have a range of positive dispositions, including patience, conscientiousness, focus, compassion, enthusiasm, charisma, good communication, fairness, dignity, and self-reflectivity. Second, CFL teachers need to engage students in meaningful learning by creating a fun, student-centered environment and using individualized, differentiated teaching approaches that cater to students' interest and meet their individual needs. Third, CFL learning should be situated in cultural contexts and real-life scenarios, while providing an immersive environment for students to learn and practice Chinese for specific social and communicational tasks. Fourth, the goal of education goes beyond acquisition of knowledge and skills and involves the cultivation of whole human beings.

Across the four themes of CFL teachers' teaching philosophy, it is obvious that these teachers are under the mixed influence of both eastern and western cultures. Through their interpretation, both cultures offer good insights into educational practices and both can be adopted or adapted to form their own teaching philosophy. Sometimes the same teaching approach may be supported by both cultures. For example, the neo-Confucius idea of "to teach is to learn (教学相长)" is compatible with the western view of teachers as life-long, reflective learners. The Confucius idea of "to teach students in accordance of their aptitude (因材施教)" is compatible with the western philosophy of student-centered teaching. The Confucius humanistic perspective of "people oriented (以人为本)" and "to propagate the doctrine (传道)" goes hand in hand with the western

philosophy of whole-person education and development of cross-disciplinary skills. Nevertheless, the core values may still differ between the two cultures. While Chinese culture focuses on moral education, respect for authorities, and the doctrine of the mean, western culture focuses on higher order thinking skills, self-management and self-regulation skills, and communication, collaboration, and leadership skills. Depending on the teacher's cultural beliefs, similar teaching approaches may be used to foster different outcomes in the students.

To provide better support for CFL teachers, we also explored their need for professional development and training. According the survey results, the two most widely mentioned areas that CFL teachers need training are classroom management and pedagogy. The need for training in classroom management is understandable given the cultural, educational and professional backgrounds of most CFL teachers. Traditional Chinese culture highly values education and demands great respect to be paid to the teachers. As the old saying goes, "A teacher for a day, a mentor for life." It has its roots in the Confucius essay 礼记学记 (Book of Rites · Essay on Learning): "凡学之道,严师为难。师严然后道尊,道尊然后民知敬学。" This paragraph translates into English as "Respect for the teacher is difficult to be instilled in the learners' minds. Once the respect is present, scholarship and the rationale of gaining scholarship are valued. Only when a reverence for scholarship is held can people regard highly of learning (Zhang & Bai, 2015)." Confucius believed the relationship between teacher and students is similar to that of father and sons (or daughters). For example, as early as the Warring States period, there were 'one-day teacher, life-long father (一日为师,终身为父)' in 《吕氏春秋》 which describes a typical Chinese teacher-student relationship. Embedded within this traditional value, many Chinese teachers behave like Chinese parents. They believe it is their obligations to teach morality to their students using rightful authority over the students, which contrasts sharply with basic values in many western societies (Pratt, Kelly, & Wong, 1998). Xu (2015) reported the experience of Chinese teachers and their British students in an experimental program. The experimental program hired a few English-speaking teachers from China to teach 50 high school students in the Chinese way at a local British school. The Chinese teachers expressed frustrations at student behaviors that disrupt classroom activities. They explained that teachers in China don't need a great amount of classroom management skills since the students are already disciplined by nature, the families and the society.

The CFL teachers in our study grew up in China, received education in China, and worked in the teaching profession in China. The cultural norm of respecting teachers has been deeply ingrained in their beliefs and values and validated by their experience in China. McGinnis (1994) points out that foreign language learners and teachers have divergent cultures of instruction and pedagogy. Accurate use of the language seems to be more valuable to native Chinese teachers while American students regard a good teacher as the one who conduct effective instructions, able to generate creative and communicative methods, and has capacity to organize various classroom engagement activities. It is critical for native Chinese teachers to realize that failing to understand the need, preference, attitude, and belief of students who are linguistically, ethnically, culturally, and cognitively diverse is one of the most challenging barriers that they have to overcome. Without such an understanding, it would be difficult for CFL teachers to make classroom learning fun, engaging, or effective.

There are limitations of the study. First of all, the sample of CFL teachers in this study is relatively small and the result may not be generalizable to all CFL teachers due to the small size of sample pool. Second, the qualitative data is limited for a mixed-methods study. Participants' responses to the open-ended questions are mostly brief phrases and expressions and are rarely expressed in complete sentences. The meaning of some responses can be ambiguous without further elaboration. Future studies should collect richer qualitative data using alternative methods such as focus groups and interviews in order to gain a deeper understanding of the experience of teaching Chinese in U.S. K-12 schools. Third, not all participants are familiar with the hiring policy and requirements for a long-term CFL position, especially if they are hired on a temporary basis and have not explored or inquired about an opportunity for a long-term CFL position in their school.

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