Preservice Teacher Training for Online Chinese Teaching:
A Case of Distance Courses for High School Learners
(華語線上教師之職前培訓：
針對美國高中遠距華語課程之個案)

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Abstract: With the advancement of Internet technology, using videoconferencing becomes a feasible approach for teaching Chinese language courses online. This approach is especially beneficial to foreign-language learners who are typically lacking opportunities to freely communicate with native speakers. In order to meet the demands of such learners, a collaborative project between a high school in Hawaii and a collegiate research team in Taiwan was initiated in 2014. A group of well-trained graduate students served as synchronized online Chinese tutors for Chinese language classes at the high school. The online language-learning course is designed for enhancing both the native Chinese teachers' instructional guidance and enriching the target students' learning environments. For such distance courses, many factors should be taken into consideration, including pedagogies, online materials, students grouping, technical support and teacher/tutor training. Since teachers are involved in the above dimensions, teachers' professional cultivation, as well as teacher training process, is essential to successful implementation of distance courses. To enhance the teacher fostering efficiency, a process that consists five stages including pre-service courses, video clips review, class observation, teaching practice, and adjustment was applied.

摘要：隨著網路科技的進步，透過即時視訊會議來進行華語教學成為一項可行的門徑，尤其可惠及那些缺乏與中文母語者交談機會的學生。為了迎合此類學生的需求，自 2014 起由美國夏威夷某高中與台灣某大學的研究團隊共同展開了華語遠距教學合作項目。同步線上授課教師是一群經過正規華語教學訓練的研究生擔任，此課程一方面是讓研究生提升其教學技能，另方面也使這所高中的學習環境更形開擴。對於這類遠距課程而言，許多因素需要納入考慮，包括遠距教學法、線上學習材料、技術支援及教師培訓。由於教師本身即是這些因素的執行者，教師專業栽培及培訓過程是成功的關鍵因素，為了提升教師培育

的成效，研究團隊規劃了一套流程，包括了職前課程、錄像覽評、觀課旁聽、教學練習及教學調整等五個步驟。

Keywords: teacher training, Chinese teaching, distance education, video conferencing

關鍵詞：教師培訓、華語教學、遠距教學、視訊會議

1. Introduction

The paper will first introduce the background of the cross-country collaboration for the distance teaching, and then introduce the theoretical foci and the model for teacher training program. The results and the issues regarding the implementation will be discussed.

The purpose of the paper is fourfold: 1) To present a real case of collaborative distance learning for high school Chinese language courses, including course arrangements and teacher training; 2) To highlight the core of online teacher training, including the theoretical foci and the training content. 3) To introduce the CROPA Model we developed and applied for the teacher training process and stages; 4) To discuss the results of the implementation and feasibility of conducting the cross-country collaboration of Chinese distance teaching.

Teacher training of Chinese as a second language has been implemented for more than 50 years in Taiwan (Chen & Hsin, 2010). However, a variety of teacher training is designed for regular classroom teacher, rather than for teachers in innovative teaching environment, such as distance education through videoconferencing or via computer platform. Therefore, it is essential to develop a teacher-training program especially for online courses.

The earliest cross-country's Chinese distance teaching program in the world was implemented in 1996 as a collaborated project between the National Foreign Language Resource Center (NFLRC) in University of Hawaii and a research team in the Graduate Institute of Teaching Chinese as a Second Language at National Taiwan Normal University (Hsin, 1997). Along with the interactive webpage designed by NFLRC, synchronized webcam was also applied for voice communication. Following the rapid improvement of internet technology, more synchronized Chinese distance teaching projects have been executed for college level with this research team (Hsin, 2008; Hsin 2012). Later on, it was expanded to high-school level as a project involved five high schools located in different states in the U.S. (Hsin, Wang & Huang, 2014). Unlike non-synchronized web teaching, the synchronized distant teaching is heavenly relying on online teachers' operation and manipulation, especially for learners at high-school level, thus teacher training should be the most important element for such program.

By conducting research on the practice of distant Chinese teaching through synchronized videoconferencing platform, a research team called "Videoconferencing Chinese Language Team" (VC Chinese Team) was formed with professors and graduate students. The team established collaboration with a high school in Hawaii as the partner for the distant Chinese teaching project. A series of Chinese language classes were regularly offered by the research team in Spring semesters from 2014 to 2017. To facilitate the online course, a group of graduate students in Taiwan were trained by passing through a fostering process in order to serve as synchronized online Chinese teachers/tutors for the students of the senior high school.

2. Collaboration and teacher training

The technological advancement that led to the increasing popularity and accessibility of the Internet and Internet-based technologies is also changing the K-12 education rapidly (Barbour, Archambault, & DiPietro, 2013). Lin and Warschauer (2015) concluded that the rapid growth of online learning has given K-12 students' greater access to academic courses than ever before. There has also been increasing attention paid on what constitutes a quality online course. The understanding of what is required to be an effective online teacher and how to design an online course has deepened significantly (Menchaca & Bekele, 2008; Dawson, Dana, Wolkenhaur, & Krell, 2013). With the trend of technology-enhanced learning and the needs of Chinese language courses in American high school, the researchers initialed the collaboration project:

2.1 Overseas cooperation with the training course

Content for the distance-learning course mainly focused on supplementing the formal Chinese language course already underway at the high school. The distance online course, as an additional but required course, offers students an opportunity to experience real-time communication with native speakers on topics additional to their regular classroom curriculum to enhance their oral proficiency skills.

This online course has been offered primarily in the second semester of the school year. For example, in Spring, 2017, the session ran from February to May, with 8 lessons taught altogether; there were two back-to-back classes, fifty minutes per class. In each class, students were split into eight "small classes," with four to five students to one teacher online. Teachers were selected from amongst the best trainees depending on their performance on the pre-service training courses. This online course has received warm and positive feedback since 2014.

In Spring, 2017, the two classes involved were two different levels of Chinese: Chinese Level 2 Honors class and Chinese level 4 Regular class, offering the teacher trainees a wider range of students' age and proficiency levels. In the eight lessons taught, four to five students work with one teacher, with altogether 10 teachers and 34 students participating.

Upon completion of the course, preservice teachers were offered real opportunities for teaching under cooperation with schools overseas.   Teachers were selected from the recently graduated trainees of the training program in previous year. All of them received professional training, and were able to successfully use digital resources and pedagogical skills in order to elevate the efficacy of their teaching.

2.2 Mandarin Chinese taught in the high school

Being one of the largest and oldest independent (private) schools in the United States, this school has been offering Mandarin Chinese as one of the five world languages in the Academy (grades 9-12) since 1976. Five levels of Mandarin Chinese are designed for students, with levels 1-2 corresponding to novice-level, levels 3-4 intermediate-level, and level 5 intermediate-advanced levels focusing on the Advanced Placement (AP) test for high school students.   In the 2014-2015 school year, 283 students were enrolled in the Academy's Chinese program, accounting for almost one third of the high school students taking Chinese in Hawaii, including both public and private schools.

2.3 Implementing teleconferencing in Chinese 2 Honor Classes (H2) at the high school

Based on the lessons developed by the team since 2014, and the pilot lessons given to the co-investigator's Chinese 1 class in 2015, the co-investigator decided to explore the possibility of arranging her two sections of Chinese 2 Honor Class (2H) in the last two hours of the class schedule (in the Academy), so that teleconferencing with Taiwan would be much easier due to the time difference (i.e., 1:30 pm Hawaii Time to 7:30 am Taiwan Time; or 2:30 pm Hawaii Time to 8:30 am Taiwan Time). Drawing a lesson from the experiences of Chinese 1 in 2015, Chinese teachers in the high school realized that the school wireless server was at times unreliable, and hence influenced the learning quality. Therefore, rearrangement of the school Internet bandwidth during the two hours of teleconferencing becomes an essential task.   The graduate students being trained as Chinese language teachers utilized Adobe Connect in the four chat rooms, which are interconnected with the high school's Chinese learning class.   Each class was split into four small groups ("classrooms") of approximately every 5 students with one teacher.   The materials used were based on a series of lessons created and designed by the research team, guiding the students beyond the scope of the regular textbook-based Chinese 2 Honor Curriculum.

In the teleconferencing session, students had access to native Chinese speakers other than their own teacher in Hawaii, with whom they polished their language skills (primarily listening and speaking) with guided practice of vocabulary and grammar. They also learned Chinese culture and society with the teacher in Hawaii. The topics covered are oriented to real life and contemporary issues. Popular cultural elements in Taiwan were highlighted, divergent topics, such as foods, snacks, regional cuisines, famous landmarks, tourist sites, TV programs, Chinese movies and celebrities, sounds and sights of the city are included.   Each lesson is 45-50 minutes long and a survey was given right after each session for better understanding the student's learning outcomes

(e.g., retention of information) and general feedbacks. The teacher's major responsibility during the lessons was to troubleshoot the technical issues and observe the interaction between the student and the online teachers, so that she could give students suggestions and provide the online teachers in Taiwan with timely feedback to optimize the long-distance learning effect for both teachers and students. After two "pilot" lessons were given in the first semester of Chinese 2 H with very positive student feedback, 10 more teleconferencing lessons were completed in the second semester, with 12 student surveys conducted.

3. The insight of online teacher training

3.1 The theoretical foci of the teacher-training program for distance teaching

The characteristics of distance learning are very different from those of the traditional pedagogies, such as the unique forms of student-teacher interaction and media selected for pedagogical effectiveness. Idiosyncrasies are also found between different formats of distance learning. Previous studies have indicated that the professional competence of a distance teacher includes not only proficient application of multimedia, but also several specific instructional skills (Stickler & Hampel, 2007). Cheng and Zhan (2012) indicates that the training of pre-service teachers should focus on developing their abilities to apply technology tools into instructional design, which should be one of the important goals in applying technology. Therefore, there is a need to develop a distance learning teacher-training course. In 2016, the research team held the Chinese Language Distance Teacher Training Program (hereinafter referred to as the "training program"), operated with the goal of producing professional distance teachers of Chinese as a second language. The training focuses on the following four facets:

Table 1: Foci of the Training Program

Facet	Foci
Cognitive training	1. To understand the objectives and structure of the training program. 2. To understand the roles and positioning of distance pedagogy. 3. To understand the current situation regarding Chinese as a second language education.
Pedagogical skills	1. To write teaching plans according to the particularities of distance learning. 2. To design question-and-answer and discussion activities suitable for distance learning. 3. To utilize multimedia online pedagogical resources.
Theoretical knowledge	1. To grasp the special features associated with distance learning. 2. To grasp the features of cross-cultural communication. 3. To adjust and revise teaching methodology according to evaluation results.
Media application	1. To master the operation of pedagogical software. 2. To troubleshoot software and hardware problems.

	3. To optimize the usage of supplementary resources and backup platforms.

On the basis of literature regarding teacher-training courses, the training program in this study adopts the following four teacher training methods, including reflection, microteaching, cooperative learning, and coaching:

A.   Reflection

Reflection is a strategy frequently applied in the teacher-training model, which integrates the *received knowledge* of the applied science model and the *experience knowledge* of the craft model alongside the constant cycle of verification arising from the *reflective process*. *Received knowledge* refers to scientific knowledge of facts, data, and theory, including professional terminology, concepts, theory, skills, etc., while *experience knowledge* refers to the knowledge-in-action acquired by educators in the actual process of teaching. The *reflective process* takes the development of *experience knowledge* as a definite perceptive ability, allowing educators to make frequent reflections on personal performance throughout the teaching process. This further enables decision-making on how to replicate successful experiences in further teaching situations, while avoiding the reoccurrence of mistakes (Wallace, 1991).

B.   Microteaching

Microteaching is defined as a fine and detail-focused training model, emphasizing repeated practice of simulated teaching situations in which pedagogical task, duration, and scope are all compressed in order to focus on one single pedagogical skill at a time. Execution time falls between five and ten minutes, with students numbering between three to five. Microteaching can be split into four stages: briefing, teaching, critique, and re-teaching. It is helpful in allowing trainees to self-identify insufficiencies, expose themselves to repeated practice and evaluation, and eventually master the pedagogical skill at hand (Wallace, 1991).

C.   Cooperative learning

Cooperative learning is a form of small-group learning, requiring group members to cooperatively complete tasks based on structured, systematic teaching strategies (Cooper & Mueck, 1990). Cooperative learning includes communication between group members, task completion, self-study, strengthening of team efficiency, etc. It is helpful in accelerating learning achievement (Springer, Stanne, & Donovan, 1999).

D.   Coaching

It refers to improvement of teaching strategies with the assistance of coaching partners or teams by means of reading, observation, demonstration, discussion, feedback, etc. Peers act as teachers for one another, not only improving pedagogical skills on the basis of feedback, but also helping to solve teaching dilemmas (Joyce & Showers, 1982).

The four aforementioned methods have all proved effective under the lens of prior research. The current research affects the methods in the context of a teacher-training program. It combines lecture with practicum, and utilizes the reflective model in order to maximize received and experience knowledge of the trainees as well as to accomplish the goal of fostering professional competence. The training program also integrates microteaching, cooperative learning, and coaching, making use of group and individual teaching practices, group teaching plan compilation, and discussion between teachers in order to increase opportunities for sharing and dialogue.

3.2 Human resources of the training program for the online curriculum

Human resource is the foundation of a successful training program. Those involved in the training program fall into the following five categories:

(1) Lecturers: Lectures were responsible for imparting pedagogical knowledge and skills. They are specialized in fields such as question-and-answer strategies for distance learning, instructional skills, classroom management, operation of Adobe Connect, computer resources, etc.

(2) Seed teachers: Seed teachers were selected from amongst previous student participants, all of whom completed the training course with excellent records. All seed teachers have experience with distance learning. Their responsibilities included examining lesson plans compiled by students, offering suggestions for revision, observing and evaluating teaching demonstrations, and sharing personal experiences in distance learning throughout the duration of the class.

(3) Research assistants (4 persons): Research assistants assisted with work related to running the program. Their responsibilities included announcing course-related news, contacting lecturers, students, and seed teachers, responding to student messages, organizing weekly homework, recording classes, arranging groups and teaching practicums, conducting the training satisfaction survey and a post-training interview with students, creating files for all types of course information, etc.

(4) Technical staff: Technical staff was personnel recruited from the school computer center responsible for setting up the distance learning classroom, maintaining the distance learning platform, solving operational issues, and offering technology-related services.

(5) Teacher trainees: Teacher trainees enlisted prior to the start of the program, all of which underwent an evaluation of qualifications. They are undergraduate or graduate students in programs related to teaching Chinese as a second language.

3.3 Non-human resources of the training program for the online curriculum

The training program utilized various types of equipment. A brief outline of these resources is as follows:

(1) Multimedia material: The training program utilized a multimedia classroom with a computer and a projector, along with a computer room with individual PCs for use during the second week lesson on operation of the online teaching platform, and for the sixth week teaching demonstration observation and discussion session. Other supplementary resources included cloud storage, instant messaging, word processing, etc., which were used during the training program in order to assist in organizing course information, teaching material, homework, and questionnaires.

(2) Distance learning platform: The training program utilized Adobe Connect web conferencing software, including the following functions: (a) Video call: It transmits video information between students and teachers, simulating a face-to-face lesson. (b) Voice call: It transmits audio information between students and teachers, such that the two may interact through spoken language. (c) Electronic whiteboard: It displays slides used in class, instructions for classroom activities, course texts, teaching tasks, etc. (d) Instant messaging: It transmits text information between students and teachers; it may also be used for input of Chinese characters. In the case that there is an issue with the platform audio, it can also serve as an alternative mode of communication between students and teachers. (e) File upload: It transmits different types of teaching-related files, such as teaching material, slides, operational instructions, etc. (f) Participant management: It allows teachers to check on student attendance, as well as to manage the function of operation control for the platform. (g) Audiovisual recording: It allows teachers to record the class session. (h) Learning platform management: It offers all types of management functions, including setting class time, number of participants, recording, and record look-up, as well as managing advanced classroom settings.

(3) Language and culture teaching material: Two units on gift-giving and taboos were used as lesson topics for the two teaching practicum sessions, taken from the textbook entitled *The Life and Culture of Chinese Peoples*. Each of the two units is divided into four sections: study points, lesson text, vocabulary explanation, and discussion questions. Text content is related to Chinese culture, including explanations of vocabulary and cultural phenomena useful in facilitating student-teacher discussion on current cultural issues. By comparing Chinese culture with that of their mother country, students increased opportunity for practicing oral expression.

(4) Individual audiovisual equipment: Teacher trainees and students both provided their own webcams, headsets, etc. to use during the teaching practicum. Students and teachers were also situated in locations with reliable Internet connection during class time.

4. The process for teacher fostering

Koehler and Mishra (2005) proposed TPACK model that includes the interactions among three major components: Content Knowledge, Pedagogical Knowledge and Technological Knowledge. We designed our training primarily focusing on Pedagogical Knowledge, not Content Knowledge since these online teachers have

already possessed a high level of Content Knowledge, as they were graduate students majoring in teaching Chinese as a second language (TCSL). They had cultivated adequate knowledge and acquired experiences of TCSL through a rigorous curriculum of Chinese linguistics and Chinese pedagogy. Many of them had already had classroom teaching experience. Thus, the major focus of training was on strengthening their teaching skills on the videoconferencing platform with American high school students.

4.1 The CROPA Model: a five-stage model

The teacher training process we applied is based on five stages: Course, Review, Observation, Practice and Adjustments. We named it as *CROPA Model* as Stage 1: Courses of training for pre-service teachers; Stage 2: Review of sample video clips; Stage 3: Observation by sit-in Online Classes; Stage 4: Practice of Teaching in the real online classroom and Stage 5: Adjustment of pedagogy through feedback.

Stage 1: Pre-service training courses

The pre-service training course observed in this research was conducted throughout an eight-week period, starting in October and extending through December each year from 2014 to 2016, for a total of twenty hours. Face-to-face classes were scheduled for six of those weeks, with each class lasting three hours, for a total of eighteen hours. An additional two one-hour sessions for teaching practicum were scheduled between the fifth and six week as well as the sixth and eighth week. Class content matter was as follows.

Table 2: Class content of the Training Program

Class	Content	Participant	Time
Week 1	1. Introduction of the training program and distance learning	Lecturers	1 hour
	2. The first lecture on distance learning instructional skills, including video conferencing etiquette, principles for correcting mistakes, skills for asking questions, activity design, etc.	Lecturers	2 hours
Week 2	1. Introduction of video conferencing platforms used in teaching Chinese as a second language.	Lecturers	1 hour
	2. Operation of the online video conferencing platform: Adobe Connect.	Lecturers	1 hour
	3. Operation of the online video conferencing platform: Adobe Connect.	Lecturers	1 hour
Week 3	The second lecture on distance learning instructional skills, continuing with the content discussed in the first lecture.	Lecturers	3 hours
Week 4	Application of digital competency in language teaching, including teaching material design, question-and-answer practice, resource application, etc.	Lecturers	3 hours
Week 5	1. Discussion for sharing teaching experiences	Lecturers	2 hours

	and solving problems.		
	2. Online observation and evaluation.	Seed teachers	1 hour
Week 5-6	The first teaching demonstration with international students.	International students	1 hour
Week 6	1. Observation and evaluation of teaching demonstration videos.	Lecturers	2 hours
	2. Discussion of takeaways from teaching experience.	Seed teachers	1 hour
Week 6-8	The second teaching demonstration with international students.	International students	**3** 3 hour

Stage 2: Review of sample video clips

Tutors of these classes should review a series of video clips of distance teaching classes recorded during 2014 to 2016 in order to know the key dimensions of distance Chinese teaching, including pedagogies adopted by the former teachers, teaching materials in PPT format produced by the former teachers, the interactive situations and students actions on the online settings and so on. Along with self-review by the teachers, the project coordinators also selected certain example clips to analyze the merits and shortcomings about pedagogy and interaction for the teachers.

Stage 3: Observation by sitting in online classes

In this stage, these pre-service teachers were allowed to login into the online classroom (chat rooms of Adobe Connect platform) to observe the on-going classes. They joined the classes without turning on their own webcams, neither did they attend class activities.

In order to feel the atmosphere of synchronized online class, these pre-service teachers often simulated class teaching, observed the online teacher-students interaction, figured out how to responding to the questions proposed by the students, and proposed their comments and feedback to the teachers they observed.

Stage 4: Practice of Teaching in the real online classroom

After gaining the necessary knowledge, skills and knowing the class situation in previous stages, these pre-service teachers had been turned to be in-service teachers at this stage.

They were assigned to the certain classes one month before the beginning of their own classes. During the one-month preparation time, these teachers should be familiar with the background and Chinese proficiency level of the high school students, producing supplementary instructional materials, and making interactive PowerPoint materials.

In the beginning of their teaching sessions, every teacher should teach the class for 6-8 times, with one hour per time. These teachers should face the American students and execute the class teaching independently.   They may encounter certain problems or difficulties in technique, chat room management and even English Q&A if students couldn't understand the course content in Chinese.

In the meantime, project coordinators in both research team and the high school will also login into the online classroom and observe the teaching. Although the coordinators do not provide instant help, coordinators will provide feedback for their teaching performance after every class meeting.

Stage 5: Adjustment of pedagogy through feedback

After each class, these teachers will be able to know their own teaching performances from several feedback sources:

1. They will receive evaluation from the high school students after each class meeting. Students should fill an evaluation form immediately after the class meeting with some questions as below:
    a. What did you learn from this lesson? List all you can recall.
    b. What did you find the most interesting in this lesson? Why? (Be as specific as you can).
    c. What aspect of this online lesson did you find not so good or helpful, if any?
    d. Do you think this lesson has provided you with authentic and useful information regarding the Chinese society and culture?
    e. Do you think you were exposed to a genuine Chinese-speaking context through this lesson?
    f. On a scale of 1-5 (with 1 being strongly disagree, and 5 being strongly agree), rate the statement: My online teacher is able to make all of us practice productively.
    g. On a scale of 1-5 (with 1 being strongly disagree, and 5 being strongly agree), rate the statement: The materials used in this lesson are interesting and useful.
    h. On a scale of 1-5 (with 1 being strongly disagree, and 5 being strongly agree), rate the statement: I find myself fully engaged.
    i. If there is anything you could change for the next lesson, what would you like to see changed?
        These online teachers can see the writing comments and the scores.

2. The coordinators in both research team and the school will provide their comments about the superiorities and weaknesses that should be corrected and improved.
3. In addition, online teachers should write the teaching journal after each class meeting. It's not only for indicating each student's performance and language ability, but recording the teaching process and introspecting their own performance.
4. Since we used the function of Sync Video to record each class, they can also watch the video clips to observe their own performance.

Since these feedbacks were always provided immediately after each class meeting, these online teachers can always adjust their own pedagogies or teaching materials for next class meetings. So it's a positive reinforcement cycle among teaching, feedback and adjustment along the whole semester.

5.   Results of Implementation

Along the progress of the courses, we conducted evaluation by surveying students' comments and opinions from questionnaires week by week, including multiple choice and opened question items.   In addition, during the class meeting, the coordinator in the high school was in the computer room to observe every group's learning process. After each class meeting, the coordinators in both sides provided suggestions and comments about the pedagogical skills of the online teachers of the project.

5.1 Students' major impressions

When responding to what intrigues them most, many students are impressed with the divergent online cultural exposures, close interactions with native-speaking Chinese teachers in Taiwan, uniqueness of Chinese language and the technical problems. Below are some examples:

A. Cultural exposure of Chinese:
a. *"The most interesting thing I learned in this lesson was about the temples and the Chinese holidays. I also thought the online chat room aspect was super cool. "*

b. *"I found it most interesting that our teacher compared the way we celebrate Christmas to the way...they celebrate the lunar new year (春節). My family celebrates both holidays and I never would've contrasted them.*

B. Uniqueness of Chinese language
" I found the phrase 念念不忘 the most interesting because I never thought that there would be an English translation for unforgettable. It was one of the most intriguing structures to me and I will definitely use it in the future. "

C. Merits of the online experiences
"I thought that it was interesting being able to learn from someone with a different perspective. It was like learning the same language in a new way. Being able to learn from someone currently in Taiwan made me feel more connected to the culture."

"I think that the most interesting thing about this lesson was the real life and relatable examples."

"We were also able to cover a lot in the short amount of time that we had. The lesson was very interactive with us being able to see each other."

5.2 Technical problems happened throughout the class meetings

While the computer technical problem (the poor connection sometimes) was regarded as the drawback of the online courses, most students felt satisfied with the online interaction.

> *"I couldn't really hear the teacher because I think we had audio problems but other than that, I liked it."*

> *"I enjoyed doing the online session, but the audio was a bit low and sometimes it was hard to hear her and some of our classmates, especially when the other groups in our class were talking too."*

> *"The only thing was that it was hard to hear her at times, but I liked everything she taught us!"*

> *"I think everything was pretty good, but it was stressful because you are trying to understand things you've never really heard before (because it's a little more complex) and you're trying to make up things on the spot."*

Despite of the Internet connection problems, students were very engaged in the online learning course, just like the way one student mentioned "*I felt that everything from this online lesson went extremely well I hope to continue these online lessons in the future as well.*"

5.3 Authenticity

Most significantly, the majority of the students thought that the online Chinese learning courses could provide them with authentic and useful information regarding the Chinese society and culture.

> *"I thought talking to native people who spoke Chinese was interesting because I don't use Chinese when I talk to people at Chinatown".*

> *"I felt that I understand more about typical weather in China, their typical modes of transportation, as well as their holidays such as Chinese New Year and that these Chinese students actually do not need to go to school at this time."*

> *"I feel very authentic coming straight from a native speaker in Taiwan. She taught us not only the language, but of some cultural norms of the Chinese (i.e. the night market)"*

> *"It was helpful learning about Chinese temples and how people pray, but my family has been doing that once or twice a year for a while so it wasn't a new concept for me. I think that the level of information was okay for the first time, since it is a new thing that was introduced just today."*

However, several students expected that the teachers could increase more Chinese culture elements and go deeper. Because they "*got to learn from someone who is currently fully immersed in the Chinese culture. I wish we got to hear more about their culture and a little less about ours.*" Therefore, the online course could be further adapted to meet the demand of individual differences in the near future.

5.4 The longing of closer interactions with teachers

"It was nice to have a lesson coming from a person that actually lives in a place where they speak that language."

"I found that the personal touch from having teachers who are living in china made the lesson more interesting."

"I loved how our laoshi was so patient, understanding, and smiling all the time. She could've been really stressed because we took a long time to answer her questions but she was smiling and trying to help us out."

Some suggestions are related to individual teacher's background. For example,

"Students feel more comfortable if they get to know their teachers a bit more -- so feel free to spend a bit more time talking about your life in Taiwan!"

5.5 Instructional adjustment needed

"Rotation among students can be faster at times, and if the teachers can be more spontaneous at times, the students will find it more interesting and less likely to idly waiting for their turn." (The high school's coordinator comments, March, 2017).

"The more the teachers can add in fun cultural facts, the more the students are interested. I think sometimes there are too much grammar/pattern practice/drills for them—more game ideas/jokes/fun facts can be incorporated." (The high school' coordinator comments, March, 2017).

5.6 Students survey summary

From the co-investigator's observations in the classroom and online, it is clear that the students were deeply engaged and very eager to participate in these teleconferencing lessons.

Based on the results of students' surveys, students are generally positive about the communication with native speakers from an authentic target language environment from which they could obtain better language skills and expanded their cultural experiences (i.e. acquisition of the 5Cs).   Regardless of occasional connectivity lapses or breakdowns when using Adobe Connect, as well as some issues regarding teaching experience and styles, the majority of students found the lessons meaningful (e.g., they

have learned a "moderate or substantial amount") and "look forward to the next lesson". A summary of the results is given as follows:

Please rate the statement: I think lessons are worth having at this level

	Strongly Disagree	Disagree	N/A	Agree	Strongly agree
Frequencies	0	0	6	9	21
Percentages	0%	0%	16.7%	25%	58.3%

Please rate the statement: If I could choose, I would like to have online lessons such as these at other levels of Chinese

	Strongly Disagree	Disagree	N/A	Agree	Strongly agree
Frequencies	0	1	3	9	23
Percentages	0%	2.8%	8.3%	25%	63.9%

If you could have online lessons again at another level, what area(s) would you like the lessons to stress?

	Frequencies	Percentages
To strengthen conversation skill	30	83.3%
To better understand Chinese culture and society	23	63.9%
To practice grammar patterns and vocabulary	20	55.6
To get tutorial help from a native speaker	12	33.3
Other	5	13.9

The survey results after each online lesson confirm the value of doing these additional lessons. Moreover, in the last survey of year 2016, taken after the last teleconferencing lesson, 83.3% students responded strong agreement to the statement "These lessons are worth having at this level", while 89% would like to have similar online lessons at other level of Chinese. Most students found the lessons valuable in strengthening conversational skill (83%) and better understanding Chinese culture and society (64%).

6. Discussion and Conclusions

6.1 Implications

It is apparent that online interaction enriches the classroom experiences with more real life language learning environment in which the student gains hands-on experiences by practicing their language skills with native speakers, resulting in stronger learning motivation, deepening cultural understanding, and strengthening practical use of Chinese. A more arguably ideal arrangement, as several Chinese courses in this school have tried in the past, is to make online connections with native speakers of the same age (e.g., "e-pen pals" or videoconferencing with a class from an equivalent high school in China),

as peer language exchange appears more appealing and relevant to these high school students.   But in reality it is not necessarily feasible or productive, since such exchanges are often subject to students' individual efforts and require careful planning, close guidance and collaboration between the teachers involved from both schools.   Given the pressure of preparing students for performance-based tests as a central focus in Chinese high schools, the initial will to establish an ideal collaboration may soon evaporate after a few times of connection. What is more, long-distance connections are hard to sustain, especially for the novice-level classes, in which students have yet obtained the proficiency and skills needed to carry out prolonged meaningful language exchanges on a regular basis.   What the co-investigator has learned from the 2H class's teleconferencing arrangement is that it is much more "sustainable" and mutually beneficial to work with a graduate program focusing on training young teachers, since the teachers involved tend to be highly motivated and more well-prepared to engage in productive sessions with the students, while the students receive from the native speakers linguistic and cultural benefits similar to what they would from peers at their own age.

The other valuable lesson from this collaboration is that the five Cs of ACTFL could be and even should be integrated into a novice-level curriculum.   Other than communication, culture, comparison, connection and community should also be an integral part of the curriculum starting from the beginning (novice) level, which has been concentrated on the basic skill building (in terms of communication) in a conventional curriculum.   The more understanding of culture, and comparison and connection between two different cultures, the more mutual understanding and self-confidence the student would have. This will in turn lead to a better global perspective for the student to cultivate intrinsic motivation to learn the Chinese language.

6.2 Further work needed

For the second-year novice level (2H), the co-investigator at the high school's Chinese program has yet developed a better approach other than teleconferencing with the native speakers or taking the students physically to visit a place in which the target language is used.   Well-structured meetings and guided lessons helped shape a more authentic linguistic and social environment beyond the regular classroom, offering students a balanced acquisition of the 5Cs.   The next step is exploring ways of expanding the students' learning experiences by augmenting their contacts with more native speakers with different vernaculars or even age groups, such as occasional connections with high school students and alternating contacts with different native-speaking teachers (preferably from different Chinese-speaking communities).   It is also beneficial to build on the current model and extend the teleconferencing program to other levels of Chinese as well.

Moreover, it is expected that more authentic materials could be incorporated into the format and content of the teleconferencing lessons, making the lessons more hands-on and realistic by designing exposing students to different real-life situations for better practice of their language skills.   By using recorded videos to incorporate the sights and sounds of a genuine linguistic context, the teacher could "take" the students onto virtual

"field trips" in which the students need to use their language skills to problem-solve (e.g., in a market place, on a high school campus, in a subway station, movie theater, etc.). After conveying some of these ideas in a conference with the research team, small experimental steps were taken to incorporate live sights and sounds, instead of just using lively PPT slides in their lesson design.   In addition, students could also be assessed by projects simulating situations in a genuine target language context, e.g., helping an American tourist get transportation to see the Great Wall or traverse a Taipei Night Market.   The implication for a well-designed online curriculum that balances the 5Cs in language education is that it will be tremendously instrumental in providing the student with a global perspective and a sense of reality beyond what a more traditional curriculum can do in the classroom.

6.3 Experiences we earned

The teleconferencing lessons designed by the research team serves as an invaluable platform for the novice-level students to obtain hands-on linguistic experiences and cultural knowledge from their online communication with native-speaking teachers. The Academy (grades 9-12) of school offers a rigorous Chinese program that consists of five levels, with equal emphasis of the four skills and the 5Cs in the forefront of the curricular designs. One of the challenges of a language curriculum is how learning could be extended beyond the regularly designed classroom, so that students could be situated in a more authentic language-learning environment to apply their skills with spontaneous communication. The widespread of technology at all levels of education at the high school makes it possible to connect the students with native-speaking environments where the target language is used in an inter-scholastic collaboration.

While such practice could be fruitful for the intermediate level, collaborations and pairing off students with similar age in videoconferences may not always be sustainable. The proficiency limitation of the novice-level students is the major challenge to develop regular mode of correspondence as a part of the curricular design. By way of regular long-distance lessons, the level 2 students' learning experience and skills are enhanced by their regular exposure to the values, social-cultural information and people in which the target language is actively used.   Despite some areas of technological concerns and curricular adjustment that can be improved over time, the integration of teleconferencing lessons into a novice-level curriculum is undoubtedly a viable approach to enhance the cultural knowledge and the use of linguistic skills of the students taking a language course.

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