



Journal of Technology and Chinese Language Teaching

Volume 11 Number 2, December 2020
二〇二〇年十二月 第十一卷第二期

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ISSN: 1949-260X

<http://www.tclt.us/journal>



科技与中文教学

**Journal of Technology and Chinese
Language Teaching**

A peer-reviewed online publication with in-print supplement
ISSN: 1949-260X <http://www.tclt.us/journal>

Volume 11 Number 2, December 2020

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A Study of Online Synchronous Immersive Communication in Mandarin Chinese (中文在线实时沉浸式沟通之研究报告)

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Abstract: Online real-time immersive communication has valuable effects on language learning. However, the extent to which this kind of interaction helps improve Chinese language learners' speaking ability remains unexplored. This study examines whether online real-time immersive communication helps improve learners' speaking ability and whether it enhances their overall learning experience. Learners who participated in this study were enrolled in a pre-advanced Chinese language and engaged in online tutorials with pre-service teachers in pursuit of teaching Chinese as a foreign language. They completed an online speaking test and an end-of-semester survey on their overall learning experience, in addition to participating in individual interviews. The results point toward growth in speaking skills and overall positive learner experiences in online immersive learning. Learners' input supports the design and planning of the online program and its technology use but recommends future reduction of workload. Limitations and directions for future research are discussed at the end of the paper.

摘要: 在线实时沉浸式沟通对于语言学习具有重要的影响。然而,这种互动方式在多大程度上能提高汉语学习者的口语表达能力仍需进一步的探索。本研究讨论在线实时沉浸式沟通是否有助于学习者口语能力的提高,并分析此沟通模式是否对学习者的整体学习体验有所提升。研究参与者为迈入高级水平的中文学习者与对外汉语专业的职前教师,采用的数据包括中文学习者所参与的口语前后测数据以及学习体验的调查问卷和个人访谈。研究结果显示,在线实时沉浸式沟通对学习者的口语表达能力的确有所提高,在整体学习体验上亦呈现积极正面的效果。学生对在线学习项目的设计、实施和技术应用表示支持的同时,也建议降低学习工作量。最后,本论文指出了研究的局限和未来探索方向。

Keywords: Online Chinese language learning, online real-time communication, pre-service teachers in CFL, speaking ability, learning experience

关键词: 在线中文学习, 在线实时沟通, 口语表达能力, 对外汉语专业职前教师, 学习经验

1. Introduction

The advancement and versatility of technology tools and the internet have brought unprecedented opportunities for innovative pedagogy to foreign language learning and teaching (Warschauer, 1997; Lin, 2014; Spring, Kato, & Mori, 2019). Language educators introduce technology tools inside and outside of their classrooms for both educational and entertainment purposes. Along with this trend, computer-mediated language learning is developing as a promising subfield (Spring et al., 2019). Both synchronous and asynchronous video-mediated communication are employed to improve foreign language skills in writing and speaking (Lin 2014). However, Canto, Jauregi, and van den Bergh (2013) commented that “organizing and implementing telecollaboration projects in foreign language curricula is not an easy endeavor” (Canto, Jauregi, & van den Bergh, 2013; Belz & Thorene, 2006; Guth & Helm, 2010). Various studies (Kato, Spring, & Mori, 2016; Canto, Jauregi, & van den Bergh, 2013) show that video-mediated synchronous communication with native speakers effectively improves student participants’ language skills, especially their oral proficiency. However, other studies suggest that the effect of this type of communication on students’ speaking abilities is not clear (Yang, Gamble, & Tang, 2012; Spring et al., 2019). To be more specific, more investigation into the reasons for improvement of students’ oral proficiency is needed. According to a study by Spring et al. (2019), various related factors influence students’ speaking abilities in video-mediated synchronous communication, including types of tasks, environment, engaged time, students’ initial proficiency level, and their enjoyment and motivation (Spring et al., 2019).

This study of a video-mediated synchronous language learning program, the Online Real-time Immersive Communication (ORIC) initiative, a component added to a Mandarin Chinese course, focuses on student participants’ speaking abilities and overall learning experience.

2. Literature Review

Studies of computer-mediated language learning have burgeoned since the early 1990s (Beauvois, 1992; Kern, 1995; Smith, 2005), as technology development has created more opportunities for novel communication channels and language learning models (Üzüm, Akayoglu, & Yazan, 2020). Previous researchers have addressed this topic from various angles, such as learning environment and models (O’Rourke, 2007; O’Dowd & Lewis, 2018), language skills and abilities (Canto, Jauregi, & van den Bergh, 2013; Lin, 2014; Kato, Spring, & Mori, 2016; Spring, Kato & Mori, 2019), and students’ learning experience and attitudes (Schultz, 2012). In this review, we will consider three aspects of online language learning: intersectionality of second language learning theories and

computer-mediated language learning; online language learning models, and; language abilities and skills.

2.1 Second Language Acquisition Theories and Computer-Mediated Language Learning

Social constructivists (Kato, Spring, & Mori, 2016; Gergen, 1999) theorize that individuals construct knowledge through direct and meaningful interactions and reflections. In second language acquisition, language instructors and educators “seek to create learning environments in which learners can gain knowledge of their target language and culture” (Kato et al. 2016; Canale & Swain, 1980). That is to say, when language learners interact with people who have more cultural and linguistic resources than they do, the learners may benefit more than without those interactions (Kato et al., 2016; Scarcella & Oxford, 1992). However, in a foreign language learning environment, there may not be enough native speakers to build up individual face-to-face interactions. Computer-mediated interaction bridges native speakers and language learners living in different areas. The involvement of computer-mediated interaction in foreign language learning is also supported by the multiliteracies learning theory developed by the New London Group; this theory encourages a pedagogical approach including cultural, linguistic, and technological diversity in teaching and learning that “prepares learners for a successful life in a more and more globalized world” (Zhang, 2016). However, neither social constructivists nor the New London Group addresses how language educators should balance linguistic and cultural knowledge when administering a meaningful computer-mediated interaction.

2.2 From Tandem to Telecollaboration

In response to the high demand for language learning resources and technologies, the e-tandem language learning model has been gaining increasing attention in world language teaching and learning (O’Rourke, 2007; Zhang, 2016). Tandem language learning refers to language exchanges between speakers of two different native languages. The electronic forms of this kind of exchange include emails, text messages, and so on. These e-tandem projects have proven very effective in improving not only language learners’ language abilities (Stickler & Lewis, 2008; Chung, Graves, Wesche, & Barfurth, 2005), but also intercultural understanding (Zhang, 2016). However, some studies (Cappellini, 2016; O’Dowd 2013) point out deficiencies of the e-tandem model. Cappellini (2016) found that participants’ expertise in language teaching, especially in error correction, may hinder the process of interactions. Without sufficient professional training, participants can also encounter intercultural misunderstandings and technology issues (O’Dowd & Lewis, 2018; Telles, 2015). The drawbacks of the e-tandem model are encouraging language educators and researchers to develop more models of telecollaboration. In addition to e-tandem, instructors are implementing Cultura and eTwinning (García & Crapotta 2007; Miguela, 2007). Cultura is an international project that connects two groups of students—one in American culture and another in a different culture—to enhance their intercultural communication and understanding. The eTwinning project, mainly situated in European areas, pairs two schools so they can collaboratively develop a mutually beneficial online model. However, these two models may still not be

able to solve e-tandem's core problems of advancing sufficient professional knowledge and intercultural understanding.

In recognizing the inherent limitations of online intercultural exchanges, Claire Kramsch (2013) makes an even stronger argument that although learners tend to improve in conversation fluency and online chatting skills, the surface level of language used in these exchanges tends to preclude in-depth discussion or exploration of cultural differences, deeper understanding of incompatible views toward the globe, or critical analysis and interpretations of historical events. Careful design of tasks and clearly defined objectives and criteria are likely key to the success of online intercultural interaction. As computer-mediated language learning continues to play a role in foreign language teaching and learning, there is a need for further investigation and evaluation of its effectiveness in intercultural exchange and learning.

2.3 Language Abilities and Skills

Many studies examining computer-mediated communication focus on its effectiveness in improving learners' language abilities and skills, including speaking, reading, writing, and vocabulary (Spring et al., 2019; Kato, Spring & Mori, 2016; Lin, 2014; Canto, Jauregi, & van den Bergh, 2013), and in students' learning experience (Dewaele & Alfawzan, 2018; Schultz, 2012; Jauregi, Graaff, van den Bergh, & Kriz, 2012).

When Spring et al. (2019) evaluated students' speaking abilities based on different levels of fluency in the context of a computer-mediated communication program, they found that when learners of different levels of language proficiency communicated with native speakers, learners in the intermediate-level group improved more significantly than those in a lower-level group. This finding contrasts with Lin's study (2014), which suggests that students who were in lower proficiency levels might gain more progress in speaking abilities. Spring et al. (2019) believed that it might be because lower-level students "have more room to improve and that it takes increasingly greater time to move into each successive proficiency band" (p. 3). It is likely that as students' learning progresses, instructors discover their individual learning styles and needs, and therefore design different lessons to accommodate them. In Kato et al.'s (2016) study of students' listening and speaking abilities in video-synchronous computer-mediated communication, they found that pairing with native speakers in such a program increased students' speech rate, indicating benefits to students' speaking abilities. Spring et al. (2019) brought up an issue about evaluation: "since oral fluency is generally measured using the amount (number of words or syllables spoken) or speed (speech rate or articulation rate) of speech, learners who bring more linguistic resources may be able to focus more on improving fluency, meaning that beginning learners may exhibit fewer measurable gains in oral fluency" (Spring et al., 2019). These comments suggest two hypotheses: First, lower-level language learners may not, in fact, benefit more than higher-level learners from video-based synchronous communication; second, the evaluation standard, such as speech rate and articulation rate, may play a role here, not only in defining proficiency levels of language users, but also in evaluating students' improvement.

Zhang (2016) conducted a study of an e-tandem project with Chinese language learners according to the multiliteracies learning theory. She found that the e-tandem program helped beginning-level Chinese learners improve their language learning when they interacted with native speakers. However, the study's analysis was based solely on a questionnaire and did not measure students' speaking abilities with any quantitative method, such as language performance, speech rate, fluency, or complexity. Abraham (2008) looked into reading comprehension and vocabulary learning and conducted a meta-analysis based on 11 studies of computer-mediated glosses in second language reading comprehension and vocabulary learning. He found that "computer-mediated glosses had an overall medium effect on second language reading comprehension and a large effect on incidental vocabulary learning" (p. 199).

Researchers also looked into students' motivations and learning experiences displayed in the video-based synchronous communication program. Jauregi et al. found that implementing networked interaction sessions in foreign language courses had significant effects on students' motivation to learn a foreign language (Jauregi, Graaff, van den Bergh, & Kriz, 2012). The study by Spring et al. (2019) also explores the impact of enjoyment on students' learning experience and improvement and supports the finding that networked synchronous communication enhances students' learning. This brings up the question of whether or not students' enjoyment affects their learning outcomes. Schultz (2012) and Brantmeier (2005) proposed that there are not significant correlations between students' positive learning experiences and their learning outcomes. However, Dewaele and Alfawzan (2018) found, by contrast, that the two factors are closely interrelated. Spring et al. (2019) pointed out that students enjoy learning in large part because it leads to improvement.

Another dimension to the topic under discussion is the language studied. Most research has focused on learners of European languages, including English (Ercetin, 2003), French (Cooledge, 2004; Bouvet & Close, 2006; Youngs, 1994), German (Overstreet, 2006), and Spanish (Brantmeier, 2005; Ben Salem, 2007; Little, 2001; Taylor & Nikolova, 2004), among which studies on English outnumber the rest. Those studies on learners of European languages find that the intervention of technologies, either in the form of electronic hardware or online platforms, improves students' learning. Another group of scholars looked into East Asian languages, which have been relatively less explored, including Japanese (Hirotani, Matsumoto, & Fukuda, 2012; Spring, Kato, & Mori, 2019) and Mandarin (Zhang, 2016; Tseng, Lin, & Chen, 2018).

3. Method

This study employed both quantitative and qualitative analytical methods to study whether or not video-based synchronous computer-mediated communication with native speakers enhances learners' learning experiences and improves their speaking abilities. To this end, the Online Real-time Immersive Communication (hereafter ORIC) program was created. The ORIC program was used as an add-on mechanism to enrich a Mandarin Chinese language course at a pre-advanced level. The Assessment of Performance toward

Proficiency in Languages (AAPPL) Interpersonal Listening and Speaking test was administered to assess learners' speaking proficiency at the beginning and end of the semester. An end-of-semester survey was developed and conducted to elicit learners' learning experiences and their input on the design and implementation of the ORIC program, both quantitatively and qualitatively. These surveys included oral interviews with individual students to deepen understanding of the results of the survey and enrich data analysis. Specifically, the study addresses the following research questions:

1. Did the speaking ability of pre-advanced Mandarin Chinese learners improve through their participation in the ORIC program? If yes, to what extent did they improve their speaking ability?
2. Did pre-advanced Mandarin Chinese learners enhance their overall learning experience through participating in the ORIC program? If yes, to what extent did they benefit from the ORIC program?

3.1 Course Description and the ORIC Program

The course under study was a three-credit pre-advanced Mandarin Chinese language course offered at an American public university. According to the World Readiness Standards advocated by American Council on the Teaching of Foreign Languages (ACTFL), the course prepared students to develop competence in Chinese language and culture across interpersonal, interpretive, and presentational modes. Learners met three times per week, for 50 minutes each time, and were expected to attain proficiency toward the Pre-Advanced level in the four language skills upon completion of the course. The course consisted of six topics: self-introduction in professional settings; appearances and characters; the place where I live and symbolism of colors; gift giving and receiving culture; "leftover women" and marriage issues, and; humans and animals. Each topic was taught in a two-week cycle and concluded with an integrated authentic task in action.

ORIC is a newly launched program as an add-on curricular requirement for the course; it aims to create an enriched and relaxing immersive setting for pre-advanced Chinese language learners in which they can interact with native speakers of Mandarin Chinese synchronously. Each Chinese language learner was matched with three to four native speakers of Mandarin Chinese, who were in an undergraduate program to prepare prospective teachers of Chinese as a second or foreign language. The US students enrolled in the course were required to complete eight online meetings in order to receive full credit, and they were given opportunities to add three more meetings for extra credit. Each online meeting lasted for at least one hour. The online meetings were scheduled and determined by the students themselves, and each ORIC meeting was completed at the end of a two-week cycle, as the class transitioned to a new two-week cycle, namely, from Friday afternoon to Monday morning in the US Eastern Standard Time zone.

3.2 Participants

This study consisted of 11 college students enrolled in a pre-advanced Chinese language course at an American public institution in the United States. One student was

raised in a Cantonese family; 8 students had some degree of exposure to Chinese language and cultural heritage at home; and 2 students with Korean heritage were majoring in Chinese. There were 6 female and 5 male students. All were undergraduates: 1 fourth year, 7 second year, and 3 third year. Their ages ranged from 19 to 22, with a mean of 19.5. Each participating student in the United States was matched with 3 to 4 undergraduate students majoring in Teaching Chinese as a Second or Foreign Language in Taiwan. The matching of US and Taiwan student participants was completed based on their interests, learning differences, individual preferences, and other requests. A total of 37 students were enrolled in an undergraduate course on web-based Chinese teaching practice as pre-service student teachers in Taiwan. They met once a week for 3 hours and participated in the ORIC program to complete the online practicum program, a partial requirement for the course. Of the 37 students, 36 were female and 1 was male. In terms of ethnic background, 26 were born in Taiwan, 6 were from Hong Kong and Macau, 2 were from Malaysia, 1 was from mainland China, 1 was from Thailand, and 1 was from Japan. All were undergraduates: 2 second year, 19 third year, and 16 fourth year. Their ages ranged from 19 to 25, with a mean of 21.24.

3.3 Procedures

The online ORIC program was carefully implemented and closely monitored. The two appointed faculty members representing each institution communicated frequently, based on a well explored collaborative model. Each of the two faculty members taught a course in which student participants were required to complete the ORIC sessions to partially fulfill semester-long academic requirements. Course syllabi were mutually shared and appropriately modified.

Each course had a graduate assistant to help the instructor coordinate and facilitate the ORIC program and ensure its smooth implementation. Immediately after the conclusion of each online meeting, these two graduate assistants provided and exchanged instant summative feedback to the faculty members and participating students on both sides, so improvements could be made at the following online meeting.

During the first week of the semester, the US students signed an ORIC pledge confirming their understanding of the ORIC requirements and full commitment to the program. Immediately subsequent to the signing of the pledge was a technology orientation through which students learned how to navigate Zoom and Google Drive.

Zoom was consistently used as the online platform through which students met with their online tutors. Google Drive was selected as the central site where students on both sides uploaded materials, including language tasks to be accomplished for online meetings, recorded Zoom videos, weekly checklists and reflections, learning notes, and PowerPoint files. Each group of learners independently decided on other social media means to communicate before and after the Zoom meetings. The language tasks required for the Zoom meetings closely aligned with the themes covered in the course. Students were also strongly encouraged to decide on and discuss any topics they were interested in for online discussion.

In a typical tutorial session, only one tutor interacted with his or her assigned tutee. Other peer tutors in the same group were present in a supporting role, such as observing the class or assisting by typing characters for unfamiliar words and pinyin in the Zoom chat box. All tutors in a group took turns offering tutorial sessions, and the main tutor was responsible for creating PowerPoint slides on the topic in the two-week learning cycle. The PowerPoint slides were devised and coherent with specific tasks predetermined by the instructor. They usually included visual aids, such as pictures and photos, juxtaposed with core grammar and vocabulary. It took place at the end of a two-week cycle, meaning that the tutees would have completed all assigned work requiring them to apply linguistic and cultural knowledge in different assignments and tasks, indicative of cumulative learning progress. The tutorial session therefore functioned as a review session to conclude a unit. It was communicative in nature, and tutors and their students could go beyond learned materials to add new grammar and vocabulary depending on learners' interests and needs. Throughout the entire semester, the tutors made efforts to ask contextualized questions to elicit targeted grammar and vocabulary from the students and corrected errors as needed. In this process, tutoring observers would take notes of the corrected errors and send them to the students after the tutorial session via email or other means.

4. Results and Discussions

The study employed a combination of quantitative and qualitative analysis to complement and strengthen each measure. To gain insights into language gains resulting from the ORIC online program, learners completed AAPPL speaking tests at the onset and conclusion of the program. Additionally, they completed surveys about their overall learning experience and participated in individual interviews at the end of the semester.

The AAPPL Interpersonal Listening and Speaking Test (Form B), developed by ACTFL, was administered as the entry and exit assessment at the beginning and end of the semester. The Internet-based test consists of six tasks informed by the functions described in the ACTFL Proficiency Guidelines, with topics including personal background information, city, school life, sports, holidays, and celebrities (ACTFL, 2012). Students would listen to prerecorded questions and then respond one by one. The speech recordings were rated based on the ACTFL Performance Descriptors for Language Learners (ACTFL, 2012), which include four dimensions by which to evaluate language performance: language control (the accuracy of language in use), vocabulary (the richness and appropriateness of vocabulary words), communication strategies (the ability to maintain communication), and cultural awareness (the cultural knowledge reflected in language use). The scores are rated by ACTFL-certified AAPPL raters, who determine each test taker's language ability across the tasks and topics. Intermediate learners are expected to be able to engage in a conversation by asking and responding to questions, telling simple stories, and describing people, places, and objects. Advanced language learners are able to fully participate in a conversation, describe, and narrate with detailed information and elaboration.

The online, end-of-semester survey included 21 questions divided into 5 parts: learning experience, design and planning, recommendations, technology, and overall

comments. Out of 21 survey questions, 13 were 5-point Likert-scaled questions, and the rest were open-ended.

Data collected through the AAPPL speaking test included quantitative ratings of language proficiency and qualitative analysis based on transcribed speech. The survey also featured quantitative and qualitative analyses on Likert-scaled items and open-ended responses. Thus, quantitative data included the results of the AAPPL speaking test at the entry and exit of the program and the results of an end-of-semester survey composed of 5-point Likert-scaled items. Qualitative data included responses collected through open-ended questions in end-of-semester surveys and individual interviews.

4.1 AAPPL Ratings for Speaking

The AAPPL Interpersonal Listening and Speaking Test was administered at the beginning and end of the semester to compare ratings for speaking performance. As predicted, the results of the pre-test are lower than those of the post-test. Pre-test results ranged from Intermediate I to Advanced, whereas post-test results ranged from Intermediate 3 to Advanced. For the pre-test, 10 students received ratings at the Intermediate level, and 1 student was labeled Advanced. Upon completion of the course, 8 students' ratings were within the Intermediate range and 3 were at the Advanced level. Table 1 shows the ratings that students received for the AAPPL speaking test at the entry and exit of the program.

Table 1 Results of Pre-test and Post-Test in AAPPL

| Progress | Student | Pre-Test | Post-Test |
|-----------------|----------------|----------------------|----------------------|
| 0 sublevel | S 3 | Intermediate 3 (I-M) | Intermediate 3 (I-M) |
| | S 8 | Intermediate 4 (I-M) | Intermediate 4 (I-M) |
| | S 9 | Intermediate 4 (I-M) | Intermediate 4 (I-M) |
| | S 10 | Advanced | Advanced |
| | S 11 | Intermediate 5 (I-H) | Intermediate 5 (I-H) |
| 1 sublevel | S 1 | Intermediate 4 (I-M) | Intermediate 5 (I-H) |
| | S 2 | Intermediate 4 (I-M) | Intermediate 5 (I-H) |
| | S 5 | Intermediate 4 (I-M) | Intermediate 5 (I-H) |
| 2 sublevels | S 4 | Intermediate 4 (I-M) | Advanced |
| 3 sublevels | S 6 | Intermediate 3 (I-M) | Advanced |
| | S 7 | Intermediate 1 (I-L) | Intermediate 4 (I-M) |

Note: I-L: Intermediate-Low; I-M: Intermediate-M; I-H: Intermediate-High.

As Table 1 shows, of 11 students, 5 students remained at the same rating for the pre-test and post-test, and 6 students' ratings increased by 1 to 3 sub-levels. More specifically, among those whose ratings increased in the post-test, 3 students (students 1, 2, and 5) increased by 1 sublevel, 1 student (student 4) increased by 2 sublevels, and 2 students (students 6 and 7) increased by 3 sublevels. The rating of Intermediate I for Student 7 was too low for students in the pre-advanced class. In a follow-up interview with her at the end of the semester, she confessed her reluctance and lack of motivation and preparation to take the test, resulting in her low initial rating. For the end-of-semester speaking test, her speaking ability was rated at Intermediate 4, a high jump to the Intermediate-Mid level. The other student (student 6) whose rating increased by 3 sublevels,

from the Intermediate-3 to Advanced, stands out as the learner with the most improvement. Her follow-up interview pointed to her hard work, commitment to learning, and high motivation to do well as individual factors in this impressive leap. While the course required learners to meet with their online tutors 8 times during the semester, she took advantage of the extra credit opportunities and met with her tutors up to 11 times. Impressively, several days before she took the post-test, she met online with her tutors to practice speaking for 2.5 hours, during the busiest time of the semester. This is a good example of “practice sharpens the skill.” She takes her learning very seriously and seizes all opportunities to fulfill her genuine desire to improve. The open-ended survey questions confirmed that a positive learning experience is associated with learners’ improvement in speaking abilities and that learners’ willingness to invite native speakers’ frequent involvement in their learning process enhances learning experience both linguistically and culturally (Spring et al., 2019).

Looking at the distribution of percentages, 45% of students’ ratings were unchanged, while 55% received higher ratings at the end of the course.

In relation to the speaking performance of the student (student 10) who received the advanced rating for both the entry and exit tests, it is important to note that the AAPPL Interpersonal Listening and Speaking Test does not identify sublevels at the advanced level, as it does at the novice and intermediate levels. Therefore, the advanced level embraces a very wide range of language ability, from the very bottom of advanced language proficiency, closer to Intermediate 5, to the very top ceiling of the advanced level or even up to the superior level, indicative of native-like language ability. This inherent limitation of the AAPPL test thus prevents accurate comparison of this particular student’s speaking abilities before and after the program. A closer look at the transcribed data in Table 2 indicates that his speaking ability did improve significantly (see also Appendix).

Table 2 Pre-test and Post-Test Results for Student 10

| Pre-Test | Post-Test |
|--|--|
| 1.最近，最近 um，说什么，什么事也没有啊 | 1.Amy Adams 是做过很多挺有意思的事情 |
| 2.最近有名的人很多绯闻过来过去，我们有一对明星 Ariana Grande 她跟她的未婚妻 um 刚分手所以大家都是说这个 | 2.她在 um 她其实 um..27 岁的时候才拿到她第一个 um 最很大的电影角色 |
| 3.除了以外 um 我们的总统 Trump 也经常的新闻上面可是不是最好的 (blur) | 3.平常也不多都是 20 岁开始演的或者更早她以前想当芭蕾舞者 |
| 4.他经常说有些很多人觉得过分的事情 um 很多人当然不支持 um 这些 | 4.可是她就是发觉她比不过别人也受过伤所以她就放弃了这个梦想 |
| 5.所以就像他跟朝鲜人 um 那个谈话你们也能看出来现在近期有点有点不怎么样所以就看看 | 5.可是她以前很喜欢 um 在学校里 um 演戏所以 um 她就当了演员 |
| | 6.目前她有很多很出名的电影 um 也在热播就像蝙蝠侠大战超人 |
| | 7.这是刚差不多前年前年开演的一个大片很多人受很多人欢迎 |
| | 8.所以她在里面演了 (English Name) |
| | 9.除了这个以外她也会做很多慈善活动 |
| | 10.她给一些以前受灾者差不多捐了 20 万美金给他们是一个很有善心的一个人。 |

In response to a question about describing a celebrity, student 10 performed significantly differently in various dimensions in the entry and exit tests. The transcribed speech data reveal salient differences in linguistic richness, such as the use of vocabulary, idiomatic expressions, conjunction words, and time adverbials, and in the amount of detailed information and supporting ideas contributing to the organization and coherence of the description and length of discourse.

In the post-test, student 10 used at least double the amount of vocabulary and idiomatic expressions as compared to the pre-test. Since the student did not describe the same celebrity in the two tests, most word expressions do not overlap, mainly due to the differences in occupations, careers, and achievements of the two celebrities.

In the pre-test, student 10 described two celebrities, Ariana Grande and Donald Trump, at very short length and with very limited lexical items. The student used only three lexical items—绯闻 (love affairs), 未婚妻 (fiancée), and 分手 (break up)—to introduce Grande, and another three lexical items—过分 (something is going too far), 支持 (support), and 朝鲜人 (Korean people)—to introduce Trump. Student 10's vocabulary and expressions in the post-test were much richer and idiomatic, with more detailed descriptions. The student made efforts to focus on introducing Amy Adams and to elaborate on her past and her evolution to her present self. The student used a rich amount of vocabulary and expressions vividly and appropriately to elaborate on different stages of Adams's career in the performing arts. The vocabulary doubled, with lexical items including 其实 (actually), 芭蕾舞者 (ballet dancer), 发觉 (found and realized), 受过伤 (got injured), 放弃了这个梦想 (gave up the dream), 演戏 (to act), 演员 (actress), 热播 (becomes a hit), 蝙蝠侠大战超人 (a film entitled *Superman Vs Batman: Dawn of Justice*), 受很多人欢迎 (well-liked by many people), 慈善活动 (charity activities), 受灾者 (affected households), 捐 (donate), and 很有善心 (very kind).

In addition to linguistic elements at the word or phrase levels, the use of conjunction words and time adverbials is much more noticeable and frequent in student 10's post-test. The transcription on the right side of Table 2 features a story-like description of Amy Adams. It is longer than the pre-test descriptions of celebrities, with 10 well-connected sentences versus 5 sentences on the left (pre-test). As shown on the left side of Table 2, in the pre-test, student 10 used almost no time adverbials, except for very limited occurrences of 所以 (so) and 可是 (but), to connect fragmented ideas and thoughts. By contrast, in the post-test (Table 2, right side), the student showed appropriate recurring use of connectors and time adverbials to connect past events and a sequence of actions chronologically; these include 27岁的时候.....才 (...did not do something until 27 years old), 平常 (usually), 20岁开始 (since 20 years old), 更早 (even earlier), 以前 (before), 目前 (currently), and 前年 (the year before last year).

Directly relevant to the inclusion of linguistic elements is the amount of information and density of content provided in the two sets of Student 10's transcribed data. This shows different levels of language proficiency. The speech data on the right of Table 2 follows a story line central to a well-known figure and includes more coherent and well-organized

ideas that are progressively developed and presented, with detailed logical supporting information added to the description. Such characteristics are not evident in the much shorter descriptions of the celebrities on the left.

In summary, student 10's post-test is characterized by rich lexical usage and a wealth of information that is logically and progressively connected and developed at the discourse level, showing strong evidence of proficiency at the Advanced-Mid level or even a bit above that, according to the ACTFL's Oral Proficiency Guidelines (OPI). Although both post-test and pre-test results are considered Advanced, these characteristics were missing in the same student's pre-test, which shows evidence of functions and linguistic features required at very low end of the Advanced level.

It is arguable that language proficiency cannot be accurately assessed by only a single item. A cluster of functions need to be fully considered and evaluated holistically. Further analysis and closer looks at more recorded speech samples produced by the same student are needed in order to assign a more accurate rating. Still, the above analysis provides solid evidence that student 10's speaking ability improved significantly at the end of the course and that the rating of the post-test (as the same as the pre-test) fails to fully indicate his gains in competence. In order to accurately assess his language proficiency, the OPI, with a set of well-articulated guidelines up to the superior level with native-like competence, is a viable option. The OPI's major downside is financial: It is not affordable for many research projects, including this study. That explains why the OPI was not administered for this study, and instead the AAPPL was used to assess learners' speaking performance.

4.2 Learning Experience

The first part of the end-of-semester survey includes 6 questions on learning experience, of which 5 are 5-point Likert scale questions and 1 is an open-ended question. Table 3 (next page) shows the results of 5 Likert scale questions on overall learning experience.

According to the survey results in Table 3, most students held positive attitudes toward their overall learning experience with ORIC (rating ≥ 4), and only 2 students had a relatively neutral attitude (rating = 3). One possible interpretation of these students' feedback is that their learning outcome did not meet their expectations. It may also be that they were more inclined to learn Mandarin Chinese offline.

Ten students believed that their speaking abilities improved with ORIC (rating ≥ 4), with an average of 4.091. Nine of them responded that their listening abilities had improved (rating ≥ 4), with an average of 4.273. Only one student held a neutral attitude toward his speaking ability improvement, which might be attributed to his higher level of language speaking proficiency, which was sufficient for smooth interaction with the online tutors. Comparing this student with students whose speaking abilities were at a lower level, it is possible that the substantial progress needed to reach the next level of proficiency becomes more difficult and requires a greater time commitment.

Table 3 Survey Results of Language Learning Experience

| Student | Overall ORIC enhanced my language learning experience. | ORIC helped me improve my speaking in Mandarin Chinese. | ORIC helped me improve my listening skills in Mandarin Chinese. | ORIC enabled me to learn new insights about Chinese culture. | Overall ORIC enhanced my confidence in using the Chinese language to communicate. |
|----------------|---|--|--|---|--|
| S 1 | 4 | 4 | 4 | 4 | 4 |
| S 2 | 4 | 4 | 4 | 5 | 4 |
| S 3 | 4 | 4 | 5 | 2 | 4 |
| S 4 | 3 | 3 | 4 | 4 | 4 |
| S 5 | 5 | 5 | 5 | 5 | 5 |
| S 6 | 5 | 5 | 5 | 5 | 5 |
| S 7 | 4 | 4 | 5 | 5 | 4 |
| S 8 | 4 | 4 | 4 | 5 | 4 |
| S 9 | 5 | 4 | 5 | 5 | 5 |
| S 10 | 4 | 4 | 3 | 4 | 4 |
| S 11 | 3 | 4 | 3 | 5 | 3 |
| Average | 4.091 | 4.091 | 4.273 | 4.455 | 4.182 |

Interestingly, students seemed to hold a more positive attitude toward gaining new insights about Chinese culture, with an average of 4.455. Only one student (student 3) gave a low rating to this aspect of growth. Since ORIC was programmed to focus on speaking and listening, his tutors may not have integrated much cultural knowledge into his sessions. Another possible interpretation is that with strong heritage and background, he may have already known a lot about Chinese culture and therefore saw little gains out of ORIC, or perhaps he may have been less sensitive to the cultural differences observed by his peers. Hence, when tutors introduced culture-related issues, he failed to sense them. Regarding students' confidence in using Chinese for communication, 10 students gave positive feedback (rating ≥ 4), and 1 student held a neutral attitude. Overall, students valued their learning experience and spoke favorably of what they learned from tutors. It was also speculated that throughout a semester-long tutorial meeting, the students established tight bonds with their tutors, considering them not only their teaching assistants but also native Chinese-speaking friends who shared linguistic and cultural knowledge. This type of learning company greatly enhanced students' learning experience.

To complement the analysis of the quantitative data, the survey included an open-ended question to elicit learners' comments and constructive suggestions. Responses were surprisingly diverse, with both positive and negative input. First, regarding the content of ORIC tutorials, one student believed his ORIC tutors helped him a lot with learning more vocabulary. Taking a closer look at the PowerPoint slides created by the tutors, we found that the tutors working with this particular student did integrate a lot of new words and expressions on the assigned topics and tasks. Since the ORIC program was implemented throughout the entire semester, tutors would become more familiar with their students' language performance as more meetings were held and were able to adjust their lesson plans to accommodate the students' needs and interests. Expanding the vocabulary size by introducing more idiomatic expressions such as proverbs and four-word expressions was

considered substantial adjustments. Another student commented that topics should be tailored to practical use and suggested introducing more cultural topics. Due to learning objectives and time constraints, culture was not considered a separate independent topic and was therefore not required in ORIC meetings or prioritized in the AAPPL speaking test. In principle, the role of culture in the program is naturally embedded in the required language tasks. Whether it was included in the tutorial sessions depended on tutors' lesson planning, learners' language performance, and the course of natural conversation between the tutors and learners.

Second, students highly valued visual aids. Two students mentioned that PowerPoint slideshows were very helpful in learning language, since visual aids "help contextualize the language." The PowerPoint slides as a means of enhancing learning became salient and pivotal for online learning. Among other possible advantages, they were useful for information processing, as visual stimuli, and for encouraging interaction. All tutors were required to plan and prepare their online sessions in alignment with laid-out objectives, and the creation of PowerPoint slides was a required component that provided evidence of their effort and preparation. One tutorial session usually started with a series of simple questions designed to help a student review the targeted vocabulary and grammar and ended with wrap-up questions requiring the student to produce discourse-level speech summarizing his or her opinions. For instance, a typical wrap-up question could be: "Please describe your favorite celebrity in terms of his/her appearance and personalities" or "How would you like to refurnish and decorate your bedroom by Chinese Fengshui?" Question prompts were usually shown in each PowerPoint slide with pictures or photos as hints for answers, so students could deploy these visual resources to practice vocabulary and grammar.

Third, two students accredited the improvement of their language skills to their ORIC experience. As one student put, ORIC singlehandedly helped him develop speaking skills "at a deeper and more personal level." The other student proposed that "it might be beneficial to include the other parts...more predominantly." Though he did not explain what the "other parts" means, an individual interview suggested that this student was referring to writing and reading skills, on the ground that ORIC provided more opportunities for students to hone their speaking skills and enrich their vocabulary. Due to limitations of space and time zone differences, ORIC tutors did not have enough time to create opportunities for the language learners to practice reading and writing skills. Instead, they focused on enlarging students' vocabulary and improving their oral proficiency. AAPPL test results, which show the students' improvement on speaking and vocabulary use, indicate that the foci of ORIC were effective.

Finally, one student moved out of his comfort zone as a learner and commented that online tutors needed more training. All tutors at the partnered institution were undergraduates majoring in Teaching Chinese as a Foreign Language. As pre-service teachers in Mandarin Chinese, they participated in the ORIC program as a practicum component and an additional pathway for them to learn to teach and teach to learn. Professional development is an ongoing process, and language educators all need to receive

training in different phases; this holds true for pre-service and in-service language educators for enduring career advancement.

4.3 ORIC Design and Planning

The second part of the survey includes five 5-point Likert scale questions and one open-ended question on the design and planning of the ORIC online program. The results of the 5-point Likert scale questions are presented in Table 4.

Table 4 Survey Results of Design and Planning

| Student | ORIC meeting language handouts were helpful for my Chinese learning. | ORIC Checklist/Reflection sheet was helpful for me to monitor my learning process. | My ORIC tutors were well-prepared, cooperative and helpful. | My ORIC tutors were interesting and engaging. | ORIC is a viable supplement for immersion and practice in building fluency. |
|----------------|---|---|--|--|--|
| S 1 | 4 | 2 | 5 | 5 | 5 |
| S 2 | 5 | 4 | 5 | 5 | 4 |
| S 3 | 4 | 4 | 5 | 5 | 3 |
| S 4 | 2 | 1 | 5 | 5 | 3 |
| S 5 | 5 | 4 | 5 | 5 | 5 |
| S 6 | 5 | 5 | 5 | 5 | 5 |
| S 7 | 4 | 2 | 5 | 5 | 4 |
| S 8 | 3 | 2 | 5 | 5 | 4 |
| S 9 | 5 | 2 | 5 | 5 | 5 |
| S 10 | 4 | 3 | 5 | 5 | 4 |
| S 11 | 4 | 4 | 5 | 5 | 3 |
| Average | 4.091 | 2.909 | 5 | 5 | 4 |

As Table 4 indicates, learners gave top scores to tutors' performance in two question items on preparation and engagement. All learners felt that their tutors were well-prepared, cooperative, helpful, interesting, and engaging. A sharp contrast to this is the relatively low mean (2.909) of learner evaluations of the use of weekly checklists and reflection sheets. This is puzzling, as the checklists and reflections were expected to be helpful in keeping track of learners' weekly progress and logistics management. According to an informal interview with one of the students, submitting the checklist and reflection on a weekly basis was considered somewhat redundant and repetitive. The student suggested that the checklist and reflection sheet be completed on a biweekly or monthly basis, indicating that the checklist and reflection are still of good value, but the frequency of submission led learners to give them low ratings. A more feasible, expanded timeline might have resulted in better satisfaction.

In addition to weekly submissions of checklists and reflections, students had weekly language handouts with clearly defined language tasks and functions to prepare for their online meetings. The majority of learners indicated that the language handouts were helpful for their learning (rating ≥ 4), with an average of 4.091. Two students gave low

ratings, but they did not provide any additional comments on the open-ended question. Overall, many learners reflected that ORIC was a viable supplement for immersion and practice in building fluency (rating = 4).

In terms of information gleaned from students' open-ended comments, two students responded that scheduling was a minor issue at the beginning of coordination but was resolved as the program moved along. As there is a day-and-night difference between the United States and Taiwan, students were fully aware that they needed to keep their schedule accommodating and flexible. Once the program had been going for one to two weeks, and both groups of student participants were accustomed to it, scheduling became much easier and more acceptable.

4.4 Technology

The third part of the survey elicited students' user experience of technology tools, with two Likert scale questions and one open-ended question on other social media tools they used for communication with tutors. Table 5 shows the summary of the results of technology usage

Table 5 Survey Results of Use of Technology

| Student | Zoom is a suitable and stable platform. | Google Drive is a good medium for uploading and managing learning materials. |
|----------------|--|---|
| S 1 | 2 | 4 |
| S 2 | 4 | 5 |
| S 3 | 4 | 5 |
| S 4 | 2 | 4 |
| S 5 | 5 | 5 |
| S 6 | 5 | 5 |
| S 7 | 3 | 5 |
| S 8 | 3 | 5 |
| S 9 | 5 | 5 |
| S 10 | 4 | 5 |
| S 11 | 5 | 5 |
| Average | 3.818 | 4.818 |

Google Drive was the central repository for students and tutors to upload and share all materials. No problems were reported with accessing and using Google Drive. The results show that students were extremely satisfied with Google Drive (mean = 4.818), much more so than with Zoom (mean = 3.818). Zoom was quite stable and user-friendly, and it was adopted by the two institutions for online meetings. Surprisingly, students rated Zoom much lower than expected, considering how suitable and stable a platform it was. The reason might be not that learners didn't favor Zoom, but rather that they did not think the choice of online platform mattered much, and so they did not have a preference. Another possible reason for the lack of a strong preference might be their unfamiliarity with and infrequent use of the software. Learners did not express any negative comments

in answers to open-ended questions. Students had the freedom to choose whatever social media they wanted to use outside the online meetings; frequently mentioned software included Facebook, Messenger, and WeChat, a Chinese multipurpose messaging system. The use of social media is outside the scope of the study and therefore will not be discussed in this paper.

4.5 Overall Comments

The end of the survey solicited students' overall impressions of the course to see if they would recommend the ORIC component as an add-on for other Chinese language courses. In response to a 5-point Likert scale question, 9 students recommended the added ORIC component to the course (rating ≥ 4), and 2 students held neutral attitudes (rating = 3). In response to open-ended questions, several students pointed out reasons for their reservations. First, ORIC added a heavy workload to the three-credit course. One student stressed that ORIC would be equivalent to an additional credit for the course rather than an additional compulsory component. In an informal feedback form completed during the semester, more than half of students agreed with this proposal. This rationale is consistent with what a majority of the students stated in responses to the open-ended questions, and the suggestion is justifiable. To fulfill the ORIC requirements, students needed to devote time to the language task handout, interact online with the native speakers for at least one hour for each online meeting, complete after-meeting checklists and reflections, and upload completed checklist and reflection sheets, learning notes, and recorded Zoom videos. Some tutors were overprepared and excited to practice teaching, and this led the online meeting to last longer than an hour multiple times. Moreover, most of the work was completed over the weekend, depriving students of some leisure time. If a 50-minute class at the very end of a two-week cycle was canceled and substituted by the ORIC component, that would easily resolve the issue of overload. This design is applicable to future language courses. In several Chinese language courses taught after the study, the ORIC meeting was considered regular class time, and both instructors and students seemed to consider this a reasonable arrangement.

In terms of target language proficiency for students, one student mentioned that the nature of ORIC might make it more suitable for lower-level courses, especially for students in a non-heritage track. This is a valid point and confirms the instructors' predictions. The course in this study was mainly composed of heritage learners, who had long been exposed to abundant resources conducive to natural learning in their home settings or in Chinese-speaking communities in the United States, China, or Taiwan. Exposure to ORIC did not excite most of the learners in the class. Such experience, on the contrary, might be eye-opening and refreshing for non-heritage learners with little experience in live interaction and communication with native speakers. Since non-heritage learners at the novice level of proficiency have limited language competence and are still developing learning strategies and communicative strategies, they might not benefit from ORIC as much as second-year non-heritage learners at the intermediate level. It is hence hypothesized that the ORIC component is more suitable for intermediate learners than elementary learners in the non-heritage track. After the conclusion of the study, ORIC was implemented in second-year language courses at the intermediate level, and learners appreciated that

opportunity much more than did learners in the course of this study. The ORIC model later successfully transitioned from serving pre-advanced to advanced learners to serving intermediate learners, and it garnered more satisfactory feedback and appreciation from students.

Overall, students spoke very positively about several aspects of their learning experience in their responses to open-ended questions. First, ORIC helped students improve their speaking abilities by “providing a chance [for them] to speak with people who are fluent in Mandarin.” Students believed that they “learned more when [they] had natural conversations.” Second, ORIC allowed them more opportunities to learn about Chinese culture as distinguished from the culture in Taiwan. One student mentioned that he “was able to expand the knowledge of Chinese culture by acknowledging the differences in behaviors between American and Chinese people.” Students were also grateful for the friendships they built with the Taiwanese tutors. One student expressed that he “really enjoyed building a relationship with tutors.”

The open-ended questions elicited students’ constructive suggestions for future improvement. Their input was diverse, and suggestions included standardizing tutorial training, enhancing technology orientation, and reducing the workload. This echoes what students’ informal interviews upon completion of the course. Issues with the workload of the course, as discussed earlier, were consistently and repeatedly emphasized by some students in their written input. Technology orientation did not seem to be a big issue, as it was mentioned by only one student. As we know, quality tutorial training is critically needed for pre-service teachers to prepare for their careers, and this was completely handled by the partnered program abroad. The graduate assistants for the two sides frequently communicated about ongoing needs for improvement of tutorial effectiveness during the semester. In any event, the ORIC component was considered a practicum for the student teachers to practice teaching online, and they were not able to achieve perfection or a high level of professionalism at that time. Continued professional development is always a long-term goal to pursue.

5. Conclusion

The results of this study show that ORIC, a video-based synchronous communication program, enhances students’ overall language learning. The design and layout of the ORIC program is well-structured and carefully monitored to ensure its smooth implementation and foster effective collaboration between the US institution and the partnered institution abroad. As indicated by the quantitative data, although individual learners’ speaking ability improved in varying degrees, it is evident that ORIC provided a viable path for learners to improve their overall speaking proficiency. Recognizing its pedagogical value, instructors should be careful about adequately managing student workload. As many student participants stressed, adding the ORIC as a curricular requirement made the workload equivalent to that of a 4-credit course. It is hence critical to revisit the curricular requirement, make necessary adjustments, and continue experimenting with ORIC in non-heritage courses. Strategic planning for another round of

implementation in intermediate Chinese after the current study has proven successful in balancing both regular and ORIC components, resulting in agreeable and acceptable time commitment among non-heritage students.

Before the launch of the study, it was suggested that online exchanges and tutorials are more effective in immersive settings than in an e-tandem model. With all factors equally controlled, it is hypothesized that a full immersion experience is more helpful for learners' language and cultural acquisition than a half-and-half program featuring both English and the target language. Full immersive communication enables genuine exposure to the target language and culture and increases opportunities for spontaneous and authentic communication. Ultimately, this is likely to yield observable qualitative changes in language output and growth, especially when learners are interacting not just with native speakers in general, but with native speakers who are pursuing a professional path in teaching Chinese as a foreign language, such as those in this study. This assumption may sound intuitive and logical, but more research is needed to test and verify it. One possible direction for future study is to conduct a comparative study with both full immersion and partial immersion as experimental and control groups.

Another opportunity for further exploration is to compare a course with ORIC components to the same course without ORIC components. The current study supports the notion that adding the ORIC program to the existing pre-advanced course is beneficial for learners' overall experience. But it lacks evidence to conclude that learners' progress in speaking is surely or greatly attributed to ORIC learning. Learning progress is made possible by many factors that interplay and interweave in a complex learning process. Whenever possible, comparable groups should have controllable factors or variables be as equal as possible in any further study.

Technologies have made online global communication much more feasible and prevalent than ever before. While the ORIC program has reaffirmed its value in language courses, there is much still to explore. This study is limited to the examination of speaking language skills. Much work needs to be done in different sub-areas of study, including measurement of language gains in vocabulary learning and in the remaining three language skills: listening, reading, and writing. Whether the ORIC components or something like them can enhance learners' cultural understanding and motivation also awaits further research. Investigators and practitioners must work together and guide Chinese language educators with new insights and findings.

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Appendix

| Pre-Test | Post-Test |
|---|---|
| 1. Zuì jìn, zuì jìn um, shuō shí me, shí me shì yě méi yǒu ā What do you want me to say? Nothing has happened recently. | 1. Amy Adams shì zuò guò hěn duō tīng yǒu yì sī de shì qíng Amy Adams has done a lot of interesting things. |
| 2. Zuì jìn yǒu míng de rén hěn duō fēi wén guò lái guò qù, wǒ men yǒu yī duì míng xīng Ariana Grande tā gēn tā de wèi hūn qī um gāng fèn shǒu suǒ yǐ dà jiā dōu shì shuō zhè gè | 2. Tā zài um tā qí shí um...27suì de shí hòu cái ná dào tā dì yī gè um zuì hěn dà de diàn yǐng jiǎo sè She actually got her first and biggest movie role at the age of 27. |

| | |
|---|---|
| <p>Recently, there are many celebrity love affairs. Ariana Grande and her fiancé just broke up so everyone is talking about this.</p> <p>3. Chū le yǐ wài um wǒ men de zǒng tǒng Trump yě jīng cháng zài xīn wén shàng miàn kě shì bú shì zuì hǎo de (blur) Besides, our President Trump is often on the news, but not on the best news.</p> <p>4. Tā jīng cháng shuō yǒu xiē hěn duō rén jiào dé guò fèn de shì qíng um hěn duō rén dāng rán bú zhī chí um zhè xiē He often says things that a lot of people find going too far. People definitely don't support these.</p> <p>5. Suǒ yǐ jiù xiàng tā gēn cháo xiān rén um nà gè tán huà nǐ men yě néng kàn chū lái xiàn zài jìn qī yǒu diǎn yǒu diǎn bú zěn me yàng suǒ yǐ jiù kàn kàn From the conversation he had with the north Korean, you can see it has been a bit of a tough time.</p> | <p>3. Píng cháng yě bú duō dōu shì 20 suì kāi shǐ yǎn de huò zhě gèng zǎo tā yǐ qián xiǎng dāng bā lěi wǔ zhě She started acting at the age of 20. She wanted to be a ballet dancer earlier.</p> <p>4. Kě shì tā jiù shì fā jiào tā bǐ bú guò bié rén yě shòu guò shāng suǒ yǐ tā jiù fàng qì le zhè gè mèng xiǎng But when she found and realized that she was no match for other people, and she also got injured, she gave up the dream.</p> <p>5. Kě shì tā yǐ qián hěn xǐ huān um zài xué xiào lǐ um yǎn xì suǒ yǐ um tā jiù dāng le yǎn yuán But she used to like acting in school. She thus became an actress.</p> <p>6. Mù qián tā yǒu hěn duō hěn chū míng de diàn yǐng um yě zài rè bō jiù xiàng biān fú xiá dà zhàn chāo rén Now she has a lot of famous movies that become a hit, like Batman v Superman: Dawn of Justice.</p> <p>7. Zhè shì gāng chū bú duō qián nián qián nián kāi yǎn de yī gè dà piàn hěn duō rén shòu hěn duō rén huān yíng It was a big movie released about two years ago, and it was well-liked by many people.</p> <p>8. Suǒ yǐ tā zài lǐ miàn yǎn le (English Name) So she played (English Name) in it.</p> <p>9. Chū le zhè gè yǐ wài tā yě huì zuò hěn duō cí shàn huó dòng Besides that, she also does many charity activities.</p> <p>10. Tā gěi yī xiē yǐ qián shòu zāi zhě chà bú duō juān le 20 wàn měi jīn gěi tā men shì yī gè hěn yǒu shàn xīn de yī gè rén She donated about \$200,000 to some affected households. She is a very kind person.</p> |
|---|---|

線上華語學習活動：兩種形式之比較 (Text-Based Online Communicative Activities: A Comparison of Two Approaches)

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摘要: 本文為筆者利用 Moodle 線上課程平台，幫學生創造線上華語學習環境的研究論述。筆者指派給兩組學生不同形式（方法一，方法二）的語言交流活動，讓他們與同班同學在線上進行非同步筆談，並以第二語言/外語習得理論和參與活動學生的角度來探討此活動是否能讓學生樂於參與？能讓他們將課堂所學的語言知識運用到課外的全新語言情境，並在與同儕參與的群眾活動中，以溝通為工具建構華語知識，並促進自我學習？此活動是否能將學習活動延伸至課外，提供學生在課後運用和學習華語的環境？此外，以這兩種形式進行的活動在達到上述目的上是否有差異？此混合型研究的參與者為筆者中級班的美國大學生。資料搜集方式包括了問卷調查以及學生在活動中的語言輸出。資料分析則包含了量化的敘述統計分析和 T 檢定 (T-test)，歸類和量化學生對問卷中開放式問題的反饋，以及對學生在筆談中的華語輸出做語料分析。研究結果顯示，兩種形式的活動皆能達到此活動的主要目的，但各有其優點。方法一較能促進學生記憶，理解，並運用近期所學的語言知識；而方法二則是在促進互動，讓學生以既有的語言基礎創造語言新知，以及培養學習共同體之歸屬感的情感層面上，起了更大的作用。

Abstract: This article discusses a mixed-methods study which examined and compared two approaches (A1, A2) of a text-based online communicative activity designed for learners of Chinese as a foreign language. Specifically, drawing upon second and foreign language acquisition theories and including the perspectives of the students who participated in the activity, the study investigated the effectiveness of the two approaches in: promoting self-study; retention; transfer of Mandarin knowledge; peer-interaction; acquisition of Mandarin via communication, and; in fostering interest in participating in the activity. Overall, does the activity make learning extend outside of the classroom? Ninety-five US college students participated in the study by engaging in an asynchronous weekly posting task in a Moodle discussion forum and by filling out a survey questionnaire. Results of quantitative and qualitative data analyses showed that while both approaches met the purposes of the activity and

successfully bridged classroom learning with out-of-class learning, A1 facilitated retention and application of recently taught material, and A2 promoted the transfer of Mandarin knowledge, peer-interaction, acquisition of new Mandarin knowledge, and the formation of a sense of belonging in a learning community among the learners.

關鍵詞: 筆談貼文、互動、華語教學、溝通式學習、電腦輔助溝通, 外語習得

Keywords: Text-based interactive communication, teaching Chinese as a foreign language, communicative language teaching, computer-mediated communication

1. 前言

在第二語/外語習得 (second/foreign language acquisition) 研究中一個廣為接受的理論是, 透過使用欲習得的標的語言 (target language) 與他人溝通互動 (interaction) 是習得此標的語的最好方法之一。如 Long(1981) 的互動假說 (Interaction Hypothesis) 和溝通式教學法 (Communicative Language Teaching Approach) 皆廣受外語教學界的關注及運用。近年由於網路科技的發展, 學習型態也隨之多元化。除了傳統的課堂學習活動及規定給學生用紙筆進行的課後作業, 教師們也可以運用網路教學平台, 設計線上活動, 增加學生使用標的語的機會, 促進語言習得 (陳蕙郁, 2013)。

筆者目前任教的美國大學, 每星期僅有四個小時的華語上課時數, 而且學校位於一個以白人為主的小城市, 缺乏華語文環境, 不利於學生將課堂所學運用在日常生活中, 藉由與他人互動而做有意義的語言輸出 (meaningful output), 這對華語習得來說是個大問題。德國心理學家艾賓浩斯 Ebbinghaus (1999) 的研究指出, 若沒有善用課堂所學 (或良好的復習), 幾天後, 一般學生對上一次課程的記憶只剩約 20%。由此可見, 只在課堂上學習而無法以運用所學的方式來復習, 亦即無法促進學習者將所習得的知識‘保留’ (retention) 或甚至‘轉移’ (transfer) 到不同的情境, 是個不可忽視的問題。為了將課堂教學與課外活動結合, 延長學習時數, 更提供學生在課外以華語互動的機會, 筆者以外語習得的理論為基礎, 實驗性地利用了 Moodle 線上群組討論 (論壇) 功能, 設計了一種讓學生用華語筆談貼文的活動 (方法一), 期藉由科技與傳統語言教學理論的結合來加強學生的學習成效。

Moodle 是一種線上課程管理平台。俄國心理學家 Vygotsky (1978, 1986) 認為學習, 包含語言學習在內, 是先從社會過程而後個人過程的, 亦即, 知識是建構於群眾參與的實際活動中。因此 Moodle 可幫助教師建立有效的線上社群, 透過學生的群眾參與過程, 創造一個有效的學習環境 (林金錫等, 2008)。而筆者任教的學校所採用的線上課程平台即是 Moodle。

由於從學生們在方法一的貼文中可看出此群組筆談活動對華語學習的助益，此外，溝通式教學理論亦主張教師們應幫助學生創造有意義的語言交流（*effective language behavior*）而非只著重在習得完美的文法結構，也就是教師應盡量提供學生使用標的語達成溝通目標的機會，筆者於是更進一步設計了第二種形式的筆談活動（方法二），在一個全新的學季，指派給全新的兩組學生，各用一種形式在線上非同步地與同班同學進行交流。

本研究的目的即是從‘第二語/外語習得理論’及‘參與活動學生的反饋’這兩個角度來探討這兩種形式的課外活動是否能達到以下目的：1. 促進學生將所學的語言知識運用到非課堂的語言情境中，2. 增加學生間使用華語互動（*peer-interaction*）的機會，3. 幫助學生以標的語達成溝通目標（溝通式學習），4. 促進學生自我學習，5. 讓學生在群眾（同儕）參與的活動中，共同建構華語知識，6. 在心理層面上，讓學生有參與學習活動的意願和興趣（*motivation & interest*）而將學習延伸到課外，為學生提供運用華語的有效學習環境。此外，這兩種形式在達到上述的活動目的上，是否有差異性？

2. 文獻探討

相較於傳統的語言教學法，現今外語教學的趨勢是強調以學生為中心，在參與溝通互動的活動中學習，使標的語的習得過程具有真實性（*authentic*），富有意義（*meaningful*）及趣味性（*Interesting*）（葉德明，2001），而更能吸引（*motivate*）學習者參與。如葉德明（2001）所言，將此教學方向，應用在規定給學習者參與的課外活動或作業中，使其從重複接觸的語言規則中體驗，促使學習者重新建造新語言形式，進而產生自己的語言能力，而達到理解與溝通的目的（p. 3），也就是成功地習得使用此標的語。此外，現今的外語教學理論—例如‘溝通式教學’理論（*Communicative Language Teaching*），注重語言學習的過程，強調學習者應學習如何‘使用’標的語，甚至在學習過程中以標的語做為學習的‘工具’，以培養溝通能力（*Communicative Competence*）為目標，而非僅以學習者是否展現出完美的文法能力（*Grammatical Competence*）做為是否成功習得標的語的單一衡量標準。再者，學者們倡導，應藉由讓學習者在某個特定的網路群組，使用欲習得的標的語，與其他學習者社交互動，來幫助學習者建立其標的語的能力（Thorne, Black, & Sykes, 2009）。這樣的一個“社交”（*socialization*）過程，能產生如維高斯基社會文化論（*Vygotsky's Sociocultural Theory*）中所言‘語言知識是建構於群眾參與的實際活動中’的效應。

在這些理念之下，筆者參考了電腦輔助溝通（*CMC*）的相關理論，以 Moodle 課程平台中的群組討論功能為工具，設計了兩種不同形式的線上活動，提供學生在課外以同儕互動貼文的方式，運用課堂所學，進行筆談，以增加使用華語的機會。此活動的語言習得理論相關文獻，及本研究的研究目標如下：

2.1 布鲁姆分類學與其認知歷程向度 (Cognitive Process Domain) 中之技能

美國教育心理學家本杰明·布鲁姆於 1956 年所提出的布鲁姆分類學 (Bloom's taxonomy) 是啟發筆者設計筆談活動的一大原因。此分類學把教育者的教學目標分類, 以便更有效地達成各個目標。在 2001 年, Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths 及 Wittrock 等人做了進一步的修訂, 將認知分類區分為知識向度 (Knowledge Domain) 和認知歷程向度 (Cognitive Process Domain)。其中, 認知歷程向度是在促進學習者保留 (retention) 和轉移 (transfer) 所習得的知識。

認知歷程向度分成六個範疇, 由低層級到高層級依序為記憶 (Remember), 理解 (Understand), 應用 (Apply), 分析 (Analyze), 評估 (Evaluate), 和創造 (Create)。每一範疇對應於學習的不同層次。例如‘記憶’此學習技能對應的是最低層次的學習範疇, 而‘應用’相較之下是較高層次的學習範疇, 因其包含了運用‘記憶’, ‘理解’, 及‘應用’等技能。較高層次對應較複雜的內容, 也較接近對該學科的精熟 (Mastery) 度 (Huitt, 2011)。

1. 記憶: 指的是學習者對於信息的回憶。面對某提示或線索時, 學習者能從記憶中提取相關知識。從華語學習的角度來詮釋, 亦即學生是否能認得或記得所學過的漢字及華語知識。
2. 理解: 表現出理解的事實和思想、組織、比較、翻譯、解釋。也就是學生是否能理解不同華語字彙或句型的意思及其之間的差異性。
3. 應用: 使用新學的知識。在新形勢下, 以不同的方式運用所學到的知識、事實、技術和規則解決問題。亦即, 學生是否能將所授予的華語字彙句型或片語應用在一個新的溝通情境。
4. 分析: 檢查並分析而後分解信息並進行推論。亦即, 學生是否能從華語情境中認出華語的語言元素以及這些元素如何統整在一起建立起系統性的關聯。例如, 分析一個句子或片語進而推論出其在此情境的意思或用法。
5. 評估: 根據規則及標準來做判斷。亦即, 學生是否能以所學的華語知識, 判斷自己或他人所使用的華語是否符合華語的語言規則, 或對當時的溝通情境是否恰當, 以及是否達成溝通的目標。
6. 創造: 將各個元素組裝在一起, 形成一個完整且具功能的新整體。亦即, 學生是否能在新的溝通情境中成功地結合新舊華語字彙或句子片語而達成溝通目標。

由於學生在日常生活中缺乏華語文環境, 如何促進學生記得上課所學, 並應用在不同的情境中, 還能從真實的語境中理解他人的華語輸出, 成爲了筆者思考的問題。在此前提之下, 讓學生藉由參與 Moddle 群組筆談課外活動, 盡可能地運用這六大範疇的技能, 將當週或之前課堂所學的華語知識, 運用在不同的筆談主題 (情境) 中, 表達自我, 並理解同儕的貼文, 增加‘保留’和‘轉移’所學的華語知識到不同語境的機會, 以促進華語習得, 就成了首要目標。

因此, 本研究將從學生在‘筆談中的語言輸出’和‘意見調查中的反饋’來探討此筆談活動的兩種形式 (方法一, 方法二) 是否能促進學生保留和轉移課堂所學的華語知識。亦即此活動是否使學生們在新的溝通情境中, 運用既有的華語知識, 達成‘表達自我, 理解或回應他人貼文’的活動目標。‘保留’ (retention -previous material) 在本研究中是定義為: ‘適當地使用當週或近期課堂所教授之語言知識 (例如, 字

彙, 句型, 或用語), 或能適當地回應他人使用當週或近期課堂所教授語言知識之貼文; ‘轉移’ (transfer-learning) 是定義為: ‘適當地應用既有語言知識 (分析評估), 結合新的字彙或片語, 而創造出適合當時溝通情境的新句子, 或能 (分析評估) 理解他人所創新句的語意, 而做出適當的回應’。

2.2 Michael Long 的互動假說 (Interaction Hypothesis)

此理論主張, 第二語言學習者 (non-native speaker, NNS), 透過使用欲習得的標的語言與母語人士 (native speaker, NS) 溝通互動 (interaction) 是習得此標的語言的最好方法之一。除了藉由閱讀, 語法, 及字彙課程等, 獲得大量的可理解性輸入 (comprehensible input) 之外, Long 強調, 使用欲習得的標的語言與他人交際互動, 不僅可以提供學習者練習使用此語言的機會, 更是進一步促進語言習得的關鍵。真實語言情境的互動 (authentic interaction) 過程讓第二語言學習者意識到在使用標的語言中所犯的錯誤或對標的語言知識的缺乏, 而尋求正確或更多的語言資訊, 進而進行修正或意義協商 (negotiation of meaning), 而終能成功地使用正確的標的語言達到溝通的目標, 亦即習得此語言 (Long, 1996)。在過去的 20 年間, Long 的互動理論在第二語/外語習得界得到了廣泛的關注及運用。

雖然外語學習者與母語人士之間的語言交流 (NNS-NS) 已被視為促進語言習得的一大良方, 然而外語學習者彼此之間的同儕語言交流 (NNS-NNS) 在促進語言習得上的效果, 卻甚少在華語教學研究的文獻中被完整地探討。此外, 在一個日常生活缺乏母語人士的學習環境中, 教師們又該如何幫學生創造使用華語交流互動的機會? Long 的互動假說是建構在外語學習者與母語人士面對面 (face-to-face) 的口語互動之上, 在電腦輔助 (CMC) 的線上非同步筆談中, 學習者之間 (NNS-NNS) 為表達自我或達成某種活動任務 (task assignment) 所做的華語貼文, 是否也能讓學習者用華語‘互動’, 而如互動假說所主張的, 促使‘自我學習’以尋求正確或更多的語言資訊來達到溝通的目標, 進而起到促進‘華語習得’的作用? 這也是本研究的探討議題之一。

在本研究中, ‘互動’是定義為: 參與筆談活動的學生, 回應了同儕的貼文, 或其本身的貼文有得到同儕的貼文回應。‘自我學習’是定義為: 學生 1. 透過查閱工具書 (例如, 字典, 課堂筆記, 或課本等) 來完成自己的貼文或理解他人貼文的語意, 甚至在貼文中使用出課堂尚未教授之字彙或用語, 或 2. 能從同儕貼文中學習到生詞或用語, 或甚至運用在自己的回應貼文中。‘華語習得’是定義為: 成功地在筆談情境中使用華語, 達成‘表達自我’及‘理解並且回應他人貼文’的活動目標。

2.3 溝通式教學理論 (Communicative Language Teaching Approach)

另一與‘互動假說理論’一樣強調互動的‘溝通式教學理論’也廣受現今第二/外語教學的關注與運用。此理論主張將語言教學活動的重點擺在 Hymes (1972) 所定義的‘溝通能力’ (communicative competence) 上。‘溝通能力’雖包含了文法能力 (grammatical competence, 即字彙語法的能力), 但其強調的是讓學生習得, 使用

標的語在適當的情境中與人溝通的知識 (pragmatic knowledge), 幫助學生創造有意義的語言交流 (effective language behavior), 而非只著重在習得完美的文法結構 (Ellis, 2002; Richards & Rodgers, 1986)。亦即, 如 Finocchiaro 和 Brumfit (1983) 所闡述的, 標的語在學習活動中, 是被用來當作溝通的工具, 而不是單純地被視為學習目標。在溝通過程中, 學生利用既有的標的語知識, 選擇說什麼和如何說, 透過語言溝通活動表達訊息, 選擇與回應。教師在這個過程中扮演的只是輔助者, 指導者, 和相互溝通者的角色, 其主要的任務不是要確保學生不會犯任何語法跟字彙上的錯誤。而且, 教師視學生的學習錯誤為溝通技巧發展現象的過程, 不一定要立即給予糾正。

此理論主張, 標的語的習得是透過使用標的語溝通 (communication) 而達成, 因為溝通的過程會刺激學習者標的語語言系統的發展 (Howatt, 1984)。Hymes (1972) 認為, 一個能具有‘沟通能力’的外語學習者, 必也同時習得了文法和使用標的語在適當的情境中與人溝通的知識。因此, 教師應盡量提供學生使用標的語達成溝通目標的機會。Richards (2006) 則認為, 溝通式教學有別於操練法 (drill) 及傳統的文法教學, 其優點是讓學生有機會表達自己的想法和意見, 也讓他們有機會重新組織並且運用之前學過的語言知識來創造自己的語言輸出。由於語言的實用性, 更能激發了學生學習的動機, 甚至可幫助學生將自己的個性融合於第二語言學習中。這些也是啟發筆者設計本研究所討論的筆談活動的理論依據之一。

溝通式學習法的缺點則是, 由於學生缺乏立即訂正錯誤的回應, 教師很難評量學生的學習過程。即使有如此的缺點, Spada (2007) 指出, 在以文法及結構為主體的外語教學 (structure-based teaching) 之餘, 加上溝通式學習法以培養沟通能力 (communicative competence) 為主的活動, 對外語習得是有所助益的。由於筆者設計的是課外活動, 其主要目的是要讓學生將課堂所學, 藉由與同儕互動, 運用在筆談中, 藉以延長使用華語的時數, 所以並不刻意以學生是否展現出完美的華語文法能力做為評量。在活動中, 學生們可以以課堂所學為基礎, 針對某些主題表達自我, 創造自己的語言輸出, 完成‘溝通交流的任務’。筆者在此活動中只是扮演輔助者而非評鑒者或教學者的角色。

在此前提之下, 本研究欲探討的是此筆談活動是否能讓學生, 如溝通式教學理論所主張, ‘以華語為溝通工具, 學習華語’? 亦即, 學生們在缺乏教師立即給予反饋之下, 是否仍能重新組織並且運用之前課堂學過的華語知識來創造自己的語言輸出, 成功地用華語表達自我, 讓同儕明白其語意, 不造成誤解, ‘達成溝通交流的任務’? 即便有學生在活動中使用課堂未教過的字彙用語, 其他學生是否在大部分的時候都能明白其語意, 不產生誤解? 此外, 學生們是否視此以溝通為主的活動有助其學習華語? 在此, ‘以華語為溝通工具, 學習華語’ 是定義為: 在筆談交流過程中 1) 運用如 2.1 所述之認知歷程向度的各項技能, 以保留或轉移所學, 或 2) 自同儕的語言輸出中, 學習到生詞或用語, 而使用出非 (超出) 課堂所教授之字彙或用語。‘達成溝通交流的任務’ 是定義為: 貼文者能使其語意在互動中讓同儕明白, 不造成誤解, 而達到交流的活動目標。

2.4 以電腦輔助的筆談交流活動 (Computer-Mediated Communication, Text-Based)

電腦輔助溝通 (簡稱 CMC) 是指透過電腦為媒介所進行之溝通模式。其形式甚為多元, 例如: 電子郵件、電子討論版、論壇等各種社會性軟體。使用者之間則以非同步 (asynchronous, 例如: 討論區、論壇等) 或是同步 (synchronous, 像是聊天室、Skype 等) 的形式來交換與傳遞訊息, 以達成溝通的目的。‘電腦輔助的筆談交流活動’ 在以下的文獻探討中所指的是在電腦輔助溝通的架構之下, 讓語言學習者以非同步或同步的方式, 在網路上進行筆談, 或借由電子郵件往返, 做為學習及運用標的語的工具。

網路化的情境讓語言學習者在學習的過程中, 能夠擁有多種管道及互動機會, 和其他學習者進行溝通, 藉以發展他們的語言能力 (劉繼仁, 2007)。研究顯示, 在網路上以文字書寫的方式進行交流, 具有促進標的語言習得的功能。它能提供學習者一個進行, 如 Long 的互動假說所主張的, 用標的語互動的場合 (Blake, 2000), 也能達到溝通式教學理論所主張的, ‘以運用標的語為工具來學習標的語’ 的目標。相較於課堂面對面的口語交流活動, CMC 輔助的筆談交流活動更能讓學生有均等參與交流和增加參與交流的機會 (Blake 2000; Chun, 1994; Warschauer, 1996)。而以電子郵件往返的方式進行的非同步交流活動, 對提升標的語輸出的品質有正面的效果 (Liaw, 1998; Gonzalez-Bueno & Perez, 2000)。

此外, 研究顯示, 將此類以電腦輔助的語言學習活動運用在課堂上, 不只對學習者的‘語言 (linguistic)’ 層面有益, 也對學習者的‘學習心理 (psychological)’ 層面有益 (Chun, 1994; Gonzalez-Bueno, 1998; Gonzalez-Bueno & Perez, 2000; Kroonenberg, 1995; Van Handle & Corl, 1998)。研究學者宣稱, CMC 似乎有增進人與人之間做有意義的交流 (meaningful interaction) 進而促進語言習得的功能。亦即, CMC 可以用來促進學習者之間在課堂或課外建立新的社群關係 (social relations) 的工具, 而良好的社群關係更能讓學習者之間在網路上進行合作性 (collaborative) 且有意義的互動 (Salaberry, 1996; Warschauer, 1997; Warschauer, Turbee, & Roberts, 1996; Zhao, 1996)。Lam (2000) 在其個案研究 (case study) 中也指出, 借由參與網路社群, 跟一群有類似喜好的社群成員互動, 會讓外語學習者對這個社群產生一種‘歸屬感’, 而這樣的社會文化層面的因素 (socio-cultural factor) 對外語習得是很重要的。

學習心理層面除了歸屬感之外, 還包括了其它的情感層面 (affective state) 如‘樂於’或‘享受’ (enjoyment) 從事某學習活動。這些正向的情感因素 (positive affective state), 能提供學生額外的誘因來參與學習 (Liu, Moore, Graham & Lee, 2002)。Ellis (2002) 也指出, 大多數的研究指出, 學習者的‘情感因素’和其語言習得成效是有相關性的。雖然正向的情感因素不見得就能讓學習者不費吹灰之力就習得 (語言), 但至少能提升其學習熱誠 (enthusiasm) 而讓其欣然地 (willingly) 參與學習活動 (Donaldson & Morgan, 1994)。

此外，維高斯基的社會文化論（Vygotsky's Sociocultural Theory）中的學習理論主張，‘語言知識是建構於群眾參與的實際活動中’。它可以是 1. ‘同儕學習’（自同儕的語言輸出中學習而精進了自己的語言知識），也可以是 2. 在群眾參與的活動中因運用或練習而更精進了自己的語言技能（例如，記憶，評估，創造等技能）。

基於此，本研究亦欲探究，筆者設計的筆談活動是否讓學生‘在同儕參與的活動中建構華語知識’？在學習心理（情感）層面上，是否讓學生覺得有趣？他們是否喜歡（enjoy）以這樣的方式學習華語？此活動是否讓他們有參與的興趣（interest）及意願（willingness）？是否激發學習動機（motivation）？此同儕參與的氛圍是否促進建立社群關係，讓他們與同學產生歸屬感，形成一個學習共同體（learning community），而樂於在活動中進行交流？

由於網路科技的發達及華語文教學的蓬勃發展，探討以科技為輔的華語文教學研究也與日俱增。然而，以第二語/外語習得理論做為立論依據，同時採用質化和量化資料檢視的混合型研究方法（mixed-methods research）來探討 CMC 與華語習得的研究並不多見。Liu, Moore, Graham & Lee（2002）在檢視了 246 篇有關 CMC 與第二語言習得的文獻後指出，大多數的文章探討的是在課堂上運用電腦輔助教學軟體對語言習得的助益，至於對了解‘在什麼樣的[CMC]環境（settings）之下，運用什麼樣的學習活動（tasks or activities），對語言習得有所助益，這一方面的研究就極為欠缺’（p.26）。在未來 CMC 研究方向上的建言，他們也提出了 CMC 的語言習得研究必需要建立在語言習得理論的架構之上（“Research needs to have a solid foundation in theories.” p.26），以及我們需要更多質量混合型的研究來了解 CMC 是否對與語言習得有助益。Wen（2019）在檢視了華語習得研究文獻後直言，雖然過去 20 年來華語學習在西方世界逐漸受到青睞，然而探討華語為第二語習得的實證研究（Empiric Research）卻仍極為缺乏。她在‘華語為第二語習得研究’一文中也力陳以第二語習得理論為立論依據來探討華語習得議題的重要性（p. 8）。借此，華語習得的研究成果不僅能檢視或證既有的第二語習得理論，也能對第二語習得理論提供非以英語習得為主的額外貢獻（p. 9）。她更呼籲做從事實證研究的華語習得研究者，應以混合型研究方法來探討議題，因其在資料的分析及解讀上更為嚴謹（p. 10）。Lyu & Qi（2020）也在檢視了 2008 到 2018 十年間，有關‘以科技輔助的華語外語習得與教學’（technology-assisted teaching and learning of Chinese as a second or foreign language）的 33 篇在同儕評閱期刊（peer-reviewed journal）刊登出的實證研究後發現，多數的研究都集中在討論‘訓練教師將科技運用於教學’（teacher training in technology use）這個議題；至於‘語言技能的習得’（language skills in general）則較少被列入研究主題（p. 151-152）。他們也提及了教師幫學生把課外活動與課堂學習做連結的重要性，然而現今仍極少有探討此重要議題的實證研究（“However, few empirical studies in the field of L2 Chinese teaching and learning have been conducted on teachers’ efforts to bridge students in-and out-of-class learning.” p.159）

本研究即是以第二語/外語習得理論為立論基礎，用混合型研究方法，探討筆者所設計以電腦輔助而進行的線上群組筆談活動的兩種形式（方法一和方法二），

在上述文獻探討中提及的各個語言習得理論面向上，是否對學習華語有所助益，有所差異？也就是說，這兩種形式的活動是否能幫助學生在課外的真實語言交流情境中，復習或運用課堂所學，在論壇中，以回應彼此貼文的形式互動，而達成表達自我的溝通任務？在沒有老師立即給予協助的情況下，他們是否能成功地表達自我，不造成對方誤解語意？當他們發現自己的語言知識不足以表達自我，或碰到同儕使用課堂未教過的生詞時，是否會使用字典/課本等工具書，或從同儕的語言輸出，自我學習生詞或用語？此活動是否讓學生，因運用或練習使用既有華語知識而更精進華語技能，或因使用字典等工具書或自同儕學習習得新技能，而在活動過程中共同建構華語知識？此活動是否讓學生樂於參與？整體而言，此活動是否對華語學習有助益，能將學習延伸到課外？

3. 研究方法

3.1 參與之學生

參與此 Moolde 筆談活動的為筆者連續兩屆（年）的中級班共 95 位美國大學生。這些學生大多是已經上完第一年的三個學季的課程，此中級班是他們第二年的課程；少數學生是經由學校舉行的能力分班測驗（placement test）被分到此中級班。每一年的中級班都分成甲班和乙班兩個班，連續兩年則共有四個班。此四班皆由筆者擔任授課老師，使用的課本皆為“中文天地”中級中文的上冊。所有的教材，課堂活動，及課後作業皆相同。這些學生來自各年級各科系，中文課對他們來說都是自由選修課（free elective course），但所得的成績會列入他們學期成績平均績點的計算（GPA）。學生們依照自己的課表時間，自由選擇選修甲班或是乙班。此 95 位學生的年紀在 18 到 23 歲之間，其它基本背景資料如下：

| | | | | |
|-----|-----|------|------|----------------|
| 學院別 | 商學院 | 理工學院 | 人文學院 | 農業，食品， 環境科學 |
| 人數 | 28 | 23 | 37 | 7 |

| | | |
|------|----------------------|---------------------------|
| 華裔與否 | 華裔（heritage learner） | 非華裔（non-heritage learner） |
| 人數 | 18 | 77 |

| | | |
|----|----|----|
| 性別 | 男 | 女 |
| 人數 | 41 | 54 |

爲了達到本研究的目的，在每一年的兩個中級班中，筆者讓其中一班以方法一，另一班以方法二，進行此活動。此活動是學生課後作業的一部分。

3.2 活動目的, 內容, 及實施步驟

活動設計之目的。此活動的主要目的為提供學生使用華語交流的文字平台, 讓學生將課堂所學運用在一個真實的語言情境, 表達自我, 與同儕互動, 以將課堂教學與課外活動結合, 把華語學習活動延伸至課外。學生們必須在 Moodle 群組論壇中, 與同儕用筆談的方式互動, 針對某個主題, 以華語進行訊息及意見的交流。筆者希望此活動能促使學生運用‘認知歷程向度’中的技能, 促進保留和轉移所習得的華語文知識, 提高對華語文的精熟度。亦即, 希望學生能: 1. 在同儕所貼的文句中練習認字, 增加學生在全語境中 (in context) 認字的能力。2. 將所學的字彙, 用語, 和語法運用在貼文中, 在真實語言情境中互動交流。3. 透過自我學習 (例如, 查閱工具書, 學習自同儕貼文使用的新字彙或用語) 使用華語傳達訊息。4. 運用既有的華語知識, 理解分析他人貼文的語句及語意, 並且嘗試針對當時的溝通情境, 創造自己的句子來回應他人貼文。5. 評估同儕貼文文句的正確性, 並借由同儕對自己貼文的回應來評估自己文句的正確性, 以及對當時的溝通情境是否恰當, 是否達成溝通的目標。

活動輔助工具。用以實施此活動的為筆者任教的大學所提供的 Moodle 課程平台。學校的系統自動將所有的學生都納入其選修課程的 Moodle 網站, 學生只需登入, 點選筆者所建立的每週論壇 (weekly posting forum), 即可以貼文的方式進行非同步筆談。在一個為期 10 週的學季裏, 筆者只建立可供第二至第七週使用的 6 個論壇。

活動設計與規則。為瞭解以何種形式較能達到活動的目的, 筆者設計了兩種不同形式 (方法一, 方法二) 的活動, 讓甲班學生以方法一進行貼文, 乙班學生以方法二進行貼文, 以做比較。在第二到第七週中, 筆者不定期 (但不頻繁) 地參與筆談活動, 回應某些學生的貼文。在回應學生的貼文時, 為增加語言情境的真實性, 筆者有時會選擇性地用一些超出課堂所教的字彙或用語, 有時還會附上拼音及英文翻譯, 增加學生在真實語言情境中接受可理解輸入 (comprehensible input) 的機會。筆者還在論壇上設定了可讓學生事後修改 (edit) 其貼文的功能, 允許他們回頭修改已送出的貼文, 避免發生一旦送出貼文即無法挽回的狀況, 降低學生們擔心送出語意錯誤貼文的壓力, 並給予學生們在發現錯誤後進行自我修正的機會。

為了確保學生能看懂並遵循此項作業規則, 筆者以英文將活動規則詳列發給學生。簡要地的來說, 方法一的活動規則為, 每個學生:

1. 每週至少在當週的論壇中貼兩則貼文。一則是當版主的自己對某個主題的闡述 (不得少於兩個句子), 另一則為對某同儕版主貼文的回應。
2. 若同儕版主的貼文主題為問句, 在回應提供答案時, 請盡量闡述給予此答案的理由。
3. 可超越課堂所學, 用自學所得的新字彙或用語, 但請附上新字彙的拼音及英文翻譯。
4. 在將文句貼出前, 請確認自己沒有打錯字。

5. 當無法了解同儕的貼文時，可以貼文要求同儕進一步澄清語意。
6. 不可用 Google Translate 將英文句子直接翻譯成中文來完成此作業。
7. 除了運用課堂所學，也可盡量地運用新字彙及用語，或創造新句子。不要畏懼測試自己使用華語文的能力。

至於筆談的主題，中級班的學生因為可利用的字彙及句型較多，且更有能力運用課外資源自我學習來增加自己的華語表達能力，基本上筆者將主題交由學生們自由選擇，並沒有嚴格限制，但提醒學生若想不出主題時，可以選擇當週或前一週所學相關主題來發揮（例如，如果當週課堂中所學的主題為‘開銀行帳戶’，那麼學生們可以選擇表達自己在銀行開戶的相關經驗或看法等等），也可以把補充教材中所學的話題（例如，‘你心裏不爽的時候會做什麼？’）拿來當主題，表達自我，並詢問其他同學們的看法。他們也可以選一些私下正在討論的話題當做主題，例如‘這個學季的課程結束後要在哪兒聚餐’。

方法二的活動規則為：

1. 筆談的主題完全由學生們自由選擇。每週有四個學生在當週的論壇中首先貼四則貼文（一人一則），並附上與其貼文主題相關的圖片或照片，做為輔助闡述。這主題必須跟貼文者本身有關，可以是跟他的生活或想法有關的任何人，事，物。全班同學輪流，每一週有四個版主，其餘的同學則得選至少兩個版主的貼文（兩個主題）來回應。
2. 這四位首批貼文者（四個版主），在此週內得盡可能地回應所有來自同儕的後續貼文。亦即，一旦有人回應了某版主的貼文，此版主得盡可能地回應。而這些選擇回應同一版主貼文的同學之間，也可以在此主題中彼此相互回應對方的貼文，進行交流，盡可能地回應所有對他們的貼文的回應。
3. 除非貼文者只是回答簡單的是非型問句（yes/no question），否則每一則貼文不得少於兩個句子。
4. 可超越課堂所學，運用自學所得的新字彙或用語，但除非有同儕要求，否則可以不用附上新字彙的拼音及英文翻譯。
5. 在將文句貼出前，請確認自己沒有打錯字。
6. 當無法了解同儕的貼文時，可以要求同儕進一步澄清語意。
7. 不可用 Google Translate 將英文句子直接翻譯成中文來完成此作業。
8. 除了運用課堂所學，可以盡量地運用新字詞及用語，或創造新句子。不要畏懼測試自己使用華語文的能力。

基本上，這兩個形式最主要的不同點在於，在方法二中：1. 雖然每一位同學都得參與，但每一週僅有四個學生輪到當版主，而且版主得盡力回應所有同儕在其版內的貼文。2. 所有參與貼文者，包括版主在內，若有用到課堂尚未教到的新字彙，除非有同儕要求，否則可以不用在貼文中提供新字彙的拼音及英文翻譯。3. 每個版主的主題必須得跟版主本身有關，可以是跟他的生活或想法有關的任何人事物，而且版主必須貼上與主題相關的图片或圖片。

之所以讓學生在活動中自由地選擇主題，是想讓他們以自己真實面臨的情境來思考，進而以文字表達，也是為了將學習的主導權教給學生，並且提高學生參與的興趣。誠如蔡雅雯（2012）所言，把學習的主導權交給學生，不僅可以更貼切學生的需求，更同時可以提高學生主動參與的興趣，藉以提高學習動機及增加學習成效。陳懷萱，林錫金（2010）也提及，運用網路討論區的筆談及寫作活動，讓語言的學習變成一種主動的選擇而不是被動地接受教師的安排。以下（表一）為部分以方法一和以方法二進行的筆談主題實例。

表一 部分筆談主題實例 Topics

| 方法一主題 | 方法二主題 |
|---|--|
| 1.大家最喜歡去哪兒？2.你想找跟什麼有關的工作？3.信用卡4.買機票和辦簽證5.你心裏不爽的時候會做什麼？6.這個學季的課程結束後的聚會7.兩種銀行的帳戶8.上館子 | 1.露營2.新的經驗3.你什麼時候畢業？4.我的別的課5.我的哈士奇犬6.誰要做運動？7.五月五日8.我喜歡音樂 |

3.3 資料收集

本研究為混合型的研究（mixed-methods research）。為了更能對提出的研究問題得到合理的解答，探索數字背後的真相，避免對量性資料做出片面的結論，主要的資料收集方式是以同時包含了質性與量性問題的問卷施測，以瞭解學生們參與活動的經驗和對此活動的看法。此外，也截取部分學生們在此活動中的語料輸出，做為輔助資料。

問卷。為了從欲探討的各個面向瞭解學生對此活動的看法，筆者設計了一份“筆談反饋問卷”，在活動結束後，也就是學期的第八週，分別在甲、乙兩班施測。這兩份問卷的題目完全相同，包含了20個李克特意見量表式（Likert Scale）問題和兩個開放式問題（open-ended question）。此量表將學生的判斷分為五個選項：1.非常不同意（strongly disagree）2.不同意（disagree）3.同意（agree）4.很同意（very much agree）5.極度同意（strongly agree）。為了強迫學生一定要在兩種不同的傾向中選擇，筆者用‘同意’取代通常用來表示‘無意見’的第3選項。

針對欲探討的六大問題，此量表的問題分為六大面向，問學生是否1.將課堂所學的語言知識運用到不同的語言情境（運用認知歷程向度中的各項技能，以促進保留和轉移華語知識）2.使用華語互動3.明白貼文者語意，即使有人使用新字彙或用語也不造成語意上的誤解（溝通式學習）4.用工具書或從同儕貼文中學習（自我學習）5.留意到他人使用的新字彙或用語，或覺得此活動有助增進自己的華語溝通能力（從群眾參與的活動中建構華語知識）6.在心理層面上，喜歡此活動，覺得有趣，讓他們有興趣參與，增加學習動機（參與意願，情感因素）。此外，還問了學生是否覺得此活動將學習延伸至課外，對學習華語有助益。

開放式問題則提供了學生對此活動以文字敘述反饋的機會。此兩個問題為：1. 此活動是否/如何激發你的參與興趣？是否/如何激發你學習中文的興趣？2. 對你而言，此活動是否對學習華語有助益？為什麼？學生對此兩個問題的反饋為質性資料來源的一部分。

語料輸出。學生在論壇上的筆談貼文為本研究的‘語料輸出’。由截取部分貼文做語料分析，做為輔助性資料，觀察此活動中是否出現‘促進學生保留和轉移所習得的華語知識’和‘在群眾參與的活動中幫助學生建構或自學華語知識’的實據。以下為資料收集方式摘要：

| 資料收集方式 | 內容 | 目的 |
|----------------------|--|--|
| 1. 問卷 | 1. 20 題李克特意見量表式問題 2. 兩題開放式問題 (質性資料) | 1. 從學生的角度看此活動 2. 以學生的文字敘述反饋來進一步瞭解意見量表數字背後的意義 |
| 2. 語料輸出 (筆談活動中學生的貼文) | 從方法一和方法二的學生筆談貼文中各選一則(質性質料) | 輔助資料，用以觀察是否有本研究欲探討面向的實據。例如，保留和轉移所學華語知識；又如，從群眾參與的活動中建構華語知識。 |

4. 資料分析

4.1 量性資料分析

量性資料為學生對問卷量表的反饋。筆者將所有學生對每題給予的答案（由 1 到 5 的分數），用統計軟體以累加再平均的方式計算，獲得所有受訪學生對該題的態度分數平均值。每一問題所得到的平均值分數越接近 5 分（極度同意）即表示學生們對該陳述的同意程度越高。反之，所得到的分數越接近 1 分（非常不同意）即表示對該陳述的同意程度越低。由於是 1 到 5 的態度量表，在詮釋學生們的意見時，態度分數平均值低於 3 的則視為學生們對此陳述是不太同意的，是負向的，分數平均值大於或等於（ \geq ）3 的，則視為是同意的，是正向的，分數平均值大於或等於（ \geq ）4 的，則視為是非常同意的。

獨立樣本 T 檢定（Independent Sample T-Test）可用來比較兩組分數的平均數是否有顯著差異，也就是不同的兩群人在同一件事情上的看法是否達到統計上的顯著差異。為了瞭解學生對筆談活動在本研究探討面向上的看法，以及比較參與方法一和參與方法二的兩組學生對此活動的看法是否有差異，筆者將問卷取得的量性資料用獨立樣本 T 檢定比較兩組學生對相同問題的反饋平均值在統計上有無顯著性的差異。依本研究探討之問題，此意見量表問的問題分為 6 大面向，以下（表二至表十五）為針對各面向的分析探討。

1. 從此課外活動的主要目的, 亦即‘促進使用認知歷程向度之各項技能以保留和轉移華語知識, 幫助習得華語’的面向來看, 相關問卷題目所得的各態度平均值(見表二)都 ≥ 3.67 , 也就是兩組學生對這個活動是否幫助他們‘記得和應用華語知識’, ‘分析評估新的語境’, 和‘創造新的句子’是持正向肯定態度的。尤其是在題號7‘此活動提供應用課堂所學之機會’, 題號12‘我能將課堂所學應用在這個貼文活動中’, 和題號14‘當有需要時, 我嘗試運用既有之中文知識在新語境中創造句子, 以完成筆談任務’這幾個點上, 兩組學生都是非常同意的(平均值接近或 ≥ 4.0)。此外, 兩組在這個面向上的態度平均值, 差異最大的只有4%。而T檢定的結果顯示(見表三), 各組平均值皆沒有顯著性的差距。亦即在統計上, 兩組學生在這個面向上的看法並無差異。

表二 方法一和方法二群組統計資料 (group statistics): 認知歷程向度之保留轉移

| 群組統計資料 (group statistics): 認知歷程向度之保留轉移 | | | | |
|---|----|----|------|-------|
| 問卷題目 | 方法 | 人數 | 平均值 | 差異(%) |
| 7. The activity provides an opportunity for me to make good use of what I've learned in class. 提供應用課堂所學之機會 | 1 | 48 | 4.00 | -2% |
| | 2 | 47 | 3.91 | |
| 11. The posting task helps me to better remember the vocab/expressions/sentence structures I've learned in class. 幫助記憶課堂所學 | 1 | 48 | 3.67 | 1% |
| | 2 | 47 | 3.70 | |
| 12. I was able to apply what I've learned in class in this posting task. 能將課堂所學應用在這個貼文活動中 | 1 | 48 | 4.25 | -4% |
| | 2 | 47 | 4.09 | |
| 13. When I don't completely understand the other participants' postings, I use my Chinese language knowledge to try to understand the statement through context 運用既有之中文知識, 分析評估以瞭解新語境 | 1 | 48 | 3.79 | 0% |
| | 2 | 47 | 3.79 | |
| 14. When it was necessary, I tried to use my Chinese language knowledge to create my own sentences to complete the task. 嘗試運用既有之中文知識, 在新語境中創造句子以完成筆談任務 | 1 | 48 | 4.25 | -1% |
| | 2 | 47 | 4.19 | |

註: “差異”為方法二該項平均值相較於方法一該項平均值之差異的百分比

2. 對於學生是否認為在活動中與同儕互動了? 兩組學生也都是持正面肯定態度的, 兩組平均值皆 ≥ 3.42 (見表四)。但方法二的平均值(4.04)與方法一的平均值(3.42)有著18%的差距。T檢定的結果顯示(表五), $t(93)=-4.8, p=0.000$, 表示這兩個平均值在統計上有顯著性的差距, 亦即方法二的學生比方法一的學生更認同他們在活動中與同儕互動了。

3. 在以華語達成交流任務(溝通式學習)方面, 學生們是否在大部分的時候都能運用既有的語言知識明白同儕的語意? 即便有同學使用課堂未教過的字彙用語, 是否也能明白總體語意, 不產生誤解? 亦即學生們是否能成功地讓同儕明白其語意, 不造成他人誤解, 達成溝通任務? 兩組的反饋顯示, 答案是肯定的(表六, 兩組平均值分別為4.08和3.91)。T檢定顯示(表七)兩組平均值沒有顯著性差距, 亦即兩組學生在這個面向上的看法並無差異。

表三 方法一方法二獨立樣本檢定 Independent Sample Test (認知歷程向度之保留轉移)

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Item 7 | Equal variances assumed | .152 | .698 | .437 | 93 | .663 | .085 | .195 | -.301 | .472 |
| | Equal variances not assumed | | | .437 | 92.470 | .663 | .085 | .195 | -.302 | .472 |
| Item 11 | Equal variances assumed | 1.441 | .233 | -.198 | 93 | .843 | -.035 | .179 | -.390 | .319 |
| | Equal variances not assumed | | | -.199 | 92.607 | .843 | -.035 | .178 | -.390 | .319 |
| Item 12 | Equal variances assumed | .936 | .336 | 1.160 | 93 | .249 | .165 | .142 | -.117 | .447 |
| | Equal variances not assumed | | | 1.157 | 86.706 | .251 | .165 | .143 | -.119 | .448 |
| Item 13 | Equal variances assumed | .686 | .410 | .024 | 93 | .981 | .004 | .183 | -.359 | .367 |
| | Equal variances not assumed | | | .024 | 92.768 | .981 | .004 | .183 | -.358 | .367 |
| Item 14 | Equal variances assumed | .004 | .952 | .367 | 93 | .715 | .059 | .160 | -.258 | .376 |
| | Equal variances not assumed | | | .367 | 93.000 | .715 | .059 | .160 | -.258 | .375 |

表四 方法一和方法二群組統計資料 (group statistics): 互動

| 群組統計資料 (group statistics): 互動 | | | | |
|---|----|----|------|-------|
| 問卷題目 | 方法 | 人數 | 平均值 | 差異(%) |
| 2. I interacted with the other participants in this activity. | 1 | 48 | 3.42 | 18% |
| 在此活動中我與其他參與同學互動了 | 2 | 47 | 4.04 | |

註: “差異” 為方法二該項平均值相較於方法一該項平均值之差異的百分比

表五 方法一方法二獨立樣本檢定 Independent Sample Test (互動)

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Item 2. | Equal variances assumed | 2.066 | .154 | -4.798 | 93 | .000 | -.626 | .130 | -.885 | -.367 |
| | Equal variances not assumed | | | -4.794 | 92.224 | .000 | -.626 | .131 | -.885 | -.367 |

表六 方法一和方法二群組統計資料 (group statistics): 溝通式學習

| 群組統計資料 (group statistics): 溝通式學習 (語意在互動中能讓同儕明白, 不造成誤解) | | | | |
|---|----|----|------|-------|
| 問卷題目 | 方法 | 人數 | 平均值 | 差異(%) |
| 8. Most of time, I can understand the other participants' postings even when they use vocab/expressions I have not learned before. 我大部分的時 候都能明白同儕的語意, 即便是有人使用我未學過的字彙或用語。 | 1 | 48 | 4.08 | -4% |
| | 2 | 47 | 3.91 | |

註: “差異”為方法二該項平均值相較於方法一該項平均值之差異的百分比

表七 方法一方法二獨立樣本檢定 Independent Sample Test (溝通式學習)

| Item | Levene's Test for Equality of Variances | t-test for Equality of Means | | | | | | | | |
|------|---|------------------------------|------|-------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| 8 | Equal variances assumed | .876 | .352 | 1.296 | 93 | .198 | .168 | .130 | -.090 | .427 |
| | Equal variances not assumed | | | 1.293 | 89.694 | .199 | .168 | .130 | -.090 | .427 |

4. 此活動是否促進學生‘自我學習’, 讓他們從查工具書 (字典, 課堂筆記, 課本) 或從同儕的貼文中自我學習生詞及用語? 問卷所得的平均值皆 ≥ 3.54 (表八), 也就是兩組學生對這點都持正向態度。題號 5 ‘必要時會查字典或其他工具書以完成筆談任務’的反饋平均值分別為 4.26 和 4.34, 也就是兩組學生都非常同意必要時會運用查工具書來輔助他們完成筆談任務。值得注意的是, 雖然兩組學生們都同意這個活動讓他們‘從自我研習或同儕的貼文中學到課堂上未教過的生詞或用語’ (題號 16), 但方法二的平均值 4.06 比方法一的 3.54 高了 15%。T 檢定的結果 (表九) 顯示, $t(87) = -2.84$, $p=0.005$, 這兩個平均值有顯著性的差距。亦即方法二的學生更同意此活動促進他們從自我研習或同儕學習中習得新的語言知識。

表八 方法一方法二群組統計資料 (group statistics): 自我學習

| 群組統計資料 (group statistics): 自我學習 (查字典等工具書, 同儕學習) | | | | |
|---|----|----|------|-------|
| 問卷題目 | 方法 | 人數 | 平均值 | 差異(%) |
| 5. When necessary, I looked into the online dictionary (or other resources, i.e. classnote, textbook...) for appropriate vocab/expressions to help me accomplish the task. 必要時會查字典或其他工具書找生詞或用語以完成筆談任務 | 1 | 48 | 4.26 | 2% |
| | 2 | 47 | 4.34 | |
| 16. Through this activity, I've learned some new vocab/expressions that were not taught in class--through my own study or the other participants. 從自我研習或同儕貼文學到課堂上沒有教過的生詞或用語 | 1 | 48 | 3.54 | 15% |
| | 2 | 47 | 4.06 | |

註: “差異”為方法二該項平均值相較於方法一該項平均值之差異的百分比

表九 方法一方法二獨立樣本檢定 Independent Sample Test (自我學習: 查工具書, 同儕學習)

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|------------|--------------------------------|---|------|------------------------------|--------|------------------------|-------------------------|----------------------------------|--|-------|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Differ- ence | Std. Error Differ- ence | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Item 5 | Equal variances assumed | 1.319 | .254 | .780 | 93 | .437 | .118 | .151 | -.182 | .418 |
| | Equal variances not assumed | | | .778 | 87.865 | .439 | .118 | .152 | -.183 | .419 |
| Item 16 | Equal variances assumed | 12.077 | .001 | -2.839 | 93 | .006 | -.522 | .184 | -.887 | -.157 |
| | Equal variances not assumed | | | -2.847 | 87.445 | .005 | -.522 | .183 | -.887 | -.158 |

5. 此活動是否幫助學生在‘群眾參與的活動中建構華語知識’? 學生們是否自同儕的語言輸出中學習而精進了語言知識(同儕學習), 或因練習運用既有的語言知識而更精進了語言技能? 兩組學生們的反饋顯示, 答案是肯定的。在‘他人的貼文讓我有機會留意到生詞或用語’(題號 9), ‘在此活動與其他同學互動對我的華語溝通能力有幫助’(題號 10), 和‘其他同學有時可以是我學習華語的資源’(題號 15), 兩組平均值都 ≥ 3.54 (表十)。然而在‘他人的貼文讓我有機會留意到生詞或用語’(題號 9), 方法二學生的同意度平均值(3.96)卻與方法一的(3.54)有12%的差異。T 檢定顯示(表十一)這兩個平均值有顯著性的差距, $t(92) = -2.62$, $p = 0.010$, 亦即方法二的學生更同意能從其同儕的貼文中留意到新的生詞和用語。

表十 方法一和方法二群組統計資料 (group statistics): 群眾建構華語知識

| 群組統計資料 (group statistics): 群眾建構華語知識 (同儕學習, 群眾參與的活動中精進語言技能) | | | | |
|--|----|----|------|-------|
| 問卷題目 | 方法 | 人數 | 平均值 | 差異(%) |
| 9. The other participants' postings help bring new Chinese vocab/expressions (when there are any) to my attention. 他人的貼文讓我有機會留意到生詞或用語 | 1 | 48 | 3.54 | 12% |
| | 2 | 47 | 3.96 | |
| 10. Interacting with other participants in this activity helps with my Chinese communication ability. 在此活動與其他同學互動對我的華語溝通能力有幫助 | 1 | 48 | 3.67 | 5% |
| | 2 | 47 | 3.87 | |
| 15. In this activity, other participants sometimes can be a language learning resource for me. 其他同學有時可以是我學習華語的資源 | 1 | 48 | 3.54 | 3% |
| | 2 | 47 | 3.66 | |

註: “差異”為方法二該項平均值相較於方法一該項平均值之差異的百分比

表十一 方法一方法二獨立樣本檢定 Independent Sample Test (群眾建構華語知識)

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-------------|--------------------------------|---|------|------------------------------|--------|----------------------------|------------------------|---------------------------------|--|-------|
| | | F | Sig. | t | df | Sig. (2- taile d) | Mean Differe nce | Std. Error Differen ce | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Item 9. | Equal variances assumed | 4.690 | .033 | -2.615 | 93 | .010 | -.416 | .159 | -.732 | -.100 |
| | Equal variances not assumed | | | -2.619 | 91.855 | .010 | -.416 | .159 | -.731 | -.100 |
| Item 10. | Equal variances assumed | .621 | .433 | -1.711 | 93 | .090 | -.206 | .120 | -.444 | .033 |
| | Equal variances not assumed | | | -1.710 | 91.841 | .091 | -.206 | .120 | -.445 | .033 |
| Item 15. | Equal variances assumed | .122 | .728 | -.701 | 93 | .485 | -.118 | .168 | -.452 | .216 |
| | Equal variances not assumed | | | -.701 | 92.990 | .485 | -.118 | .168 | -.452 | .216 |

6. 從心理層面的面向來看, 此活動是否讓學生有參與的興趣 (interest) 及意願 (willingness)? 亦即此活動是否讓學生覺得喜歡, 是否激發其學習動機, 或讓他們與同儕產生情感上的歸屬感? 表十二的學生反饋顯示, 兩組學生的各題反饋平均值都是 ≥ 3.46 。亦即在心理層面上, 兩組學生對此筆談活動都是持正向態度的。

值得注意的是, 方法二在此面向各題的平均值都比方法一的高, 都接近或超過 4.0, 也就是方法二的學生在心理層面上對此活動是非常肯定的。尤其是在題號 1‘我覺得這個活動很有意思’ (3.98), 題號 3‘這個活動能激發我的學習動機’ (4.13), 題號 17‘我喜歡以這種和同學互動的方式學習中文’ (4.13), 題號 18‘此活動能讓我選擇自己有興趣或與自己有關的題目參與筆談’ (4.34), 和題號 19‘此活動促使與同學間產生一種學習共同體的歸屬感’ (4.19) 這五題上, 相較於方法一, 方法二的肯定度平均值分別高了 14%, 11%, 13%, 25%, 和 18%。而 T 檢定的結果 (表十三) 也顯示, 在這五題, 兩組的平均值有顯著性的差距 ($t(93) = -3.80$, $p=0.000$; $t(88) = -3.08$, $p=0.003$; $t(93) = -2.20$, $p=0.030$; $t(86) = -4.89$, $p=0.000$; $t(88) = -3.85$, $p=0.000$), 亦即方法二的學生更同意此活動讓他們有興趣參與, 激發學習動機, 且讓他們與其他參與同學產生一種學習共同體的感覺。但是, 在‘參與意願’上 (題號 4), 兩組學生對此活動的參與意願都很高 (平均值分別為 4.08 及 4.17), 且 T 檢定顯示, 兩組在參與意願上無顯著差距。

表十二 方法一方法二群組統計資料 (group statistics): 心理層面

| 群組統計資料 (group statistics): 心理層面 (參與興趣, 參與意願, 學習興趣, 歸屬感) | | | |
|--|----|----|-----------|
| 問卷題目 | 方法 | 人數 | 平均值 差異(%) |
| 1. This activity interests me. 我覺得這個活動很有意思 | 1 | 48 | 3.50 |
| | 2 | 47 | 3.98 |
| 3. This activity motivates me to learn Chinese. 這個活動能激發我的學習動機 | 1 | 48 | 3.71 |
| | 2 | 47 | 4.13 |
| 4. I was willing to try to accomplish the task. 我願意嘗試完成此活動 | 1 | 48 | 4.08 |
| | 2 | 47 | 4.17 |
| 17. I like the idea of interacting with other participants in an activity like this as a way to learn Chinese. 我喜歡以這種和同學互動的方式學習中文 | 1 | 48 | 3.50 |
| | 2 | 47 | 3.94 |
| 18. This activity allows me to choose the topic that interests me (or that I can relate to) in my postings. 此活動能讓我選擇自己有興趣或與自己有關的題目參與筆談 | 1 | 48 | 3.46 |
| | 2 | 47 | 4.34 |
| 19. This activity helps foster a sense of belonging--to a learning group. My peers are my learning pals. 此活動促使與同學間產生一種學習共同體的歸屬感 | 1 | 48 | 3.54 |
| | 2 | 47 | 4.19 |

註: “差異”為方法二該項平均值相較於方法一該項平均值之差異的百分比

表十三 方法一方法二獨立樣本檢定 Independent Sample Test (心理層面)

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|------------|--------------------------------|---|------|------------------------------|--------|----------------------------|-------------------------|----------------------------------|---|--------|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Differ- ence | Std. Error Differ- ence | 95% Confidence Interval of the Difference Low- er Up- per | |
| Item 1 | Equal variances assumed | 2.716 | .103 | -3.804 | 93 | .000 | -.479 | .126 | -.729 | -.229 |
| | Equal variances not assumed | | | -3.800 | 91.744 | .000 | -.479 | .126 | -.729 | -.229 |
| Item 3 | Equal variances assumed | 9.807 | .002 | -3.072 | 93 | .003 | -.419 | .137 | -.690 | -.148- |
| | Equal variances not assumed | | | -3.080 | 88.370 | .003 | -.419 | .136 | -.690 | -.149 |
| Item 4 | Equal variances assumed | 2.981 | .088 | -.467 | 93 | .641 | -.087 | .186 | -.456 | .282 |
| | Equal variances not assumed | | | -.468 | 91.830 | .641 | -.087 | .186 | -.456 | .282 |
| Item 17 | Equal variances assumed | .305 | .582 | -2.200 | 93 | .030 | -.436 | .198 | -.830 | -.042 |
| | Equal variances not assumed | | | -2.196 | 89.356 | .031 | -.436 | .199 | -.831 | -.041 |
| Item 18 | Equal variances assumed | 5.074 | .027 | -4.870 | 93 | .000 | -.882 | .181 | - | .522 |
| | Equal variances not assumed | | | -4.886 | 85.672 | .000 | -.882 | .181 | 1.242 | -.523 |
| Item 19 | Equal variances assumed | 6.809 | .011 | -3.842 | 93 | .000 | -.650 | .169 | -.986 | -.314 |
| | Equal variances not assumed | | | -3.852 | 88.224 | .000 | -.650 | .169 | -.985 | -.315 |

7. 最後，此活動是否將學習延伸至課外，提供運用及有效學習華語的環境？學生們是否覺得此以溝通為主的筆談活動對學習華語有助益？從學生反饋的平均值來看（表十四），兩組學生皆持肯定態度（各項平均值都 ≥ 3.75 ）。但T 檢定顯示（表十五），方法二學生跟方法一學生對題號20 ‘大體而言，此活動對我學習華語有助益’的同意度平均值（分別為4.17 和3.83）有顯著性的差距（ $t(93) = -2.46$ ， $p=0.016$ ）。亦即方法二學生更同意此活動對學習華語有助益。

表十四 方法一和方法群組統計資料（group statistics）：學習延伸至課外，有效學習華語

| 群組統計資料（group statistics）：將學習延伸至課外，提供運用及有效學習華語的環境 | | | | |
|--|----|----|------|-------|
| 問卷題目 | 方法 | 人數 | 平均值 | 差異(%) |
| 6. The activity helps extend learning Chinese from the classroom to daily life. 此活動讓華語的學習從課堂延伸到我的日常生活中 | 1 | 48 | 3.75 | 8% |
| | 2 | 47 | 4.06 | |
| 20. Over all, this activity facilitates my learning of Chinese language. 大體而言，此活動對我學習華語有助益 | 1 | 48 | 3.83 | 9% |
| | 2 | 47 | 4.17 | |

註：“差異”為方法二該項平均值相較於方法一該項平均值之差異的百分比

表十五 方法一方法二獨立樣本檢定 Independent Sample Test（學習延伸至課外，有效學習華語）

| Item | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|----------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Item 6 | Equal variances assumed | .069 | .793 | -1.791 | 93 | .077 | -.314 | .175 | -.662 | .034 |
| | Equal variances not assumed | | | -1.790 | 92.681 | .077 | -.314 | .175 | -.662 | .034 |
| Item 20. | Equal variances assumed | .918 | .341 | -2.463 | 93 | .016 | -.337 | .137 | -.608 | -.065 |
| | Equal variances not assumed | | | -2.461 | 91.502 | .016 | -.337 | .137 | -.609 | -.065 |

4.2 質性資料分析

質性的資料分為兩部分：1) 對學生在問卷中的兩個開放式問題的回答做歸類，2) 從方法一和方法二的筆談貼文中各選一則做語料分析，做為輔助資料。

4.2.1 開放式問題

筆者將在同一題中搜集到的文字敘述反饋，依學生所提到的看法（topic）歸類成爲主題（theme），也計算這些主題被學生們提及的次數。當同一個學生的反饋出現兩個（或以上的）不同看法時，這些看法則各自被歸類到合適的主題之下。

當一個看法中有不止一個與本研究主題相關的意涵 (meaning) 時, 則被重複歸類到不止一個主題之下。

例如, 開放式問題 (一) 問到‘此活動是否/如何激發你的參與興趣? 是否/如何激發你學習中文的興趣?’ (Please comment on the activity in terms of how/if it **motivates** you to participate in the activity or to learn Chinese through participating in the activity.) 有個學生答道: “Because you are creating your own sentences, it enhances remembering to use proper grammar/sentence structure. You can look up many words in a dictionary, but it challenges you to put the words together in the proper structure on your own.” 其中的 “...creating your own sentences”, “to use proper grammar /sentence structure.”, “...challenges you to put the words together in the proper structure on your own.” 這些個看法 (topics) 被歸類到‘轉移’-促進習得 (transfer-learning) 這個主題 (theme) 之下; 而 “... it enhances remembering to use proper grammar/sentence structure.” 這個看法, 則同時被歸類在‘保留’所習得華語知識 (retention-previous material) 和‘轉移’這兩個主題之下, 因其同時包含了‘記住 (保留) 課堂所學’和‘在此筆談新情境中正確地運用語法 (轉移)’這兩個意涵。而 “You can look up many words in a dictionary...” 這個看法則被歸類在‘自我學習’這個主題之下。

又如, 問題 (二) 問及‘對你而言, 此活動是否/如何對學習華語有助益? 為什麼?’ (Did the activity help you learn Chinese? Why? How so?) 如本文的文獻探討中討論的, ‘在群眾參與的活動中建構華語知識’可以是學習自同儕的華語輸出 (同儕學習) 而建構了本身的華語知識, 也可以是在活動中因練習運用華語而精進了華語知識或技能。有方法二的學生們提到‘經由同學們 (的貼文) 而接觸到不同的華語生詞 (對學習) 是很有幫助的’ (“It was helpful being exposed to different Chinese characters from the others.”), 和 ‘同學們的貼文可以幫助我弄清楚句子的用法’ (“By looking at my classmates’ postings, I can help myself figure out how the sentence works.”)。這類的反饋是被歸類於‘在群眾參與的活動中建構華語知識’這個主題, 因為這些學生學習自同儕的華語輸出 (同儕學習) 而建構了本身的華語知識。而‘它讓我訓練我的閱讀能力。我可以檢視自己是否能看懂同學的貼文’ (“It helps me practice my reading comprehension ability. I can check if I am able to understand my peers.”) 和 ‘這個活動讓我得以練習使用新的句子’ (“This activity helps me to experiment with new sentences”), 這類型的反饋也是被歸類在‘在群眾參與的活動中建構華語知識’這個主題, 因為這些學生認為他們在此活動中運用了自己的華語技能, 精進他們的華語能力。

依此歸類法, 針對欲探討的研究問題, 在分析完所有對方法一和方法二的反饋後, 得到了表十六及表十七中的主題。即使有些主題並沒有同時出現在對此兩方法的反饋中, 為了方便比較此兩方法的差異, 筆者仍將之列出。此外, 並不是每個參與施測的學生對每個開放式問題都做答了, 故在以下各表中, 相同的筆談方法中不同問題的做答人數會有些差異。例如, 表十六 (問題一主題) 中, 連續兩屆共兩班參與方法一問卷施測的總人數為 48 人 (n=48), 但對問題一有做答的人數為 44 人, 亦即有 4 人未對此題做答; 參加方法二問卷施測的總人數為 47 人 (n=47), 但有

回答問題一的學生是 42 人。又如，表十七（問題二主題）中，參與方法一且有回答此題的學生是 42 人（n=48），參與方法二且有回答此題的是 41 人（n=47）。

在解讀學生們的反饋前要提醒的是，由於兩個問題都問得很廣泛，因此學生們會提及的面向可能是讓他們特別有強烈感受的。以下的表十六是對問題（一）反饋的歸類。

表十六 問題（一）：此活動是否/如何激發你的參與興趣？是否/如何激發你學習中文的興趣？
方法別/此題作答人數/參與活動人數（n）：（方法一/44/n=48；方法二/42/n=47）

| 問題（一）主題 | 方法 | 作答人數 | 提及次數 | 百分比 | 差異 (%) |
|--|----|------|------|-------|--------|
| 1. 保留（retention-previous material） 復習，幫助記憶理解當週或之前課堂所學習之語言知識 | 1 | 44 | 24 | 54.5% | -26 |
| | 2 | 42 | 12 | 28.5% | |
| 2. 轉移（transfer-learning） 運用所學創造句子，分析評估而理解他人語意，習得新知 | 1 | 44 | 28 | 63.6% | 7.8 |
| | 2 | 42 | 30 | 71.4% | |
| 3. 自我學習 | 1 | 44 | 6 | 13.6% | 3.1 |
| | 2 | 42 | 7 | 16.7% | |
| 4. 有趣（interesting/fun/engaging/enjoyable/picture） | 1 | 44 | 14 | 31.8% | 25.3 |
| | 2 | 42 | 24 | 57.1% | |
| 5. 同儕互動（interaction） | 1 | 44 | 4 | 9% | 21.9 |
| | 2 | 42 | 13 | 30.9% | |
| 6. 跟同學在情感上的聯繫（connect with peers） | 1 | 44 | 2 | 4.5% | 24 |
| | 2 | 42 | 12 | 28.5% | |
| 7. 展現個人風格，表達自我（personal） | 1 | 44 | 0 | 0% | 16.7 |
| | 2 | 42 | 7 | 16.7% | |
| 8. 爲了成績才參與貼文（grade/required） | 1 | 44 | 4 | 9% | -4.2 |
| | 2 | 42 | 2 | 4.8% | |
| 9. 時間因素：有時（或太忙而）忘了參與貼文 | 1 | 44 | 10 | 22.7% | -13.2 |
| | 2 | 42 | 4 | 9.5% | |
| 10. 因同儕沒/不回應而覺得氣餒 | 1 | 44 | 0 | 0% | 7.1 |
| | 2 | 42 | 3 | 7.1% | |

註：‘差異’爲方法二學生相較於方法一學生提及該項主題的百分比之差異

問題（一）問的是‘此活動是否/如何激發你的參與興趣？是否/如何激發你學習中文的興趣？’從表十六歸類後的學生反饋中可以看出：超過半數（54.5%）的方法一作答者提到‘保留’（包含記憶，理解所習得華語知識，幫助記憶所學）這個主題，但是方法二的作答者提到此點的就相對較低（28.5%）；超過各自半數的方法一（63.6%）和方法二（71.4%）作答者提到了‘轉移’這個主題（包含應用所學在新語境中創造自己的句子，分析評估理解他人的語意，習得新知）；提到‘有趣’這個主題的，方法一作答者有 31.8%，而方法二的作答者就相對較高，爲 57.1%；提到‘同儕互動’的方法一作答者有 9%，而方法二的爲 30.9%，相對高了許多；提到‘跟同學在情感上的聯繫’的方法一作答者爲 4.5%，而方法二的相對較高，爲 28.5%；方法一的作答者完全沒有提到‘展現個人風格，表達自我’這個主題，而方法二的提到此點的則有 16.7%；也有方法一（9%）和方法二（4.8%）作答者提及是‘爲了成績才參與貼文’的。

簡要來說, 兩組學生提及最多的是‘轉移’這個主題; 而方法一的做答者提到‘保留’的比率比方法一的高了 26%。方法二的做答者提到‘有趣’, ‘同儕互動’, ‘跟同學在情感上的聯繫’, 和‘展現個人風格, 表達自我’這幾個主題的比率比方法一的分別高了 25.3%, 21.9%, 24%, 和 16.7%。兩組相較之下, 方法一做答者強調了此活動在‘轉移’和‘保留’上的功能; 而方法二做答者雖然也提及了‘保留’復習課堂所學這部分, 還強調了此活動在‘轉移’, ‘有趣’, ‘同儕互動’, ‘跟同學在情感上的聯繫’, 和‘展現個人風格, 表達自我’上的這幾個特點。

此題的主要切入點是在是否/如何‘激發興趣’ (motivate)。學生的回答中除了出現‘心理層面’如‘有趣’等反饋, 也出現了跟‘學習層面’有關的反饋。由此可見, 參與動機可以是心理層面的, 也可以是學習層面的 (例如‘復習課堂所學’)。在‘有趣’這個部分, 不少方法二做答者提到了論壇版主貼的照片 (picture, image) 讓此活動增添了不少趣味, 讓他們更想回應版主的貼文, 還有助於他們瞭解語境跟語意。

(“The activity is interesting with the pictures and getting to see interests of other classmates”; “Pretty fun and interesting. Pictures definitely draw interest/attention.”; “It encourages responses even from the image alone. The added written context fortified the posting, but the image helps with brainstorming of ideas for a response.”)。還有一些方法二的做答者提到了這個活動讓他們彼此更親近 (“...feel closer to my other classmates.”), 更瞭解他們的同學 (“...to get to know my classmates.”), 更能跟他們的同學產生一種一起學習的情感 (“...brought us together.”), 也就是起了‘跟同學在情感上的聯繫’的作用。當然, 也有方法一的做答者認為這個活動對他來說並‘不是那麼的吸引人, 但還真的對加強中文句子結構很有幫助’。 (“I don’t think it’s that motivational, but it does help reinforce Chinese phrases/sentence structures”)。也有少許的學生答道, 他們是爲了成績才參與活動。

值得一提的是, 雖然此題的切入點是在是否/如何‘激發興趣’ (motivate), 且在題目中並沒有提到有關認知歷程向度各項技能的字眼 (如, 記憶, 理解, 創造等), 然而相當多的做答者提到了與‘保留’和‘轉移’有關的反饋。例如, 有些方法一的做答者提及此活動‘有助於復習課堂所學’, ‘讓他 (私底下) 在網路上跟朋友聊天時都想打中文’, ‘讓他‘想挑戰自我, 看看自己是不是能看得懂 (同學們貼的) 句子’, 以及‘因爲你是在造句, 所以它讓你更能記住如何恰當地使用文法和句型。你當然可以查字典找字, 但是得自己將這些查到的字恰當地運用在句子結構當中是很具挑戰性的’。 (“It was a good review of what we learned in class.”; “It makes me want to use Chinese characters when chatting online with friends”; “It motivates me by challenging myself to see if I can read the sentences.; “Because you are creating your own sentences, it enhances remembering to use proper grammar/sentence structure. You can look up many words in a dictionary, but it challenges you to put the words together in the proper structure on your own.”)。又如, 有位方法二的做答者提到, 其他人的貼文很有趣, 還有, 因爲自己要貼文, 還要回應同學們的貼文, 所以他得以將中文運用在課本以外的情境/語境中 (“The other people’s postings were interesting, and because in writing my own post and commenting on others, I was able to apply Chinese to situations beyond the textbook.”)。這些反饋雖是針對‘動機 (motivation)’而回答的, 但也都透露出了,

從學生的角度來看，此活動是如何幫助他們記憶所學，運用所學於不同的語境中，分析評估他人語句以理解語意，並嘗試針對當時的溝通情境創造自己的句子。亦即此活動對華語學習在‘保留’和‘轉移’這個面向上是有幫助的，這也是讓學生有興趣參與的原因之一。

為瞭解此活動是否能促進學生使用‘認知歷程向度’中的各項技能，促進保留和轉移華語知識，以助華語習得，問題二問的是：‘對你而言，此活動是否/如何對學習華語有助益？為什麼？’以下的表十七是對問題二反饋的歸類。

表十七 問題（二）：對你而言，此活動是否/如何對學習華語有助益？為什麼？
方法別/此題作答人數/參與活動人數（n）：（方法一/42/n=48；方法二/41/n=47）

| 問題（二）主題 | 方法 | 作答人數 | 提及次數 | 百分比 | 差異（%） |
|--|----|------|------|-------|-------|
| 1. 保留（Retention-previous material） 復習，幫助記憶理解當週或之前課堂所學習之語言知識 | 1 | 42 | 36 | 85.7% | -32 |
| | 2 | 41 | 22 | 53.7% | |
| 2. 轉移（Transfer-Learning） 運用所學創造句子，分析評估而理解他人語意，習得新知 | 1 | 42 | 29 | 69% | 23.6 |
| | 2 | 41 | 38 | 92.6% | |
| 3. 自我學習 | 1 | 42 | 12 | 28.6% | 20.3 |
| | 2 | 41 | 20 | 48.9% | |
| 4. 有趣（interesting/fun/engaging） | 1 | 42 | 0 | 0% | 14.7 |
| | 2 | 41 | 6 | 14.7% | |
| 5. 同儕互動（interaction） | 1 | 42 | 2 | 4.9% | 7.2 |
| | 2 | 41 | 5 | 12.1% | |
| 6. 在群眾參與的活動中建構華語知識 | 1 | 42 | 12 | 28.6% | 18.3 |
| | 2 | 41 | 18 | 43.9% | |
| 7. 圖片有助於理解情境或生詞 | 1 | 42 | 0 | 0% | 19.5 |
| | 2 | 41 | 8 | 19.5% | |
| 8. 沒有什麼幫助 | 1 | 42 | 2 | 4.8% | -0.1 |
| | 2 | 41 | 2 | 4.9% | |

註：‘差異’為方法二學生相較於方法一學生提及該項主題的百分比之差異

從表十七可以看出：超過半數以上的作答者都提到了此活動對他們在‘保留’（方法一 85.7%；方法二 53.7%）和‘轉移’（方法一 69%；方法二 96.2%）這兩個面向上的幫助，而方法一作答者提到‘保留’的，高了方法二 32%，但方法二作答者提到‘轉移’的，高了方法一 23.6%；兩組學生也都提到了‘自我學習’（查字典或其他工具書，同儕學習）這個主題（方法一 28.6%；方法二 48.9%），但方法二的高了 20.3%；沒有任何方法一的作答者提到‘有趣’這個主題，而方法二有 14.7%的作答者提到了這個主題；方法二的有 12.1% 提及了‘同儕互動’，比方法一的 4.9% 高了 7.2%；兩組作答者都提到了‘在群眾參與的活動中建構華語知識’這個主題，但方法二的 43.9% 比方法一的 28.6 高了 18.3%；有 19.5% 的方法二作答者提到了‘圖片有助於理解情境或生詞’，方法一的為 0%（註：‘版主得上傳與其有關的照片’是方法二筆談的規則之一，方法一的規則中無此項，因此方法一的筆談中無貼圖）。兩組也各有 4.8% 和 4.9% 的作答者認為此活動對學習華語沒有幫助。

在此題，相當高（而且比問題一更高）比率的作答者提到了與‘保留’和‘轉移’相關的反饋。因為此題題目問的就是直接與學習有關的面向，因此相較於第一題，在這題，大多數的反饋都直接聚焦在學習技能的層面上。例如，有些方法一學生提到‘不斷重複使用某些字詞對記住這些字詞很有幫助’（“The repetitive use of certain words helps me to remember better”），‘這個活動讓我回想過去學過的句子結構，然後試著將之運用（在筆談上）’，（“The activity made me think of past structures that I have learned to try to apply them”），及‘它讓人思考你所學過的字詞可以運用在哪些語境上’（“It helps to think of all the contexts in which you can use the vocabulary that you know”）。又如，有些方法二學生提及‘這個活動促進（同儕）對談，所以我得運用課堂所學來創造新的句子’（“This activity promotes conversation so I have to call on my knowledge from class and apply to the creation of new sentences”），‘它驅使我更精進地運用這個語言’（“It pushed me to more advanced language use.”），以及‘它給我更多機會練習用生詞造句’（“It gave me a lot more practice in forming sentences with new words.”）。顯然地，從答題學生的觀點來看，兩個方法都達到了促使保留和轉移以習得華語的目的。但在‘保留’上，方法一比方法二更得到認同，極多的方法一反饋都提到此活動‘幫助記憶課堂所學’。而‘轉移’則在方法二得到更多的認同。

兩組學生也都提及了此活動在‘自我學習（查字典或其他工具書，同儕學習）’，和‘在群眾參與的活動中建構華語知識’方面上的功能。例如，在‘查工具書’上有學生提到‘有時我得用工具書查字和用語，但總體而言，這活動有助我習慣於以書寫的方式溝通。我覺得它讓我們試著完全瞭解他人貼文中的用語，以便能完整地回應’“Sometimes, I have to look up words and phrases but overall, it helps me get used to written communication. I think it helps us by making us try to understand the phrases completely in order to be able to respond fully.”（方法一），又如‘我得查很多的字，但那些照片/圖片可以幫助我理解（他人的貼文）’“I had to look up a lot of words, but the pictures helped my comprehension.”（方法二）；在‘同儕學習’和‘群眾建構華語知識’上，有些方法二的學生提到了‘經由同學們（的貼文）而接觸到不同的華語生詞（對學習）是很有幫助的’（“It was helpful being exposed to different Chinese characters from the others.”）和‘同學們的貼文可以幫助我弄清楚/理解一些句子的用法？’（“By looking at my classmates’ postings, I can help myself figure out how the sentence works.”）。從這些反饋可以看出，此活動在這兩個面向上的功能。然而，從提及的次數比率來看，方法二的學生更認同此活動在‘自我學習’和‘在群眾參與的活動中建構華語知識’的功能。

雖然問題二的切入點在‘學習技能’，且多數的反饋也都聚焦在此，但從學生們的回答中可看出，有助於學習的不止是學習技能的因素，心理層面的動機也功不可沒。如‘有趣’及‘照片/圖片在這個活動上起的作用’，這類的反饋出現在不少方法二學生的回答中。有些學生提到這些照片非常有趣，能促進與參與者之間進行對話互動，以及提供一些語意及語境上的訊息，幫助他們將圖片與生詞連結，理解而學習到新的字詞。（“The pictures are a big plus. They are really interesting. They promote conversations and help provide contexts.”， “The pictures really helped give a lot of contexts which helped with unknown phrases or words.”， “I think that the best part of it

was learning new vocabulary words and being able to associate them with photos. The combination of the photos and the new characters helped me learn more.”)。

此外，也有少數的作答者提到了跟‘同儕互動’有關的反饋。例如有人提到‘...此活動促進（參與者之間）對話，因為這貼文的主題是跟我們有關的’“It shows me the correct sentence structure. It also promotes conversation because it is about topics we can relate to”（方法一），還有人提到‘...利用我的既有語言知識跟他人做語意的協商’“It was helpful to try to use my prior knowledge to negotiate meaning with someone else.”（方法二）。

4.2.2 貼文語料分析

筆者分別截取一則方法一和一則方法二學生筆談做語料分析，觀察此活動是否出現‘促進學生保留和轉移華語知識’和‘在群眾參與的活動中幫助學生建構華語知識’的實據，以做為輔助性資料。

在‘保留轉移’方面的觀察點為：在這全新語境中是否出現學生‘直接使用當週或之前課堂所學的字彙用語或句型’，‘運用既有的語言知識創造新句子’，和‘理解他人所創句子的語意而做出語意適當的回應’的實例，因這三者包含了‘記憶，理解，應用，分析，評估，和創造’這些認知歷程向度中之技能的運用。

在‘在群眾參與的活動中幫助學生建構華語知識’方面的觀察點則為：在此全新語境中是否出現學生‘運用既有（或自查字典等工具書所得）華語知識來貼文（或回應他人的貼文），完成交流任務’，‘對含有課堂中未教過的字彙或用語的貼文做出語意適當的回應’，或‘在貼文中使用從同儕貼文中學到的生詞或用語’的實例。亦即學生們是否在此活動中因運用或練習而更精進了自己的華語技能，或自同儕的語言輸入中學習而精進了自己的華語知識。


以下的表十八和表十九是從兩方法學生貼文中截取下來的兩則筆談實例。借此，我們可以看到這個課外活動的實際進行過程：學生們如何地對主題做闡述或回應同儕貼文。我們也可以觀察在這些語言互動中是否存在有如本文文獻探討中提及的促進語言學習的元素（如，促進學生‘保留’和‘轉移’所習得的華語文知識’，‘在互動中意識到對標的語言知識的缺乏，而尋求正確或更多的語言資訊以達到溝通的目的’和‘在群眾參與的活動中幫助學生建構或自學華語知識’等）。

表十八 方法一筆談實例

註：粗斜體字為課堂未教過之字彙或用語，下劃線為學生所犯之語法錯誤（或糾正後的正確用法）

兩種銀行的帳戶 by MK -Tuesday, 4:27 PM

我有兩種 BOA 銀行的帳戶，一個有利息的儲蓄帳戶和一個支票帳戶。最近的利率比較低，百分之零點二。我也有一個信用卡，利率是百分之十八點五。你在哪家銀行有帳戶？你有幾個信用卡？

 Re: 兩種銀行的帳戶 by AL - Friday, 6:01 PM

你好 M! 我只有用一家銀行，就是 Chase 銀行。我有一個儲蓄帳戶，也有一個支票帳戶。我的媽媽和爸爸幫我開兩個帳戶。我自己沒有信用卡，所以我用媽媽的卡買書，毛筆 (máo bǐ: pen brush), 紙

(zhǐ, paper), 和食物。我不知道這兩個帳戶的利率和利息是什麼, 所以我要問我的媽媽爸爸。BOA 的服務好嗎?

Re: 兩種銀行的帳戶 by **MK** - Friday, 6:30PM

我覺得 BOA 銀行馬馬虎虎。可是我得每星期去在 BOA 的自動取款機。我拿我的取款卡。我去在那兒取現金。我不買 **毛筆**和**紙**, 我不用**毛筆**。

Re: 兩種銀行的帳戶 by **RS** - Saturday, 12:07 AM

你好, M. 我爸爸媽媽在 BOA 有帳戶。他們覺得 BOA 還好。我在 BOA 沒有帳戶。我在 Chase 有帳戶。我覺得 Chase 很好。學校有 Chase 的自動取款機, 我去那兒取現金。我不去 Chase 銀行。我有兩張信用卡, 為什麼你只有一張信用卡?

Re: 兩種銀行的帳戶 by **MK** - Saturday, 7:34 AM

從前我在一家銀行工作了三年了。今天有利息的帳戶利率很低。還有服務不好。我開一個有利息的儲蓄帳戶, 利率是百分之零點零五! 我希望學校有 BOA 的自動取款機。我不喜歡去 BOA 那兒取現金。我只有**一張**信用卡, 因為我不要**花錢**(huā qián: to spend money)。

Re: 兩種銀行的帳戶 by **GG** - Saturday, 10:28 AM

我也在 BOA 有兩個帳戶, 一個支票帳戶和一個儲蓄帳戶。我覺得他們的服務不太好。他們常常**罰錢**, 很不喜歡。譬如如果我媽媽很慢把錢存到我的帳戶, 一定會**罰我很多錢**。別的銀行不罰你**這麼錢**。罰錢 — Fá qián — fine you money

Re: 兩種銀行的帳戶 by **RS** - Saturday, 12:07 PM

Chase 很好, 不**罰你很多錢**。我不喜歡**罰錢**, 因為我要自己**花錢**。

以上是學生用方法一進行的一則筆談實例。由於當週在課堂上學的是跟銀行開戶相關的內容, 所以版主 MK 及其他參與者就借此主題發揮, 充分地利用了該單元學習到的字彙和用語, 如‘儲蓄’, ‘支票’, ‘利率’, ‘信用卡’, ‘現金’, ‘利息’, ‘自動取款機’, ‘百分之...點...’, ‘有利息的...帳戶’等等。而且這些字彙和用語在筆談中, 不斷地重複出現。這些都是‘保留’的實例(復習, 使用當週或之前課堂所學習之語言知識—幫助記憶及理解華語知識)。基本上, 這是一則以練習使用當週所教授的語言知識而發展出來的筆談。

除了運用當週課堂所學, 也有學生自己查工具書, 以表達更貼近自己生活經驗的語意。例如, ‘毛筆’, ‘紙’, ‘花錢’, ‘罰錢’, ‘別的’。這些字彙都是學生們自我學習所得, 在課堂上並未提及。而有些較後來加入貼文的學生也能成功地從前面的同儕貼文中學習到這些新字彙, 或運用在他們自己的貼文中, 或在全語境中(in context)成功地理解同儕的語意。例如, AL 在貼文中用了新字彙‘毛筆’和‘紙’(“所以我用媽媽的卡買書, 毛筆(máo bǐ: pen brush), 紙(zhǐ, paper), 和食物”), MK 就將這些字彙運用在其回應的貼文中了(“我不買毛筆和紙, 我不用毛筆”)。又如, MK 首先在其貼文提及了新字彙‘花錢’(“因為我不要花錢”), GG 首先用了新字彙‘罰錢’(“他們常常罰錢, 很不喜歡”), 後來貼文的 RS 也將‘花錢’和‘罰錢’用在貼文中了(“我不喜歡罰錢, 因為我要自己花錢”)。這些也是同儕學習的例子。

從這則筆談來看，爲了完成筆談的任務，學生們至少都運用了認知歷程向度中之‘記憶’（認得學過的字彙），‘理解’（瞭解字彙的意思，和句子結構的組成，進而理解同儕的貼文），和‘運用’（將課堂所學的字彙及句型使用在新的語言情境中）的技能。此外，‘分析’，‘評估’，和‘創造’這些認知技能也被運用上了。例如，GG成功地透過‘分析’和‘評估’而將自我學習所得的‘罰錢’，‘別的’，‘罰我很多錢’和當週所學有關銀行的用語，以及之前學過的‘譬如’，‘如果’，‘一定’結合在其貼文中，而創造出符合邏輯且呈現完整語意的句子。而RS在回應GG的貼文時，也必需先分析評估GG貼文中的句子及用語，推論出其語意，然後將‘罰錢’和‘花錢’運用在自己的貼文回應中。亦即GG和RS都在現有的語言基礎上，學習到了如何將自己查工具書（或從同儕學習）所得的字彙與既有的語言知識結合，而創造出符合邏輯且呈現完整語意的句子。這是‘轉移’的實例（運用既有語言知識創造新句子，分析評估而理解他人所創句子的語意，習得新的語言知識）。

雖然在貼文中也出現了一些語法上的錯誤，例如MK的“一個信用卡”，“我去在那兒取現金”，“從前我在一家銀行工作了三年了”和GG的“別的銀行不罰你這麼錢”，（也就是MK對‘在’，‘去’，‘了...了’和GG對‘這麼多’的用法或句型還不能完全掌握），但從筆談互動中可看出，這些錯誤並沒有讓同儕誤解其語意而阻礙交流任務的達成。值得一提的是，在貼文中也出現了學生因爲同儕的貼文而意識到自己在已學過的語法上犯了錯誤，進而自我糾正，成功地在後來的貼文中使用出語法正確的句子之例。例如，MK似乎因爲RS的貼文“我有兩張信用卡，爲什麼你只有一張信用卡？”和“我去那兒取現金。我不去Chase銀行”而意識到自己的“我也有一個信用卡”和“我去在那兒取現金”有語法上的錯誤，進而在後來的回應中正確地寫出“我只有一張信用卡...”和“我不喜歡去BOA那兒取現金”。這也是一種‘同儕學習’的例子。也就是說，我們在這些貼文中不僅看到了認知歷程向度中技能的運用，也看到了學生們在群體參與的活動中建構華語知識的實例。

以上是學生們在真實的語言互動情境，在既有的語言知識之上，藉由大量運用當週課堂所學，或查工具書，或運用來自同儕的語言輸入，而完成交流的例子。在缺乏教師立即給予語法或字彙的反饋之下，即使有語法上的錯誤出現，或者有貼文者忘了將新詞（‘別的’）如活動規則所定的附上拼音及英文翻譯，參與者仍能成功地表達自我，使語意在互動中讓同儕明白，不造成誤解。從貼文的內容和使用的語言知識來看，這則筆談雖然也出現了‘轉移’的實例，但更明顯的是它在促進‘保留’上的功能。以下爲方法二的筆談實例及語料分析。


表十九 方法二筆談實例

註：粗斜體字爲課堂未教過之字彙或用語，下劃線為學生所犯之語法錯誤（或糾正後的正確用法）

我喜歡音樂 by ER- Monday, 9:39 PM

我很喜歡音樂。我可以彈鋼琴(gāngqín-piano)和吉他(Jítā)。我最喜歡是唱歌。如果你可以彈一個樂器(Yuèqì-instrument), 你想彈哪種樂器?



 Re: 我喜歡音樂 by EA- Tuesday, 6:01 PM

哇! 你學很多樂器! 你彈鋼琴多少年呢? 彈吉他呢? 去大學以前, 我也彈鋼琴。你喜歡什麼歌?

 Re: 我喜歡音樂 by ER- Tuesday, 9:09 PM


E!!! 我彈鋼琴彈了十四年了, 還有我彈吉他彈了十六年了。我們得一起彈鋼琴! 現在, 我最喜歡的歌曲是 Ann 的"是什麼讓我遇見這樣的你" 哈哈! 我要把它學習。

 Re: 我喜歡音樂 by EA- Tuesday, 9:25 AM

哇, 你彈鋼琴彈了十四年了, 很好啊! 你要做一個唱歌的電影嗎?

 Re: 我喜歡音樂 by NB- Wednesday, 4:12 PM

E: 我可以有你的簽名嗎? 你真了不起!!! 什麼時候是你的下一次的表演? 我會吹薩克斯管和單簧管, 可是現在我不吹. 我也很喜歡唱歌.-N

 Re: 我喜歡音樂 by ER- Wednesday, 5:09 PM

哈哈 N!! 不不不:) 你為什麼不吹了? 我的下一次的表演是兩個星期以後: 五月二十九日。來來來! 我愛薩克斯管, 因為我喜歡爵士音樂.-E

 Re: 我喜歡音樂 by PT- Thursday, 6:14 PM

我可以彈鋼琴, 可是我彈得不好。可是我最喜歡彈鋼琴還有聽鋼琴的歌。你大概比我彈得好吧! 我羨慕你~ P

 Re: 我喜歡音樂 by NB- Thursday, 6:20 PM

E: 現在我不吹了, 因為我弟弟說很吵。-N

 Re: 我喜歡音樂 by GT- Thursday, 9:19 PM


我很羨慕, E! 我覺得你每天都很高興, 所以你可能做很多東西。你會彈 Ukulele 嗎?

 Re: 我喜歡音樂 by ER- Thursday, 9:45 PM


G! 謝謝! 每天我都很高興因為我知道我是愛。我可以彈一點 Ukulele 可是我不好。我只有知道一個歌: Somewhere Over The Rainbow。下一次考試我們一起彈吉他, 好不好? -E

 Re: 我喜歡音樂 by ER- Thursday, 10:03 PM

你好 P! 在 CP 的音樂的建築, 你跟我學習彈鋼琴! 有特別好的鋼琴。下課以後我們去, 好不好?

 Re: 我喜歡音樂 by TL- Friday, 5:05 PM

你真了不起! 我好羨慕會唱歌的人。我也會彈鋼琴。除了會鋼琴, 我也會拉小提琴和彈古箏。可是我會唱兩首中文歌“我的歌聲裏”和“是什麼讓我遇見這樣的你”。我們中文課的歌。

 Re: 我喜歡音樂 by ER- Friday, 7:56 PM


TL! 我想拉小提琴! 我羨慕你! 我的媽媽可以拉小提琴和彈鋼琴。她教我彈鋼琴, 可是她不教我拉小提琴。我也喜歡那一首中文歌“我的歌聲裏” E

 Re: 我喜歡音樂 by TW- Saturday, 10:30 AM

好厲害! 你最後兩張照片是在那裡的? 我最喜歡唱歌可是我唱得不好。我會彈鋼琴可是很久沒有彈了。我最愛唱歌所以希望以後可以學唱歌。

 Re: 我喜歡音樂 by ER- Saturday, 1:07 PM

T! :) 我最後兩張照片是在一個聖誕節的**音樂會**。在不同的**教會**我唱了很多歌。我愛跟別人唱歌所以你跟我應該一起唱歌。:)

 Re: 我喜歡音樂 by YL- Saturday, 3:14 PM

可以給我**簽名**嗎?你**出名**了,我可以說我們是同學,我們一起學中文!

 Re: 我喜歡音樂 by ER- Sunday, 5:14 PM

Y!哈哈! 明天我給你我的**簽名**。。。如果我**出名**了,我給你一個 Shout Out ☺

 Re: 我喜歡音樂 by HC- Sunday, 5:48 PM

E,你是我的**偶像**!你**開演唱會**了嗎?最後兩張照片是什麼時候**照**的?在哪裏**照**的?老師

 Re: 我喜歡音樂 by ER- Sunday, 8:12 PM

老師好!是,我**開演唱會**了。在兩年前照的,在一個**教堂照**的。下個星期四我跟我的**搖滾樂隊**會**開演唱會**。來來來來! :) E

在上面這則筆談, 版主 ER 選了一個跟她自己喜好有關的主題‘我喜歡音樂’, 也依照活動規則附上跟主題有關的照片。這主題其實跟當週課堂所學的內容(電影)沒有直接的相關。雖然依規定不用附上拼音及翻譯, 但是 ER 還是很體貼的附上了‘彈鋼琴’, ‘吉他’, 和‘樂器’這些在上學期學到的字彙及用語的拼音及翻譯。ER 也依規定的在這一星期中不斷地回應其它參與他這則筆談同學的貼文(註: 方法一對版主則沒有這個規定)。基本上, 學生們在語言的運用上, 跳脫開了當週課堂所學的範圍, 而依主題‘我喜歡音樂’所需, 運用既有(或尋求新的)語言知識來完成筆談任務。

在這則筆談中, 不少學生將上學期學過的語言知識運用在新語境中, 與新字彙/用語結合, 表達自我。例如, ‘彈/吹/拉+ 樂器名’(“彈鋼琴”, “吹薩克斯管”, “拉小提琴”), ‘種’, ‘樂器’(“哪種樂器”), ‘表演’(“什麼時候是你的下一次的表演”), ‘不同的’(“在不同的教會我唱了很多歌”), ‘除了...也...’(“除了會鋼琴, 我也會拉小提琴和彈古箏”), ‘...所以’(“我最愛唱歌所以希望以後可以學唱歌”), 以及‘V+了+(時間)+了’表示動作仍在進行(“我彈鋼琴彈了十四年了”)和‘了’表示新的情況(“你為什麼不吹了?”和“你出名了, 我可以說我們是同學...”)等等。也有人(PT)將當週正在學的句型‘A 比 B + V. + Degree of Complement’運用在其貼文中: “你大概比我彈得好吧!”。利用查工具書而使用新字彙或用語的例子也比比皆是。‘歌曲’, ‘簽名’, ‘了不起’, ‘大概’, ‘薩克斯管’, ‘單簧管’, ‘爵士音樂’, ‘羨慕’, ‘吵’, ‘特別好的’, ‘小提琴’, ‘古箏’, ‘好厲害’, ‘音樂會’, ‘教會’, ‘簽名’, ‘出名’, ‘教堂’, 和‘搖滾樂隊’, 這些都不是筆者在上課時教的, 而學生們也能將它們運用在語意順暢的貼文中與同儕互動。這些都是在新語境中應用既有語言知識, 結合新舊華語字彙或用語(分析評估創造)而達成溝通任務之例。

同儕學習的例子也時而可見。版主 ER 從 NB 的貼文學習到使用‘薩克斯管’和‘簽名’, 從 TL 學到用‘拉小提琴’, 從 PT 學到用‘羨慕’, 從 YL 學到用‘出名了’; 有三個在 PT 之後貼文的學生用了 PT 的‘羨慕’; NB 的‘簽名’也被之後的 YL 和 ER 使用在他們的貼文中。

值得注意的是，雖然沒有任何學生明白地指出他人的語法錯誤，但是犯錯者本身卻能從同儕的語言輸出中學習而自我糾正，這也是一種同儕學習。例如，版主 ER 在較前的貼文中錯誤地將‘個’用為‘歌’的量詞（“我只有知道一個歌”），但在 TL 貼出“可是我會唱兩首中文歌”之後，其量詞的正確用法似乎對 ER 起了引導作用，讓 ER 意識到了自己的錯誤，而在其後的貼文寫出了“我也喜歡那一首中文歌”。又如，從 EA 的“你彈鋼琴多少年（了）呢？”可以看出 EA 還不能無誤地掌握‘了’的句型，但 ER 的回應貼文“我彈鋼琴彈了十四年了，還有我彈吉他彈了十六年了”似乎讓 EA 意識到了自己的語法錯誤，進而在後來的貼文中模仿 ER 的句子寫出“哇，你彈鋼琴彈了十四年了”。此外 NB 一開始也沒能掌握‘了’以表示新狀況的用法（“可是現在我不吹（了）”），但在 ER 問他“你為什麼不吹了？”之後，他回答到：“現在我不吹了，因為我弟弟說很吵”。很明顯的，ER 的反饋提醒了 NB‘了’在此語意的正確用法。此外，身為老師的筆者（HC），也在最後參與了一則貼文，用了一個新字彙‘偶像’，還特意問 ER 是否“開演唱會了”，以及相片是“什麼時候照的”，跟“在哪裏照的”，希望給 ER 跟其他參與這則貼文的學生‘開演唱會’和‘照片是在（地點/時間）照的’的語言輸入，而 ER 果然在回應筆者的貼文中運用上了（“是，我開演唱會了。在兩年前照的，在一個教堂照的”）。

在嘗試創造句子方面，成功及有瑕疵的皆有。例如，PT 將當週正在學的‘A 比 B + V. + Degree of Complement’句型，結合了新字彙‘大概’，而寫出“你大概比我彈得好吧!”；YL 將 NB 貼出的新字彙‘簽名’，加上自己習得的新字彙‘出名’，再加上課堂所學的‘了’表新狀況句型，而寫出符合語法且語意完整的句子“可以給我簽名嗎？你出名了，我可以說我們是同學，我們一起學中文!”。當然，學生們也犯了一些語法上的錯誤，尤其是版主本身。有些是因為還沒能完全掌握學習過的語言知識（例如版主 ER 的“我最喜歡（的）是唱歌”，“我要吧它學習”（我要把它學會），和“可是我（彈得）不好”），有些是在嘗試造句時受到自己母語的影響而出現了的錯誤（例如，EA 的“去（上）大學以前”和“你要做一個（拍一部）唱歌的電影嗎？”；版主 ER 的“每天我都很高興因為我知道我是愛（I am loved 我是被愛的）”和“音樂的建築”（music building 音樂系的大樓）等。但這些並未造成同儕對語意的誤解，也未影響學生們完成交流的任務。然而相較於表十八的方法一貼文，這則貼文出現了較多的語法錯誤，而且大多出自於版主的貼文。

在這則跳脫了當週課堂所教授範圍的筆談中，學生們運用了認知歷程向度中之技能，在真實而全新的語境中，理解並回應他人的貼文。由於幾乎所有的字彙和用語都與當週的課堂所學無直接關聯，而且出現的新字彙都沒有附上拼音和翻譯，學生們除了使用‘記憶’‘理解’和‘運用’這些技能，還得使用更多的‘分析’（分析一個句子或用語，推論其在此情境中的意思或用法），‘評估’（判斷自己的語句是否符合語言規則，或對當時的溝通情境是否恰當，以及是否達成溝通的目標），和‘創造’（在新語境中，結合新舊華語知識，達成溝通目標）這些技能來幫助他們明白他人的語意和完成自己的貼文。雖然出現了用字或語法上的錯誤，但未影響語意上的表達。也就是學生們在現有的語言基礎上，學習到了如何將查工具書或從同儕學習所得的字彙與既有的語言知識結合，創造出符合邏輯且呈現完整語意的句子來互動

交流。尤其是版主，得在這一星期中不斷地回應同儕的貼文，這大大的增加了版主與參與者互動的頻率。這是方法二學生們‘保留’和‘轉移’所學華語知識在新情境中進行交流，也是他們在群體參與的互動活動中建構華語知識的實例。

5. 討論

從語料分析和問卷調查所得的質性和量性資料分析的結果，我們來看以方法一和方法二進行的筆談是否達到此課外活動的六個主要目的：1. 促進將所學的語言知識運用到非課堂的語境中：使用認知歷程向度之各項技能以保留和轉移華語知識。2. 增進學生間使用華語互動。3. 讓學生使用標的語達成溝通目標：溝通式學習。4. 促進自我學習。5. 在群體參與的活動中建構華語知識。6. 在心理層面上，增進學習華語的動機及參與學習活動的意願和興趣，以將學習延伸至課外，為學生提供運用華語的有效學習環境。此外，這兩個活動在達到上述目的上是否有差異？

5.1 促進使用認知歷程向度之各項技能以保留和轉移華語知識

兩個方法都成功地促使學生將課堂所學到的語言知識運用到新的語言情境，起到了促進學生使用認知歷程向度之各項技能以保留和轉移華語知識的作用。但兩個方法相較之下，就‘保留’而言，方法一起了較大的作用，而方法二則在‘轉移’上起到了更大的作用。雖然問卷搜集到的量性資料顯示，兩組學生都同樣地同意他們運用了認知歷程向度的各種技能，但質性資料卻提供了另一面的證據顯示這兩個方法在促進‘保留’和‘轉移’上的差異。

如兩則筆談實例所顯示，學生們都運用了認知歷程向度中之各項技能在真實的全新語境中進行交流。問卷調查的量性資料（表二）顯示，兩組學生對此活動是否幫助他們‘記得和應用華語知識’，‘分析評估新的語境’，和‘創造新的句子’，及‘此活動提供應用課堂所學之機會’，‘我能將課堂所學應用在這個貼文活動中’，和‘當有需時，我嘗試運用既有之中文知識在新語境中創造句子以完成筆談任務’都是持正向態度的。T 檢定（表三）也顯示兩組學生同樣地認同此筆談活動‘促進使用認知歷程向度之各項技能’。從學生對開放式問題二的反饋來看，兩個方法在促進使用‘認知歷程向度’之技能的這個面向上，都達到了活動的目的。

值得注意的是，語料分析中顯示了方法一的學生大量地的運用了當週課堂所教授的語言知識，而方法二的則跳脫了當週課堂所教授的範圍，應用了更廣汎多面的語言知識和技能來完成交流。也就是說，從‘保留’和‘轉移’的角度來看，方法一在‘保留’上起到了比較大的作用，而方法二則在‘轉移’上起到了比較大的作用。此觀察結果在問卷的質性資料（表十六和表十七）也得到了驗證。方法一學生提到與‘保留’相關主題的比率比方法二的高，而方法二學生提到與‘轉移’相關主題的比率比方法一的高。尤其是在表十七對‘此活動是否/如何對學習華語有助益’的反饋中可看出，方法一的學生提及與‘保留’相關主題的比方法二的高出了 32%，而方法二學生提及與‘轉移’相關主題的比方法一的高出了 23%。這些與在語料分析中所觀察到

的現象吻合。亦即方法一在‘保留’上起到了比較大的作用，而方法二則在‘轉移’上起到了比較大的作用。

5.2 增進學生間使用華語互動

兩個方法都成功地在課外增進學生間使用華語互動，但是方法二在此面向上的作用比方法一強。在兩則筆談實例中可見，方法二的同儕互動程度高於方法一，亦即一問一答的頻率是比較高的。這可能是活動規則明定，方法二的版主得在當週活動中盡量不斷地回應同儕貼文，而方法一對版主則無此規定。這也可能是因為方法二的主題跳脫了當週課堂內容主題，是版主自己生活上有關的主題，還得附上照片，這對學生們來說是比較有趣的，也是比較能展現個人風格的，因而較能吸引學生參與貼文互動。這些觀察到的現象跟推測也跟學生們在意見調查的反饋吻合。

表四的量化資料顯示，兩組學生都對‘此活動是否讓他們與同儕用華語互動’持肯定態度。但 T 檢定顯示（表五），方法二的學生更同意他們在活動中與同儕以華語互動了。此結果與開放性問題的質性資料所顯示的一致。在表十六和表十七中可見，方法二學生提及‘同儕互動’相關主題的都比方法一的高。尤其是在表十六‘此活動是否/如何激發你的參與興趣？是否/如何激發你學習中文的興趣’，方法二學生提及‘同儕互動’的比方法一的高了 21.9 %。亦即，方法二在促進使用華語互動上起到了比較大的作用。由於在表十六中同時顯示方法二的學生提到了此活動是‘有趣’的（57.1%，比方法一的 31.8% 高了 25.3%）且‘能展現個人風格，表達自我’（16.7%，方法一的為 0%），筆者也因此推測，活動規則對方法二版主的要求，加上較具個人色彩較有趣這些因素，是讓方法二貼文互動頻率高於方法一的原因。

5.3 以標的語達成溝通目標（溝通式學習）

在此面向上，兩個方法都能促進溝通式學習，但是方法二的交流任務對有些學生來說可能較具挑戰性。此外，方法二依活動規定貼上的照片/圖片因提供了語境（context）和語意上的輔助，對在筆談情境中的溝通式學習頗有助益。

在兩則筆談實例中可見，學生們以既有的語言知識，或運用當週課堂所學，或學習自同儕，完成交流任務。雖然活動中出現了未教過的生詞或用語，也出現了語法錯誤的語句，更沒有老師立即從旁協助，學生們仍能達成表達自我且明白同儕語意的交流任務。亦即，學生們在使用華語交流時，除了運用了認知歷程向度的各項技能保留和轉移所學華語知識，也同時在溝通中學習新的華語知識，成功地運用了溝通式學習。這個現象與意見調查的反饋（表六）吻合。此外，學生們也認同此以溝通為主的活動有助其學習華語（表十四）。但是，相較於方法一的語料，在表十九方法二的語料中我們看到出現了較多的語法錯誤，而且大多出自於版主本身的貼文。這表示要跳脫當週上課所學，整合之前所學習的語言知識，結合新舊華語字彙或句型運用在全新的溝通情境中，對有些學生來說是較具挑戰性的。

從表六和表七的量化資料，我們看到了兩組學生都同意‘在筆談中大多時候能理解同儕的貼文’，也就是學生們能成功地表達自我，讓同儕理解其語意。值得注意的是，方法一的規則明定，貼文者若使用課堂未教授的生詞或用語，得附上拼音及英文翻譯，但方法二的規則則無此要求。為何即使如此，方法二學生仍然能成功地明白語意，未產生誤解？

這可能是因為照片/圖片提供了語境和語意上的輔助。我們在開放性問題的質性資料中（表十七）看到了19.5%的方法二學生提到了圖片有助於理解情境或生詞。這說明了，在學生獨立運作的華語課外活動中，參與者不管是提供生詞的拼音及英文翻譯或者是只提供與語境相關的圖片，對以溝通的方式學習華語都是有助益的。

5.4 促進自我學習（查工具書，同儕學習）

在促進自我學習上，兩個方法都有此功能，尤其在方法二上更明顯，學生更能從查工具書或同儕中習得新的語言知識。兩則筆談中都出現了學生運用查工具書所得的生詞或用語，也都出現了學生使用他人在同則筆談使用的生詞來回應貼文。亦即這兩個方法都在促進‘課外自學生詞和用語’上起了作用。但在方法二的筆談中，這個現象更多更明顯。方法一的筆談則是出現了較多當週課堂所教授的字彙及用語。

量化資料（表八）也顯示，兩組學生都非常同意他們‘必要時會查字典等工具書以完成筆談任務’，而且在同意的強度上是沒有統計上的顯著差異的。但是 T 檢定結果顯示（表九），方法二的學生們更同意此活動讓他們從自我研習或同儕貼文中學到課堂上沒有教過的生詞或用語’。開放性問題的質性資料中（表十七），方法二的學生提及‘自我學習（查工具書，同儕學習）’的也比方法一的多多了 20.3%。也就是說，兩個方法的學生在必要時都會藉由查工具書來輔助他們完成筆談任務，但方法二的學生在此活動中更能從查工具書以及從同儕習得生詞或用語。

5.5 群體參與的活動中建構華語知識（同儕學習，運用練習既有知識而精進技能）

兩個方法都促進了學生在群體活動中精進自己的華語知識，但方法二比方法一更能讓學生從同儕的貼文中留意到新的生詞和用語。在兩則筆談中都觀察到了學生自同儕的語言輸出學習而增進了自己的語言知識，也看到了學生練習使用既有華語知識，或學習使用華語新知，而精進了自己的語言技能。但是，方法二的筆談中出現了較多新字彙和用語。

量化資料（表十）也顯示，兩組學生都對此活動是否讓他們在‘群眾參與的活動中建構華語知識’持正向態度。但是 T 檢定顯示（表十一），兩組學生對‘他人的貼文讓我留意到新的生詞和用語’有顯著性差距：方法二的同意度較高。亦即方法二學生比方法一學生更同意能從其同儕的貼文中留意到新的生詞和用語。開放性問題的質性資料也顯示（表十七），方法二學生提到此相關主題的比方法一的多多了 18.3%。也就是說，這兩個方法都在‘促進學生在群體參與的活動中建構了華語知識’

起了正向的作用，但方法二比方法一更能讓學生從同儕的貼文中得到生詞和用語方面的語言輸入。

5.6 在心理層面上，增進學習華語的動機及參與學習活動的意願和興趣

兩個方法都在增進學習動機和參與活動的意願及興趣上都是正向的，但方法二更能貼近學生的情感層面，也較有趣，在此面向上起的作用比方法一的大。此外，心理層面的因素和學習方面的因素，都對增進學習動機和參與意願具影響力，在對學習華語的助益上是相輔相成的。

問卷調查的量性和值性資料顯示，方法二更能促進學生的參與興趣和學習動機，也較貼近學生的情感層面，但在‘參與意願’上，兩個方法是不分軒輊的。從表十二及表十三中可看出，雖然兩組學生都覺得這個活動是有趣的，都有參與的興趣及意願，並且也都能讓他們對同學產生一種學習共同體的歸屬感，但方法二更能讓學生覺得有趣，能選擇與自己興趣或與本身有關的題目發揮，能增進學習動機，喜歡以這種同學互動方式學習中文，能讓同學間產生一種學習共同體的歸屬感。而這些量性資料也和開放性問題的質性資料相呼應。在表十六中，方法二在‘有趣’，‘同儕互動’，‘跟同學在情感上的聯繫’，和‘展現個人風格，表達自我’這些主題上，提及次數都比方法一的多了不少。但在‘參與意願’上，方法一和方法二卻是不分軒輊的（在統計上無顯著性的差異）。為何方法二在心理層面上較能提供額外的誘因而吸引學生參加學習活動，卻在‘參與意願’上沒有反映出這個優勢呢？讓我們從學生們的文字敘述反饋中來尋求可能的解釋。

在表十六學生們對‘此活動是否/如何激發你的參與興趣？是否/如何激發你學習中文的興趣？’的反饋中我們看到了，除了‘有趣’之外，‘對學習華語有幫助’（保留、轉移）也是讓學生有參與興趣和意願的原因。方法一雖然相較之下沒方法二有趣，但仍然有 31.8% 的作答者提到了此活動是有趣的。此外，在‘保留-複習，幫助理解當週或之前上課所學之語言知識’和‘轉移-運用所學創造句子，分析評估而理解他人語意，習得新知’上，方法一學生提及的比率仍然相當高。這些有利於學習的因素可能是讓方法一學生的參與意願還是很高的原因。亦即對學生們來說，心理層面和學習方面的因素是相輔相成的。這兩個因素都能影響他們的參與意願和學習動機，而且對學習有助益的因素也不單只是在運用語言技能這個面向。

5.7 將學習延伸到課外，為學生提供運用華語的有效學習環境

綜合了語料分析，量性資料分析，和開放式問題質性資料分析的結果，這兩個方法都達到了將學習延伸到了課外，在線上提供了有效的華語學習環境之目的。在語料分析中我們看到了兩組學生都在既有的語言知識上或練習運用當週課堂所學，或練習廣泛地運用多方面的語言技能，或自同儕的語言輸入中學習，來精進語言交流技能。問卷的量性資料（表十四，十五）也得到了相同的結論：方法一和方法二的學生皆對‘此活動讓華語的學習從課堂延伸到我的日常生活中’持相同程度的正向肯定態度。但大體而言，方法二更能得到學生們在‘此活動對我學習華語有助益’上

的認同（在統計上有顯著性的差異）。也就是，參與方法二的學生更同意此活動為他們提供了有效學的學習環境。

6. 結論

學習外語一直都被認為是一件不容易之事，尤其是在一個日常生活中缺乏運用所學外語的環境中學習。畢竟，透過使用欲習得的語言與他人交流是習得此語言的一大良方。相信也因此不少華語教師跟筆者一樣，會嘗試用各種不同的方法，幫學生在課堂外創造華語輸出及互動的機會。然而，線上課外活動是否能與課堂教學做連結並達到促進語言習得的目的？是否能讓學生樂於參與？教師們在忙碌教學之餘是否能額外抽出時間顧及這些課外活動？這些也應該是教師們關切的議題。本文討論的活動即是基於上述考量而設計的。

這兩種形式的筆談活動，透過混合型的研究探討，不管是從外語習得理論還是從實際體驗此活動的學生們的角度來看，都達到了‘幫學生將學習延伸到了課外，為在日常生活中缺乏華語文環境的學生提供運用及有效學習華語的環境’之目的。此外，除了偶爾不定期加入筆談回應某些貼文或給予反饋之外，這個活動並不需要身為教師的筆者耗費太多額外的時間來輔導。這對忙碌的教師們來說，是個可行性極高的課外活動。而且這兩種形式的筆談活動可以透過任何有論壇 (discussion forum) 功能的線上課程平台來實施，如許多學校採用的 Blackboard 或 Canvas 也都可以用來進行這類型的筆談活動，只要老師跟全班同學都可登入參與即可。但是，這個活動的兩種形式在達到其活動的目的上，各有其優點。

在促進運用當週或近期課堂所學上，方法一起到了更大的作用。它幫助學生記憶和理解近期課堂所學，起到在新語境復習和應用所學的作用；而方法二則在讓學生以既有的語言知識為基礎，跳脫近期課堂主題，精進和創造語言新知上起到較大的做用。此外，雖然方法一也提供了‘促進同儕互動，促進自我學習華語知識，自同儕的語言輸出中習得新的語言知識’的機會，但是方法二在這些功能上卻能得到更多參與學生的認同。這讓筆者認為方法一雖不失為有效的學習活動，方法二卻能讓學生面臨更大的語言挑戰，使他們綜合之前所學，或運用工具書，或利用同儕貼文習得的生詞，完成筆談任務。亦即方法二更貼近實際的語言交流活動。然而值得注意的是，參與本活動的學生都是中級班的學生，語言知識已有一定的基礎，初級班的學生很可能無法勝任方法二這樣挑戰性較高的活動。

值得提及的是，對外語學習有益處的不只是增加學生運用標的語的機會，還要在情感層面 (affective state—例如，樂於或喜歡跟同學們一起從事某活動) 提供學生額外的誘因來參與學習活動。這些情感因素，如 Ellis (2002) 指出，是和語言習得成效有相關性的。尤其是筆者的學生來自各科系，中文課是選修而不是必修課，因此讓學生樂於且樂在學習更顯重要。而讓學生樂於且樂在學習的，還包括了他們與同學之間的情感連結，和在此群體中的歸屬感。在筆者任教的大學，選修同一門中文課的學生們，大多不會有機會在其他課堂上再見面，因為即使是同年級相同主

修的學生，大家選修的課都不見得相同。這跟大多數在亞洲的大學狀況很不同。因此美國大學生的同班同學情誼或歸屬感相較之下是弱得多的。也正因如此，筆者在思考設計課外學習活動時，特意將培養同班同學歸屬感納入考量，期望讓他們藉由群體互動一起學習，更加認識彼此，形成情感上的連結。此外，畢竟語言是與‘人’交流的工具，讓學生跟他們的同學筆談互動而產生的樂趣及意義，應當是學生一個個獨自在線上做語言技能的練習或在家做紙筆上的練習不能比的。

在情感層面上，方法一的學生雖然也同意這個活動是有趣的，他們樂於參與，且此活動讓他們跟其他同學產生了學習共同體的歸屬感，但方法二更能讓學生在這個面向上產生共鳴。從這個角度來看，方法二在情感層面上也是勝出的。方法二讓貼文主題傾向於表達貼文者的喜好或在意之事，例如，他們的露營經驗，他們養的哈士奇犬，等等。這些主題更貼近於學生自己個人的生活和喜好，不但更能讓他們表達自我，也更能讓他們藉由其他同學的貼文瞭解同學們的課外生活。不少方法二的學生在開放式問題一中提及類似的反饋，例如，‘這些（同學在貼文中附上的）照片和得以看到同學們（生活上）的喜好，讓這個（筆談）活動很有趣’（“The task is interesting with the pictures and getting to see interests of other classmates.”），‘我覺得這個活動很有趣又能促進互動。我們得以貼一些我們在乎或我們覺得有意思的事。此外，我們還得以更認識我們的同學’（“I think it was fun and interactive. We got to post about things that mattered to us, things that interested us. In addition, we got to learn about our classmates as well.”），和‘這活動讓我可以跟同學們產生情感上的連結。它讓我們更加認識彼此’（“It’s a way to connect with my classmates. It allowed us to get to know each other.”），還有‘我很喜歡這個表達我們親身經驗或個人喜好的貼文活動。它讓我在學習華語的同時還能以有趣的方式更加認識我的同學’（“I enjoyed the posting task. It was personal and a fun way to go to know my classmates while learning Chinese...”）。這些看似與語言知識本身沒有直接關係的因素，讓學習者覺得學習活動是有趣且貼近他們自己的喜好的，還能讓他們跟同儕產生一種互動共融的歸屬感。這些情感因素在促進學習華語上起的間接作用是不容忽視的。

有個意外的發現是，少數方法二的學生（3位）在開放式問題一的反饋中提及，當輪到他們當版主，而他們的貼文沒有得到許多同儕的回應時，會覺得氣餒，而方法一中即無此類似的反饋。方法二的規則為：全班同學輪流，每星期有四位同學在當週的論壇中首先各貼一則貼文，其餘的同學則得選至少兩個版主的貼文來回應。也就是說，其餘同學可以自由選擇要回應哪些版主的貼文，也因此並不是每一個版主都可以得到相同次數的回應或關注。這個規則的好處是，沒有輪到當版主的學生只要做到每週至少回應兩位版主的貼文就算是完成此課外活動。這對筆者的那些主修課程課業已經很重還抽空來選修中文課的學生來說，參與此課外活動不會是太大的額外負擔。壞處則是，自認為貼文沒有得到足夠關注量的學生，在心情上可能會有些失落。由於版主的貼文都是與自身切身相關的主題，因此個人色彩濃厚。當貼文的內容或題材沒能引起大多數同學的關注興趣，而得到與其他版主相較之下較少的回應時，不免影響其心情。這是筆者在設計此活動時始料未及的。雖然只有極少數的學生提到此反饋，但仍然是值得留意的問題。

當今在網路上為學習外語而設計的線上活動或遊戲不勝枚舉，本文討論的活動只是外語學習活動中的眾多可能性之一。對於身為外語習得研究者也是華語教學第一線教師的筆者來說，一個活動是否能從外語習得理論和學生的角度來看，都能看到促進語言習得的實據，也能讓學生樂於參與，且幫助培養學生之間學習共同體的歸屬感，都是相當重要且缺一不可的。筆者也希望本研究的結果，可提供華語教師們在選擇線上課外活動時的參考。

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WeChat Assisted Differentiated CFL Instruction in Study Abroad: A Pilot Case Study* (微信辅助海外 CFL 个性化教学案例初步研究)

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Abstract: This pilot case study explores the use of the WeChat recording tool as a promising solution for the challenges of teaching mixed second language (L2) and heritage language (HL) learners in sheltered content courses in study abroad. The tool successfully created opportunities for learners to engage in different oral learning tasks, helped the curriculum to stay on track, and enabled instructors to provide differentiated and timely feedback. Data were collected from an online survey, email questions, learner recordings of topics, and an instructor's recording of feedback, reflections, lesson plans, and class notes. The study determines that the WeChat recording tool can be very helpful in instructing mixed classes in study abroad, despite limited technical difficulties.

摘要: 本案初步研究了微信作为录音工具在海外留学项目中的使用，所观察班级均有程度不同的二语及继承语学习者。本研究发现微信使用给不同学习者创造了完成多种口语学习任务的机会，有助于保证课程进度，并给教师提供了个性化、及时性反馈的渠道。研究数据来自线上问卷、电邮采访、学习者口语练习录音，教师反馈录音、教学反思及教案笔记。结果显示虽然微信使用偶尔存在技术问题，但作为录音工具，它益于海外项目中混合水平班级的教学。

Keywords: WeChat, study abroad, differentiated instruction, heritage learners

关键词: 微信、海外留学、个性化教学、继承语学习者

* This article is a substantial expansion of Zhan, H., & Chen, L. (2018). Performing WeChat recording tasks in mixed-ability study abroad content courses. *Journal of Technology and Chinese Language Teaching*, 9(1), 15-34.

1. Introduction

Learners populating L2 classes in American universities have become increasingly diverse. One of the biggest challenges in teaching a second language is to meet a variety of learners' needs to maximize their individual learning potential. This challenge becomes even more apparent in a mixed second language (L2) and heritage language (HL) learner class, where learners may have different proficiency levels, cultural backgrounds, and personal interests. Differentiated instruction is generally recommended as a "philosophy of teaching and learning" (Theisen, 2002, p. 2) to accommodate such diverse learners (Tomlinson, 2014). Through differentiated curriculum management, that is content, process, or product (output of language learning), instruction can be modified in response to each learner's particular learning needs. Differentiated instruction further promotes equality and engagement of learning (Theisen, 2002).

However, differentiated instruction is not easily implemented in L2 content courses, often referred to as sheltered courses, where the class does not have fully-proficient native learners who are learning an academic subject, such as history or geography, via the target language. This involves learning a subject and the target language at the same time (Crandall, 1994), frequently with additional help from language instructors. The L2 learners get the same course credits as learners who take the subject in their native language (Spring, 2012). Ideally, in sheltered courses, linguistic skills and content knowledge mutually enhance the learning process. As mentioned in Stryker and Leaver's work (1997), "language proficiency is achieved by shifting the focus of instruction from learning language *per se* to learning language through learning content" (p.5). Learning content knowledge helps learners perceive how the target language is used in authentic and specific content areas. However, due to the traditional mode of subject learning, "many subject-area teachers want to maintain strong control over their particular courses and subject matter" (Grabe & Stoller, 1997, p.18), namely, that they lecture and learners listen. This instructor-centered methodology deprives L2 learners of real communication opportunities (Lü, 2014), opportunities imperative for further developing language proficiencies.

Additionally, limited class time is another challenge most content instructors confront when implementing differentiated instruction. The dual-task of learning both language and content in sheltered courses increases the demand for more class time. Yet classes in American universities normally last for only 50 to 60 minutes. This limited class time constrains instructors to deliver "one-size-fits-all" instruction and feedback to learners who have different interests and readiness levels (Reese, 2011; Theisen, 2002; Tomlinson, 2014).

Time becomes even more constrained during intensive summer courses taught abroad, where instructors are pressured with other tasks in addition to teaching. Faster pace demands faster feedback because learners' subsequent tasks generally depend on feedback from previous assignments. Moreover, when learning a second language in the target language environment, learners are exposed to more learning materials and learning contexts where they can employ their content knowledge. Thus, providing timely feedback on learners' practice of content knowledge more precisely guides them in the learning

process. It is in this context of challenges that technological means can come to aid and to enhance fast-paced, differentiated, and personally meaningful instruction and feedback for both L2 and HL learners in sheltered courses.

When studying abroad in different parts of the world, different technological tools may be employed. To note, WeChat, a communication tool for mobile phones, has become a Chinese app for nearly everything—from text and voice messages to “friend circles” social media (similar to Facebook or Twitter), and online mobile payments for individual vendors or shops. WeChat has thus become an important part of modern Chinese culture. Because of the several useful functions embedded within the WeChat app, many language educators have discovered the benefits of employing it in L2 education in China.

This study explores the benefits of the instructional use of the WeChat voice message function in mixed L2, HL learner sheltered content courses taught in Mandarin Chinese in an intensive study abroad program in China. Specifically, this paper first reviews related studies on: (a) meaningful communication in sheltered courses; (b) differentiated instruction; (c) heritage and L2 learners in a mixed class; (d) feedback as formative assessment; (e) mobile-assisted language learning, and; (f) WeChat and its applications in CFL instruction. Then, the paper addresses the research methodology of the case study, research context, participants, data collection and analysis, research findings for the rationale for the instructional use of WeChat, how WeChat is used to facilitate differentiated instruction, and what learners think of the instructional use. At the end, this paper further discusses research findings, implications, limitations, and suggestions for future research.

2. Literature Review

2.1 Meaningful Communication in Sheltered Courses

According to L2 acquisition theories, forms of language (i.e. grammar) are best learned incidentally with occasional reinforcement of explicit instruction. This means that the learners are engaged in processes of communicating meaning, during which they discover incidentally the rules of the language, with instructors calling attention to forms at the moment when learners are ready (Long, 2017). Long further points out that such implicit learning tends to be far more effective and long-lasting than a focus on explicit instruction of forms, as the retrieval of incidentally-learned knowledge is “automatic and fast,” as well as from deep memory (p.21). Inseparable from meaningful communication is proficiency-based learning, which tests what learners can do in the actual process of communication.

Sheltered courses are built upon the acknowledgment of the power of incidental learning and proficiency assessment. These courses are organized around meaningful content, where learners are given the opportunity to learn about a topic, a theme, or an academic subject. For HL learners, content-based approaches are even more relevant since the nature of their acquisition has been content-based from the beginning (Lynch, 2003). In recent decades, under the American Council on the Teaching of Foreign Languages

(ACTFL) proficiency guidelines first published in 1986, and the American National Standards in Foreign Language Education of 1996, communicative and content-based approaches have been proven to be the most successful (VanPatten, 2002; Hadley, 2001). Communication encompasses three modes—interpretive, interpersonal, and presentational.

Yet, meaningful communication will not be successful unless learners are highly motivated. Defined as the degree of learners' attention and effort directed at learning tasks, motivation plays a key role in the success of communication (Shrum & Glisan 2005). Two main sources of demotivation are anxiety and boredom. On the one hand, if learners are anxious, they cannot focus on the tasks. But anxiety for L2 learners is prevalent, especially oral communication apprehension. Furthermore, anxiety negatively affects language performance, such as L2 learners having "difficulties presenting themselves authentically" (Luo, 2015). Learners who perceive the course more challenging than what they expected experience an even higher level of anxiety. On the other hand, uninteresting, unengaging, or prolonged tasks are likely to cause boredom (Kanevsky & Keighley, 2003; Van Lier 1998). In addition, individual characteristics of learners and their interests can make them perceive certain tasks as tedious. If a learner does not think a task will lead to meaningful results, that learner is likely to feel less engaged (Shrum & Glisan, 2005).

2.2 Heritage Language (HL) Learners

One main factor that differentiates learners is whether or not they are HL or L2 learners. For the purpose of this case study, HL learners are defined as those with a certain level of language competence, and or "to some degree bilingual" in the HL and the predominant language of their locale (Luo, Li, & Li, 2019).

Research (Fishman, 2001; Valdes, 2001) has shown that HL and L2 learners differ not only linguistically, but also affectively. According to several scholars (Meskill & Anthony, 2008; Montrul, 2011; Mikhaylova, 2012; Oh & Nash, 2014; Luo, Li, & Li, 2019), HL should ideally have their own language classes; yet due to financial constraints, there is a trend to place HL and L2 learners in the same language class in higher education institutions. In such classes, according to the national survey of college-level HL education done by Luo, Li, & Li (2019), instructors observed HL learners' low motivation due to such factors as "boring class content," or "showing faces of boredom" when they already know the content of the class (p. 110).

If no pedagogical intervention is made, HL learners' further acquisition of language is likely to suffer. Although successful pedagogical interventions in CSL are rarely reported (Luo, Li, & Li, 2019), in other languages encouraging stories have emerged. For instance, in Spanish, Parra (2013) discussed creating similarities between HL and L2 learners of Spanish, both of whom were at high proficiency levels. To begin with, through a written and interview application process, Parra selected a small number of HL and L2 high proficiency learners with similar interests and experience to be enrolled in the class. For this class, she assigned community service where each learner had different work in an organization, bringing back to the classroom a rich discussion of individual stories. She also assigned museum visits, where each learner wrote down the meaning of a work of art

and came back to class for a collective composition of their individual thoughts. In other words, differentiated assignments allowed each student a self-tailored space to study and present individual findings, resulting in a much more interesting and motivating class.

However, in a mixed class of different proficiencies, Meskill and Anthony (2008) found that “the more verbally proficient” HL Russian learners can dominate the conversation, and tune out “when the conversation turns to forms, functions, and pronunciation patterns in which they are already proficient” (p. 1). The authors made a technological intervention to accommodate the HL learners. Instead of attending the language class, HL learners participated in a two hour per week Computer-Mediated Communication (CMC) of “text-based discussion” of historical, ecological, political topics, resulting in increased command of diction and evident improvement in writing. In CSL, as “the third most spoken language at home in the United States,” the number of HL Chinese learners will keep growing, making it more important to invest in pedagogical interventions (Luo, Li, & Li, 2019).

2.3 Differentiated Instruction

Tomlinson (2014), the leading educator advocating differentiated instruction, defines differentiated instruction as an educational approach to responding to “learners’ differences in readiness, interest, or learning profiles” (p.103). While paying attention to a broad range of differences in learners’ backgrounds, differentiated instruction engages learners in the learning process through a supportive learning environment, quality curriculum, and assessment that guides teaching and learning (Tomlinson & Moon, 2013). By differentiating curriculum content, learning process, and products demonstrating the mastery of such content, the learning environment becomes flexible and adaptive to learners’ learning needs. The following chart best illustrates the underpinnings of differentiated instruction.

Tomlinson’s differentiated instruction principles provide a powerful and practical guideline for instruction. In the L2 classroom, the researchers recognize that learners’ characteristics may differ in many aspects; therefore, instructional strategies must be adjusted accordingly (Theisen, 2002; Roiha, 2014). For instance, the higher a learner’s level, the relatively more explicit and differentiated instruction is needed to develop lexical precision, syntax complexity, and organized speech (Leaver & Shekhtman, 2002; Ingold, 2002). Thus, providing differentiated instruction is necessary to advance learners’ language proficiency.

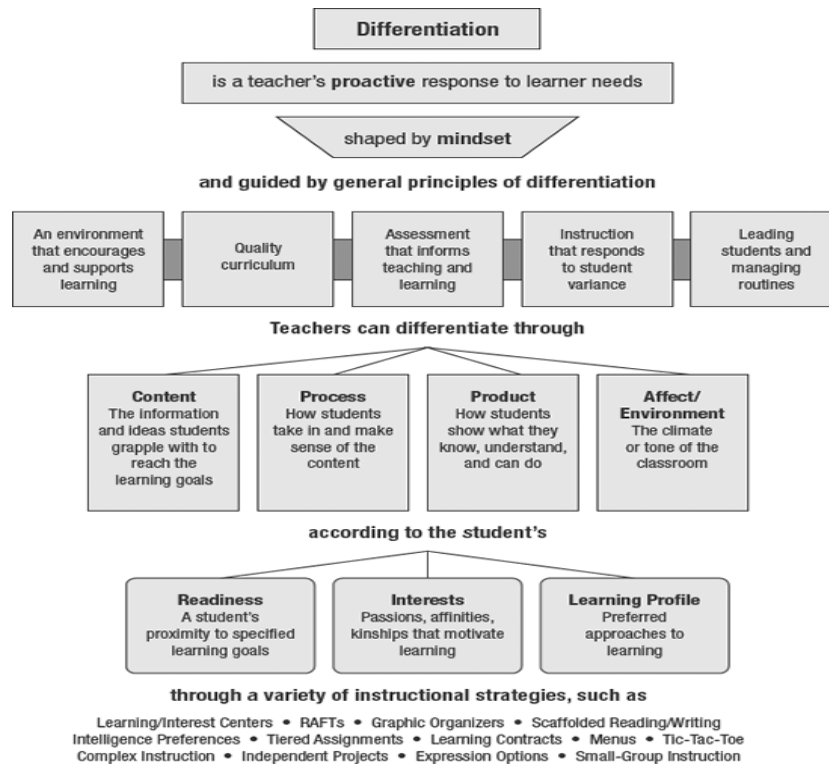


Figure 1 Key elements of effective differentiated instruction (Tomlinson & Moon, 2014)

2.4 Feedback as Formative Assessment

As shown in the chart of differentiated instruction, assessment is at the center. Normally, assessment is divided into two categories: formative and summative. These two types of assessment for learning and instruction serve different purposes in differentiated instruction. As Tomlinson and Moon explained (2014), whereas formative assessments serve to adjust course design in content, procedure, and product, summative assessments measure and evaluate the learning outcomes. “Differentiation places particular emphasis on formative assessment” (Tomlinson & Moon, 2014, p.10).

As an effective strategy for formative assessment, feedback has a tremendous impact on learning. Numerous meta-analysis studies of the effect of feedback in educational research rank feedback highest among hundreds of educational practices (Goodwin & Miller, 2012). Providing specific and timely feedback arms learners with opportunities to identify their strengths and weaknesses, further revise and improve their work, and ultimately advance their proficiency. Particularly, research has found that feedback is most effective when provided immediately. For example, Opitz, Ferdinand, and Mecklinge’s 2011 study found that participants who were provided immediate feedback showed a significantly larger gain in performance compared to those who received delayed feedback. All of these empirical studies have made evident the value of timely feedback on effective learning.

2.5 Mobile-Assisted Language Learning (MALL)

Today's advanced technology provides many options for responsive teaching and differentiated instruction (Reese, 2011). Mobile devices, such as smartphones, have become an integral part of learners' lives. The Pew Research Center (2018) reported that 91% of American college learners own a smartphone. College learner smartphone owners almost tripled the total number of smartphone owners in 2011 (35%) when smartphones first became widely available and affordable on the market. With a surge in mobile devices (particularly smartphones), advanced mobile technologies, and wireless network accessibility, mobile-assisted language learning (MALL) is considered an ideal solution to language learning constraints in terms of place and time (Burston, 2015).

Research across disciplines and subjects has found that mobile devices carry the potential to enhance language learning since they can easily connect users with a variety of online multi-level learning resources through a variety of applications. An annotated bibliography reviewing MALL historical background from 1994 to 2012 (Burston, 2015) demonstrates that MALL studies cover a variety of topics, including "technical specifications, mobile device ownership, pedagogical design, learning theory, user attitudes, motivational effects, institutional infrastructure, and teacher training" (p.157). In addition, Burston (2015) studied the result of learning outcomes related to MALL project implementation in the past twenty years through a meta-analysis report, and found that, even though MALL studies focusing on vocabulary did not make a significant difference, those studies investigating reading, listening, and speaking contributed to the development of target language skills in these aspects. The research findings encouraged more language educators to explore good practices and investigate persisting or emerging issues related to MALL. With the advancement of mobile and other emerging technologies, such as augmented or virtual reality, MALL will certainly remain in demand and continue to grow as a field of its own.

2.6 WeChat and Its Applications in CFL instruction

2.6.1 WeChat as a Communication Tool

MALL would have not been possible without the development of hand-held computing and mobile technology devices. However, from pocket dictionaries and other types of personal digital assistants (PDAs) to MP3/MP4 players, tablets, and smartphones, mobile technologies have launched new trends in MALL studies. A remarkable number of language apps have surged in popularity over the years. Among the many widely used smartphone apps, WeChat has become more popular worldwide in the past few years.

WeChat, a free instant message app launched by Chinese company Tencent in 2001, reached nearly 800 million users in July 2017 (TechNew Report, 2017). WeChat is available in multiple platforms, on mobile phones, tablets, or desktop computers. It is a worldwide social networking platform where users can not only post images, text, and share photos and files, but also converse via audio or live video. Additional functions, such as "Moments"(a function similar to a combination of Facebook and Blogger, where users post photos and circulate information) and "Subscription Accounts" (a large group chat of

up to 500 people), enable WeChat users to interact simultaneously with large groups of people. Most importantly, WeChat's mobile payment function via QR code scan or direct link to a user's bank card has made WeChat an inseparable part of modern life for Chinese nationals. It is not an exaggeration to say that WeChat has become a lifestyle in China. As New York Times journalist Li Yuan commented, "I live and work on WeChat" (Tsang, 2019). The following table lists the major developmental stages and features of WeChat and its functions.

Table 1 WeChat's Development Features, Tools, and Functions

| Year | Development Features | Tools & Functions |
|------|---|---|
| 2011 | Start of development | |
| 2011 | First launch for iPhone | Messages in text and voice to communicate. Video editing to create videos. Searching other WeChat users nearby. Group chat to interact with many users simultaneously. WeChat Moments to visually share information. |
| 2012 | Reached 100 million users; WeChat became Wēixin in Chinese | Added more foreign languages (Thai, Vietnamese, Indonesian, and Portuguese). Voice and video chat to talk live. QR code scan to quickly add people in WeChat or make WeChat payments. Subscriptions or public platform (Gōngzhòng hào). Desktop WeChat to function quickly. |
| 2013 | Reached 300 million users; Android and Windows | Voice and video chat with multiple users. Mobile payment (bank card). Game center. Scan function. WeChat pay in Jingdong Store. |
| 2014 | WeChat commerce | Didi taxi. Red envelope. WeChat stores. |
| 2015 | Reached 500 million users | Huge scale up in advertising. |
| 2016 | Reached 700 million users | Optimization of existing features. WeChat Wallet for cash transfer. |
| 2017 | Controlling Chinese mobile device market | Plugins (small programs benefit small business owners). Games. News feed. |

2.6.2 WeChat as an Instructional Tool in CFL Education

Conventionally online communication and online instruction use separate tools. For instance, educational institutions use Blackboard or Canvas as their main technological platforms. But a tool like FaceTime is probably not used as an instructional tool. WeChat, however, has been used both as a communication and instructional tool. Even though WeChat was not designed for learning foreign languages, many WeChat tools contain

powerful functions and apps to support of language learning. For example, functions like text and voice messages, videos, text translation into the user's interface language, as well as the ability to switch between traditional and simplified Characters, have given WeChat the title of the most favorable mobile app among CFL learners. Liu (2014) reports that 93% of beginner CFL learners already had WeChat accounts.

Chinese language educators have shown an increasing interest in integrating WeChat in the Chinese classroom. Empirical studies related to CFL, though scarce, have found that WeChat is a very effective tool in helping CFL learners learn the Chinese language. For example, Hu (2014) looked into the use of WeChat "Moments" (like a mini-blog to share photos and information publicly with WeChat friends) in Chinese reading and writing instruction. After one-month training in speed reading *Téngxùn xīnwén* [Tencent News] posted in WeChat Moments, learners' reading speed and motivation in writing greatly increased. Similar results were reported in Wang (2015), whose semi-experimental study found that learners who intensively applied WeChat in their daily learning outperformed in reading, creating sentences, pronunciation, and accuracy.

Studies have also found WeChat tools especially helpful in developing oral proficiency. Yang (2014) designed the Chinese *Hànyǔ suìsuì niàn* [Chinese Twitter] public platform in WeChat based on current CFL pedagogy as well as other WeChat features. The platform provides intermediate-level oral instructional materials, including voice, video, graphics, and hyperlinks. After field-testing the platform for about 4 months, CFL instructors and learners were asked to take an online survey to share their experience. Eighty-Three percent of users reported that the platform helped to instruct and learn spoken Chinese.

In a mixed-method design study, Luo and Yang (2016) explored using WeChat to instruct lower-level CFL learners. Through five types of WeChat learning activities, including asking/answering questions, mini-writing tasks, mini-oral projects, socializing and information sharing, and non-graded extracurricular input, participants reported five major benefits. They expanded learning time, increased linguistic gains, experienced more cultural learning, developed higher learning motivation, and established a supportive Chinese language learning community. Particularly, mini-oral tasks through WeChat were considered the most useful. Learners commented that these tasks for communicating in Chinese and developing their oral skills were fun to practice.

As a powerful and ubiquitous communication tool in Chinese speaking communities, WeChat can be integrated in Chinese language education in both domestic and study abroad contexts to connect language learners at various levels of proficiency with native speakers of Chinese (Jin, 2018). In addition, since other popular tools, such as SnapChat, Google Chat, and Line are not accessible in mainland China, using WeChat in study abroad in China is on the rise.

Nowadays, many study-abroad programs in China have chosen WeChat as a primary learning and communication tool because almost all Chinese are using it in daily life. Jin's (2018) case study reported what WeChat provided for two CFL learners studying

in Shanghai in an intensive summer program. Based on affordance theory, or “the opportunities for action offered by specific object or environment,” Jin found that although the two participants were different in meaningful communication, linguistic resources, multiliteracies, and space for new identity creation, both had reported that WeChat afforded them a fun and casual space to have instant and direct communication with native speakers of Chinese. These affordances helped the participants develop further communicative competencies needed in real-life conversations, and improved their confidence as users of Mandarin Chinese. Obviously, for study abroad in China, WeChat can become a very convenient tool to learn authentic Chinese and to build and maintain connections with native speakers of Chinese.

2.7 Research Gap and Questions

The above comprehensive literature review demonstrates pedagogical needs for differentiated instruction, especially for mixed-learner classes, and the positive results of employing technological tools for instructional needs. The literature also reveals a research gap in the existing studies: No research has been performed on whether WeChat can be used to help provide differentiated instruction in a mixed-learner class within a study abroad context, despite the fact that WeChat was found to be a powerful tool for instructing and learning the Chinese language, particularly helpful in oral proficiency development and authentic social interactions. Even though Luo, Li, & Li’s national survey of Chinese HL instruction (2019) briefly mentioned that instructors used WeChat successfully, evidence or elaboration of this success was not included (p. 113).

With this research gap in mind, the researchers intend to study the rationale and the feasibility of the instructional use of WeChat as part of a study abroad program to help mixed-learner content course instructors carry out differentiated instruction. In particular, the research investigates the following questions:

1. Why was WeChat chosen as a tool to facilitate differentiated instruction in the study abroad program in China?
2. How was WeChat actually used for such instruction?
3. What did learners think of the instructional use of WeChat?

3. Research Methodology, Context, Participants, Data Collection and Analysis

3.1 Research Methodology

This research is designed as a pilot case study. According to Yin (2003), a case study is a research strategy allowing investigators to retain the holistic and meaningful characteristics of real-life events and to understand why a decision or set of decisions were taken, how they were implemented, and with what results. Different from experimental research, which normally seeks information from large and representative samples of individuals, a case study typically observes the characteristics of an individual or a small group (Nunan, 1992). In applied linguistics, the case study is “particularly suited to the types of action-oriented research projects” (Nunan, 1992, p. 89). Due to the fact that WeChat as a tool for differentiated instruction is a new attempt in the CFL and L2 fields,

no case study or large quantitative data is yet available. Granted, this pilot study is based on a small sample; however, the researchers believe that the study can be useful for L2 instructors to look further into the use of technology in differentiated instruction. As Merriam (1998) mentions, purposeful sampling is the most common form of sampling strategy in qualitative research, allowing the investigator to discover, understand, and gain insight into the issue under examination. Specifically, this research examines in-depth the WeChat application in a single mixed-learner study abroad program: why and how WeChat was used as an instructional tool to enhance differentiated instruction and the result of the WeChat application.

3.2 Research Context

This research was conducted in a study abroad program in China held from June 15 to August 15, 2015, during which three sheltered content courses were taught: Speech, Cross-Cultural Communication, and Introduction to Geography. Content courses meant that certain content must be finished for students to get the credits of a same course taught in the students' mother tongue. For the Speech course, learners must do descriptive, narrative, informative, and argumentative speeches, each 7-10 minutes in length. The Cross-Cultural Communication course required learners to keep daily diaries of their experience in China, reflect on the experience, and compare it with that in their home country by theme, such as addressing people. Classes were held 3 hours a day, Monday to Friday, with roughly 2 hours of daily homework. Speech and Cross-Cultural Communication courses were held together as one block session each day instead of daily class time divided evenly between the two courses, as sometimes the presentations of one speech and discussion would take two hours. There was also a 30 minute required tutoring session Monday through Thursday. Each learner stayed with a Chinese host family and spent 1-2 hours commuting via public transportation to and from the classroom.

The program included one geography instructor from a local high school in China, the program director/CFL instructor, who was a Chinese native speaker, a professor from the United States, and seven learners who were enrolled in each of the three content courses. Since the geography instructor did not speak English, the CFL instructor collaborated with her to provide a daily vocabulary list.

WeChat was not used as an instructional tool at the beginning of the program. It was used as a communication tool. After arrival at the program site, all learners having smart phones were asked to activate a WeChat account. The program created a WeChat group including all learners, the program coordinator from the host university, and the program director. Each class also created its own WeChat group, but the purpose of WeChat use was mainly to communicate program activities, homestay announcements, tutoring, and photo sharing. From the second week on, the instructors started integrating WeChat inside and outside of class in order to provide differentiated instruction to accommodate different learner needs, and to increase opportunities for oral and aural practice.

3.3 Research Participants

Participants in the research include the CFL instructor, the geography instructor, and five learners. Even though seven learners were in the program, only five were selected as learner participants. The reason that the instructor did not select the two learners is as follows. One unselected learner, due to health reasons, did not show up in class to a large extent; nor did the learner do any WeChat assignments. This learner participated in the geography class, but chose not to do the recording homework. For the Speech course, the learner only showed up to do all the speeches, and in those class sessions there was no WeChat recording. For the Cross-Cultural Communication course, the learner chose not to do any recordings. The CFL instructor spent many hours outside of class to provide this learner with differentiated instruction. Another unselected learner could not afford to have a smart phone on which the WeChat app would be installed. This learner used a computer to do all recording tasks, (tasks to be explained later), and passed on the recordings to the instructors. This learner would give the instructors an external drive that contained the recording and the instructors used the break between classes or lunch time to give the learner feedback in person. Therefore, this learner obtained the same amount of instructor feedback as the learners who used WeChat. Due to time pressure of listening to the recording and giving feedback, as well as returning the external drive to the learner, however, the instructor did not transfer the learner's recordings to the instructor's computers or make a record of feedback to the learner for later analysis.

The five selected learners differed in cultural and linguistic backgrounds as well as proficiency as determined by the ACTFL Oral Proficiency Interview via Computer (OPIc) and years of language learning and performance. Specifically, there were two Mandarin HL learners of advanced proficiency, each from a different university, and three intermediate learners from the same degree program at the CFL instructor's university. As the literature review points out, ideally the intermediate and advanced learners should be in different classes. Due to financial constraints, however, there was only one class. The learner participants' information is detailed below. Four of the five learners took the pre-program OPIc. The one who did not was possibly at the intermediate low proficiency [IL] level, based on the learner's daily performance over a span of two years. Due to the small number of participants in this case study, gender information is excluded to protect the privacy of the participants. Please see Table 2.

Table 2 Learner Participants

| Participants | Pre-Program ACTFL OPIc Level | Years of Chinese learning |
|--------------|------------------------------|----------------------------------|
| S1 | Not taken OPIc, [IL] | 2 |
| S2 | Intermediate-Mid (IM) | 2 |
| S3 | Intermediate-Mid (IM) | 2 |
| S4 | Advanced-Low (AL) | HL learner, left China at age 6 |
| S5 | Advanced-High (AH) | HL learner, left China at age 10 |

3.4 Data Collection and Analysis

Data were collected from multiple sources: (a) learner online surveys; (b) instructor email inquiries; (c) CFL instructor reflections; (d) instructors' lesson plans and notes; (e) learners' recorded tasks, and; (f) feedback recordings. Through these six sources, the research aims to gather various information to answer the research questions.

The online survey was sent out after the end of the program to collect learners' opinions of the instructional use of WeChat in the sheltered courses. The survey included 12 questions with 5 Likert scales: Strongly Agree, Mostly Agree, Somewhat Agree, Disagree, Strongly Disagree. In addition, there was one open-ended question to allow learners to write their views on the use of WeChat. Specific questions will be listed in the research finding section.

The instructors' views about the use of WeChat was gathered through instructors' reflections and email inquiry. The email inquiry question for the two instructors was: "WeChat was used in your summer classes. What did you think of the use of WeChat in your class for the content instruction?" Email responses, instructors' reflections, as well as class plans and notes are analyzed into thematic threads related to research questions.

A total of 508 recordings (447 from learners and 61 from the language instructor) were transcribed and analyzed separately as unit of analysis. For each recording, information about the length, speed, and number of syllables was gathered. The total length of the speech in a recording was counted in minutes, and the speed was counted by the number of syllables per minute. Other than the length and speed of recordings, the quality of representative recordings was analyzed for both the learners' speech and the instructor's feedback.

4. Research Findings

4.1 The Rationale for Choosing WeChat as a Tool for Differentiated Instruction in Study Abroad in China

An analysis of instructors' lesson plans and notes reveals that during the first week of the program, while learners were getting to know each other, the CFL instructor painfully witnessed the detrimental effect of the proficiency differences on learner engagement. Sometimes an intermediate learner would have their head down while an advanced learner was speaking. When the instructor solicited responses, none was given from intermediate learners. Other times the advanced learners seemed to have tuned out by looking out of the window when an intermediate learner was speaking.

These observations echoed the lack of motivation of learners of different proficiency levels and cultural backgrounds in the literature review. According to the review, motivation is a key in getting learners involved in communicative activities. But learner differences can result in less engagement; e.g., when learners perceive class elements more challenging than what they anticipate, or when learners already do not have

pronunciation issues as an instructor demonstrates to other learners how to pronounce certain words. Furthermore, meaningful communication is content, not form, driven. Form refers to such linguistic aspects as pronunciation and grammar. Yet many L2 intermediate learners do need feedback to help them improve in formal aspects, whereas higher proficiency learners tend to need improvement in lexical precision.

As Parra (2013) did in her class, the CFL instructor tried differentiated tasks. One was to divide learners into groups according to learner proficiency levels to practice and give their speeches in different rooms, as each speech assignment was different for the intermediate and advanced group. The instructor took turns to join the groups, or the instructor and one group of learners met outside of the regular class time. In other words, to a certain extent, the two learner groups were taught separately. When all learners were in the same classroom, not all of them took turns to speak for some of the tasks. But one intermediate and one advanced learner spoke to the whole class. Neither way, however, provided one-on-one oral or aural feedback for all learners, crucial for differentiated instruction. Since class was content driven, would it be possible to provide needed differentiated feedback outside of class? If so, how? Can technological tools such as the computer help? The instructor was also aware that for learners to progress from their own level, maximizing oral and aural opportunities beyond the conversational level was needed.

Adult L2 acquisition is a long and complex process. All learners have unique differences that are important for instructor consideration. When implementing technology tools in the classroom, it is crucial to ensure that the technology does not surpass pedagogy. In order to help learners study and reach their full potential through technology-mediated Chinese language learning, sound pedagogical principles and learning theories must be considered meticulously. In considering what technological tool to use, the CFL instructor designed WeChat learning activities based on pedagogical principles derived from L2 acquisition theories (including L2 and HL characteristics), ACTFL standards (applying the interpersonal mode of communication), differentiated instruction (focusing on providing specific and timely feedback), and mobile-assisted language learning theory.

Practical problems also formed part of the instructor's concern. Had the courses been taught on the instructor's home campus in the United States, the instructor could have used her office and online tools like Canvas or Blackboard for one-on-one interaction with learners. The class in China, however, was held in a room where the internet was not available, unless one had a smart phone with internet access. Outside of the classroom, there was one office used by both program provider staff and the instructors, not a space for one-on-one instruction. Yet, at the home-stay or the residence of the instructors, the internet normally was available, although at a comparatively slow speed that did not allow the use of Blackboard, Canvas or large email attachments such as an audio file.

Given the above considerations, the instructor thought of expanding WeChat use from communication to facilitating one-on-one feedback inside and outside of the classroom, as well as increasing oral and aural opportunities for the learners. As mentioned in the literature review, WeChat is ubiquitous in China, allowing instant communication through audio, video, and text, thus making it a promising tool for instructional purposes.

4.2 How WeChat Was Actually Used for Differentiated Instruction

Based on the (CFL) instructors' lesson plans and notes, the use of WeChat is categorized in mainly four ways: in-class individual recording, in-class pair recording, homework recording, and instructors' feedback. The first three ways provide learners with opportunities for oral practice, as well as material for feedback, the core of assessment in differentiated instruction according to the literature review. For all in-class WeChat recordings, learners could choose to remain in the classroom or step outside. Whole class gatherings would resume when the instructor received all recordings in her WeChat. Feedback, although delayed, formed interpersonal communication between the instructor and the learners.

4.2.1 In-Class Individual WeChat Recording

In-class spontaneous individual recording was used in Speech and Cross-Cultural Communication courses, similar to the format of the computer version of ACTFL's oral proficiency test, where a question is followed by a recorded answer sent to the instructor's WeChat. The recordings were intended to allow all learners to speak in a similar time frame at their own proficiency level. Warm-up was one instance of in-class recording. For example, on a Monday, the instructor asked each student to record for a minute in WeChat what each did on the weekend, and then had one intermediate and advanced learner share this in class. Sometimes instructors felt that class time was running out, but there was time for all learners to make a recording of their response to a topic, which allowed the instructor to give feedback at a later time. Because the instructor did not realize that she should immediately save all WeChat recordings, the recording data for these two courses was incomplete. An analysis of class plans and notes, however, reveals that 44% of the two course class sessions used WeChat recordings.

Let us examine one set of spontaneous WeChat recordings. As a bridge for a speech introducing a Chinese province, each learner was asked to record what the climate was like in their hometown for a minimum of 1 minute. Immediately after the recording, one L2 learner and one HL learner talked about the climate in their different states in class, followed by a turn discussing the climate of a Chinese province as part of the preparation for learners' own speeches. Please see Table 3 below.

Table 3 Recording Data About Hometown Climate

| Participants | Pre-Program OPIc | Number of Minutes | Number of syllables | Syllables/minute |
|--------------|------------------|-------------------|---------------------|------------------|
| S1 | [IL] | 1.06 | 89 | 84 |
| S2 | IM | 1.52 | 155 | 98 |
| S3 | IM | 0.48 | 74 | 93* estimate |
| S4 | AL | 1.00 | 131 | 131 |
| S5 | AH | 2.20 | 355 | 161 |
| Total | | 7.13 | 803 | |

According to Table 3, in terms of speech length, 40% of learners spoke for a minute or so, another 40% took the initiative to speak beyond the minimum, whereas 20% of

learners did not meet the minimum time requirement. In terms of speed, the two HL advanced learners not surprisingly spoke a lot faster. One was almost twice as fast as one L2 learner.

In terms of speech quality, the two HL learners provided rich details very smoothly with no syntactic issues. One HL learner (S5) used idioms and precise descriptions that the L2 learners had not come across, such as “sì jì fèn míng” [distinctive seasons], and “wēi fēng” [light breeze], with three errors the entire recording. The learner fell short searching for the word “sunburn,” used an erroneous word for “pouring rain,” and mispronounced a word. The other HL (S4) learner spoke more colloquially, had perfect pronunciation, and used some words that the L2 learners had not learned, such as “wēnhé” and “qūbié” [mild and differences], despite the fact that the latter word was not recalled immediately, but only after a repetition of “yǒu diǎr, yǒu diǎr” [somewhat, somewhat]. There were two errors in this learner’s recording, a wrong word for “dédào” [to obtain] and an unidiomatic expression of a city’s name. In addition, this learner said a word in English, apparently not knowing how to say the word in the heritage language.

The L2 learner (S2) who spoke the fastest out of the intermediate cohort used such descriptive words as “qìhòu, shīrùn, gǎnzào, jiàngshuǐ liàng, bǐjiào, dàfēng” [climate, moist, dry, rainfall, comparatively, and strong wind]. The only word that the learner could not use successfully was “wēndù” [temperature], omitting the first syllable. The learner’s pronunciation was nearly perfect, only 2 out of the 155 syllables were mispronounced, and one mispronunciation was self-corrected. In addition, syntax was mostly correct, except for one word order error of “yě” [also], one unidiomatic use of “tā” [it], and one misplacement of the subject of the sentence. Another L2 learner (S3) appeared to be familiar with the names of the seasons and directions, as well as the word “guāfēng” [wind blowing]. In addition, the learner used an idiom to portray the seasons. There was one syntactic error and 3 mispronunciations. The third L2 learner (S1) appeared to be also familiar with the names of the four seasons and directions, as well as descriptive words of “lěng” and “rè” [cold and hot], yet struggled with clarity, pronunciation, and grammar. For instance, there were 13 mispronounced tones and 2 mispronounced syllables.

4.2.2 In-class Pair Recording

The second instructional use of WeChat was pair recording, like a recorded small group discussion by learners of similar proficiency or mixed proficiency—especially later in the program when learners were familiar with each other and had built close relationships. Small group WeChat recording was also intended for the instructor to give individual feedback after class.

According to lesson plans, the 44% of the WeChat use in the Speech and Cross-Cultural Communication classes includes 11% for pair recordings. For instance, in a Cross-Cultural Communication class, for the theme of family members, after listening and reading about a mother figure in China, learners in pairs used WeChat to share and record a mini story of a family member. Two L2 learners (one was without WeChat) were in one pair, and the rest of the pairs consisted of one L2 and one HL learner. The data of one

mixed pair recording shows that neither learner told a story, but described the characteristics of a family member. The L2 learner (S3) spoke for fifty-nine seconds and the HL learner spoke for one minute, almost identical speech length yet at a different pace; the L2 learner spoke 93 syllables and the HL learner (S4) spoke 136 syllables. Both learners seemed to be struggling for the right words and expressions as they spoke. The L2 learner shared how his younger brother liked to express himself orally. Despite some syntactic errors, the main message should not have been missed as the learner gave several examples. The HL learner shared how his host father appeared to be stern when he actually liked to joke. Even though the word “yánsù”[stern] very likely would be at a loss to the L2 learner, other words like “kāi wánxiào” [make jokes], or “xiào” [smile, laugh] in sentences like “appear...; in actually...” should have conveyed the message. Therefore, both learners should have had a basic communicative exchange.

4.2.3 Homework Recording

The third instructional use of WeChat was homework recording, especially in the geography course. It was unrealistic to train a geography instructor as a L2 language instructor in a short period of time. To create a window for learners to have oral interactions in an otherwise traditional lecture course, the geography instructor every Monday, Tuesday, and Wednesday for 4 weeks of the course, assigned written questions to be answered orally in WeChat. L2 and HL learners' questions were different in terms of sophistication and required recording length. The minimum recording time for L2 learners was two minutes; for the HL learners, it was three minutes. For each type of learner, sometimes there was one question, sometimes two questions. Every Friday a weekly test was administered, and therefore no recording was assigned on Thursdays.

Altogether the geography instructor assigned 35 questions. Most questions pertained to the class content of the day, and thus the recording functioned as an individual review of part of the content. In WeChat, each recording is limited to one minute. Learners altogether made 178 recordings, the higher the proficiency, the higher the number of recordings. For instance, the most number of recordings one L2 (S1) learner made was 34, one HL learner (S4) made 53 recordings, and the other (S5) made 77 recordings. Because each learner made WeChat recordings, which were listened to and given feedback outside of class, the geography instructor only needed to call on two learners to speak about the geography questions in class, give feedback, and move on to new content. The geography instructor commented in response to an email inquiry that if every learner took turns to answer the questions in class, and she took time to provide feedback, it could take approximately 20 minutes of class time. In other words, the recordings helped the geography instructor to stay on track with the content. The one or two learners' in-class mini reports of the WeChat homework also gave the instructor confidence to interject questions in class, thus creating moments of spontaneous oral communication with the learners. Furthermore, the instructor was an experienced educator, who sometimes called on names of learners to answer her questions to prevent one or two learners from dominating the classroom.

4.2.4 WeChat Recording as a Tool for Feedback

The fourth and perhaps most important instructional use of WeChat was recorded one-on-one instructor feedback. For the geography course, the CFL instructor and the geography instructor collaborated to give feedback. The geography instructor gave the CFL instructor standard answers in writing. For answers that did not meet the standard, both instructors listened to the WeChat recordings together the next day, where the geography instructor gave the CFL instructor geographical content comment. The CFL instructor would combine content and language comments into feedback sent as one message to the learner via WeChat. The feedback included a grade for the recording.

Actual feedback analysis demonstrates that on average 53% of the feedback was given the same day, meaning after that day's class but prior to the next day's class. Since other Internet tools or mobile Apps were not available or reliable, without the use of WeChat, such prompt feedback would have been impossible. But in an intensive summer program, such prompt feedback was necessary. Thirty-five percent of the feedback was given the next day. To a large extent, this percentage accounts for the feedback given to learners after the geography instructor listened to the recording the next day. The rest of the very limited delayed feedback was due to learners' late submissions of WeChat recordings.

Table 4 Percentage of feedback time for all three courses

| Learners | Same-Day | Next-Day | 2 Days Later | 4 Days Later | 5 Days later |
|----------|----------|----------|--------------|--------------|--------------|
| S1(L2) | 67 | 17 | 0 | 0 | 16 |
| S2 (L2) | 60 | 40 | 0 | 0 | 0 |
| S3 (L2) | 33 | 67 | 0 | 0 | 0 |
| S4 (HL) | 50 | 33 | 0 | 17 | 0 |
| S5 (HL) | 56 | 11 | 33 | 0 | 0 |
| Average | 53% | 35% | 7% | 3% | 3% |

In an attempt to see if and to what extent feedback was individualized, the researchers analyzed latitudinally one-day feedback for each learner, as well as longitudinally characteristics of recorded feedback for each learner during the entire program.

On July 2, 2015, the geography instructor asked each learner to choose and record the use of one natural resource. Whereas the L2 learners each did record about one natural resource, the HL advanced learners recorded about several resources and their geographical distribution. As illustrated in Table 5 below, the instructor's feedback varied by the density of content and speed, somewhat faster for the HL advanced learners than for the L2 learners.

Table 5 July 2 Feedback

| Participants | Pre-Program OPIc | Recording Content | Feedback Length | Syllables per second/total syllables |
|--------------|------------------|-------------------|-----------------|--------------------------------------|
| S1 | L2 [IL] | solar energy | 0.29min | 3.3/97 |
| S2 | L2 IM | land | 0.31min | 3.6/112 |
| S3 | L2 IM | forest | 0.29min | 3.4/98 |
| S4 | HL, AL | resources | 0.14 min | 3.9 /55 |
| S5 | HI, AH | resources | 0. 42min | 3.8/160 |

All feedback was communicative in nature, focusing on helping each learner express him or herself clearly by examples and explanations, rather than by grammatical or other formal aspects per se. Clarity seems to rest on knowing the correct lexicon. For S5, the instructor explained two lexical differences through examples. One was between two words that begin with the same syllable “fēnpèi” [task distribution] and “fēnbù” [resource distribution], and the other pertained to two tones of the same word. For S4, the instructor complimented the learner on clarity, but suggested speed increase and explained the idiomatic yet formal expression of “xībù” [the western part] of a country. For one L2 learner (S3), the instructor helped with finding the right words to say “the forest is a very important resource and it can reduce pollution.” For another L2 learner (S2), the instructor also started with a compliment on clarity, explained through examples the difference between two words that have the same beginning syllable “zhōngxīn” [center] and “zhōngbù” [central part]. as well as the difference between two words that seem to mean the same, “wèn” [asking] a question and “qǐng” [asking] someone to do something, a common error for L2 learners of Chinese. For the third L2 learner (S1), the instructor started with a compliment of specificity, and explained the difference between “nuǎn” [warm] and “wēnnuǎn” [warmth], and how to say “néngyuán” [sources of energy].

Longitudinally, the researchers examined all the recorded feedback for each learner. All feedback began with various forms of compliments, from nice detail, clear message, easy to understand, thoroughness, to fluency. Most of the feedback focused on helping learners to express the information correctly, clearly, and thoroughly. The feedback after compliment can be divided into 8 categories: lexicon, content, pronunciation, detail, idiomatic expression, grammar, clarity, and speed.

For each learner, the researchers counted the number of times a feedback comment belongs to a category. For example, for learner S1, there are 10 lexical feedback comments, and so on. Next, the number in each category from all learners was added together to arrive at the total number for that category; e.g., 136 for all lexical feedback comments. Then, the total of all categories was added to arrive at the total number for all categories, in order to obtain the percentage of each feedback category in the study. None of the learners had the same number of feedback comments. Please see Table 6 below.

Table 6 Percentage of Types of Constructive Feedback

| feedback types participants | Lexicon | Content | Pronunciation | Detail | Idiomatic Expression | Grammar | Clarity | Speed |
|--------------------------------|--------------|---------|---------------|--------|----------------------|---------|---------|-------|
| | S1 (L2, [I]) | 10 | 0 | 40 | 40 | 0 | 10 | 0 |
| S2 (L2, IM) | 5 | 50 | 10 | 25 | 0 | 10 | 0 | 0 |
| S3 (L2, IM) | 37 | 10 | 27 | 0 | 0 | 2 | 21 | 2 |
| S4 (HL, AL) | 37 | 17 | 10 | 0 | 27 | 0 | 0 | 10 |
| S5 (HL, AH) | 47 | 17 | 3 | 0 | 17 | 17 | 0 | 0 |
| Total | 136 | 94 | 90 | 65 | 44 | 39 | 21 | 12 |
| Types | | | | | | | | |
| Total % | 27% | 19% | 18% | 13% | 9% | 8% | 4% | 2% |

4.3 Learners' Thoughts on the Instructional Use of WeChat

After the program ended, the researchers did an online survey of the five learner participants. The survey consisted of 12 questions, and provided an opportunity for personal comments. The questions were designed based on the literature review to include the effect of WeChat instructional use on possible anxiety and boredom, individual speaking opportunities, and feedback speed and effect. Although WeChat has been a popular communication tool for Chinese people in daily life, it was not designed for the purposes of learning foreign languages. The researchers have discovered a few limitations of WeChat when used as a language learning tool. To name a few, WeChat's "Hold and Talk" function can create only a one-minute recording per time; one can accidentally let go of the audio message before finishing one recording; sometimes due to web connection problems in China, WeChat messages are not actually sent to the receiving party. Therefore, some survey questions were designed to see if learners found that these limitations got in the way of the instructional use. The 12 questions are:

1. In a class where your classmates were of different Chinese proficiency levels and backgrounds, do you agree that the use of WeChat recording helped reduce intimidation or anxiety because you were only talking to yourself, not to the whole class?
2. In such a class, do you agree that the use of WeChat recording helped reduce boredom in class at all, because you are not each getting feedback in class?
3. Do you agree that the use of WeChat provided more opportunities for you to speak at your own language level?
4. Do you agree that by doing spontaneous recordings in class, WeChat helped you to improve your ability to speak spontaneously?
5. Do you agree that in the geography class without the use of WeChat the opportunities for you to speak in Chinese about geography content would have been significantly less?
6. Do you agree that by using WeChat you got faster feedback?
7. Do you agree that by using WeChat you received more individualized feedback?
8. Do you agree that by using WeChat to hear your teacher's feedback you became more aware of your strengths and weaknesses in your speech?

9. Do you agree that WeChat's limitation of one-minute recording per time was not really a problem since one can make multiple recordings one after another?
10. Do you agree that one may accidentally let go of the audio message before one finishes recording is a problem to be aware of, but is not in the way of doing recordings and receiving feedback?
11. Do you agree that sometimes, mainly due to web connection problems, WeChat messages are not actually sent to the receiving party is a problem to be aware of, but is not in the way of doing recordings and receiving feedback?
12. Do you agree that in China, even without the availability of Google and a much slower Internet speed, the use of WeChat is the best technological tool for maximizing learner-instructor contact?

Table 7 presents the learners' survey responses. For each question, the response figures include the percentage for each of the 5 categories, the number of responses, and the types of learners who responded (L2 or HL).

Table 7 Learner Response to Survey Questions: Percentages, Numbers And Types of Students

| Q # | Strongly agree | Mostly agree | Somewhat agree | Disagree | Strongly disagree |
|-----|-------------------|-------------------|-------------------|-------------|-------------------|
| 1 | 3/5 2 HL, 1 L2 | 1/5 1 L2 | 1/5 1 L2 | 0/5 | 0/5 |
| 2 | 0/5 | 3/5 2HL, 1 L2 | 1/5 1L2 | 1/5 1 L2 | 0/5 |
| 3 | 4/5 1 HL, 3 L2 | 1/5 1 HL | 0/5 | 0/5 | 0/5 |
| 4 | 1/5 1 HL | 1/5 1 L2 | 3/5 1 HL, 2 L2 | 0/5 | 0/5 |
| 5 | 1/5 1 HL | 3/5 1 HL, 2 L2 | 0/5 | 1/5 1 L2 | 0/5 |
| 6 | 2/5 2 L2 | 0/5 | 3/5 2 HL, 1 L2 | 0/5 | 0/5 |
| 7 | 2/5 1 HL, 1 L2 | 2/5 1 HL, 1 L2 | 0/5 | 1/5 1 L2 | 0/5 |
| 8 | 2/5 1 HL, 1 L2 | 2/5 1 HL, 1 L2 | 1/5 1 L2 | 0/5 | 0/5 |
| 9 | 1/5 1 HL | 3/5 1 HL, 2 L2 | 1/5 1 L2 | 0/5 | 0/5 |
| 10 | 2/5 1 L2, 1 HL | 3/5 2 L2, 1 HL | 0/5 | 0/5 | 0/5 |
| 11 | 1/5 1 L2 | 3/5 2 L2, 1 HL | 1/5 1 HL | 0/5 | 0/5 |
| 12 | 2/5 1 L2, 1 HL | 2/5 1 L2, 1 HL | 1/5 1 L2 | 0/5 | 0/5 |

(Note: Q means questions)

The table shows that for Q #1, all five learners agreed that when they were in class with classmates of different proficiency levels and cultural backgrounds, WeChat recording tasks helped reduce anxiety, indicating that anxiety existed for all learners, just as the literature review above found. Even though Luo's research indicates that Mandarin HL learners are the least anxious about oral communication in class, the two HL learners both chose "Strongly Agree." One HL learner (S4) states that "WeChat felt a little awkward, but compared to speaking in front of the entire class, it's probably a bit easier." The classroom environment was identified as the main source contributing to anxiety. Therefore, fostering a more comfortable environment should help reduce anxiety. For Q #2, 4 learners agreed that a same-topic recording also helped reduce boredom in class instead of each learner taking turns to address the topic and get feedback in class. Three of the 4 learners marked "Mostly Agree," among whom 2 were HL learners. One L2 learner marked "Somewhat Agree" and one L2 learner marked "Disagree." The data seems to suggest that boredom appears to be less of an issue than anxiety, and that boredom applies more to higher proficiency learners than lower proficiency ones, echoing the literature review on HL learners. In the comment area one L2 learner stated that they preferred scenario discussion to WeChat recording. One HL learner (S5) commented: "One of the most fun times I had in class was [people of similar proficiency levels] acting out certain situations and playing roles, not as intimidating and can be fun." These comments serve as a reminder that learners were aware of the challenge of a mixed class. But there are multiple ways of reducing anxiety and boredom. In-person group or class interactions perhaps should continue to be the norm.

For Q #3, all 5 learners chose a degree of "Agree": 4 strongly agree, and 1 mostly agree. In comparison with responses to other questions, Q #3 obtained the most favorable responses, perhaps because the question is an obvious one. For Q #4, 1 learner strongly agreed that spontaneous WeChat recording helped improve spontaneous speech, another 1 mostly agreed, and 3 somewhat agreed. It seems that the learners were not sure whether the in-class recordings helped them with speaking spontaneously. For Q #5, 4 learners felt strongly that opportunities for them to speak in Chinese about geographical content would have been significantly less without the use of WeChat, but 1 learner disagreed. For Q #6, all 5 learners agreed that WeChat helped them receive more timely feedback (2 strongly agreed and 3 somewhat agreed). As one learner (S2) commented, "WeChat is a good tool and allows the teacher to provide almost immediate feedback." For Q #7, 4 learners felt strongly that WeChat use enabled them to receive more individualized feedback, although 1 learner disagreed. For Q #8, all 5 learners agreed that listening to instructor's feedback via WeChat helped them become more aware of their oral strengths and weaknesses. Overall, for Q #9, all 5 learners agreed that WeChat's single recording time limit of one minute was not a problem as there is no limit on the number of recordings. For Q #10, all 5 learners agreed that even if one accidentally let go of a recording before one finished speaking, one can immediately make subsequent recordings to finish the message. For Q #11, all 5 learners generally agreed that internet connection problems did not stand in the way of making recordings or receiving instructors' feedback, as one can just resend the message. Similarly, for Q #12, all 5 learners agreed that in the context of internet use and availability, WeChat was the best tool for maximizing learner-instructor contact.

5. Discussion

The researchers' preliminary analysis points to the fact that in the context of the limitations of other internet tools and the lack of private office space, as well as the fast pace of the intensive summer program, the use of WeChat to facilitate differentiated instruction is warranted. The rationale for the instructional use of WeChat seems to rest on L2 pedagogy as elaborated in the literature review; namely, (a) the learner WeChat recording and the instructor feedback recording allowed the class to stay on communicative activities, while providing a channel for one-on-one instruction after class, and; (b) the instructor took into consideration L2 and HL learner characteristics in the design of the use of WeChat. In the next few sections, the researchers will discuss specifically each of the four instructional uses of WeChat as well as learner responses.

5.1 Individual Spontaneous WeChat Recordings in Class

The in-class spontaneous WeChat individual recording assignments, used moderately, could function as a diversification of activities, or as an extension of class when the instructor obtained frequent opportunities to listen to samples of each learner's spontaneous speech, and each learner had access to outside of class individual feedback despite the short delay. The sample recording reveals that WeChat indeed created a safe space for each learner to express him or herself orally, and put the control of the exact recording time and specific content in the learners' own hands. Although learners all had opportunities to speak in class on different topics or activities, it was not pedagogically effective for the instructor to use class time to give each learner all the feedback in the mixed-learner environment. Class activities focused on keeping the communication going, and on the class as a whole. Giving detailed feedback to each learner in class could have created some embarrassment or irritation when the feedback offered nothing new to some learners, or beyond the comprehension of other learners. But the WeChat recording samples allowed the instructor to give precise and detailed feedback, and the learner to listen to the feedback in a private space.

5.2 Pair Recordings

As to pair recordings, despite the fact that they allowed the same one-on-one feedback later on, pair discussion as a recording, if not designed carefully, might be somewhat unnatural or awkward. In the sample analysis of telling a mini story of a family member, it seems that the two learners in the pair just took turns to speak to WeChat, except that this time the speaker was not alone. This pair-recording was best assigned as an individual recording. If pair or small group recording is used, the instructor should design it as a two-step activity. First, ask the group members to discuss an issue to which all members can contribute. For example, three learners were from the same U.S. state. The instructor can put these learners in a group to discuss the climate first, followed by one speaker doing the recording for the group. If there is no class time, the feedback can be copied and sent to all learners of the group later on. Even though such feedback is no longer one-on-one, learners have other opportunities to obtain individual feedback.

5.3 Homework Recordings

In contrast to in-class recordings, homework recordings were not spontaneous. Learners had questions in hand and were under no pressure to compose and record immediately. They could have first written down answers, and then read them aloud. But the majority of the homework recordings had pauses; some pauses were very long, implying that the learners were searching for what to say as they made the recordings. For some L2 learners, the speed of recordings was consistently slow, and did not seem to be read from a script. Therefore, despite its unspontaneous nature, learners mostly seemed to be composing part of the message as they spoke. In addition, since most of the homework recordings were from the geography course, the recording assignment was not something the learners could immediately fulfill. They would have to review the content of the class that day before making the recording. In other words, it seems more appropriate for the geographical class to have prepared recordings.

5.4 Instructor Feedback

As the literature review summarizes, specific and timely feedback is an important step in differentiated instruction. The use of WeChat recordings enabled instructors to give immediate feedback; 88% feedback was given immediately to be exact. Such timely feedback was also necessary for an intensive summer program. At the time in China, without the use of WeChat instructors could not have been able to give same-day or next day feedback to the recordings. The feedback also constituted additional authentic listening material, a way of maximizing exposure to the target language.

Other than the individualized characteristics of the feedback, some patterns emerge. First, every learner got lexical feedback, which constituted the largest average percentage (27%). Due to specialized content topics, the more detailed recording one made, the more specialized lexicon was called for. This means that lexical feedback constituted part of the process of linguistic growth for the learner. Just as the literature review points out that the higher the proficiency, the more precise the lexicon, the highest proficiency learner got the most lexical feedback, whereas two out of the three L2 learners needed development of details and got minimal lexical feedback.

The next overall highest percentage of feedback was on delivering the correct content information, and the third category was pronunciation, which had a considerable effect on clarity. Again, the higher the proficiency the less error in pronunciation. In fact, 86% of the pronunciation feedback was given to L2 learners. The rest of the categories are not sufficiently significant for comment.

5.5 Learners' Thoughts on WeChat Use

The survey results indicate that on the whole learners viewed the instructional use of WeChat favorably. Responses for nine out of the twelve questions stay with the range of agreement, very often strong agreement. HL learners seem to view the instructional use of WeChat more positively than L2 learners. No disagreement came from HL learners, and most of the time HL learners marked "strongly agree" or "mostly agree," rather than

“somewhat agree.” To a large extent, learners confirmed that WeChat use, even with its limitation of each recording time, and the possibility of a slip of the hand to send unfinished sentences, provided them with more opportunities to speak at their own language level, helped reduced anxiety and boredom if any existed, enabled them to receive more timely and differentiated feedback, made them more aware of their strengths and weaknesses, improved spontaneous speech, or offered an opportunity for them to become familiar with geographical content. One HL learner (S5) stated that the geography recordings were less spontaneous, but it nonetheless helped with familiarizing with terms. The same learner stated further: “Overall I think WeChat was a great tool for students and teachers to connect in class and out. It is very reliable and has multiple features. I think WeChat is a great tool and should be utilized more.” A L2 learner (S2) commented: “WeChat is a good tool and allows the teacher to provide almost immediate feedback.” Yet the learner was worried that “the one-minute limitation...causes a student to stop, which may affect their perceived fluency.” In actuality, however, each recording fluency was reviewed within the time limit, no matter if the message was complete or not. Fluency was not reviewed in terms of how it connected with the next recording.

Using WeChat recordings to help deal with possible boredom seems less of an issue. Learners liked other types of class activities. One HL learner (S5) commented: “One of the most fun times I had in class was [people of similar proficiency levels] acting out certain situations and playing roles, not as intimidating and can be fun.” One L2 learner (S2) preferred scenario discussion to WeChat recording. These comments serve as a reminder that learners were aware of the challenges of a mixed class. There are multiple ways to reduce anxiety and boredom. WeChat recordings were used effectively to assist differentiated instruction for the mixed sheltered courses, but other traditional group or class interactions should continue to be mainstream.

6. Conclusion

The initial results of the instructional use of WeChat are encouraging, as demonstrated in the collected questionnaires and the instructor feedback. The instructors successfully integrated WeChat as an instructional tool in three different ways: in-class individual recordings, homework recordings, and instructor feedback. The use of WeChat recordings to complete linguistic tasks seemed to have helped provide: (a) a less anxious or uninteresting environment; (b) increased oral and aural practice, and; (c) timely and individualized feedback. It is important to note that WeChat recordings helped turn the geography class from a traditional lecture class with only written homework to an interactive class, where learners got some opportunities to present themselves and answer unprepared questions. Overall, WeChat use maximized teacher-learner target language contact. At the end of the program, 80% of learners took OPIc again. All either maintained their proficiency or made progress. Two or 50% of learners made progress. One IM learner reached IH (intermediate high), and one AL learner reached AH. Perhaps WeChat recordings played a role in helping these learners advance their proficiency.

The findings of this research have practical implications for CFL programs. To begin with, this study provides much needed empirical information on the actual use of WeChat as an instructional tool in mixed-learner courses. The specific ways of using WeChat before, during, and after the class in this research may help other CFL instructors who teach in a similar context to quickly design activities that integrate WeChat into the learning process. In addition, this case study is encouraging for L2 educators as they continue to look for ways of dealing with the tough challenge of having both L2 and HL learners in the same class. Moreover, the success of WeChat use for the geography course opens a door for mediating traditional content courses for L2 education. Furthermore, technologically assisted L2 instruction needs to adapt to the location where instruction is offered. The device that works for the local population should be the one to consider.

The empirical results reported herein should be interpreted with caution in light of some limitations. As with any single-case study, this case study may have some validity and reliability issues caused mainly by research constructs and researchers' subjectivity as well as data collection. First, some survey questions should be designed with more thought. For instance, the question on anxiety should start with: "Do you feel anxious in class because you are conscious that your fellow learners are of different proficiency levels? If so, do you agree that the use of in-class WeChat recording helped reduce anxiety?" Second, all recording data should have been immediately transferred to WeChat storage. This is a necessary step because one can delete a WeChat ID accidentally, and either party can withdraw from WeChat without notification, hence resulting in the loss of some recordings. Third, this case study itself could have included all learners of the program had all learners known beforehand that they were required to subscribe to local Chinese smart phone service that provided internet service. Finally, regarding using WeChat to provide timely feedback, there should have been a way of ensuring that all learners listen to all feedback and take some action to incorporate the feedback in their ongoing learning process. Perhaps they could have been asked to write down notes of feedback and make a revised recording.

The limitation in this case study provides a direction for future studies. The scope of future research on the instructional use of WeChat should be expanded to include more learners and multiple cases. In addition, multiple ways of instructional use of WeChat should be explored and tested. For instance, to surpass the one-minute WeChat recording limit, one probably can first make a recording of several minutes in the smart phone, and then pose the recording as a message in WeChat. Furthermore, studies on learners' intake of instructor's recorded feedback is needed. Do all learners listen to the instructors' feedback? If so, how does the feedback contribute to individual learning? These questions are worthy of future investigation.

Instructional use of WeChat to perform oral tasks is likely to continue in future study abroad programs in China. Even if Google and other web recording devices are available, WeChat will still appear to be the most convenient and fastest communication tool in China. As better technology continues to be developed, more powerful apps or other types of tools maybe available (Chen & Zhan, 2019/2020) to help differentiated instruction to further advance itself. The researchers recognize the ongoing nature of their research

and look forward to other research about instructional use of local devices in other study abroad locations.

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Chinese Language Learners' Participation in a WeChat Online Community of Practice (中文学习者在微信实践社区中的参与度)

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Abstract: Utilizing WeChat in Chinese language education has generated interest among Chinese language educators and researchers. Both its affordances and constraints have been documented in previous studies. However, discussion about how language learners participate in WeChat-supported activities remains scarce. This qualitative literature review analyzed relevant studies through the theoretical lens of Community of Practice (Wenger, 1998), focusing on the core construct—participation. The results show that current common practices have not fully tapped into the educational potential of WeChat to allow learners to fully participate. Different ways of using WeChat for educational purposes should be pedagogically sound and could be further explored. Additionally, participants' transition towards full participation is not necessarily associated with language proficiency. Instead, three factors— affective, social and curricular— exert influence collectively.

摘要: 近年来,中文教师以及学者针对微信在中文教学中的运用进行了尝试以及研究。然而,中文学习者在微信交际活动中参与度如何?相关讨论并不多。本篇质性论文综述采用实践社区理论,梳理、分析了近年来有关学术文章,指出:目前中文教学中运用到的微信功能有限,学习者在各类活动中参与度不等。微信相关教学活动应该在教学理念的指导下合理设计。此外,语言水平并不一定会影响中文学习者在微信交际活动中的参与度。情感因素、社交因素以及课程设计都会对参与度有所影响。

Keywords: WeChat, social networking applications, Chinese teaching, participation, community of practice

关键词: 微信、社交软件、中文教学、参与度、实践社区

1. Introduction

Social networking applications (SNAs) have been discussed, applied, and researched in foreign language (FL) education since their inception. WeChat, one of the most popular SNAs in Chinese communities around the world, has gradually gained increasing attention from researchers and practitioners in FL teaching, especially in teaching English as a second language, where its potential educational functions are explored (K. Wang, 2017). Both its affordances as well as constraints have been documented in prior studies. L. Jin (2018) identified four affordances and provided pedagogical suggestions for language educators about how to utilize WeChat for language learning and teaching. Other researchers investigated specific ways to use WeChat for FL learning, such as linking Chinese language learners (CLLs) with Chinese native speakers, and investigated the learners' perceptions of such utilization (Jiang & Li, 2018).

It is noteworthy that the vast majority of the extant studies merely focused on the utilization of WeChat for educational purposes in general, and FL teaching in particular, without much discussion about how language learners participate in WeChat activities, what roles they play in activities, factors that affect their participation, and the like. Participation is not only an important indicator of students' learning and the level of their engagement, but it is also a catalyst and path for learning. In an attempt to provide a better understanding of these aspects and shed light on better curricular designs incorporating SNAs such as WeChat into language curricula, this literature review analyzed relevant studies through the theoretical lens of Communities of Practice (Wenger, 1998). Specifically, this literature review intends to investigate the following two questions:

- 1) What are the characteristics of CLLs' participation in WeChat online community of practice?
- 2) What factors affect CLLs' participation in the community of practice that has been formed and sustained, specifically "moving from peripheral participation to full participation" (Lave & Wenger, 1991)?

2. WeChat and Community of Practice (CoP)

WeChat, which could be translated as "micro messenger," is one of the most popular SNAs in Chinese speaking communities with over a billion monthly users (Iqbal, 2020). A free and integrated application, it provides users with various functions, such as text and voice messaging, voice and video calling, blogging, paying for purchases, gaming, booking a flight, and renting a bike among other features. The utilization of WeChat rapidly entered almost every aspect of Chinese people's daily life since it was launched in 2011. Primarily an instant communication app, WeChat supports "asynchronous, semi-synchronous and synchronous collaboration and interaction, as it allows for one-to-one, one-to-many, and many-to-many" communication through texts, voice messages, and video conferencing (Y. Wang, Fang, Han, & Chen, 2016, p. 22). Its "Moments" feature functions as a blogging and social networking site (e.g., Facebook and Twitter) on which users can post original short texts, pictures, long articles, as well as share,

like, and comment on others' content after they befriend each other. The different versions of WeChat make it available on almost every platform (Windows, Android, and iOS). It has gained attention from Chinese language educators and researchers due to its educational and social potential to serve as a channel for CLLs to enter and participate in Chinese speaking communities as well as to facilitate forming their own Chinese learning community. For example, focal participants studying abroad in China in Diao (2020) used WeChat as an effective tool to make friends from the host community. Additionally, due to its ubiquity in people's daily life in China, being able to use WeChat is necessary for CLLs to survive when they live and study in the target community. For instance, many local vendors now only accept WeChat payment for business transactions. As L. Jin (2018) argued, study abroad students should take WeChat communication as not only an effective linguistic development context but also a social necessity (p. 46).

CoP as a social theory of learning defines learning as social participation. Learners or participants actively participate "in the practices of social communities and constructing identities in relation to these communities" (Wenger, 1998, p. 4). Learning as social participation is "a kind of action and a form of belonging" and "shapes not only what we do, but also who we are and how we interpret what we do" (p. 4). Learning Chinese under the theoretical framework of CoP entails social participation in a Chinese learning community as well as a Chinese speaking community. In this sense, to understand the experience of Chinese learners is to understand their practices and participation in these communities.

A community of practice has three characteristics: domain (a shared domain of interest), community (joint learning and interaction), and practice (a shared practice with a shared repertoire of resources) (Wenger, 1998). It tends to encourage every member to take responsibility for information-sharing and problem-solving, to develop their identities in the community, and to foster unification of the community, serving as an effective platform for people to exchange knowledge and localize new information (Yang, 2009). Wenger (1998) views the "community of practice" as a unit, and posits to understand practice as the "source of coherence of a community" (p. 72). In this review, we consider the "joint enterprises" through WeChat with a "shared repertoire" of Chinese language and culture learning, and "mutual engagement" among members as an online community of Chinese learning practices (Wenger, 1998, p. 73). Chinese learners, teachers, and other native speakers (language partners and research assistants) are all members of these online communities. With their shared interest in Chinese learning, teaching, and language exchange, they obtain a shared Chinese language and culture learning and interaction repertoire. When mutual engagement and interaction among members exist, all three dimensions of practice as the property of a community are built, and a community of practice through WeChat for Chinese language learning is formed. The WeChat online community of practice, ideally, should provide learners, CLLs in particular, a space to learn from "old-timers," earn their "legitimate membership," and gradually transition from "peripheral participation" to "full participation" in the community (Lave & Wenger, 1991). Chinese learners as the "new-comers" of the communities learn the shared repertoire, the target language and culture in this case, through participation in practices and engagement with other members, "old-timers" such as teachers, native speakers,

research assistants, and even other learners, as well as other “new-comers.” Chinese learners’ participation and reification not only shape their own experience and learning trajectories but the communities’ as well. Developing an understanding of learners’ participation in these communities provides educators an analytic perspective on possibilities and pedagogical designs involving online digital technologies as WeChat.

To fully explore the educational potential of WeChat in Chinese language education, we concentrate on the core construct of CoP, participation, by investigating the ways learners participate in the WeChat online community of practice that has been formed and what affects their participation. This qualitative synthesis of the literature review argues that: (a) the current practices have not fully tapped into the educational potential of SNAs for Chinese language education to transform learners into adept participators. CLLs’ participation is dominated by asynchronous, one-to-one communication in the interpersonal mode through text messages while the other features are much less frequently used to a satisfying degree; (b) the difference in ways of utilizing SNAs for language learning does not imply superiority, but rather should be adopted and designed with the guidance of sound pedagogies to serve different instruction goals, and; (c) participants’ transition towards full participation is not necessarily associated with their language proficiency. Instead, three types of factors— affective, social and curricular— exert influence collectively.

3. Research Methods

The authors conducted a systematic search using ProQuest and Google Scholar. Bibliography tracing was applied as well to aid the search. The keywords used for the search were “WeChat” OR “social network applications” AND “language* learning” OR “Chinese language learning.” The criteria for inclusion of the papers applied to this literature review are: (a) relevance; (b) credentials of the authors, academic journals and publishers; (c) date of publication, and; (d) publication language. Doctoral dissertations, master’s theses, and book chapters have been excluded. This literature review only covers academic articles that were published in the past eight years (from 2011 to 2019). A total of 11 peer-reviewed journal articles investigating the utilization of WeChat in teaching Chinese as a second or foreign language were selected for analysis. Apart from the rigorous criteria that were applied in searching and inclusion, the relatively low number of available studies for review is also partially due to the fact that the WeChat application was first released in 2011, and the incorporation of it into Chinese language courses did not start until very recently.

The critical literature review was conducted qualitatively. Specifically, the collected data was coded and categorized both deductively by adopting the six categories of participation proposed by H. Jin (2009), and inductively, identifying a seventh indicator of participation that is named as “modality of communication” in this literature review (see Table 1). Two types of codes are used under this theme—linguistic mode (speech and/or writing) and other semiotic resources (emojis, stickers, photos, memes, etc.). Altogether, sixteen codes in the right columns of Table 1 are used for coding in this study,

which are grouped under the seven themes in the left columns. Additionally, building upon what H. Jin (2009) proposed in the second category “range of participation,” this study also identified one more form of participation and coded it as “one-to-one.”

Factors that affect CLLs' participation were identified in the collected studies as well. Building upon the coding process delineated above, the content relevant to the seven categories of participation was coded inductively for another round to reveal these factors. These codes were categorized and grouped under three themes— affective, social, and curricular factors. For instance, under the first category of participation, “type of participation,” students' overall attitudes to social media were identified as a factor at play, and therefore, were coded and categorized under the theme “affective factors.”

In summary, the following seven indicators of participation and CoP serve as an overarching framework and theoretical analytical lens for this literature review.

Table 1 Categories to analyze participation in the WeChat community of practice

| | |
|-------------------------------|--|
| 1. Type of participation | <ul style="list-style-type: none"> a. Active participation b. Passive participation |
| 2. Range of participation | <ul style="list-style-type: none"> a. One-to-one, one-to-many, or many-to-many b. Non-native to non-native speakers or non-native to native speaker communication |
| 3. Mode of communication | <ul style="list-style-type: none"> a. Receptive, productive or both b. Interpersonal, interpretive or presentational only c. Interpersonal, interpretive or presentational (all three communicative modes present at the same time) |
| 4. Direction of communication | <ul style="list-style-type: none"> a. Act as a sender or receiver b. Act as both a sender and receiver (one-way or two-way communication) |
| 5. Communication device | <ul style="list-style-type: none"> a. Real time communication. b. Face-to-face communication. c. Stored-and-forward communication. |
| 6. Path to information access | <ul style="list-style-type: none"> a. Information accessed on an on-demand basis (when the content, timing and sequence of communication are under the control of the end user) b. Information accessed on a broadcast basis |
| 7. Modality of communication | <ul style="list-style-type: none"> a. Linguistic mode (speech and/or writing) b. Other semiotic resources (emoticons, stickers, photos, memes, etc.) |

Adapted from H. Jin (2009, p. 31)

4. Findings

To make an informed analysis of students' participation in the WeChat community of practice, the literature review first lays out the practices of WeChat utilization in extant studies.

A rather common practice is using WeChat as an educational platform or tool to connect CLLs with native speakers. Five studies (Jiang & Li, 2018; Sung & Poole, 2017; Y. Wang et al., 2016; Z. Wang, 2015; Zhang, 2016) paired up the two cohorts as language partners and adopted WeChat as a venue to conduct one-on-one conversations in voice and/or text messages. The conversation formats and topics are usually pre-designed by the curriculum and account for certain percentages of students' grades. For instance, Jiang and Li (2018) weighted 15% of assessment on WeChat tasks in the curriculum. Two other studies (Huang, 2019; L. Jin, 2018) involved native speakers as well but in a different way. Students communicate with their Chinese friends over WeChat in private without teachers' intervention and corresponding curricular design. WeChat was adopted as a platform for students to submit oral assignments and receive feedback from two research assistants (RAs) in Xu and Peng (2017). The two RAs are native speakers, but their participation seemed to be somewhat restrictive according to the study design. Among all the studies, Luo and Yang (2016) carefully designed the most WeChat-supported activities and implemented five various tasks that are beneficial for students' linguistic gains and community building. Nevertheless, the group chat in their study was merely created among CLLs without the involvement of native speakers. Although Chu, Ng, Lai, and Lam (2015) provided rather fruitful and informative research results, unfortunately, little data can be retrieved regarding the ways that WeChat was used in students' language learning in their study.

Aside from messaging, some of the reviewed studies employed other useful functions in WeChat. For instance, Luo and Yang (2016) used "Official Accounts" in WeChat to update weekly news about China in English, share language learning resources, and promote the Chinese language program. An official account in WeChat is similar to a blog. WeChat users may subscribe to various official accounts relating to their reading interests. The administrator of an official account, whose role is akin to bloggers, regularly posts articles for subscribers. Huang (2019) used the same function for a different purpose, summarizing weekly learning content for students to review. Additionally, the researcher also incorporated "Moments" into the curriculum, requiring students to post at least once a week, which accounted for 10% of their grade.

In all the studies laid out above, the utilization of WeChat remains merely in the out-of-class context. Zhan and Chen (2018) incorporated WeChat into in-class instruction in a creative way, expanding the scope of using WeChat for Chinese language learning. Due to students' diverse proficiency levels in a content course, they adopted WeChat for differentiated instruction. In class, students used WeChat to record their speaking responses to individualized speech tasks. However, there is a lack of peer interaction in this way of using WeChat, which is primarily for submitting voice messages and soliciting feedback from teachers, akin to the usage in Xu and Peng (2017).

Contrasting the aforementioned studies, L. Jin (2018) primarily used WeChat as a Chinese study-abroad management platform and created a group chat including the researcher, American students, and Chinese tutors to serve this end.

4.1 Research Question 1: Nature and Characteristics of Participation

4.1.1 Type of participation: Active or passive

The first indicator to analyze the degree of participation adapted from H. Jin (2009) is the degree of involvement—active or passive. In this study, active participation is defined as constantly participating in the practices in the community and/or autonomously participating; passive participation is defined as participating inconsistently and/or participating without a positive attitude.

There is not much quantitative data showing the frequency and consistency of participation of CLLs' in the WeChat community of practice. Only one study (L. Jin, 2018) explicitly records the number of contributions of participants. This could be the result of research design since most of the collected studies investigated learners' perceptions of utilizing WeChat for Chinese language learning and its challenges and drawbacks rather than elucidating participants' level of activity in the community.

Despite the scarcity of relevant quantitative data, we are still able to derive the overall degree of participant activity and their tendency to participate through systematic analysis of the qualitative data retrieved from studies under review.

As Chu et al. (2015) argued, enjoyment is significantly related to attitude, and attitude in turn strongly influences students' decisions as to whether they will keep using SNAs for language learning. In all the reviewed studies, the participants overwhelmingly held rather favorable attitudes towards the incorporated WeChat-supported activities. Therefore, it might be a reasonable conjecture that the participation under the program or project requirements is actively initiated by the participants. Furthermore, as explained in the previous sections, students are usually instructed to practice the target language individually with their language partners via WeChat. Such type of conversation requires active participation by both parties to ensure the conversation keeps flowing, and CLLs are put at the center of the community of practice at the onset.

Despite encouraging and positive feedback from students, taking a more in-depth look at the available data reveals a wide range of variation among the participants with regards to the level of activity. Jiang and Li (2018) reported that students' investment of time and effort on the task varies greatly at an individual level, ranging from 20 minutes to four hours weekly (p. 10). This result is congruent with the findings of Sung and Poole (2017) that the frequency of using WeChat for language learning ranges from multiple times a day to one to two times a week. L. Jin (2018) discusses the different frequency of participation in the WeChat conversations from two focal participants. One participant actively participated in the conversations an average of three to four times per week and over ten times in the first and last week. The other participant had zero participation over

two weeks, and there was only one week with over ten times because she was “sharing photos she took for the group during a group outing” (p. 37).

This variation in frequency and consistency of participation is evidenced in other studies as well (Huang, 2019; Xu & Peng, 2017; Y. Wang et al., 2016). Data in Xu and Peng (2017) showed reluctance from some of the participants to do the assignments on WeChat even when they were required. Multiple studies showed that some participants preferred face-to-face communication over WeChat and were not comfortable using SNAs (Huang, 2019; Xu & Peng, 2017; Y. Wang et al., 2016). Teachers in Y. Wang et al. (2016) had to email students, reminding them to check their WeChat messages at least once a day and reply as soon as possible (p. 25). Moreover, to reinforce students' participation, students were required to share their WeChat exchanges in class.

In sum, while students are generally active in the WeChat community, the characteristics of task design and different attitudes towards WeChat-supported activities necessitate constant teacher monitoring or intervention to reduce inactivity.

4.1.2 Range of participation

The second indicator used to analyze the degree of participation adapted from H. Jin (2009) is the range of participation: (a) one-to-one; one-to-many or many-to-many; (b) non-native to non-native speakers or non-native to native speaker communication.

It is apparent that the features of WeChat significantly expand the range of participation from one-to-one to many-to-many, which allows a much broader spectrum of communication. Notwithstanding such great potential, many studies, surprisingly, confined WeChat-supported tasks to one-to-one communication. As mentioned previously, CLLs are required to use the target language to complete weekly tasks with their respective language partners. To carry out this type of task, WeChat is not necessarily adopted as many other SNAs can provide the same functions. In other words, the unique features of WeChat are not fully tapped into for language education.

Huang (2019) used the resources in WeChat to a greater degree, implementing tasks at three different levels involving one-to-one, one-to-many, and many-to-many participation. However, the available data in the study primarily focuses on one-to-many participation without too much information about the other two types of communication. The one-to-many participation in the study refers to students' weekly posts in their “Moments,” namely sharing their life with peers in the program and Chinese friends. Xu and Peng (2017) also focused on one-to-many participation. However, WeChat, in their design, was merely used as a tool for students to submit oral assignments and receive feedback from RAs. Their study did not cover whether feedback was sent individually or in the group chat, nor whether students listened to and commented on each other's oral submission in the group chat. Additionally, Xu and Peng admitted that “There was a lack of teacher-student interaction after feedback provision on the WeChat platform” (p. 181). According to Huang (2019), submitting homework through WeChat was rated as the least helpful function among others including applying knowledge to practice, sharing thoughts,

reviewing class content, etc. Similar usage was found in Zhan and Chen (2018). However, they designed the tasks in individualized ways. Considering the wide gaps among students' proficiency levels, the instructor assigned differentiated speech tasks to students. Not surprisingly, such kind of individualized learning was rather well-received among students, although the interaction is merely one-to-one between students and the instructor.

Many-to-many interaction is seen in L. Jin (2018) and Luo and Yang (2016). The difference between the two studies is that WeChat-supported participation in Luo and Yang (2016) only took place among CLLs without the presence of native speakers. Therefore, the value of WeChat in connecting learners to the authentic resources in the target community is missing.

A relevant issue that is worth some discussion here is the role of teachers in participation. Although the results indicate that one-to-one communication is a prevailing format in current practices, such type of communication is, from the perspective of CLLs, actually one-to-two as teachers often joined their private conversation with language partners as a silent listener and observer (Jiang & Li, 2018; Y. Wang et al., 2016). The enrollment of teachers is a safeguard to prevent low-quality conversations and allows in-time intervention and feedback. Despite the benefits, students might feel uncomfortable with the teacher presence in their private conversation, as one student commented in Y. Wang et al. (2016). This student felt somewhat embarrassed with the teacher being in the group (p. 26). This might be a signal for researchers and educators to identify alternative ways to facilitate smooth and high-quality conversation while designing e-tandem language learning between CLLs and native speakers. For instance, students could be required to write a summary of their language exchange in WeChat or report their experience in class.

Although the overall range of participation is widely broadened due to the development of cutting-edge technologies, participants do not necessarily enjoy conversations taking place in all ranges. The data in L. Jin (2018) pointed out a varied preference for one-to-one, one-to-many, or many-to-many participation in the WeChat community. One of the two focal participants preferred one-to-one participation despite being enrolled in the many-to-many chat group. She was rather reticent in the group and mostly used WeChat to communicate with her language partner privately. Furthermore, she preferred face-to-face communication and participated in WeChat communication only when needed (e.g. scheduling a meeting time or talking with her language partner after she left China). She also read the "Moments" posts from her Chinese friends and asked her language partner to explain them to her. Another participant, on the other hand, was tremendously active in both the group and private chat, showing a tendency for all ranges of participation.

Students in Huang (2019) stated that their top-rated motive for learning Chinese is to make Chinese friends. This indicates a tendency of non-native to native speaker communication, which is also evidenced in other studies. CLLs expressed that the convenience of authentic language and cultural exchange with native speakers is one of the greatest strengths of WeChat-supported activities. In L. Jin (2018), one participant "found

WeChat an extremely convenient and fun tool to stay in touch with the new Chinese friends he made in Shanghai” (p. 35).

In summary, the range of participation in the current practices of using WeChat for Chinese language learning is primarily one-to-one despite the enormous potential of being broadened to many-to-many through the other functions of WeChat. The studies demonstrate that the range of participation is greatly influenced by the instruction and research design in different programs and studies. Participation is mostly one-to-one when the design is pair-based while the range broadens to many levels when a variety of participants are grouped. Additionally, community members' personal preferences greatly determine the range of their participation as well. Despite these differences, the incorporation of WeChat affords CLLs access to the linguistic and cultural resources in the target community even for passive participants.

4.1.3 Mode of communication

The third indicator of the six categories is the mode of communication: (a) receptive, productive or both; (b) interpersonal, interpretive or presentational only, and; (c) interpersonal, interpretive and presentational at the same time (H. Jin, 2009). Although the indicators are listed as three parallel options, overlaps exist across these modes. For example, the communication practices in one studied community can be categorized as receptive as well as interpretive. As the analysis of the current practice of utilizing WeChat for Chinese language learning demonstrates, most studies focused on elevating CLLs' Chinese proficiency in all listed modes. During one-on-one language practice, students are expected to not only express and present their ideas in the target language accurately, fluently, and appropriately, but they must also demonstrate their understanding of the input from their interlocutors. Such bi-directional communication shows their command of Chinese in an interpersonal mode.

While acknowledging the value and convenience of using WeChat-supported tasks to train students in all listed modes of communication simultaneously, it is worthwhile to mention that the five-component tasks integrated into Luo and Yang (2016) were designed more comprehensively. Students had opportunities to focus on one mode at a time in this study. The “ask/answer question,” “mini-oral project,” and “socializing and information sharing” components stressed the interpersonal modes. The “mini-writing tasks” expected students to post their writing in the WeChat group; however, reading and commenting on each other's submissions was not compulsory but was encouraged instead. Therefore, the presentational or productive mode was the targeted training mode in this task. Similarly, the speaking task in Zhan and Chen (2018) and the sub-task in Huang (2019), requiring students to post weekly in “Moments,” are also ways to focus merely on presentational or productive modes.

In contrast to Luo and Yang (2016) use of various modes guiding the design, Xu and Peng (2017) concentrated only on the characteristics of mobile-assisted oral feedback. Participants were required to use WeChat to submit their recorded assignments and receive

feedback from the RAs to review. While the presentational mode was involved in the study's design, the interpretive mode is the core of their study.

It goes without saying that a language curriculum should give students adequate opportunities to make and negotiate meaning in all three communication modes to maximize their linguistic and intercultural gains. As demonstrated in the relevant studies, the WeChat-supported activities provide opportunities to fulfill such a goal, and at the same time it allows language educators to focus on one mode at a time.

4.1.4 Direction of communication: One way or two way

The fourth indicator is to analyze the direction of communication, one way or two way, which is closely associated with the third indicator. All studies maintain two-way communication with occasional one-way communication. Typical one-way communication is when students primarily communicate in the presentational mode, for instance, posting on their "Moments," without receiving any comments or feedback from other WeChat members.

It is not surprising that communication among WeChat participants is predominantly two-way, a predictable outcome considering the embedded features of WeChat as a SNA and how WeChat is used as a mobile community of practice for language learning. Primarily an instant messaging application, WeChat consists of a variety of functions to support two-way communication: text and voice messaging, voice and video calling, and blogging with comments. One of the crucial reasons that educators and researchers choose WeChat as the platform for a mobile community is the multiple opportunities for mutual communication and engagement realized by the different features. The design of each study also implies their intention of utilizing the two-way communication component in WeChat. For example, students were required to submit recorded assignments to the WeChat group to receive and review feedback from RAs (Xu & Peng, 2017); other students needed to ask and answer questions with native speakers in assigned topics (Jiang & Li, 2018), and; another group of students negotiated and scheduled their face-to-face meetings through WeChat (L. Jin, 2018). Two-way communication could be seen as an embedded feature of WeChat, WeChat-based mobile communities of practice, and WeChat-based design of Chinese learning studies.

4.1.5 Communication device

According to H. Jin (2009), a communication device primarily consists of three subcategories: real-time communication (as in video teleconferencing), face-to-face communication, and stored-and-forward communication (as with electronic mail). In extant studies, the third subcategory, stored-and-forward communication, was utilized in most WeChat-supported activities (e.g., Huang, 2019; Sung & Poole, 2017; Z. Wang, 2015; Y. Wang et al., 2016; Xu & Peng, 2017). For instance, to review in-class learning content and expand vocabulary with the help from language partners, Sung and Pool (2017) assigned students three tasks: texting tasks (i.e., communicate by texting), voice tasks (i.e., communicate through voice messages), and camera tasks (i.e., take pictures of objects

relevant to lesson topics and ask language partners for the corresponding Chinese words). Instead of meeting face-to-face, both parties sent and replied to messages at their convenience through WeChat, which overcomes both temporal and spatial restrictions.

Although the function of synchronous communication such as video-chatting is very popular among WeChat users, it seems that asynchronous communication through voice and text message is used more frequently by FL educators and is well-received among FL learners. Participants in the existing studies expressed that asynchronous communication on WeChat reduced their anxiety of speaking an FL since they have more time to prepare and practice what they would like to say and check the voice and text messages they received as many times as they wish, which is especially beneficial for comprehension in the target language (Sung & Poole, 2017; Z. Wang, 2015; Y. Wang et al., 2016). For instance, A participant in the study by Xu and Peng (2017, p. 180) explicitly indicated that: “Maybe I am a little shy in class, but I am confident when speaking on WeChat. I don’t have to rush, and it’s easier to say something in this way.”

Aside from anxiety reduction, this type of language practice helps some participants at the social level to a certain extent. Sung and Poole (2017) primarily designed asynchronous communication tasks and reported that “it seems that the diverse functions of WeChat aided the smoothness, and decreased the awkwardness level, of the interactions for the participants, maximizing the effectiveness of the social interactions needed for language learning” (p. 107).

The popularity of asynchronous communication on WeChat is also partially attributed to a practical matter—different time zones among participants. Many studies investigated the effectiveness of WeChat in linking language learners with native speakers. However, due to the time difference, it is rather challenging for the two sides to manage and maintain real-time communication. In response to such student feedback, the 30-minute semi-synchronous language exchange in the study by Y. Wang et al. (2016) was replaced by asynchronous text message exchanges. The change of communication device produced “more feedback and more accurate output” (Y. Wang et al., 2016, p. 25), facilitating students’ participation in the online learning community.

Among the existing studies, Zhang (2016) explicitly stated that the synchronous communication device was adopted in the study, and students were required to conduct a weekly conversation in Chinese for at least 40 minutes. Interestingly, when comparing synchronous and asynchronous communication devices through WeChat, Zhang (2016) reported that asynchronous chat was rated as less preferable than synchronous chat by CLLs who were paired-up with native speakers in a different time zone, as “the general consensus of the participants was that asynchronous chat was less efficient” (p. 71). While this might seem somewhat contrary to the feedback from students in Y. Wang et al. (2016) and other studies at first glance, taking a closer look might lead to a reasonable conclusion that the two different results are not mutually exclusive. The efficiency of synchronous communication and the usefulness of asynchronous communication was confirmed respectively in these studies. Notwithstanding, such an interesting phenomenon indicates an imperative need for further research on a more systematic and comprehensive

comparison between the two types of communication devices in the mobile-assisted language learning environment. For instance, a mixed-methods study may analyze which communication device effectively facilitates students' participation, with quantitative data informing students' participation in terms of quantity and quality and qualitative data providing an in-depth understanding of the factors at play. The resulting findings may inform when and how to use what communication device of SNAs, such as WeChat, to meet students' learning needs and styles better.

Another interesting phenomenon is that no matter if it is synchronous or asynchronous communication, the vast majority of students, especially those that paired-up with a native speaker, unanimously opt for texting over voice messages even when they are given choices (Zhang, 2016). According to Zhang (2016), the main reason was that audio/video chatting was too challenging and stressful. On the contrary, texting may reduce anxiety and permit time for students to look up words they encounter in their language partners' messages. Sung and Poole (2017) reached the same conclusion that the main function for communication between language partners was the text function while the other functions were used as supplementary methods for communication (p. 104), although they designed three various assignments (i.e., text task, voice, task, camera task) for students to complete. This result is not to deny the usefulness of the voice function of WeChat as participants in Sung and Poole (2017) shared their fondness for this function and admitted that the voice function helped with pronunciation. While communication is merely among language learners in Luo and Yang (2016), oral tasks through voice messages in WeChat was rated as most useful since it helped with oral skill development in Chinese.

4.1.6 Path to information access

The sixth indicator of the degree of participation categorized by H. Jin (2009) is the path to information access. Users may access on an on-demand basis where the content, timing, and sequence of communication are under the control of the end-user or on a broadcast basis (H. Jin, 2009, p. 31). Although WeChat does possess features that allow users to access information in both ways, the first path—accessing on an on-demand basis—is more often adopted for participants to carry out various learning tasks or to solve real-life problems. The activities include asking and answering each others' questions in Chinese (Luo & Yang, 2016), practicing the target language with native-speakers (Jiang & Li, 2017; Z. Wang, 2015; Y. Wang et al., 2016, Zhang, 2016), submitting oral assignments and receiving feedback from RAs (Xu & Peng, 2017; Zhan & Chen, 2018), and seeking help from community members (L. Jin, 2018). It is also very common for participants to use the “Moments” function of WeChat (Huang, 2019; Sung & Poole, 2017) to share the events of their actual lives with other community members.

The second path of accessing information is rarely seen in the extant utilization of WeChat for Chinese language teaching and learning, except in the study by Luo and Yang (2016) and Huang (2019). Huang (2019) created their own official account and used it as a platform to summarize students' language learning performance and important grammar covered in class when student participation was somewhat limited. Further, such a way of

utilizing WeChat was substantially different from the real-life usage of official accounts, and the subscription was enforced by the instructor rather than out of participants' own interest, accounting for limited student participation. Such a lack of student participation in the official account is also reported in Luo and Yang (2016): "A number of students confessed that they did not spend much time on it" (p. 90).

L. Jin (2018) designed a WeChat group chat as a platform for faculty to disseminate information such as the change of a meeting time and event updates. For the language learners, this way of using WeChat is accessing information on a broadcast basis, and it is, in fact, a practical usage as well because this preserves the way that WeChat is used in real life instead of adapting it specifically for educational purposes. Nevertheless, there is little data regarding this function of the WeChat group in L. Jin's (2018) study due to its research focus being elsewhere. Therefore, it is difficult to know if such a path of accessing information hinders or facilitates learners' participation in the WeChat online community.

Overall, the first path affords participants in the WeChat online community of practice opportunities to take a much more proactive role to obtain and/or contribute information. Such a sense of agency of doing things in the community facilitates learners' participation. In sharp contrast, the ways to use WeChat as a venue to broadcast information to foster community members' participation are much less satisfying in the available studies. Further, rather scant data could be retrieved in this regard, and relevant functions of WeChat for language learning need to be further explored.

4.1.7 Modality of communication

In addition to the six categories to evaluate the degree of participation and interactivity in web tools for FL education proposed by H. Jin (2009), another salient theme that emerged out of the critical review of the existing studies is the multimodality of participants' communication in the WeChat online community of practice. As Kress (2015) contends, the linguistic mode per se is not adequate for all communicational needs; instead, people utilize multimodal semiotic resources to make meaning, which goes beyond speech and writing. WeChat provides users with multimodal communication means, including voice and text message, emoticons, pictures, hyperlinks, video clips, Chinese memes, and the like.

Although using multimodal means to participate in WeChat communication is not designed by Chinese instructors intentionally, many CLLs demonstrate the capability of effective communication through multiple means on WeChat. These multimodal communication means are complementary to each other, working together to help language learners successfully negotiate meaning and deliver messages. For instance, modes such as emoticons, photos, stickers, and memes compensate for language learners' relatively insufficient proficiency in the target language. As illustrated in L. Jin's (2018) study, memes and stickers accelerated a beginning Chinese learner's participation in the community despite his limited Chinese. In this case, a beginner in terms of language proficiency, aided by semiotic resources beyond language, could be a mature and experienced participant in the community who participates fully. Even for learners with

higher proficiency levels, access to emoticons, hyperlinks, or music may also be a gateway to conversing with native speakers in a more socially and culturally appropriate and authentic way, in addition to being linguistically appropriate. It can also serve as an entry point of a conversation among community members. For example, a participant in Sung and Poole (2017) shared that the song feature in WeChat was especially useful, and often led to discussions about music in their respective cultures. Zhang (2016) found that students found helpful images on the web to facilitate the conversation “when they did not know how to say something,” and “all participants made use of emoticons to express their feelings” (p. 71).

Successful communication through multimodal semiotic resources not only enhances the confidence of CLLs in the target language but also fosters rather lively, enjoyable, and relaxing interaction among community members (Y. Wang et al., 2016, p. 33). This is echoed by L. Jin (2018). Another participant in the study by L. Jin (2018) didn't actively participate despite her higher language proficiency. Nevertheless, she reported rather favorable attitudes toward multimodal messages she received on WeChat: “And yeah, it is fun to text friends there, with all the stickers and memes. I don't text much but I enjoy reading those messages in our group chat” (L. Jin, 2018, p. 37).

It is worthwhile to note that what modalities of communication participants will use in the community is intricately associated with curriculum design. For instance, in L. Jin (2018), it is rather loosely designed in terms of how students should use WeChat group chat in the study abroad program. Therefore, students freely expressed ideas through language, video clips, photos, emoticons, etc. Conversely, some researchers explicitly instructed students to only use a certain modality of communication. For instance, Jiang and Li (2017) required students to ask each other questions and that the interaction be in the form of voice messages. Zhan and Chen (2018) also only used voice messages to help students practice speaking. Different components in Luo and Yang (2016) expected students to complete tasks in various types of modality ranging from texting in a short paragraph to recording a short oral production.

The policy, target language only, is often treated and used as a golden rule in FL teaching, especially in intensive immersion language programs. However, the effective usage of other semiotic resources in the dynamics among community members, as demonstrated in studies like L. Jin (2018), Sung and Poole (2017) and Y. Wang et al. (2016), signify the importance of further research on such types of meaning-making and negotiation in digitally-mediated communication. A better understanding of such types of nonverbal communication can shed light on better design of tasks for language practice and development as well as help FL educators nurture learners to become not only adept in the target language but also other semiotic resources, using them in a socially and culturally acceptable ways.

4.2 Research Question 2: Influencing Factors

Built upon the systematic review above, the content relevant to the seven categories of participation was coded inductively to reveal factors that affected CLLs participation in

the community. The factors were identified at three levels: the affective level, the social level, and the curricular level.

It is rather evident that affective factors impact the participation of CLLs in the WeChat online community of practice in various ways. For instance, students' high-level anxiety in synchronous communication with native speakers leads to the adjustments of WeChat-supported tasks. Additionally, as such anxiety gradually subsides, students' participation in the community improves as well. Zhang (2016) reports that the interaction of CLLs with native speakers improved as they became happier and more relaxed. Aside from anxiety, participants' personal preferences influence the level of participation as well. Some students' inactivity in the community results from their resistance to SNAs in general, not to mention using it for educational purposes. Huang (2019) reminds us that "if the learners are not social people themselves or tend to decline social media in the first place, they may not be active in using the language to communicate online, in this case, using WeChat" (p.16). One participant in the study explicitly expressed reservations about using social media, and he personally does not have any account. Consequently, he was frequently late in completing WeChat-assisted tasks and remained somewhat in a peripheral status at the beginning of the course.

Despite individual differences, the vast majority of participants consider WeChat-supported activity as useful, enjoyable, and informative. The overall positive experience of students in WeChat-assisted language learning plays an essential role in keeping them active in the community. The survey results from Zhang (2016) show that most of the participants enjoyed the project so much that 60% of them planned to maintain their relationship with language partners after the project has concluded. This is in tandem with the findings reported in the other studies (Chu et al., 2015; Huang, 2019; Luo & Yang, 2016; L. Jin, 2018).

Social factors can also hinder community members from moving towards fuller participation. Participants are not familiar with each other and do not have much in common; therefore, they might not know how to engage in conversation with each other, especially in a different language. While some students feel uncomfortable conversing on WeChat with their language partner, who speaks a different language and comes from a completely different culture (Y. Wang et al., 2016), other students find WeChat very helpful to avoid the awkwardness in meeting language partners in person (Sung & Pool, 2017). Whichever scenario applies, the same issue is that there is a lack of a topic to converse about when socializing with each other. Therefore, some students suggest that, if feasible, community members should meet in person regularly to build bonds and create common topics for WeChat discussion, or that language partners should be paired up based on similar interests (Sung & Poole, 2017).

While both affective and social factors exert an influence on students' participation, curricular design directly determines the range, mode, or device of their participation. As analyzed and elucidated above, how participants access, share, and deliver information are in line with the requirements of the WeChat-supported tasks. This can be observed in Luo and Yang (2016), with the five different types of tasks entailing diverse ways of

participation. For instance, the “mini-oral project” required students to participate in an interpersonal mode, actively, bi-directionally, and asynchronously.

Built upon curricular requirements, teachers' in-time intervention and constructive feedback may also effectively change participants' attitudes, energize participants, as well as increase and broaden their participation in various ways. The fourth participant in Huang (2019) was rather low-motivated at the beginning of the study; however, he started to post high-quality messages after receiving teacher feedback. Appropriate teacher scaffolding before implementing WeChat-supported activities may also be helpful to better prepare students for participation in the community. Sung and Poole (2017) conducted a training session after pairing up language partners, which familiarized the participants with different matters, including language use, speech speed, and linguistic areas for improvement. The necessity of such types of training was echoed in the study by Y. Wang et al. (2016), who also recommended more careful teacher monitoring in the future use of WeChat for language learning, consistent with the suggestions from Luo and Yang (2016).

5. Discussion

The aforementioned findings make it rather reasonable to conclude that to date ways to incorporate WeChat into Chinese language curricula remain rather underdeveloped. As revealed in the literature review, the current practices primarily revolve around asynchronous and one-to-one communication at the interpersonal mode through text messages. The other functions are confirmed to be useful, however, they are less frequently utilized to a satisfactory degree within the current Chinese language and learning practices.

The device of communication, for instance, primarily concentrates on the stored-and-forward device with much less discussion about synchronous communication. The main hindrance to adopting real-time communication devices is low language proficiency, which results in high anxiety amongst novice language learners. For the same reason, participants overwhelmingly opt for text messages in place of audio or video chat. Therefore, it is reasonable to conjecture that synchronous communication through voice messages and video conferencing in mobile-assisted language learning could be less challenging to advanced Chinese language learners. Consequently, for such a group of learners, synchronous language exchange should be more heavily weighted to further improve their fluency in Chinese in addition to accuracy. Therefore, ways to effectively adopt mobile-assisted language learning should be further explored in the advanced-level Chinese language courses. This is consistent with what L. Jin (2018) proposed: “Higher-level learners can be encouraged to venture out of text-based conversations to conduct audio or video-based chat on WeChat” (p. 46).

Additionally, how participants in the online community access information is restricted to a demand-basis. Ways to make broadcast-based information sharing more interactive and genuine should be further developed. For instance, there should be more genuine and authentic ways to utilize the Official Account function of WeChat for Chinese language education, allowing students to find accounts that truly match their interests. In

the meanwhile, this could also serve as a beneficial platform for CLLs to be immersed in a legitimate target language context and receive authentic target language input. Similarly, other functions such as group chat and multimodal communication should receive equal attention in order to broaden participation range and aid community members in moving towards fuller participation. In addition, when it comes to mobile-assisted language learning, teachers should help students tap into the multimodal semiotic resources to prepare themselves socially and carry out authentic, meaningful, and culturally-appropriate conversations with native speakers.

An interesting phenomenon that emerged in this literature review is that legitimate membership of CLLs in the WeChat online community and their corresponding degree of participation from peripheral to full is not necessarily associated with participants' proficiency in the target language. High proficiency in the target language does not ensure active or full participation. With the aid of the multimodal semiotic resources afforded in WeChat, participants with limited proficiency in the target language, even the beginning learners, can successfully carry out meaningful communication with other community members. On the contrary, much more proficient language learners could remain as peripheral participators.

The contributing factors at three levels—*affective, social, and curricular*—working together, determine the nature and characteristics of students' participation in WeChat-supported Chinese language learning. In the study by L. Jin (2018), WeChat group chat was used as a platform for disseminating information in the study abroad program without delineating specific ways for participants to use this platform or to act in this group. To a certain degree, WeChat was not adapted for educational purposes in this case, which in turn afforded students more room and flexibility as to how to participate in this online community. While it allowed the participant with lower proficiency to utilize multimodal communication to meet his learning, social and life needs, it did not give adequate attention to the other group of participants with more advanced proficiency, causing them to feel less motivated to actively contribute to the communication in the WeChat group chat as their proficiency was far beyond the conversation taking place in the community. As demonstrated in Zhan and Chen (2018), individualized speech tasks through WeChat reduced boredom among more advanced learners. This calls for a careful and differentiated design of WeChat-supported activities that meet the educational needs of various groups of learners with different proficient levels of the target language. For instance, if WeChat is designed as a platform for students to discuss controversial social issues in China or America, it might lead to rather heated debate, and participants similar to a student in L. Jin's (2018) study might take a more proactive role in participating in such type of conversation instead of passively receiving messages containing simple sentences in Chinese or funny memes. This student was rather active in the WeChat community when there was a need for real communication, and she even maintained her membership in the group after the study abroad program ended.

In summary, in order to turn WeChat into an effective educational tool to form a FL learning community where community members are encouraged to commit to “core participation” (Wenger, 1998) and to “exchange knowledge and localize new information”

(Yang, 2009), instructors and researchers should further explore the functions of these SNAs for educational purposes, and make differentiated pedagogical designs as to how to effectively utilize these tools for FL teaching and learning. This is congruent with what H. Jin (2009) emphasized when discussing how to use internet web tools for FL education. She asserted that participatory learning assisted by participatory tools increases a learner's target language use if the pedagogical design is sound and technology use is appropriate (p. 28); but poor pedagogical design can reduce the motivation and degree of student participation and interactivity when using technology to learn a foreign language (p. 43). Future research should shed light on these issues, such as the effectiveness of varying communication devices of SNAs in facilitating students' participation, to provide empirically-butressed guidelines for pedagogical practices.

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一个关于新冠疫情前东欧国家汉语教学中教育技术和数字化 教学资源应用情况的问卷调研

(A Survey on the Use of Technology and Digital Resources in CFL Instruction in Eastern European Countries before the COVID-19 Pandemic)

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摘要：2020年初突发的新冠疫情迫使东欧各国的汉语课程在极短的时间内转为线上或远程教学。在这种从面授转为线上教学的“应急远程”教学中，一个值得研究的问题是在极短时间内从传统线下课堂切换到线上课堂之前，汉语教师们在日常教学中是怎样使用教育技术和数字化资源的。本文呈现的是一个在2019年11月底进行的关于教育技术和数字化教学资源在东欧国家汉语教学中应用情况的问卷调研，受访对象是任教于东欧10国孔子学院和孔子课堂的汉语教师、汉语教学志愿者、以及汉语教学机构的负责人，其目的为筹划2020年暑期针对这些汉语教师进行岗中培训做准备。本次调研结果部分呈现了疫情开始前东欧国家汉语教学中教育技术的使用情况和汉语教师技术准备情况。问卷完成时尚未预见到新冠疫情大爆发给各类教学的巨大冲击，希望本次疫情前的调研数据能对今后对比疫情前后教育技术在汉语教学中的应用成效，以及将来的教师教育技术培训提供一定的参考依据。

Abstract: The onset of the COVID-19 pandemic in early 2020 pushed Chinese language instruction in Eastern European countries from in-person to online or remote instruction within a very short period of time. During this swift change to emergency remote teaching, an interesting research question emerged: how are instructional technology and digital resources used by Chinese language instructors in their in-person versus online oriented instruction. This paper reports the findings of a survey conducted at the end of November 2019 on the use of technology and digital resources by Chinese language instructors from various Confucius Institutes in Eastern European countries. The survey was intended to collect information to prepare for a teacher training program in summer 2020. Results from this survey provide a snapshot of the use of instructional technology in Chinese language teaching and instructors' technical preparedness in Eastern

European countries before the pandemic. Given the fact that the pandemic was not foreseen when the survey was conducted, its findings will hopefully provide meaningful references in future comparative studies on the effect of the use of instructional technology for Chinese language learning and instruction before and after the pandemic. It will also be helpful for developing teacher training programs on the use of instructional technology for Chinese language teaching in the future.

关键词: 二外汉语教学与教育技术、数字化教学资源、在线教学、教师培训、新冠疫情、东欧

Keywords: CFL teaching and instructional technology, digital resources, online instruction, teacher training, the COVID-19 pandemic, Eastern Europe

1. 引言

2020年3月中旬, 突如其来的新冠(COVID-19)疫情迫使东欧各国各类学校停止面授教学, 进入4月后大中小学课程陆续转为在线远程教学。以波兰为例, 随着疫情的本地化, 刚刚开学两周的春季学期所有级别的课堂教学不得不全面暂停。在经过两三周的准备后, 大学的课程陆续完全或部分转到线上开展。比如华沙理工大学(Warsaw University of Technology)规定, 除个别实验类课程需要按人数最少分组, 并在严格做好个人防护的情况下允许线下面对面指导外, 各种语言类和以讲授为主的课程均实行远程在线教学¹。波兰的中小学也在克服困难中陆续转为各种形式的远程教学²。

在这种从面授(为主)转为线上教学(为主)的“应急远程教学(Emergency Remote Teaching, Hedges, 2020)中, 一个值得研究的问题是在极短时间内从传统线下课堂切换到线上课堂之前, 教师们在日常教学中是怎样使用教育技术和在线教育资源的? 他们具有什么样的技术技能, 是否能获得应有的技术支持和数字教学资源进行远程教学, 了解疫情前教师们在教育技术方面的应用情况, 对今后回顾和反思急速转到线上的各类课程的教学成效, 以及今后的教育技术培训将具有一定的参考意义。

本文呈现的是2019年底新冠疫情开始前进行的关于教育技术和数字化教学资源在东欧各国汉语教学中应用情况的问卷调研。当时开展问卷调查的目的是为了解教育技术在东欧地区汉语教学中应用的情况, 为规划和制定相关教师的暑期岗中培训课程提供参考依据。2019年11月份, 任教于东欧10个国家孔子学院和孔子课堂³的105余名汉语教师、汉语教学志愿者和汉语教学机构的负责人参加了本次问

¹ <https://www.pw.edu.pl/engpw/News/Coronavirus-information-for-the-campus-community>

² <https://notesfrompoland.com/2020/04/07/as-lockdown-pushes-education-online-polands-digitally-excluded-children-are-being-left-behind/>

³ http://www.hanban.org/confuciousinstitutes/node_10961.htm

卷调研。调查问卷主要涵盖了四个方面:参与调查者所在学校的教育技术环境和设备技术条件;参与调查者在汉语教学各个教学环节中常用的教育技术和手段;人工智能和自然语言处理等新技术在汉语教学中的应用情况;以及参与调查者需要的教育技术培训类型和对培训内容的期待。本次问卷调查在新冠肺炎疫情发生前夕获取的数据,很好地印证了学界对作为应急之策而急速转到线上授课的教学效果和质量的担忧和焦虑⁴。相信本次疫情前的调研数据不仅对日后开展疫情前后专项对比研究具有参考价值,也将对如何进一步加强教师教育技术培训和教学资源开发具有一定的参考意义。

2. 东欧国家的汉语教学情况和新冠疫情对于教学的冲击:以波兰为例

2.1 波兰的汉语教学基本情况

波兰目前汉语教学主要通过两个途径进行:一是本地大学开设的汉学系,由本校雇用的本土和外聘教师从事汉语教学。目前波兰高校开设汉学系、汉语系或将汉语作为远东学专业必修课课程的大学有9所(欧安娜,2019)。讲授汉语专业课程的教师人数相对较少,他们主要是从事授予正式学分的大学汉语课程教学。比如华沙大学的汉学系正式专职汉语教员10人,另有来汉语作为母语的中国大陆和台湾汉语讲师各1名。

与第一类汉语教学的途径相比,第二类是作为将汉语作为外语的更广泛的非学分汉语课程,这些课程是由本地大学、中小学或其他教育机构与中国合办的孔子学院或孔子课堂的汉语教师和汉语教学志愿者开展的。近些年来随着东欧国家与中国经贸交流,特别是“17+1”中国中东欧合作机制⁵的建设,以及与中国共建“一带一路”⁶的深入,这类汉语语言教学在波兰得到了迅猛发展。截止到2020年8月,与中国高校共建的孔子学院有6家,独立孔子课堂1个(欧安娜,2019)。

据欧安娜(2019)研究统计,波兰不仅有越来越多高等学校开设汉语课,如今也有一批其他教学机构,如私立语言学校等也开设汉语课程。这样的学校分为两种:纯汉语教学机构(全国总数为19所学校,其中华沙地区总共有9所学校,其他地区10个)和提供多种语言课程的机构,包括汉语课(全国有14所学校,其中华沙地区有3个,其他地区有11个)。最近几年来,波兰有一些小学、初中和高中公私立学校也开设了汉语课程(欧安娜,2019)。疫情之前,除了个别培训机构开展少量针对企业客户的在线一对一辅导课程外,几乎所有汉语课程,无论是大学、中小学还是私立培训机构,基本的授课形式都是以校内上课,一对一或大班上课为主。

总体而言,在波兰汉语教学属于新兴事业。最主要的制约因素还是波兰语的本土汉语教材和会使用波兰语作为中介语的师资力量不足,特别是在最适合语言学习的小学 and 中学阶段。代强(2019)基于波兰维斯瓦大学(Vistula University)下设的孔子

⁴ <https://oerpolicy.eu/remote-education-during-covid-19-pandemic/>

⁵ <https://zh.wikipedia.org/wiki/17+1%E5%90%88%E4%BD%9C>

⁶ <https://baike.baidu.com/item/%E4%B8%80%E5%B8%A6%E4%B8%80%E8%B7%AF/13132427>

课堂的研究发现: 当前孔子课堂汉语教学过程中存在汉语师资力量薄弱, 教学方法缺乏针对性, 且大多数学生都觉得汉语难写、难记、难学。与此同时, 所用教材并不适合学生, 而汉语教师的教学方法也未能激发学生汉语学习的主动性与积极性。而维斯瓦大学孔子课堂汉语教学存在的问题, 也是很多波兰首都华沙的汉语学校教学存在的共性问题(代强, 2019)。由于原国家汉办选派的汉语教师能够使用波兰语的人数非常有限, 而同时波兰本土汉语师资储备与日益增长的需求而言严重匮乏, 在很大程度上制约了当地学校开设或扩大汉语课程的积极性。

据笔者跟踪访谈了解, 东欧其他国家的汉语教学情况与波兰的情况类似, 即学分类的专业汉语教学以大学汉学系为主, 涉及到更广泛各种层次非学分类的汉语教学则由孔子学院或孔子课堂来开展。

2.2 疫情对汉语教学的影响

2020年3月中旬, 由于新冠病毒感染输入性病例激增, 波兰教育部与几乎东欧各国同步宣布暂停所有类别学校的面授课程一个月。由于属于突发事件, 波兰大多数学校并没有大规模开展线上教学的预案。在第一阶段的停课一个月期间, 笔者所在波兰华沙理工大学紧急开展为期两周的在线教学技能培训, 大学信息中心展开网络配置和调试。4月初, 大学部分课程陆续转为在线授课。到4月底, 经过两三周的磨合, 大学绝大多数必修和选修类学分课程都在微软 Teams 平台或 Zoom 平台恢复了正常的教学秩序。而由华沙理工大学孔院开设的汉语课程, 虽然也开启了在线教学, 但由于属于非学分课程, 对学生缺乏约束力, 因此零起点班级在远程授课过程中学员流失较为严重。

然而, 与大学相比, 疫情期间波兰中小学的教学秩序的恢复却遭遇了更大困难。由于学校缺乏统一的在线教学平台, 教师拥有的在线教育技术和能力存在差距, 不同经济发展地区网络带宽, 以及家庭成员拥有电脑、手机等硬件设备的人均数量也显示出巨大差异, 这使得完全统一的在线教学几乎无法实现⁷。据笔者了解的情况, 在波兰绝大部分中小学采用的是异步的网络录播课程, 或者采用了基于网络资源的异步在线课程学习, 而同期, 低学龄的小学生和幼儿园基本上处于“无课”状态。

4月中旬后, 波兰的面授课禁令又被两次延后, 最终春季学期(2月中下旬至6月底)大学全部课程的教学都改为网络授课, 并且绝大部分期末考试都是通过在线完成, 无法在线完成的考试则被延后。5月中旬疫情危险程度降低后, 当地中小学和幼儿园, 从学龄最低的幼儿园开始, 然后是小学、再后来是中学陆续恢复了防疫状态下的面授, 但是家长可以决定是否送孩子到学校参加学习, 很多私立国际幼儿园的家长选择让孩子留在家中。

在恢复面授的一个月期间, 华沙等地陆续报告了多起因老师、学生或学生家长被感染而被迫停课停学的事件。

⁷ <http://www.oecd.org/education/Poland-coronavirus-education-country-note.pdf>

疫情对汉语课程招生的冲击是显而易见的,再加上面授课程被迫转为线上教学后,教师和学员都面临调整和适应的阵痛。以华沙理工大学孔子学院为例:3月中旬停止面授课堂教学后,由于幼儿园和老年大学的学员均不适合在线学习,他们的既定课程被迫全部取消,注册学员的数量也从原来的96人,锐减到仅仅18人。4月中旬大学的汉语课得以恢复在线直播教学,能够坚持上完该学期后10周在线课程的学员更是减少到个位数。

3. 东欧国家汉语教学中教育技术和数字化教学资源应用情况问卷调查

3.1 问卷设计

2019年底开展的这次在线问卷调查,其主要目的是为策划2020年东欧区域孔院暑期汉语教师教育技术培训课程提供参考依据。本调查问卷包括50个问题(见附件)、收集的数据除了参与调研者职业信息和所在学校汉语课程等基本情况外主要包括以下四个方面:

1. 任教学校汉语教师可使用的通用教育技术和数字资源配置情况;
2. 在日常汉语教学中教育技术和数字教学资源的使用情况;
3. 诸如人工智能和自然语言处理等新技术在汉语教学中的使用情况和对其的认知;
4. 汉语教师对教育技术培训的意愿,以及亟需哪些方面的培训。

教育技术的涵盖面很广,包括软、硬件和其在教学中的应用。为方便调研日常汉语教学中教育技术的使用情况,本问卷根据Frank等人(2008)和Golonka等人(2014)对教育技术辅助二语习得有效性的评估分类就语言输入(Input)、语言输出(Output)和互动(Interaction)、教学反馈(Feedback)、和学习者合作(Collaboration)等方面设计了问卷问题。目的是想了解教师是否在这些方面使用了相应的教育技术和手段,确定在针对被访者设计相应培训课程时需要关注的重点,比如是需要让教师了解哪些是有助于二语习得的技术,还是需要培养教师在具体的教学环节使用相关技术的意识,改善具体的课堂教学设计。

本问卷特别将教育技术分为已常态化(Bax, 2003, 2011)使用的技术和新技术两类来分别调研,主要是考虑到目前在学校环境中使用的很多软、硬件技术,诸如互联网、电子邮件,办公软件、和多媒体等在汉语教学中已趋于常态化(Wu, 2016; Da & Zheng, 2018),而类似触屏、自然语言处理、和机器翻译等新技术也在汉语教学中得到尝试,它们对诸如汉字书写(何文潮, 2019)、听力教学、翻译和写作教学(Tian, 2018)等的影响也逐步得到认知和评估。

就数字类教学资源而言,本问卷关注教师使用的资源来源,多媒体软硬件、以及资源的制作问题。了解这些方面的情况,有助于决定在对教师进行相关培训中需要关注的重点,比如是寻找资源的技能,还是资源的制作,或是在教学中使用资源的意识或技能等。

3.2 问卷对象、实施和数据收集

东欧各国目前在本地大学开设的汉学系从事学分类课程教学的汉语教师人数相对较少,而在更大范围内从事各种层次非学分汉语教学的教师大都为来自孔子学院和孔子课堂由中方派遣的汉语教师和汉语教学志愿者。本问卷调研的对象是目前在东欧 10 个国家的孔子学院和孔子课堂任教的中方教师,以及汉语教学机构的负责人。问卷通过第三方平台“问卷星”⁸发布和收集数据。2019 年 11 月 26 日发布问卷,12 月 1 日调查截止。共有 105 名汉语教师和汉语教学机构的负责人参加了本次在线问卷调查,共有收到完整答卷 102 份。参与调研者在手机微信端打开推送,完成问卷调查。

在问卷调查的基础上,笔者还根据参与者的意愿与 6 名来自波兰、捷克和斯洛伐克的孔院中方院长和汉语教师进行了进一步访谈。下面呈现的问卷结果是基于问卷调研的数据和个别访谈的汇总。

3.3 问卷结果

本调查问卷集中调研了在波兰和其周边东欧国家的汉语教师和汉语教学志愿者,在日常汉语教学中教学技术的使用情况,调研重点关注传统教育技术应用的场景、新媒体和社交媒体在语言教学和师生沟通以及人工智能等新技术的应用 8 个侧面,包括教学组织、教学平台、语言输入、语言输出和互动、教学反馈、学习者直接的合作、教学资源及资源平台、和汉语学习有关的新技术使用。

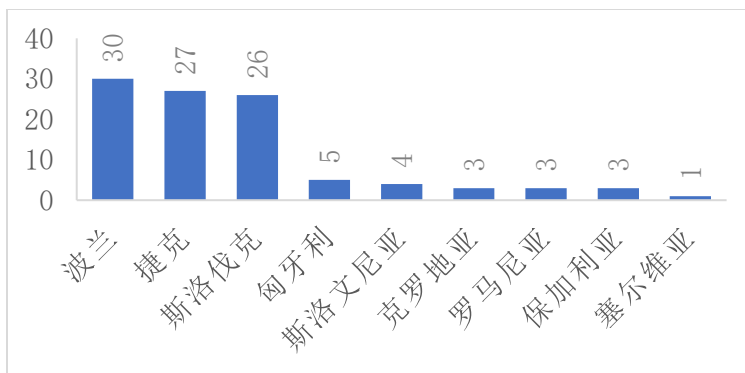
这里需要说明的是在有效问卷中并不是所有人均回答了所有问题。本节图表中汇总的数据均以百分比或具体答题的人数标出。

3.3.1 被访者个人和学校的基本情况

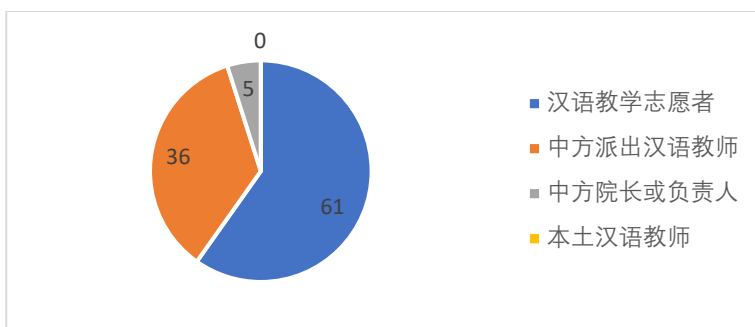
被访者主要来自波兰、捷克和斯洛伐克三个国家,共 83 人,其余 7 国家参与调查人数较少,为 19 人,因此本文的分析主要针对波兰、捷克和斯洛伐克这三个国家(图表 1)。

从基本数据分布情况看,参与调研的是由中方合作院校派出的汉语教师和汉语教学志愿者为主(图表 2),大部分在当地从事汉语教学不足 2 年的时间(一半人不到 3 个月)(图表 3),主要从事非学分类汉语课程的教学(图表 5),学生包括各种群体,以中小学生和大学生为主,还包括从学龄前到其他社会人士等各种人群(图表 6)。近 8 成学校的汉语教师人数为 10 人以下(图表 4),大部分所在学校选修汉语的人数少于 100 人(图表 7)。

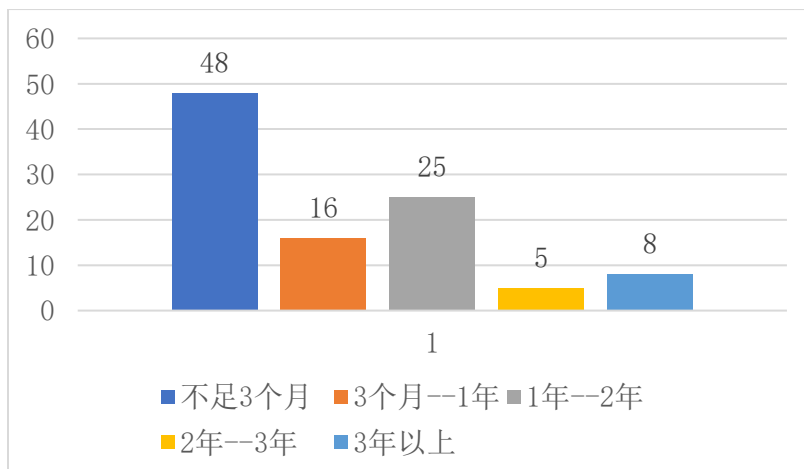
⁸ <https://www.wjx.cn/wjx/checkstatus.aspx?activity=49792874&returnurl=%2fm%2f49792874.aspx&s=2>



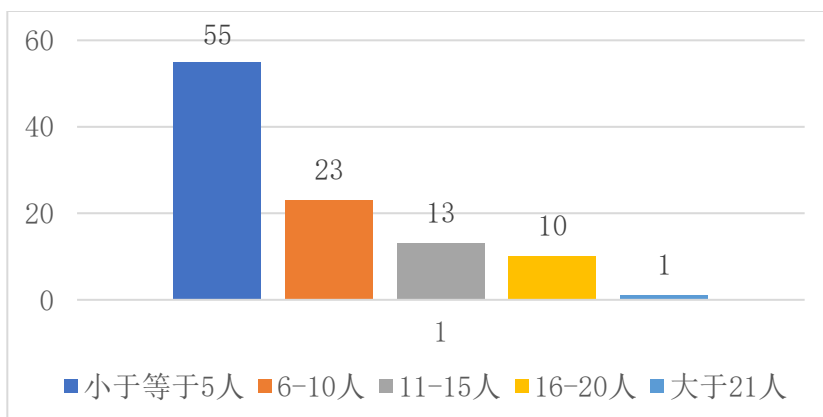
图表 1 被访者工作的学校所在国家 (人数)



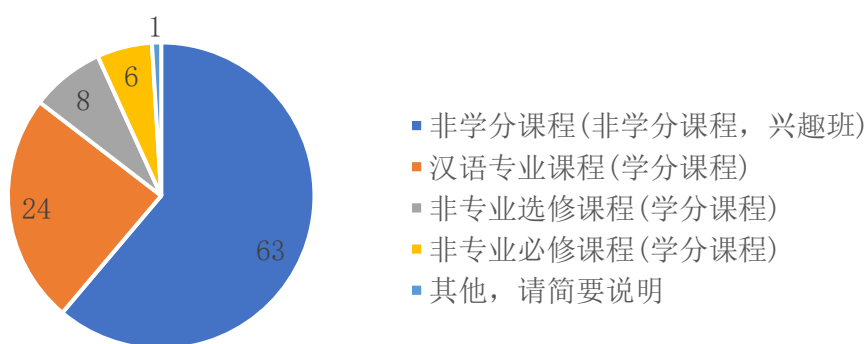
图表 2 被访者工作身份 (人数)



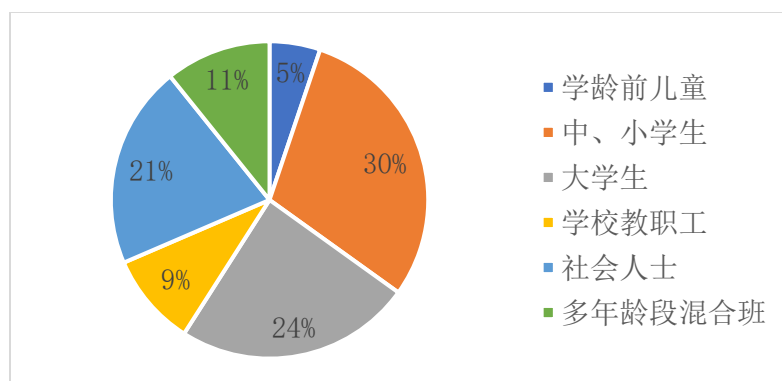
图表 3 被访者在当地教授汉语的时长 (人数)



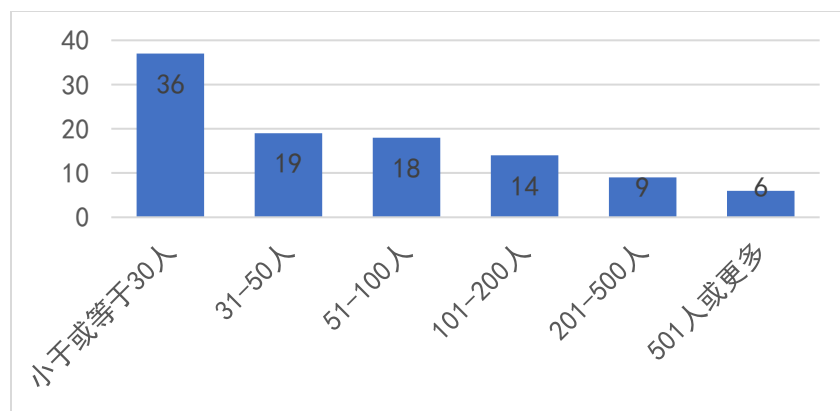
图表 4 被访者所在学校当前汉语教师人数 (人数)



图表 5 被访者任教的汉语课程属性 (人数)



图表 6 被访者所教授的学员构成



图表 7 被访者所在学校选修汉语课程的人数

3.3.2 学校通用教育技术基础设施配置情况

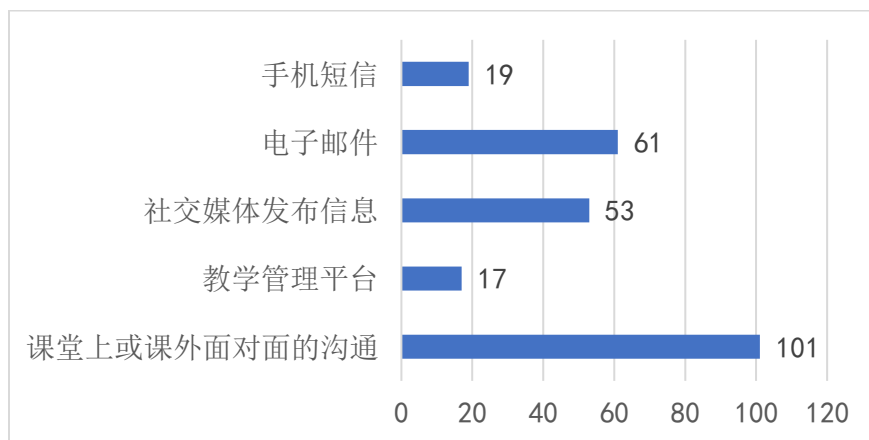
通用教育技术基础设施包括计算机、投影仪等多媒体和智能白板等交互教学设备, 校园无线网络(Wi-Fi), 学生是否都拥有可以上网的手机等教学环境, 以及教学平台和师生交流的技术手段等。如图表 8 所示, 各个学校的现代教育基础设施条件是具备的, 但只有三分之一的学校提供了教学平台供师生使用。被调研者列举的社交软件主要包括 Wechat、Instagram、Edupage 和 Facebook 等。

| 问题序号 | 调研问题 | 调研结果 | |
|------|-------------------------------------|--|----------|
| 8 | 您教学的教室里是否有计算机、投影仪等多媒体设备? | 是 | 98 96.1% |
| | | 否 | 4 3.9% |
| 9 | 您教学的教室里是否有智能白板等交互教学设备? | 是 | 48 47.1% |
| | | 否 | 54 52.9% |
| 10 | 您所在的学校是否提供无线网络(Wi-Fi)给教师和学生使用? | 是 | 85 83.3% |
| | | 否 | 17 16.7% |
| 11 | 据您观察, 学生是否都拥有可以上网的手机? | 是 | 95 93.1% |
| | | 否 | 7 6.9% |
| 12 | 您和学生之间除了(课堂上)面对面交流外, 是否还使用以下方式进行交流? | <ul style="list-style-type: none"> ■ 电子邮件 ■ 社交软件 ■ 手机电话或短信 ■ 其他, 请说明 | |
| 13 | 您所在的学校是否提供了(通用)教学管理系统(平台)供教师和学生使用? | 是 | 32 31.4% |
| | | 否 | 70 68.6% |

图表 8 汉语教学中通用教育技术和数字资源配置情况

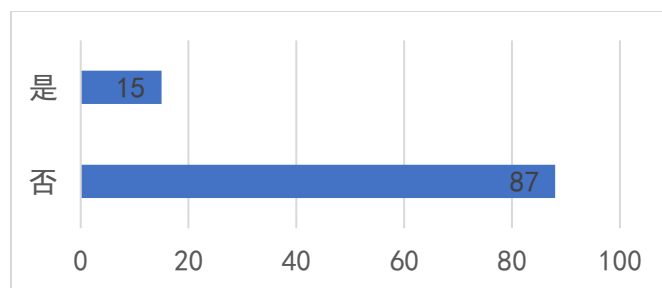
3.3.3 汉语课堂教学组织 (Organization) 中教学平台(Course management system) 和教学资源(Resources)的使用情况

传统的课堂教学组织主要是通过教师和学生之间面对面或书面的沟通。从本调研的结果来看, 很少有被访者是通过教学管理平台组织和管理教学的。几乎 100% 的教师依赖于课上或课后通过面对面方式安排教学进度和发布作业及预习等信息。另外, 分别有 60% 和 50% 左右的老师会通过邮件或班级社交群或个人社交账号发布教学通知, 使用手机短信和教学平台的不足 20% (图表 9)。



图表 9 汉语教学中通过何种渠道实现教学组织和管理 (人数)

“学习电子档案”是指教学系统 (平台) 上自动记录和管理学生学习时间和成绩等数据、以及收集学生作业的功能。本调查发现只有 15% 左右的被调研者了解或使用“学习档案袋” (图表 10), 这一调查结果和近 7 成的学校汉语教学未提供教学平台的实际情况是非常吻合的 (见图表 8)。没有相应的教学管理平台则无法建立学习电子档案。



图表 10 汉语教学中“学习档案袋”的了解或使用 (人数)

问及在教学中是否提供教学课件 (比如 PPT、视频、微课程) 给学生使用, 高达 93% 的被访者选择了“是” (图表 11)。同时, 调查发现被访者大部分是在课中提供教学课件用于学生做笔记, 或者是课后用于复习和完成作业 (图表 12)。对

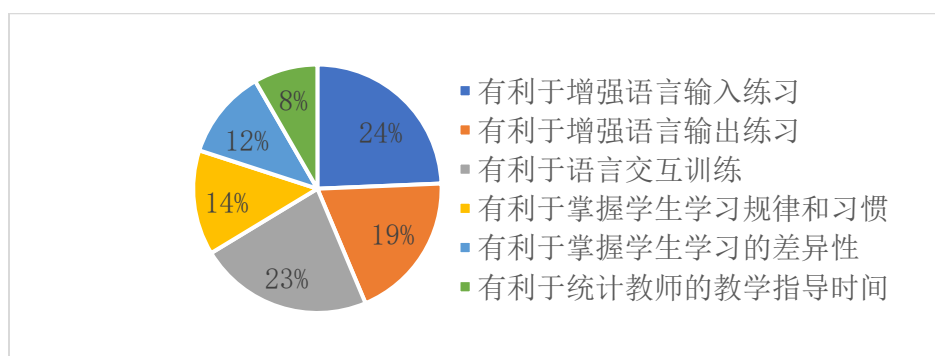
被访者而言, 课程网络平台或 APP 的主要作用各异, 包括有利于增强语言输入或输出练习等 (图表 13)。

| 选项 | 小计 | 比例 |
|----------|-----|-------|
| 是 | 95 | 93.1% |
| 否 | 7 | 6.9% |
| 本题有效填写人次 | 102 | |

图表 11 提供教学课件(比如 PPT、视频、微课程)给学生使用

| 选项 | 小计 | 比例 |
|---------------|----|-------|
| 课前, 用于指导预习 | 12 | 11.8% |
| 课中, 用于做笔记 | 42 | 41.2% |
| 课后, 用于复习和完成作业 | 48 | 47.1% |

图表 12 汉语教学中哪个阶段提供教学课件等资源给学生



图表 13 课程网络平台或 APP 主要的作用主要体现在语言教学哪个环节

3.3.4 教育技术在语言输入 (Input) 环节中的应用情况

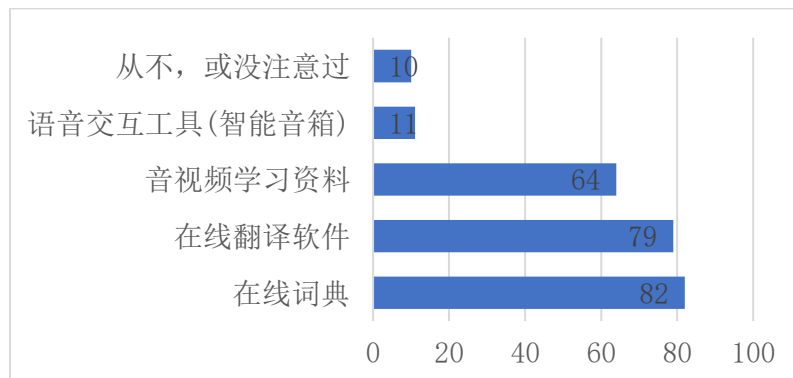
除了教师或其他人提供的文本和语音输入外, 使用教育技术和数字资源还可以给学习者提供其他更多不同的语言输入。在语言输入环节中通过技术可提供的输入形式和手段包括电子 (在线) 词典、数字化的课外学习材料, 比如音频 (录音)、视频 (汉字笔顺动画, 成语故事动画)、或在线作业等。本调查发现经常使用这些技术手段和资源的教师达到了 60% (图表 14, 其中电子 (在线) 词典、音视频、和动画均为常用输入形式 (图表 15)。同时, 根据被访者的观察, 学生使用最多的是在线词典、在线翻译软件和音视频学习材料 (图表 16)。

| 选项 | 小计 | 比例 |
|------|----|-------|
| 从未使用 | 2 | 2.0% |
| 偶尔使用 | 40 | 39.2% |
| 经常使用 | 60 | 58.8% |

图表 14 数字教学工具和媒体资源的总体使用频率 (人数)

| 问题序号 | 调研问题 | 调研结果 | |
|------|-------------------------------------|------|------------|
| | | 是/否 | 人数/比例 |
| 20 | 是否使用电子词典或在线词典帮助备课? | 是 | 82 / 80.4% |
| | | 否 | 20 / 19.6% |
| 21 | 是否介绍和鼓励学生使用电子词典或在线词典? | 是 | 83 / 81.4% |
| | | 否 | 19 / 18.6% |
| 22 | 是否提供数字化的课外学习材料, 比如音频、视频或在线作业等? | 是 | 78 / 76.5% |
| | | 否 | 24 / 23.5% |
| 23 | 是否使用汉字笔画顺序动画和/或成语故事动画等音视频学习材料给学生使用。 | 是 | 82 / 80.4% |
| | | 否 | 20 / 19.6% |

图表 15 数字教学工具和媒体资源的具体使用频率



图表 16 汉语教学中学生相互交流使用的工具 (人数)

3.3.5 教育技术在语言输出 (Output) 和互动 (Interaction) 环节中的应用情况

这部分调研的重点是语言输出和互动环节教育技术的应用情况。使用技术手段的输出和互动包括比如使用在线系统完成作业, 使用讨论版或者社交媒体等进行在线小组活动等。调查发现只有一成的被访者表示要求学生使用自动批改作业系统来完成(个人)作业。相对而言, 被访者则更多地使用教学平台的讨论版或社交媒体来让学生完成小组作业。详细调研数据如图表 17 所示。

| 问题序号 | 调研问题 | 调研结果 | | |
|------|--|------|----|-------|
| 24 | 是否要求学生用可以自动批改作业的汉语教学系统来完成比如阅读理解或者语法练习? | 是 | 16 | 15.7% |
| | | 否 | 86 | 84.3% |
| 25 | 是否要求学生用可以自动批改答案的移动端 APP 来完成比如阅读理解或者语法练习? | 是 | 12 | 11.8% |
| | | 否 | 90 | 88.2% |
| 26 | 是否容许学生用教学平台的讨论版(BBS)来进行小组讨论, 或完成小组作业? | 是 | 43 | 42.2% |
| | | 否 | 59 | 57.8% |
| 27 | 是否要求学生用社交软件来进行小组讨论, 或完成小组作业? | 是 | 82 | 80.4% |
| | | 否 | 20 | 19.6% |

图表 17 教育技术在汉语教学语言输出和互动环节中应用情况

3.3.6 教育技术在教学反馈 (Feedback) 环节中应用情况

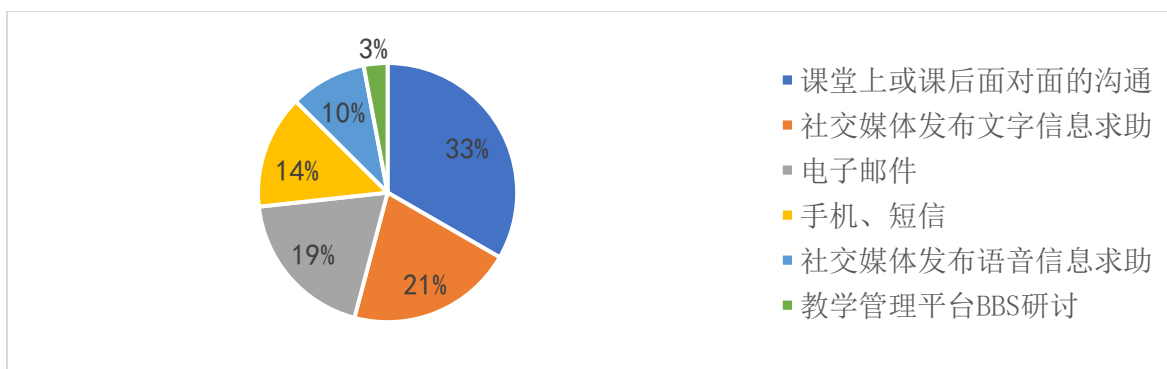
本问卷关注的教学反馈主要是使用技术手段给学生提供书面反馈。调查发现 63% 的被访者没有要求学生使用带有自检功能的 Word 或 pdf 等格式提交电子作业。同时, 熟悉和经常使用电子批注方式给学生反馈的人数则更少, 只有约不到 3 成 (图表 18)。

| 问题序号 | 调研问题 | 调研结果 | | |
|------|--|------|----|-------|
| 28 | 是否要求学生用 Word、pdf 或其他电子格式提交个人作业? | 是 | 38 | 37.3% |
| | | 否 | 64 | 62.7% |
| 29 | 是否会在学生提交的比如 Word 或 pdf 等电子文档里直接批改或批注学生的作业? | 是 | 27 | 26.5% |
| | | 否 | 75 | 73.5% |

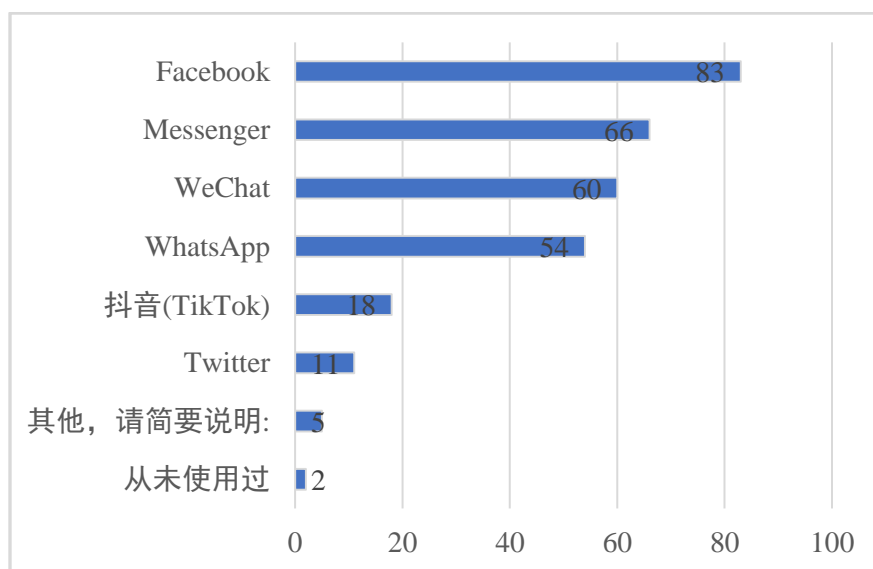
图表 18 教育技术在汉语教学反馈环节中应用情况

3.3.7 教育技术在学习者合作 (Collaboration) 中的应用情况

学习者的合作是有助于外语学习的重要手段。据被访者观察, 除了课中或课外面对面的交流外, 他们的学生相互间交流最常用的是社交媒体的文字或语音方式, 占比为 31%, 其次是电子邮件 19% (图表 19), 使用教学管理平台合作的只有 3%。除了 Facebook 和 Messenger 等问卷列出的社交媒体外, 被访者列出的其他社交软件或服务还包括 Instagram 和 Google classroom 等 (图表 20)。



图表 19 教育技术在汉语教学中学习者合作情况



图表 20 汉语学习中中学生经常使用的通用社交互动软件（人数）

3.3.8 多媒体教学资源及资源平台在汉语教学中应用

多媒体教学资源主要是指图片和音视频素材或教学课件。它们或是教师自己制作,或是源于第三方制作。本调查发现被访者使用的多媒体教学资源来源多样,较多的是教材配套的音视频材料(22%),或是源于非中国国内的第三方平台(如YouTube)的材料(22%),相当一部分也使用自建资源(15%)或从中国国内的第三方音视频平台获取(15%)。相比较而言,从专门的汉语课程和教学平台获取的资源相对较少,为11%(图表21)。

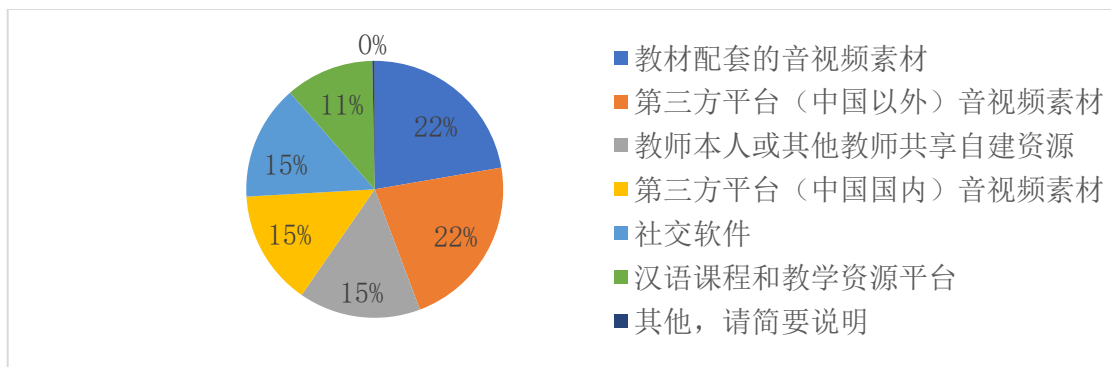


图 21 经常使用的媒体资源主要类型

从资源的制作来说，由教师个人或集体制作的资源占 4 成，更多的则是由他人制作：或源于教材配套由出版社制作（27%），或是源于互联网由第三方制作（33%）（图 22）。

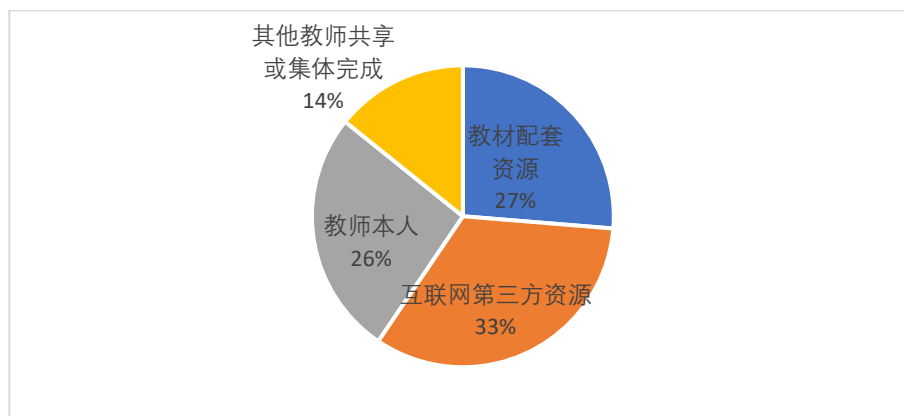


图 22 经常使用的数字媒体教学资源的制作者

虽然被访者表示他们的学生很欢迎在课堂中使用数字化的教学材料（图 23），他们也能方便地获取数字化资源（图 24），也有少数教师（约 18%）表达了自己在寻找相关资料时遭遇的困难，比如：很难找到资源共享、资料不全面、数量很多但大都不合适、和课程相关的很少、资料没有特别的针对性、找资料费时费力、无法下载只能在线或者无使用权限等。

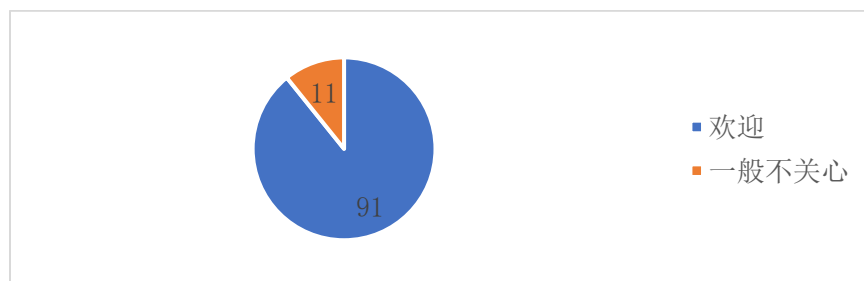
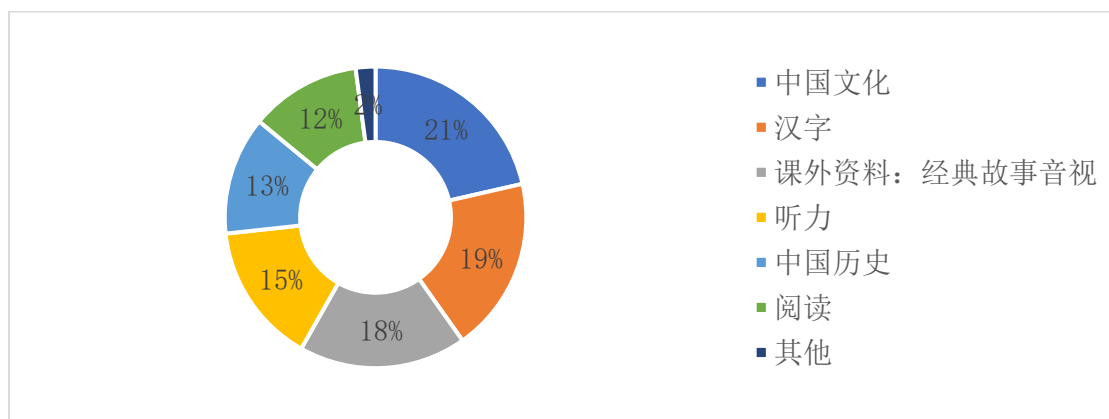


图 23 学生对在汉语课堂中使用数字化教学资源的态度（人数）

| 选项 | 小计 | 比例 |
|--------------|----|-------|
| 方便 | 84 | 82.4% |
| 不方便, 请简要说明原因 | 18 | 17.6% |

图表 24 获取所需的数字化教学资源的便利性

就被访者而言, 他们最期待的第一类数字教学资源包括中国文化、汉字、课外资料、和听力等。其次是中国历史、和阅读等(图表 25)。



图表 25 教师最期待的数字化教学资源类型

3.3.9 人机互动、人工智能等新的技术在汉语教学中的应用情况

随着智能手机和宽带互联网等硬件基础设施的普及, 人工智能和自然语言处理技术也逐步被尝试应用于语言教学中。本部分调研重点是汉语教师对语音识别、语音合成、机器翻译、触控和手写屏幕等人机交互新技术的认知和熟悉情况。

如图表 26 所示, 96%的被访者都在经常使用诸如谷歌翻译等自然语言处理技术, 但对诸如智能音箱、语音识别和语音合成等认知率均只不到 40%, 其中了解语音合成只占被访者总数的 23%。此外, 虽然有 65%教师容许学生电脑打字做作业, 但教授学生在触屏上手写汉字的只有不到三分之一。这可能是两个方面的原因: 一是部分教师个人可能对触屏手写汉字输入用于汉语教学还不甚了解; 另一是部分教师可能并不认可这种学习汉字的方式, 具体情况有待进一步研究分析。

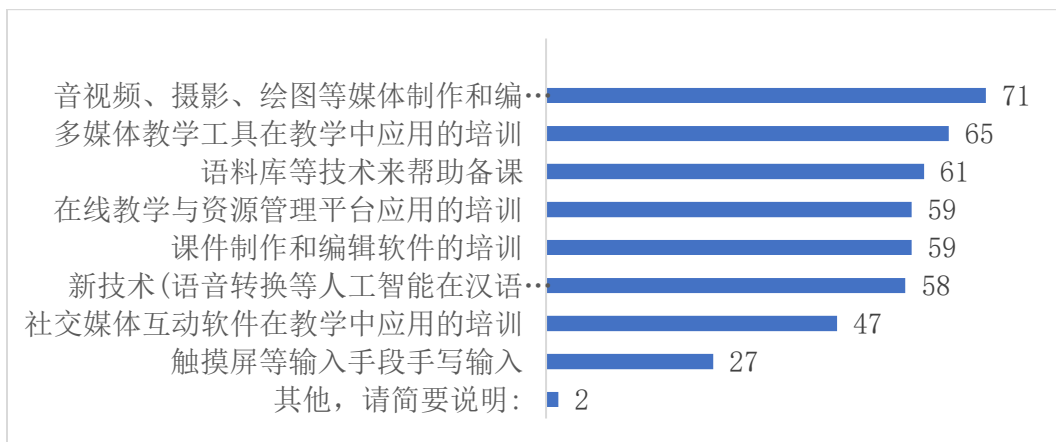
就对自动语音识别和生成的认知而言, 超过 60%的被访者均同意计算机生成的语音可以用于教学, 同时, 超过 70%的被访者也认为语音自动识别技术可以用于汉语的发音和口语学习。

| 问题序号 | 调研问题 | 调研结果 | | |
|------|----------------------------|------|----|-------|
| | | 是/否 | 人数 | 百分比 |
| 39 | 是否使用过谷歌翻译等自然语言处理工具? | 是 | 98 | 96.1% |
| | | 否 | 4 | 3.9% |
| 40 | 是否使用过类似智能音箱等带有语音互动接口的产品? | 是 | 32 | 31.4% |
| | | 否 | 70 | 68.6% |
| 41 | 是否了解计算机语音生成? | 是 | 24 | 23.5% |
| | | 否 | 78 | 76.5% |
| 42 | 是否了解计算机语音自动识别? | 是 | 40 | 39.2% |
| | | 否 | 62 | 60.8% |
| 43 | 是否允许学生打字做作业? | 是 | 66 | 64.7% |
| | | 否 | 36 | 35.3% |
| 44 | 是否教授学生在手机等触屏上手写汉字? | 是 | 33 | 32.4% |
| | | 否 | 69 | 67.6% |
| 45 | 是否觉得计算机生成的语音可以用于教学? | 是 | 62 | 60.8% |
| | | 否 | 40 | 39.2% |
| 46 | 是否觉得语音自动识别技术可以用于学生的汉语发音训练? | 是 | 74 | 72.5% |
| | | 否 | 28 | 27.5% |
| 47 | 是否觉得语音自动识别技术可以用于学生的口语训练? | 是 | 77 | 75.5% |
| | | 否 | 25 | 24.5% |

图表 26 教师对人机互动、人工智能等新的技术在汉语教学中的应用的认知

3.3.10 教师对教育技术培训的期待

约 95% 的被访者均希望能有机会参加教育技术和数字化教学资源建设培训。最受期待和关注的培训是多媒体制作和工具使用、语料库以及在线教学与资源管理平台。同时,他们也同样期待人工智能等新技术在汉语教学中的使用培训。相比较而言,对社交媒体和触屏手写汉字在教学中的应用关注度较低,其原因有可能是被访者对这两类技术都比较熟悉。



图表 27 教师对教育技术在汉语教学中应用培训的期待(人数)

3.4 问卷讨论

本调研问卷的具体结果部分反映了教育技术在东欧国家,尤其是波兰、捷克和斯洛伐克等三国新冠疫情前在汉语教学中应用的一些特点。结合问卷的数据结果和个别访谈,可以总结出以下几个值得关注的现象。

(1) 东欧国家汉语教育教学规模小,师资流动性大,教学力量相对薄弱。

从调研情况整体分析,在同一所学校或教育机构,同业汉语教师的人数一般不超过5个人,注册学员人数大多数少于100人,达到或超过500名学员的只是少数个别现象;作为外语的汉语教学虽然增长速度快,但属于新兴学科,相对设置较晚,受众规模又相对偏小。此外,从调研情况发现,东欧三国一半以上开设汉语的学校汉语教师岗位缺乏长期稳定性,高达60%的被访者从事现岗位教学工作不满3个月。这种不稳定性与孔子学院派遣的汉语教学志愿者任期只有一学年和汉语教师每两年一个聘期有关。由于孔院属于中外合作的属性,孔院教师和汉语教学志愿者属于中方雇员,这些岗位存在一年至两年的周期轮换性质。

(2) 东欧国家汉语在线教学基础薄弱,缺乏适合本地区系统性规范的汉语教学管理和资源平台,制约教学的发展。由于缺少基于教材和教学级别的网络或手机终端的教学管理平台,虽然有超过8成的教师认为容易获取教学音视频资源,但同时也有相当一部分教师认为很难找到与教材或课程相配套的资源。协调东欧各国联合相关教材和数字媒体出版机构,建立基于本国或本区域的汉语网络教学平台和数字化教学资源,在整合教学资源和强化语言教学中的形成性评价体系显得十分必要。

(3) 教师对以人工智能和人机交互为特色的新技术应用于汉语教学有较高期待,新技术在教学中的应用培训和技术的普及还有待提高。智能音箱集语音输入、语音识别和语言合成为一体,智能平板和智能手机等将汉字手写输入等变为现实,这些新的人机交互技术在汉语教学中的应用值得探索。70%左右的接受调研的教师看好新技术在教学中的应用,95%教师期待今后的教师岗前和岗中培训要强化教育技术的比重和内容。

(4) 突发疫情短时间内改变了传统的课堂教学,被迫的全员线上授课给汉语教学带来很大的冲击和阵痛。笔者访谈多位在线授课教师,了解到他们在在线教学过程中的一些有代表性的遭遇和感悟:

1. 网络教学对初学汉语者挑战性很大,适应性较差。由于新学员和教师间缺少必要的面对面情感交流和接触,较难形成语言教学场景中必不可少的信任和默契;
2. 网络课程(特别是直播课)在汉语教学中有一定的局限性。屏幕上看到的是老师的镜像画面,无法完全呈现教师对汉语发音和汉字板书笔画教学(电视)的示范有效性;
3. 在线教学如何保持学习者的注意力具有挑战性。特别是当学员或教师选择关闭摄像头和麦克风时,在线课堂不可避免变成教师的独角戏;

4. 在线下面授课堂使用的纸质教材缺乏配套的在线教学所需的教学互动设计。在切换至线上教学时,对基于纸质教材的教学模式和作业形式改造的难度偏大。教学资源的整合很难由任课教师单独完成;
5. 在线教学模式和教学内容单一,直播课教学模式必须和在线自主学习在线课程配套资源相结合,才能达到期望的教学效果;
6. 智能化教学新技术和利用社交软件有利于师生之间互动和交流,在线教学互动工具和教学资源建设亟需加强。

本问卷设计上尚存在一些不足之处。第一,问卷设计中主要关注了在中国国内教学中常用的教学平台和教学媒体,对在东欧中小学和大学其他科目教学中常用的社交媒体、社交工具、资源平台等研究和涉及较少。第二,问卷中有关人机交互等新媒体、新技术在汉语教学中的应用调研内容设计尚不够深入和全面,有些问题设置重复性偏高。第三,本问卷调研范围尚未包含在东欧三国的汉学系或东方语言专业老师,因而对当地汉语教学缺乏一个全面系统的反映。

4. 结语

本问卷调研了教育技术在东欧国家汉语教学中的使用情况,受访对象是任教于东欧 10 国孔子学院和孔子课堂的汉语教师、汉语教学志愿者、以及汉语教学机构的负责人。本调研始于 2019 年 11 月底,其目标是了解相关国家的教育技术配置情况、汉语教师们日常教学中使用教育技术的情况、以及他们对诸如自然语言处理等新技术的认知情况,为筹划 2020 年暑期针对这些汉语教师进行岗中培训做准备。问卷完成时尚未预见到 2020 年春季新冠疫情大爆发在世界范围内对各类教学的巨大冲击。一直作为教学辅助手段的各种教育技术和应用,尤其是与在线教学的相关技术和手段,在急促由线下转至线上的各种层次教学中被迫变成了最主要的施教手段。这种巨大而仓促的转变给包括汉语教师在内的教育者和学生都带来了巨大的挑战、阵痛,同时也带来新机遇。本次调研部分呈现了疫情开始前东欧国家非学分汉语教学中教育技术的使用情况。希望本次调研的数据可以日后用来阐释和分析教师们遇到的挑战的底层原因,也为将来对教师进行教育技术培训提供参考依据。

笔者拟于疫情结束后再进行一次类似的问卷调研,以便进行纵向的对比分析,理清经过急速应急在线教学实践后,东欧国家汉语教学在教育技术应用方面的变化和新的需求。

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附件

《教育技术在东欧国家汉语教学中的应用》调查问卷

尊敬的各位老师, 本问卷是为了调查中东欧汉语教学中教育技术使用情况, 以便日后我们更加有针对性地设计和组织教育技术在国家汉语教学中应用的培训。完成本次在线调查问卷共四个部分 50 个选择题, 大概需要 10 分钟左右。真诚地感谢您百忙之中抽出时间参与调研。

第一部分 您所在学校汉语课程的基本信息

1. 您工作的学校所在国家是? _____

- 波兰
- 捷克
- 斯洛伐克
- 匈牙利
- 斯洛文尼亚
- 克罗地亚
- 罗马尼亚
- 保加利亚
- 塞尔维亚
- 黑山
- 马其顿
- 波黑
- 阿尔巴尼亚
- 爱沙尼亚
- 立陶宛
- 拉脱维亚共和国
- 其他国家, 请说明: _____

2. 您在该学校的身份是_____。

- 本土汉语教师
- 中方派出汉语教师
- 汉语教学志愿者
- 其他, 请简要说明: _____

3. 您在该学校工作了多长时间?

- 不足3个月
- 3个月--1年
- 1年--2年
- 2年--3年
- 3年以上

4. 您所在学校目前有多少名汉语教师?

- 小于5人
- 6-10人
- 11-15人
- 16-20人
- 大于21人

5. 您任教的汉语课程属于

- 汉语专业课程(学分课程)
- 非专业必修课程(学分课程)
- 非专业选修课程(学分课程)
- 非学分课程(非学分课程, 兴趣班)

- 其他, 请简要说明: _____

6. 您所在学校选修汉语课程的人数?

- 小于或等于 30 人
- 31-50 人
- 51-100 人
- 101-200 人
- 201-500 人
- 501 人或更多

7. 您教授的学员构成主要是? (可多选)

- 学龄前儿童
- 中、小学生
- 大学生
- 学校教职工
- 社会人士
- 多年龄段混合班

第二部分 您所在学校的教学技术及设备配备的基本情况

8. 您教学的教室里是否有计算机、投影仪等多媒体设备?

- 是
- 否

9. 您教学的教室里是否有智能白板等交互教学设备?

- 是
- 否

10. 您所在的学校是否提供无线网络(Wi-Fi)给教师和学生使用?

- 是
- 否

11. 据您观察, 学生是否都拥有可以上网的手机?

- 是
- 否
- 拥有可上网手机的比例是: _____%。(填写 0-100 之间的数字)

12. 您和学生之间除了(课堂上)面对面交流外, 是否还使用以下方式进行交流(可多选)?

- 电子邮件
- 社交软件
- 手机电话或短信
- 其他

13. 您所在的学校是否提供了(通用)教学管理系统(平台)供教师和学生使用?

- 是
- 否

第三部分 您在日常汉语教学中教学技术的使用情况

(一) 教学组织

14. 在教学中, 您是否了解和使用学生“学习电子档案”, 即在教学系统(平台)上自动记录学生学习时间和成绩等数据和收集学生作业)?

- 是
- 否

15. 在教学中, 您通过何种渠道实现教学组织和管理(可多选)?

- 课堂上或课后面对面的沟通
- 教学管理平台
- 社交媒体发布信息
- 电子邮件
- 手机短信

(二) 教学平台

16. 在教学中, 您是否提供教学课件(比如 PPT、视频、微课程)给学生在课前、课中或课后使用?

- 是
- 否

17. 在教学中, 如果您提供教学课件教学资源给学生, 一般是在授课的哪个阶段?

- 课前, 用于指导预习
- 课中, 用于做笔记
- 课后, 用于复习和完成作业

18. 您认为教学实践中, 课程网络平台或 APP 主要的作用是?(可多选)

- 有利于增强语言输入练习
- 有利于增强语言输出练习
- 有利于语言交互训练
- 有利于掌握学生学习规律和习惯
- 有利于掌握学生学习的差异性
- 有利于统计教师的教学指导时间

(三) 语言输入

19. 您在汉语教学中使用数字教学工具和媒体资源的频率是?

- 从未使用
- 偶尔使用
- 经常使用

20. 在您汉语教学中, 您是否使用电子词典或在线词典帮助备课?

- 是
- 否

21. 在您汉语教学中, 您是否介绍和鼓励学生使用电子词典或在线词典?

- 是
- 否

22. 在您汉语教学中, 您是否提供数字化的课外学习材料, 比如音频、视频、或在线作业等?

- 是
- 否

23. 在您汉语教学中, 您是否提供音视频学习材料 (如汉字笔顺动画, 成语故事动画等)?

- 是
- 否

(四) 语言输出和互动

24. 您在教学中是否要求学生用可以自动批改作业的汉语教学系统来完成比如阅读理解或者语法练习?

- 是
- 否

25. 您在教学中是否要求学生用可以自动批改答案的移动端 APP 来完成比如阅读理解或者语法练习?

- 是
- 否

26. 您是否要求学生用教学平台的讨论版 (BBS) 来进行小组讨论, 或完成小组作业?

- 是
- 否

27. 您是否要求学生用社交软件来进行小组讨论, 或完成小组作业?

- 是
- 否

(五) 教学反馈

28. 您是否要求学生用 Word、pdf 或其他电子格式提交个人作业?

- 是
- 否

29. 您是否会在学生提交的比如 Word 或 pdf 等电子文档里直接批改或批注学生的作业?

- 是
- 否

（六）学习者直接的合作

30. 据您所知，您的学生相互交流用哪些方式（可多选）？

- 课堂上或课后面对面的沟通
- 教学管理平台 BBS 研讨
- 社交媒体发布文字信息求助
- 社交媒体发布语音信息求助
- 电子邮件
- 手机、短信

31. 据您观察，您的学生在学习汉语时使用下列教学技术吗？（可多选）

- 从不，或没注意过
- 在线词典
- 在线翻译软件
- 音视频学习资料
- 语音交互工具（智能音箱）
- 其他，请说明：_____

32. 据您观察学生在汉语学习中，经常使用哪些通用社交软件互动？（可多选）

- 从未使用过
- WhatsApp
- Messenger
- Facebook
- Twitter
- WeChat
- 抖音(Tik Tok)
- 其他，请简要说明：_____

（七）教学资源及资源平台

33. 您在汉语教学中使用的数字化教学工具主要是以下哪些类型？（可多选）

- 从不使用
- PPT+投影（电子屏幕）
- 智能电子白板
- 手机及 APP
- 课程资源与管理平台
- 社交软件（WeChat、Twitter、Facebook 等）
- 音、视频录制和播放工具
- 其他，请简要说明：_____

34. 您在汉语教学中经常使用的媒体资源主要是如下哪种类型？（可多选）

- 教材配套的音视频素材
- 汉语课程和教学资源平台
- 第三方平台音视频素材（中国网站为主，比如：优酷、腾讯、哔哩哔哩等）
- 第三方平台音视频素材（国外网站为主，比如：YouTube 等）
- 社交软件（WeChat、Twitter、Facebook 等文字、图片等资源）

- 教师本人或其他教师共享自建资源
 - 其他, 请简要说明:_____
- 35.您在汉语教学中使用的数字媒体教学资源的制作者是谁? (可多选)
- 教材配套资源
 - 互联网第三方资源
 - 教师本人
 - 其他教师共享或教师集体完成
- 36.您认为在您目前的汉语教学中, 是否方便获取自己所需的数字化教学资源?
- 方便
 - 不方便, 请简要说明原因: _____
- 37.您希望在对在汉语教学中加强哪方面的数字化教学资源建设? (可多选)
- 中国文化
 - 中国历史
 - 汉字
 - 听力
 - 阅读
 - 课外资料: 经典故事音视
 - 其他, 请简要说明:_____
38. 您的学生对在汉语课堂中使用数字化教学资源的态度是?
- 欢迎
 - 不欢迎,
 - 一般, 不关心
 - 其他, 请简要说明:_____

(八) 和汉语学习有关的新技术使用

39. 您使用过类似谷歌翻译等自然语言处理工具吗?
- 是
 - 否
40. 您使用过类似智能音箱等带有语音互动接口的产品吗?
- 是
 - 否
- 41 您了解计算机语音生成吗?
- 是
 - 否
42. 您了解计算机语音自动识别吗?
- 是
 - 否
43. 您允许学生打字做作业吗?
- 是

- 否
44. 您是否教授学生在手机等触屏上手写汉字?
- 是
 - 否
45. 您觉得计算机生成的语音可以用于教学吗?
- 是
 - 否
46. 您觉得语音自动识别技术可以用于学生的汉语发音训练吗?
- 是
 - 否
47. 您觉得语音自动识别技术可以用于学生的口语训练吗?
- 是
 - 否

第四部分 教师培训

48. 如果有机会参加针对汉语教学的教育技术和数字化教学资源建设培训, 您是否愿意参加?
- 愿意
 - 不愿意
49. 汉语教学的教育技术和数字化教学资源建设培训, 您希望参加哪个方面的培训? (可多选)
- 多媒体教学工具在教学中应用的培训
 - 课件制作和编辑软件的培训
 - 在线教学与资源管理平台应用的培训
 - 音视频、摄影、绘图等媒体制作和编辑工具的培训
 - 社交媒体互动软件在教学中应用的培训
 - 语料库等技术来帮助备课
 - 触摸屏等输入手段手写输入
 - 新技术(语音转换等人工智能在汉语教学中的应用)
 - 其他, 请简要说明: _____
50. 您是否愿意接受我们进一步书面或在线深入访谈?
- 是
 - 否
 - 如果愿意接受访谈, 请留下您的常用 email 邮箱: _____

谢谢, 真诚感谢您的参与。

科技赋能网络教育： 标准为本的初级汉语网络课程设计及科技应用 (Technology-Enhanced Online Language Education: A Standards-Based Online Elementary Chinese Course)

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摘要： 本文旨在报告以《标准》为本的汉语网络课程设计及互动工具应用策略。文章首先介绍波士顿大学初级汉语完全网络课程的设计理念，即紧扣《标准》，遵循反向设计原则，注重建设探究式社群，结合异步教学、同步教学和社群活动模式，以此来达到培养学生交际能力和跨文化意识的目的。文章将展示单元实例，介绍其综合评估任务和学习活动，并探讨该单元基于研究的教学设计。本文还将讨论科技工具如何帮助学生完成网课学习任务 and 增进互动，并说明工具的选用考量。本文最后分析总结了 2019 年及 2020 年学生的课程评估和工具调查问卷。根据反馈，学生对该网络课程的满意度较高，对语言学习效果自我评价良好，对主要互动科技工具也持积极态度。

Abstract: This article examines the design of a standards-based Chinese language course at Boston University and shares how the course integrates various digital tools to support learning outcomes. After discussing the course design principles, which include standards-based instruction, Backward Design, and the Community of Inquiry framework, the author introduces the course model, combining asynchronous learning, synchronous learning, and virtual community activities. The article also showcases one sample module, describes its Integrated Performance Assessments and learning activities, and examines its design against research informed pedagogical principles. The author demonstrates the tools used to facilitate task completion and increase interactions, followed by a discussion of what the author takes into account when choosing tools. Course evaluations and questionnaires were conducted during the 2019 Summer and 2020 Summer terms in order to understand students' perceptions of the course and the tools. Survey results indicate students' positive attitudes toward the course, the tools, and their language gains.

关键词： 网络课程、初级汉语、《标准》为本的外语课程设计、科技工具

Keywords: Online course, Chinese for beginners, standards-based foreign language curriculum design, digital tools

1. 前言

近二十年来，美国高校的在线课程呈现出蓬勃发展的趋势。据美国教育部 (U.S. Department of Education, 2002, 2019) 全国教育统计中心的统计，2000 年秋季学期，仅有 8% 的美国大学生选修了一门或以上的远程教育课程；到了 2018 年秋季，该比例上升至 35.3%。然而，相较其他学科，语言网络课程的发展甚为缓慢。语言习得离不开社会互动 (Lantolf, 2006)，但是远程学习环境缺乏高频次的面对面人际交流，使得高校管理层和教师们对语言网络课程的开发持保守态度，继而影响了语言网络课程的大规模开发 (Blake, 2009)。作为美国外语教育的纲领性文件，《为世界作准备的语言学习标准》(The World-Readiness Standards for Learning Languages, National Standards in Foreign Language Education Project, 2015. 以下简称“《标准》”) 给各级教育机构的外语课程设计提供了基准和参照。然而，网课和传统课堂互动模式的不同给以《标准》为本的网络课程设计带来了新的挑战。前者强调多层面互动，包括师生、生生、学生与内容的互动 (Moore, 1989)，学生与界面的互动 (Hillman, Willis, & Gunawardena, 1994) 及学生与环境的互动 (Burnham & Walden, 1997)。后者在立体空间产生，师生主要通过口头对话肢体语言的形式展开交流。二维网络环境无法完全复刻三维实体课堂的互动沟通模式。值得庆幸的是，教育科技的进步赋能在线教学。据现有科技辅助外语网课研究，科技工具在外语网络课程中起到重要作用，利于学生完成标准所提倡的沟通任务 (Sato, Chen & Jourdain, 2017)，实现多层次互动。

本报告旨在探讨以标准为本的初级汉语网络课程的设计及交互科技工具应用策略，并提出提高网络中文课程教学质量的建议。笔者将首先介绍波士顿大学的《初级汉语 II》网络课程的开设背景和课程模式。其次，阐述该课程的设计理念并举例说明教学实践如何反映设计理念。再次，结合单元实例，展示具体学习任务，并介绍主要的互动科技工具及选用考量。然后，通过分析学生问卷调查和课程评估结果，汇报学生对课程和工具使用的反馈。最后，就网课设计、教学实践和工具使用进行反思，提出优化网课设计及合理使用工具的建议，以供同侪参考。

2. 《初级汉语 II》网络课程概况

2.1 课程开设背景

2017 年暑期学期，出于扩大生源，方便校内外学生随时随地学习汉语的双重目的，美国波士顿大学推出了该校第一门完全在线汉语课程《初级汉语 I》。该课程实施后便得到了学生的正向反馈，很多学生提出了继续选修网络中文课程的愿望。

为满足学生的需求，方便世界各地的学生学习汉语，该校的第二门完全中文网络课程《初级汉语 II》于 2019 年 7 月上线，迄今为止，已开设了两次。该课程学为四个学分，时长六周。学生注册课程的前提为完成《初级汉语 I》的课程学习，或者汉语口语水平达到初中级。课程结束以后，希望学生水平达到初级高或以上。

2.2 课程模式

《初级汉语 II》完全网络课程采取了混合在线教学模式，结合了线上异步教学、线上同步教学及线上社群活动三大网络学习模式。

考虑到暑期课程学生群体的特殊性（学生遍布世界不同时区，学生组成包括在职社会人士等非在校学生），每周异步教学的比例占总学习时长的 70%，比例为三种模式里最高。因为异步教学活动能打破时空限制，允许学生按照自己的时间表，在不同的地点进行线上独立学习，方便非传统学生兼顾学业、家庭及事业。异步学习自学课程包括了预习模块和复习模块。每个模块均使用了多种多媒体资源，例如电子生词卡片、词汇游戏、教师自制的动漫语法视频、文化网站、影视材料、母语者对话等真实语料视频等。选择多媒体资源作为异步学习材料可以同时以听觉和视觉方式呈现教学内容，帮助学生深入理解材料，提高学习效果（Mayer, 2005）。为提高学生的内部动机，受 Ryan 和 Deci 的自我决定论（2000）的启发，异步学习模块提供了多种学习任务，让学生拥有一定的作业选择权，营造自主学习环境。异步学习模块也重视外部动机的作用。在学生完成一系列有挑战性的任务之后，课程以颁发奖章的形式，给予学生奖励和正向反馈，增强学生的学习兴趣。

同步教学和社群活动是对异步教学的必要补充，也是培养学生口头交际能力的重要环节，学习时长分别占每周总时长的 20% 和 10%。同步教学指的是教师和全体学生在固定的上课时间通过实时视频会议，进行课堂教学互动。教师在同步学习模块发挥的主要作用不是传授知识，而是促进师生和生生的双向口头交流，并予以即时反馈。为了有效利用同步教学有限的课堂互动时间，本课程采用翻转课堂的模式，将语言知识和语言功能的预习和复习功课安排在异步学习模块，充分利用同步视频会议进行口语练习与即时反馈。

社群活动的目的在于增强学生的群体意识和归属感，加强学生和汉语母语者的联系。活动形式主要以学生双人交流和小组交际任务的形式展开。以外，学生每周还与中文母语者就课程相关话题进行一对一的采访和文化讨论，并在期末完成跨文化主题的探究项目。三大模式相辅相成，相得益彰。

3. 课程主要设计理念及应用

3.1 以《标准》为本的理念及应用

根据《标准》，外语教学应该涵盖五个以 C 开头的教学目标，分别是：Communication（交际沟通）、Culture（文化学习）、Compare（文化语言比较）、Connection（学科联系）和 Community（社区应用）。《标准》以交际沟通为核心，提出了三种交际模式：人际交流，理解诠释和表达演示。人际交流指人与人之间有意义的协商沟通，形式包括听说场景的口头会话与读写环境的书面交流。人际交流强调即兴沟通，也就是说，对话不应该是事先准备和预演过的。理解诠释指通过听、读、观察来理解文本、图像、视频、音频等材料的语言意义，并能推断字里行间的内涵。表达演说为第三种交际模式。指的是针对不同的听众和读者，通过演讲和写作技能，有效地传达信息和表述观点。表达演说能力还体现在学习者能够合理运用科技工具，帮助完成信息传达任务。三种交际模式反映了二语习得的输入（Krashen, 1985）与输出理论（Swain, 1985）：人际交流既要求交谈者听懂或读懂输入的信息，又强调语言输出；理解诠释模式以单向听读信息输入为主；表达演说模式则以书面和口头语言输出为重。值得一提的是，改版的《标准》提倡培养学习者成为有竞争力的全球公民，帮助他们了解所学语言文化，得体地参与跨文化对话。为此，美国外语教学委员会联合美国外语督学协会，在原有能力目标基础上增加了跨文化沟通能力目标，从跨文化研究和互动两个层面，将文化产物，文化实践和文化观念自然地融入到语言课堂教学中。跨文化学习的能力目标阐述反映了外语课堂中文化教学的新思路，即从以文化知识学习为导向转变为以培养跨文化技能为导向的教学。以文化知识学习为导向着重了解文化事实，将学习者置于异国文化对比的位置（Liddicoat, 2011），容易加深学生对所学语言文化的刻板印象。相比之下，以文化技能为导向的学习鼓励学生积极主动地体验文化，有利于学生修正自我文化为中心的观念，消除文化偏见，成为得体的跨文化交际者。

《初级汉语 II》以《标准》所提出的五个 C 为教学目标，注重从人际交流、理解诠释和表达演示三大方面培养学生的交际能力。人际交流的口头交际任务主要安排在同步视频会议和社群活动时段，以非预演的生生互动（常见任务为模拟真实语境下的对话）及学生与母语者互动（常见任务有学生采访母语者，讨论跨文化话题）的形式进行。而书面的人际交流活动则主要在课程的社群讨论区开展，比如学生彼此交流中文学习策略，对同学发布的帖子提问和发表看法等等。理解诠释任务主要安排在异步学习环节，活动类型包括观看视频并完成内容理解性问题、浏览网页内容并提取关键信息等等。表达演说任务则安排在异步学习模块，形式多样。例如，针对课文主题，结合个人经历，录制说话视频或者手写书面答复。由于《标准》强调科技工具在学生完成表达演说任务时的辅助作用，笔者也布置了数字故事创作项目，旨在帮助学生练习汉语的同时，提升他们作为二十一世纪公民的数位素养。

其次，《初级中文 II》以能力目标为依据设计具体每单元的教学活动。例如，根据初级阶段的跨文化沟通能力目标，在跨文化研究层面，外语学习者能够辨认目的语文化产物和文化实践，进而帮助自己理解目的语文化观念；在跨文化互动层面，

学习者能使用学过的语言在熟悉的社交情境下（局限于生存所必需的情境）完成交流任务，并展示出基本的跨文化意识。因此，课程的异步学习模块加入了“文化拓展”和“真实场景下的母语者对话”版块。例如，“点菜”单元的“文化拓展”版块，笔者在 Blackboard 上载了《舌尖上的中国：五味》的视频，要求学生观看视频后写下视频里提到的食物名称和味道。此任务可以帮助学生用中文辨认中国特色食品，实现跨文化研究层面的目标。另外，在 Blackboard 的“母语者对话”版块，笔者录制了母语者在中国城饭店吃饭的自然中文语料视频，要求学生首先观察视频里中国人在餐厅就餐时，点菜和请客吃饭的语言行为特点，完成视频互动测试。然后与中文母语者通过 Slack 社交工具和 Zoom 视频会议工具，对比讨论在中国和在学生自己国家的餐厅吃饭时的礼仪，并模拟在中国饭店点菜买单的对话。该任务的目的有二，一为帮助学生理解中国人在饭店用餐的常见行为特点，二为鼓励学生走入目的语社区，和母语者交流，实现跨文化互动层面的目标。

3.2 逆向设计原则及应用

逆向设计是在教育界得到广泛认可的课程设计理念，也是网络课程设计重要的指导性原则。Wiggins 和 McTighe（2005）在他们的《Understanding by Design》一书中正式介绍了这个原则。他们认为最有效的课程设计应该以学习者为中心，从预期学习成果和教学目标出发来设计教学活动。初级中文网络课程的设计受反向设计原则启发，采取了如下四个步骤依次计划单元的学习内容。首先，设定教学目标，思考学生学完该单元后能做什么。《初级汉语 II》以《标准》为本，参照关于能力目标的语言表述形式，列出每个单元的语言知识及语言功能项的学习目标。第二，考虑提供什么样的测试机会让学习者展示自己的学习成果。《初级汉语 II》设计了综合性的应用能力测试 (Integrated Performance Assessments)，主要形式是由学生完成人际交流，理解诠释和表达演说三种语言任务。第三步设计具体的学习活动，考虑什么活动能够帮助学生达到第一步所设定的目标。接着按照先进性输入性质的“听、读、看”任务，再进行产出性质的“说、写、做”任务的顺序，安排活动。最后一步则是网课设计的关键所在，即考虑哪些学习任务适合异步模块，哪些安排在同步教学更高效，哪些应该在虚拟社区进行，然后选择活动所需资源及科技工具。前文提及本网课采用翻转课堂模式，因此，异步学习模块大多布置了学生与内容互动的预习和巩固练习活动，重点训练学生的听力、阅读和写作技能。而人际互动任务一般在同步教学和社群模块进行，主要目的是复习学生在异步学习模块学到的语言知识点，提高学生的口语表达能力。确定了每项具体活动开展的平台之后，笔者根据活动所涉及的语言，选用相应的教材内容，多媒体学习资源，真实材料和科技工具。

3.3 探究社群及应用

Garrison、Anderson 和 Archer，等人（2001，2010）提出的探究社群 (Community of Inquiry, 以下简称“CoI”) 是研究网络交互性学习和社群建设的理论模型（参见图 1）。探究社群理论给在线教育研究提供了新视角，影响深远 (Swan & Ice, 2010)。该模型框架认为，营造合作探究型网络学习社群的三大核心维度是

认知临场感（Cognitive Presence）、社会临场感（Social Presence）和教学临场感（Teaching Presence）。认知临场感指学习参与者经过网络互动学习后，对学习内容的深入认知和理解程度。社会临场感强调学习者是否对社群具有认同感，乐意与社群成员合作并勇于加入开放性讨论。教学临场感则着重教育者在社群中起到的引导作用，包括课程活动设计、引导讨论，提供反馈等。研究表明，这三个要素相互依存，共同影响着学生对课程的满意度，学习成果和归属感（Arbaugh, 2008）。不过，Garrison 等人 (2010) 也认为 COI 模式中的三大核心维度受网课主题影响，所占比重程度不一样。笔者所设计的《初级中文下》侧重语言技能，而语言学习离不开人际互动，因此培养学生的社会临场感非常重要。

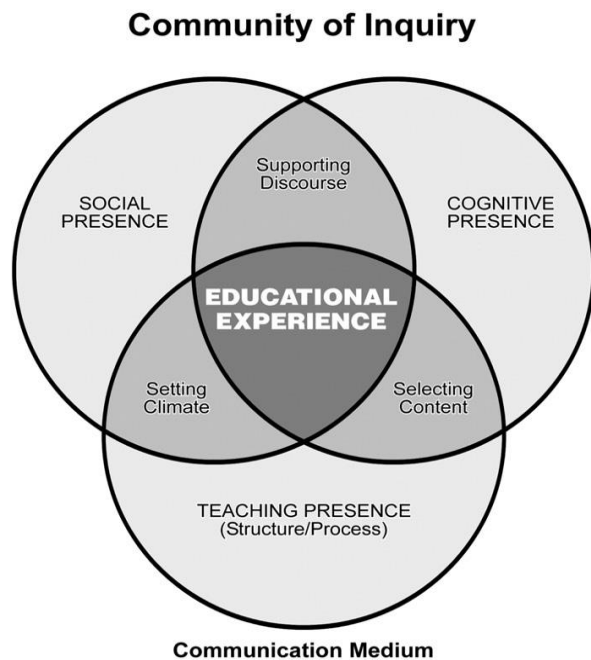


图 1 探究式社群模型

为增强学生的社会临场感，《初级汉语 II》主要采用以下策略。首先，创建 Slack 虚拟社群交流平台，并积极建设社群。研究表明，想要营造良好的学习社群学习氛围，教育者应当鼓励学生参与讨论区讨论，并且布置一些和小组及社区相关的活动或者作业（Murdock & Williams, 2011; DiRamio & Wolverson, 2006）。笔者布置了一些需要先发布到 Slack 社群后再进行同学互评的作业，培养学生到 Slack 讨论区发言和讨论的习惯。除此以外，笔者鼓励学生当小老师，互相学习。学生在社群讨论区交流学习当中遇到的问题，分享自己的学习心得。社群建设还包括学生结对完成双人口语交际任务，以及学生与中文母语语伴进行跨文化互动和讨论。这个策略受 Vygotsky (1978) 的最近发展区理论启发。个体可以通过和其他能力更高的人对话，达到稍高于本人独立活动所能达到的水平。笔者期待学生在合作讨论的过程中朝着潜在的更高的能力水平发展。总之，以上所提的社群建设策略在增强网课的社会临场的同时，也为实现中文教学目标而服务。

4. 单元范例和互动工具介绍

4.1 单元范例

下面以《初级汉语 II》第三单元对话一为例，展示笔者如何依照前文所提理念进行教学设计。对话一的主题是问路和描述地点。按照反向设计原则，首先设定具体的学习目标，其核心学习目标是“学了本对话以后，我能得体地问路；我能描述建筑物的位置关系。”其次，笔者采取综合性应用能力测试来评估学生这两方面的能力。理解阐述模式的任务主要在异步学习模式进行。任务之一考察学生对得体地问路这一语言技能的掌握情况。学生看真实语料视频，回答 **Kaltura** 这一视频软件所支持的视频内嵌测试问题。提交答案以后，学生可以获得电脑即时反馈，得知答案正确与否（参见图 2）。第一个视频是电视剧的问路片段，考察学习者对问路的掌握情况。第二个视频是笔者录制的真实母语者对话，考察了该单元的对话中出现的中国人的打招呼方式。问题设置参考了注意假说（*noticing hypothesis*），即只有被注意到的语言形式才能被学习者所学会（*Schmidt, 2001*）。笔者从角色关系和角色所使用的用语两个方面，考察学生，以问题的形式，引起学生注意，帮助学生观察母语者在不同场景和不同对话者说话方式的不同。例如图二，笔者通过视频内嵌问题，提问视频里同事之间的打招呼用语“去哪儿啊？”，引导学生关注中国人日常生活中明知故问的寒暄方式，了解中国人的行为文化。

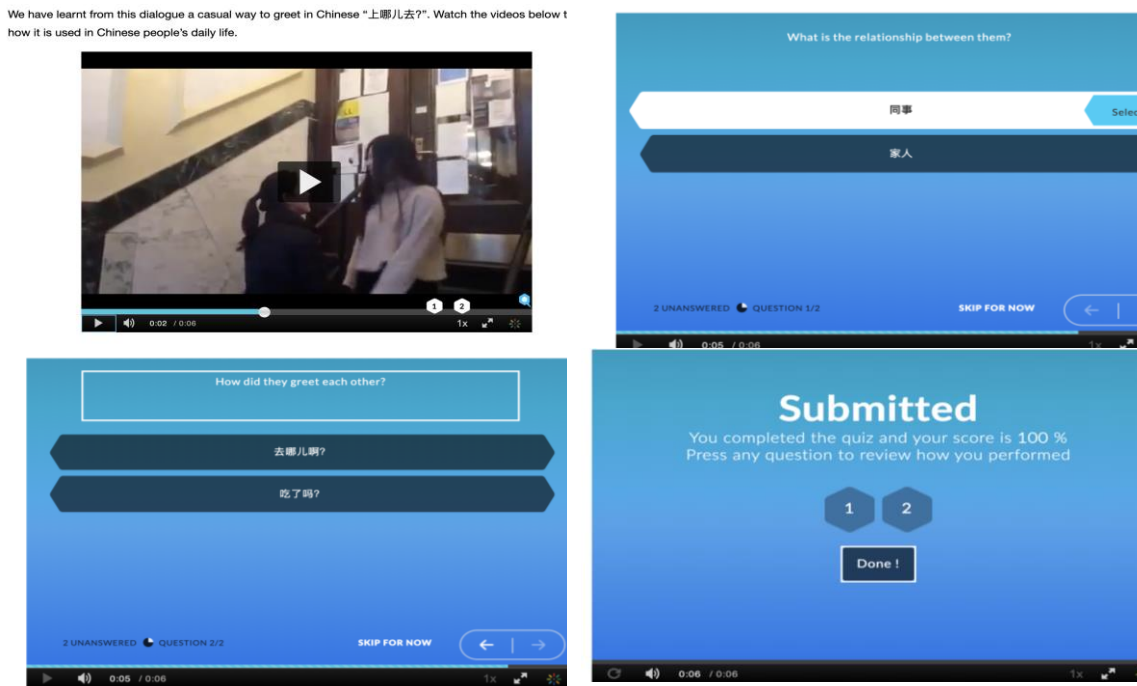


图 2 母语者对话视频和 Kaltura 内嵌视频测试

理解阐述模式的任务之二则评价学生对听力材料和图片材料的里提到的建筑物位置关系的理解。学生首先参与虚拟现实校园之旅，通过全景地图和母语者的校园

视频解说，观察厦门大学校园内建筑物的位置关系，然后记录下他们所看到的内容。该任务利用了虚拟现实技术。虚拟现实技术被认为是一种体验，具有全沉浸式、交互式 and 想象性的特点（Burdea & Coiffet, 2003），能够实现学习者和平台，学习者和环境，以及学习者和内容的互动。该任务在考察学生语言理解能力的同时，也增进了学习者对中国校园的了解。表达演说任务则为衡量学生是否能够描述校园内建筑物位置关系而设计。学生在 Classkick 平台描绘理想校园，再录制语音音频介绍该校园（见图3）。

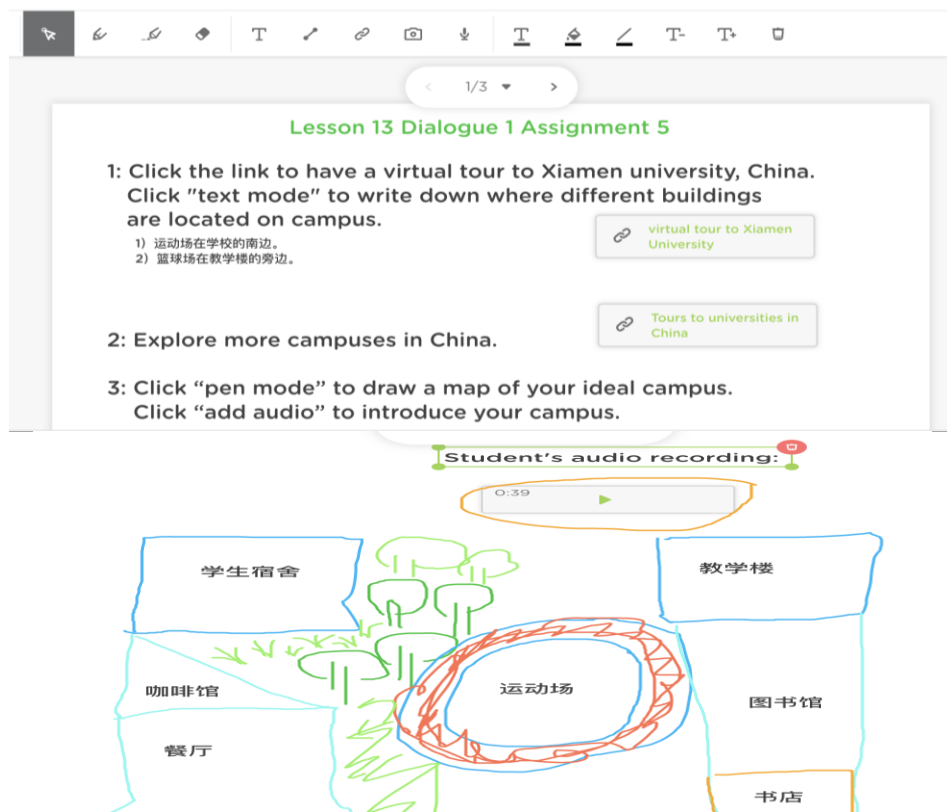


图3 设计并介绍理想校园任务和 Classkick 多模式作业提交平台

人际交流模式的任务则在学生和学生，以及学生和中文母语者之间的社群活动中展开。学生需要和另一个同班同学视频交流，对比理想校园平面图，然后在 Flipgrid 这一视频录音互动平台上提交他们的视频讨论结果。除此以外，为了增进学生对中国地域文化的认知，学生也要和不同的中文母语者通过 Zoom 进行一对一的实时口头交流。通过查询 Google 地图，互相提问和回答自己家乡著名景点的位置，说明景点和自己住的地方的位置关系。采访结束后，学生也需要跟班里其他同学分享中文母语者家乡著名景点的相关信息。这两个人际沟通活动属于信息差活动，即学生相互交流信息，互通有无，共同完成最终的任务（Larsen-Freeman, 2000）。学生被迫以中文进行有意义的沟通，帮助对方理解自己的语言，才能顺利完成任务。

为了帮助学生顺利完成上文所提的综合评估任务，笔者接着设计了不同模块的内容，安排教学顺序，并选择所需科技工具、资源和时长。表 1 简要概括了教学步骤，每个步骤使用的科技辅助工具以及具体的《标准》相关目标。

表 1 以《标准》为本的各模式下的学习活动和工具预览

| 顺序 | 模式 | 内容 | 工具 | 《标准》 |
|----|----------------|---|---|----------------------|
| 1 | 异步学习模式 (预习) | 词汇模块 a. 通过字卡学习生词字音义 b. 通过游戏练习重点词语 c. 通过汉字动画学写汉字 d. 词汇综合读写练习 | a. Quizlet b. Wordwall c. Skritter d. Classkick | 沟通 联系 文化 |
| | | 语法表达模块 a. 观看语法和语言表达的教学视频，阅读语法讲义等 b. 完成视频笔记和相关练习 | a. 教师自制或网络视频 b. Classkick | |
| | | 课文对话模块 a. 看课文视频，回答互动听力理解问题 b. 朗读课文 c. 社群讨论区讨论 | a. Kaltura, Chengtui Web App b. Classkick, c. Slack | |
| 2 | 同步学习模式 | 全班视频会议；练习问路，描述建筑物的位置，进行师生及生生互动 | Zoom, Peer deck 和 Google Jamboard | 沟通 比较 |
| 3 | 异步学习模式 (复习) | 综合练习模块： a. 完成电子练习册的语言练习 b. 完成表达演说任务 | a. Chengtsui Web App b. Classkick | 沟通 文化 比较 社区 |
| | | 真实语料模块： a. 观看母语者对话视频，完成内嵌视频测试 | a. Kaltura | |
| | | 文化拓展模块： a. 浏览文化拓展网页 | a. Blackboard, 网络资源 | |
| 4 | 社群活动 | a. 学生和学生结对实时交流：比较各自的校园平面图，提交比较结果汇报视频 b. 学生和中文母语者进行一对一的线上采访和交流 | a. Flipgrid b. Zoom, Slack | 沟通 文化 比较 社区 |

从表 1 可以看出，该单元的学习按照异步预习、同步教学、异步复习和社群交流四个步骤进行。异步预习模块的作用是导入单元主题，提供语言知识点和功能项的输入。预习模块分词汇、语言点、课文对话四个子模块。学生在 Blackboard 和内嵌于 Blackboard 的科技辅助工具平台上自主学习模块的内容，然后在 Classkick 这一作业平台提交预习功课。预习模块中的子模块相互关联。例如，生词模块的教学目的为感知生词发音，了解释义，认识字形和笔顺，建立起生词本身的音、义、形的联

系。而语法、语言表达模块和课文对话模块则帮助学生体会词汇在具体情境中的用法，加深他们对词汇用法和语法意义的理解。语法模块语法和语言点的学习模块也离不开其他两大预习模块。生词模块为语法语言点模块里出现的重要词语做好铺垫，而课文对话模块则复现语法模块提及的语言点。同理，生词和语法模块是对话模块的基础，而对话模块是其他模块的综合应用。具体每个子模块的内容介绍如下。生词模块的学习任务分四步，首先通过在线词卡 Quizlet 的多种学习模式——即词卡学习，打字练习，游戏模式等，学习发音和含义。接着，利用 Skritter 这一汉字学习软件的汉字书写动图（参见图 4），了解汉字的笔顺，练习写字。最后，通过 Wordwall 游戏网站制作的打地鼠游戏（参见图 5），在轻松的气氛下学习，进一步增强学生对字形和字义的记忆。



1. Click [this link](#) to practice writing the characters with correct stroke order.

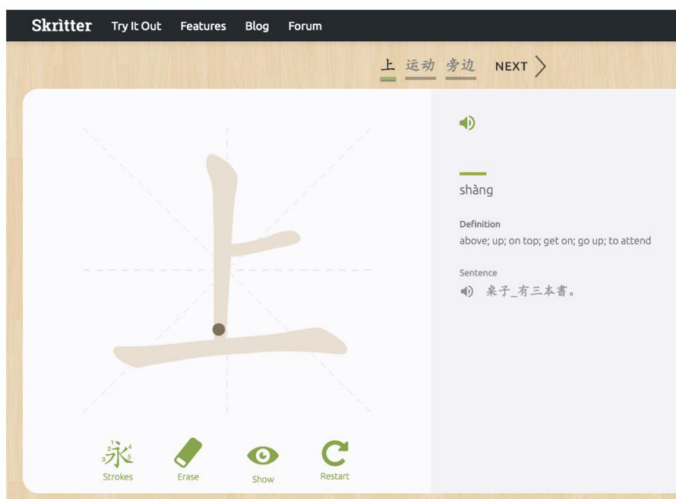


图 4 Skritter 重点生词笔画展示



图 5 打地鼠词汇游戏

语法、语言表达模块的主要内容则包括观看语法点和功能项视频，并完成听说练习。视频具备以下特征。第一，为增强教学临场感，每个视频均包括教师出境解释语言点的部分。第二，通过不同的卡通动画，展示语言功能项和语法的用法。有的还加入了影视片段。这些动画和影视片段能增加视频的趣味性，帮助学生在语境中理解语言点的使用方式。例如在介绍指路的视频当中，通过卡通人物在地图上的移动（参见图6），学生对“往左拐”这个概念便一目了然。而通过聆听小李倒霉的遭遇（参见图7），学生也能理解“被”字句所带有的负面意义。第三，视频短而精。研究发现，当视频长度超过9分钟的时候，学生的注意力便急剧下降（Guo, 2013）。因此，视频的长度均保持在4-6分钟之间。第四，视频特意选择了不同肤色的卡通角色，以此践行文化包容性教学原则（Gay, 2018），尊重学生的多元文化差异。第四，展示生词的时候，纵向排列生词的发音、汉字及英文释义。因为根据认知负荷理论，短时记忆容量有限，工作记忆一次只能处理两到三条信息。横向排列字音词会分散学生注意力，因为学生要花时间匹配字音义，而纵向地把词和音一一对应，则减轻了记忆负担（Lee & Kalyuga, 2011）。第五，视频按照“理解性输入--释义--引导学生语言输出”的教学顺序制作和剪辑。开头以对话作为语言输入，辅以教师的释义，最后以问题结尾，鼓励学生进行自我检测（参见图8），模拟了课堂上输入到输出的语言教学环节。对话模块则围绕课本里的对话，设置了听力理解练习，要求学生在Slack班级社群互动，就对话内容提出问题。

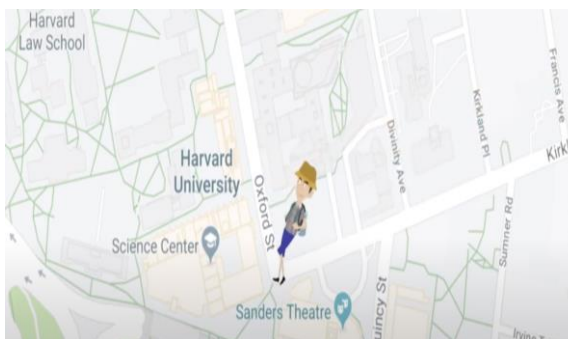


图6 指路视频截图



图7 “被”语法视频截图

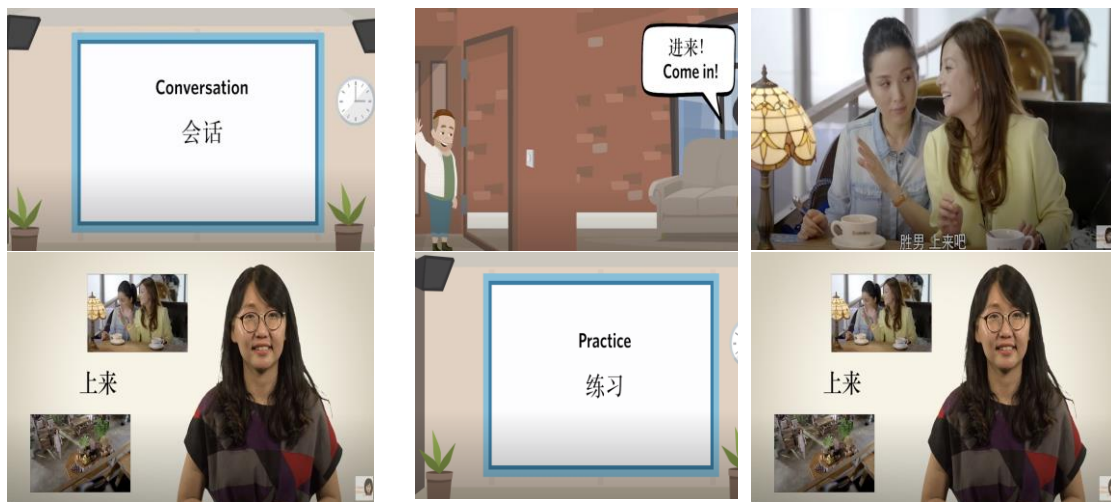


图8 视频框架（会话输入—教师解释—自我检测和口头输出）

完成了异步预习的模块以后，学生开始同步课堂学习。师生在固定的上课时间通过 Zoom 这一视频会议工具，结合 Google 课件和 Pear deck 动态课件演示平台，进行实时课堂教学。课后，学生完成异步学习的复习模块，包括真实对话、文化拓展、综合语言练习三个子模块。本单元的具体复习活动为 1) 在 Classkick 上完成前文所提的描绘理想校园的表达演说任务 2) 登录 Blackboard 观看真实母语者对话视频，浏览文化拓展模块的网页。3) 在 Chengtsui 电子教材自带的练习册，完成听、说、读、写训练，巩固语言知识。

单元最后的社群活动是为增进生生交流及学生与母语者的跨文化互动，进一步提高学生口语水平和文化知识而设置的。学生与同班语伴和母语者通过 Slack 取得联系，在 Zoom 上完成前文所提的对比校园地图和家乡景点两个人际交流任务。

4.2 主要互动工具和选用标准

《初级汉语 II》一共选用了 11 种工具，其中有 8 种和三大沟通模式和跨文化学习息息相关（参见表 2）。他们依次为线上作业平台 Classkick，内嵌视频测试软件 Kaltura，团队社交平台 Slack，交互式数字故事制作工具 Thinglink，短视频录制社交平台 Flipgrid，视频会议软件 Zoom，虚拟课堂互动工具 Pear Deck，以及在线即时协作工具 Google Jamboard。工具的选用，除了考量是否支持《标准》为本的学习任务外，还参考了“三个 E” (Triple E) 的框架 (Kolb, 2017)。第一，Engagement，主要表现为该工具能调动学生学习自主性，帮助学生专注于学习活动。第二，Enhancement，即工具的使用利于学生理解学习内容，培养学生高层次思维，并且能以优于传统教学的方式来展现学生学习成果。第三个 E 指的是 Extension，强调工具的便利性与拓展性，能在教学过程中融入学生的个人生活经验和已有知识。此部分重点介绍异步学习模块工具 Classkick、社群建设工具 Slack 和同步课堂工具 Google Jamboard 在网络课程中的应用。

表 2 标准相关的科技辅助工具一览

| 工具名称 | 主要功能 | 标准 | 互动类型 | 模块 |
|-----------|--|-------------------------|----------------------------------|----|
| Classkick | 多模式线上作业；支持语音、涂鸦、文字输入、上传图片等；可设置填空、选择等测试题；多模式反馈 | 三种沟通任务 跨文化学习 | 学生与平台 学生与内容 学生与老师 学生与学生 | 异步 |
| Kaltura | 内嵌互动视频测试；录屏 | 理解诠释型 | 学生与平台 学生与内容 | 异步 |
| Slack | 班级和小组协作沟通；分享信息资源；一对一和一对多的实时语音及短信聊天；发送和接收文档等材料 | 人际交流型 表达演说型 跨文化学习 | 学生与学生 学生与社区 学生与内容 学生与老师 | 异步 |
| Thinglink | 创建交互式图像或视频；支持 360 度视频和全景图片；可添加语音或文本注释、网络链接、地图等标签 | 表达演说型 跨文化学习 | 学生与平台 学生与内容 学生与学生 | 异步 |

| | | | | |
|------------------|-----------------------------------|-------------------------|-------------------------|----|
| Flipgrid | 线上视频录制；共享视频和互动评论；多模式反馈 | 人际交流型 表达演说型 | 学生与学生 学生与老师 | 异步 |
| Zoom | 视频语音会议及录像； 白板标注；即时文本聊天 | 人际交流型 理解诠释型 跨文化学习 | 学生与学生 学生与老师 学生与社区 | 同步 |
| PearDeck | 在线课堂即时互动软件；支持绘图、填空、连线、浏览网页、选择、调查等 | 三种沟通任务 | 学生与内容 学生与学生 学生与老师 | 同步 |
| Google Jam Board | 在线即时协作白板；支持手写、涂鸦、文本输入；建便利贴、图片等 | 三种沟通任务 | 学生与学生 学生与老师 | 同步 |

4.2.1 Classkick

Classkick 是一个支持多模式作业和反馈的平台，拥有手机应用版本和电脑网页版本。教师只需在 Classkick 网页上创建账号后登陆，即可创建作业，然后将单个作业链接或密码分享给学生。学生也可创建账户，方便查看所有作业及反馈情况。登陆 Classkick 主页以后，教师便可看到设置作业的选项（参见图 9）。教师可选择上传 PDF 文档后自动生成线上作业，也可创建新的作业。

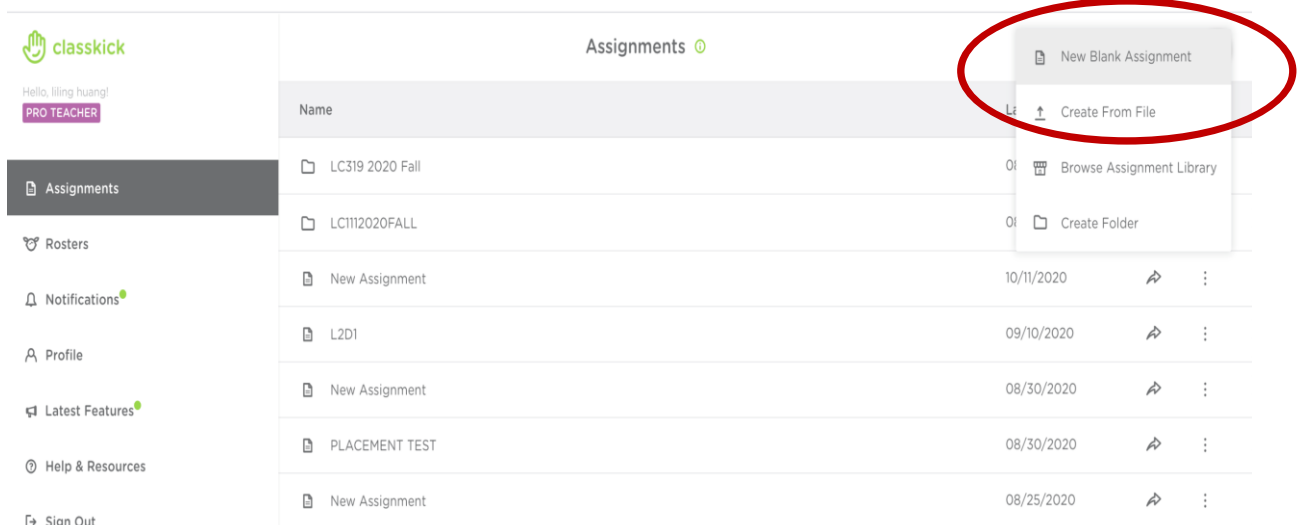


图 9 Classkick 主页

Classkick 的工具栏里有多种实用的工具（参见图 10），如录制音频、文字输入、画笔写字涂鸦、插入链接、上载图片、创建填空和选择测试题等，可供教师设计三种沟通模式的语言任务，也方便学生在同一个白板界面完成听说读写练习。

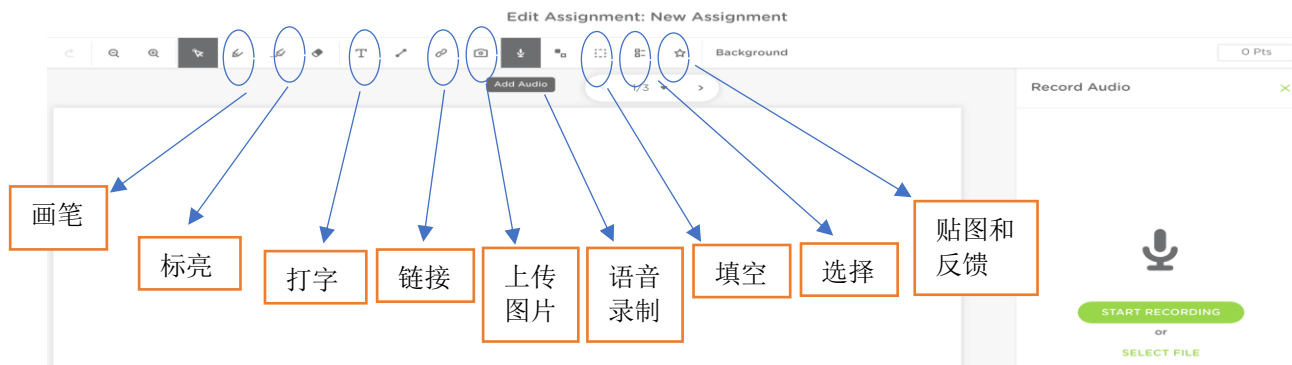


图 10 Classkick 创建作业页面的工具栏

由于 Classkick 作业功能强大，大部分异步学习练习均在 Classkick 上完成。单元范例部分提到了用 Classkick 设计的表达演说任务的例子（参见图 3），以下简单介绍 Classkick 设计的另外两种沟通模式的交际任务。虽然 Classkick 难以实现实时人际口头交流任务，但是 Classkick 可以用于创建非同步的人际口头交流练习（参见图 11）。以图八的模拟饭店对话为例，学生需要扮演一个又渴又饿的顾客的角色，和餐厅服务员进行对话。教师利用了文本输入、图片上传、添加语音这三个工具，预先设置好情境，提供了菜单，录制了服务员的话语，并排好角色说话顺序。学生便可以点击服务员的录音，根据语音及图片信息，依次添加自己的音频回复，完成对话。当班级人数过多时，师生线上一对一的口语问答耗时耗力，上述例子便可作为线上口语考试的选项之一。教师只需在口语考试的规定时间段内开放该口语作业，然后在考试前和考试后点击“hide”，隐藏作业，便可将该作业变成限时考题（参见图 12）。

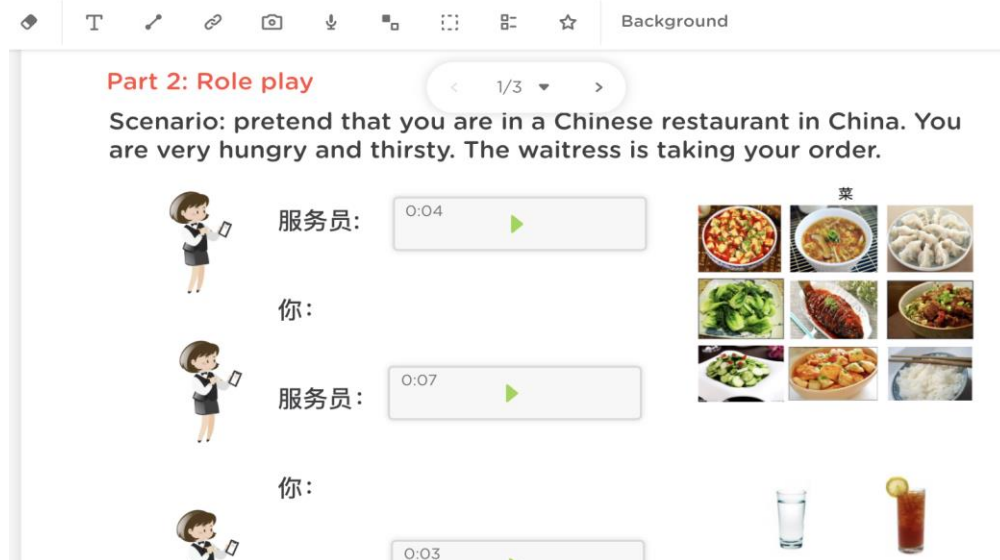


图 11 非同步人际口头交流任务：点菜

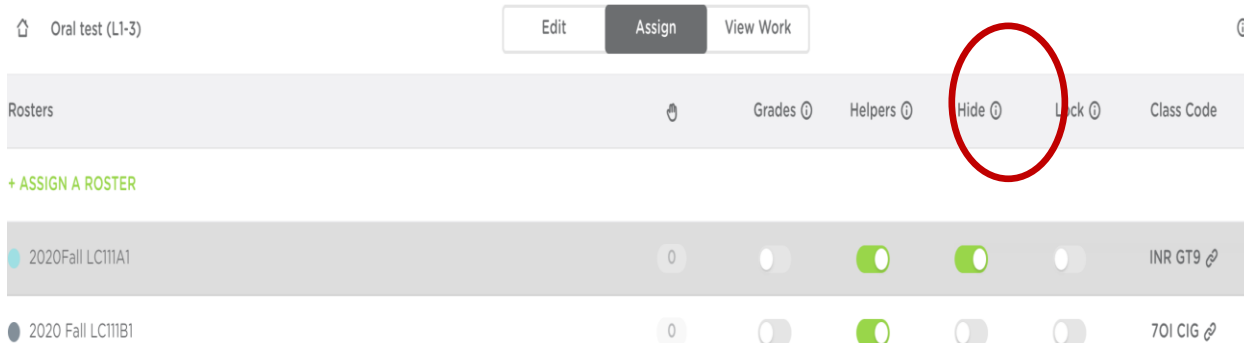


图 12 Classkick 隐藏作业功能

由于 Classkick 可以添加听力内容、阅读文本和图片，相比人际交际任务，其在创建理解诠释活动方面，更加简单便捷。图 13 便是一个理解诠释活动的例子。学生首先点击天气预报音频，听懂音频内容后，以打字和录制语音的方式，报告波士顿未来三天的天气情况。在设置这个活动的时候，教师只需添加活动指令，再插入天气预报音频即可。教师也可以选择添加网页视频链接，让学生到其它网站上观看天气预报，再回答问题。

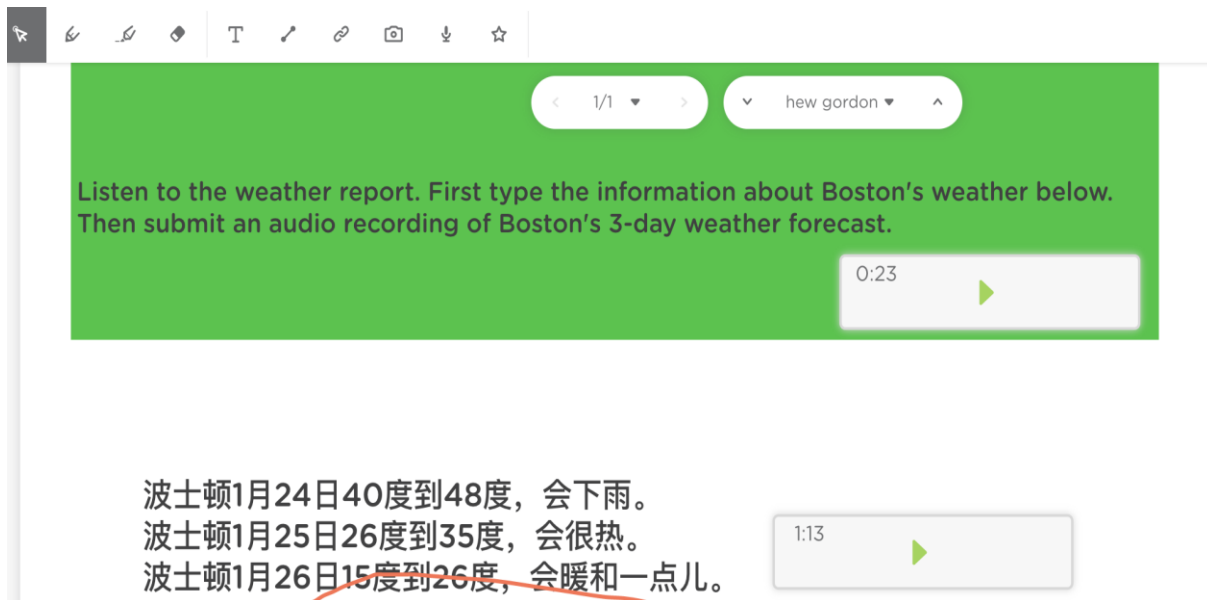


图 13 理解诠释任务：天气预报

《初级汉语 II》选择 Classkick 的一个重要原因还在于，其多模式的反馈工具利于增强网课的教师临场感。教师不仅能在学生已完成的作业页面添加贴纸和个性化评语，给予鼓励，也可利用画笔结合打字模式，纠正学生的汉字书写错误（参见图 14），还可插入录制自己的语音进行答疑释义或展示正确发音（参见图 15）。简易的反馈机制不仅支持学生学习，也促进师生互动。以图 16 为例，学生留言称四个声调的彩色字体对练习发音有用，老师便附上爱心贴图，回复答道“不客气”，很高兴对你有帮助。该非正式互动作为积极的教学反馈，有利于建立良好的师生关系。



Practice writing the characters with Skritter. Then write all the required characters (skritter) for 5 times on a piece of paper, and take a photo or scan it. Click "Add Image" to submit the image file below.

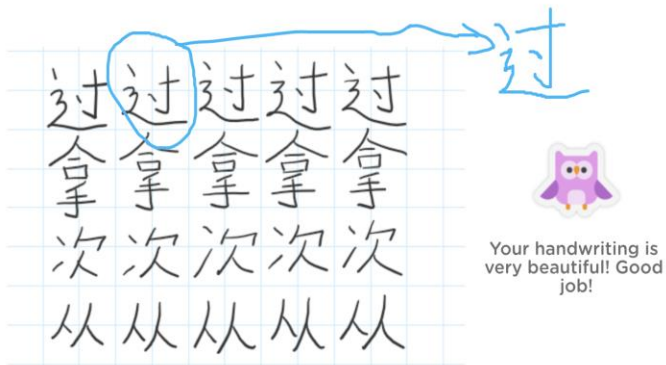


图 14 “过”字纠错和贴图反馈

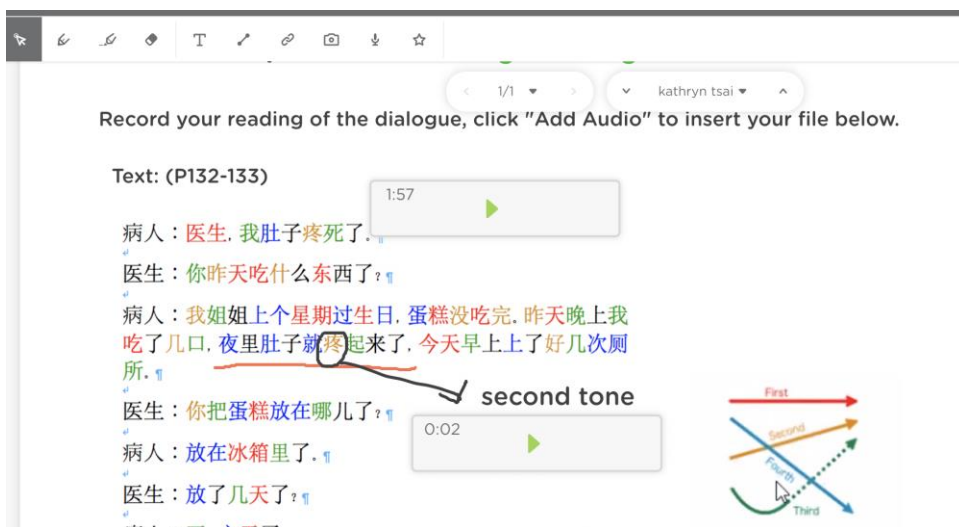


图 15 “疼”字发音纠错和音频示范



图 16 师生非正式互动

除了延时反馈，Classkick 还能支持师生或生生的实时协助。当学生们在同一时间开始答题时，教师可以在教师端查看所有学生的作业情况。学生遇到难题的话，可以点击屏幕左下角的手掌图形，向老师求助。教师可以给发出求助的学生进行实时的答疑解惑。如果教师开放 Classkick 的学生互助机制，其他学生也会收到该同学的求救，并决定是否帮助该同学。

总之，Classkick 多样化的工具栏具备便利性，学生无需跳转到其他工具页面，便能在 Classkick 上专注完成各类型作业。另外，其反馈及互助机制不仅能促进师生和生生互动，还能加深学生对所学内容的理解，提高学生学习自主性。Classkick 平台符合三个 E 的要求，其设计的作业紧扣标准为本的教学目标，在异步学习模块发挥了重要作用。

4.2.2 Slack

Slack 是由美国公司 Slack 科技开发的一款团队沟通协作的社交通信工具，有手机应用版本和网页版本。相比电脑辅助沟通，移动社交应用能更好地支持虚拟社群建设，给学习者带来整全而人性化的交流体验（Blake, 2013）。因此，本网课鼓励学生下载手机应用。

Slack 是该网课社群建设的核心工具。选用 Slack 的原因如下。首先，Slack 提供多种信息交流方式，包括公开交流、加密群聊、一对一或一对多私人聊天模式。教师作为 Slack 群群主，可以创建公开频道，发布信息。学生也可以在公开频道提问问题、分享资源或发表观点。公开频道发布消息的功能类似 Blackboard 学习管理系统的公告栏，但 Slack 更优于公告栏，因其具备实时交流的特点。教师发布消息以后，一旦学生有任何疑问，均可在该频道发问，而教师的答复也为所有人可见。比起传统的一对一邮件答疑，在公共频道和学生互动能给教师的课堂管理省时减负。而加密群聊的功能利于话题归类和分组讨论。因为在加密频道，只有被邀请入群的成员才能看到该频道信息。教师可以按照学生对不同话题的兴趣，创建不同的加密频道，该频道的学生可以集中了解核心信息，其他学生也不会受到干扰。例如，笔者在《初级汉语 II》的 Slack 群设置了四个频道（参见图 17），其中，“LC112learning community”是班级师生就课程内容和学习资源进行讨论的频道，“informal”是学生们分享其他生活或活动信息的频道，“welcome”是全体学生和母语者互动的频道，“tutoring”是老师和母语者工作交流的频道。只有加入该频道的成员才会收到相关信息，帮助成员过滤掉干扰信息，避免社交焦虑。Slack 按照话题分组讨论的功能也更有利于信息整理和回顾。因为学生可以直接进入该话题频道，查看历史讨论记录。

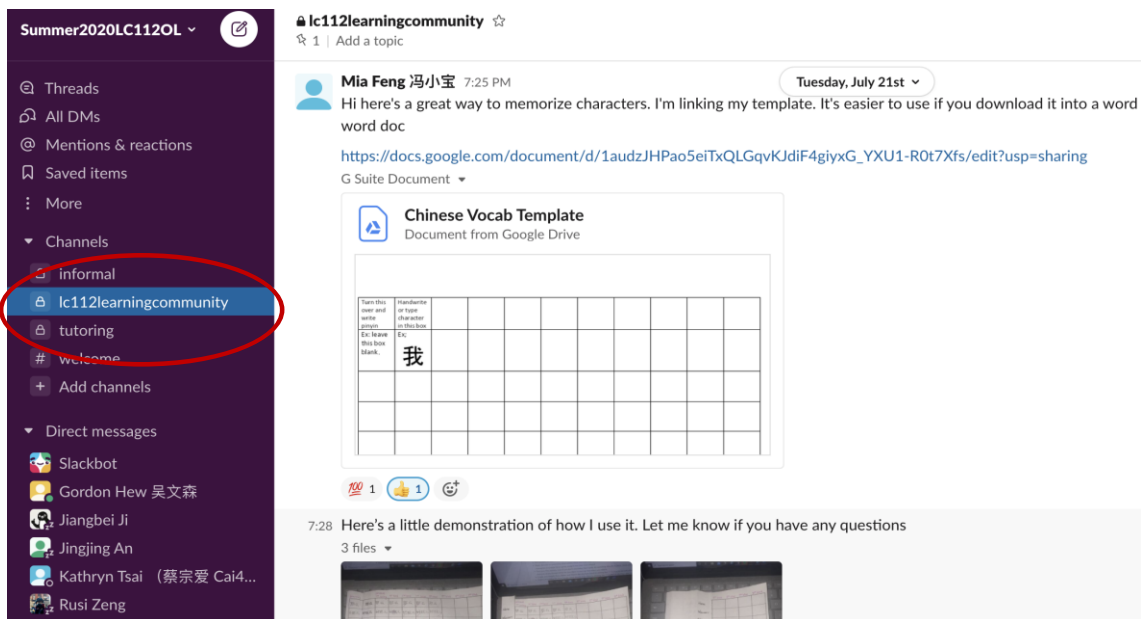


图 17 Slack 频道

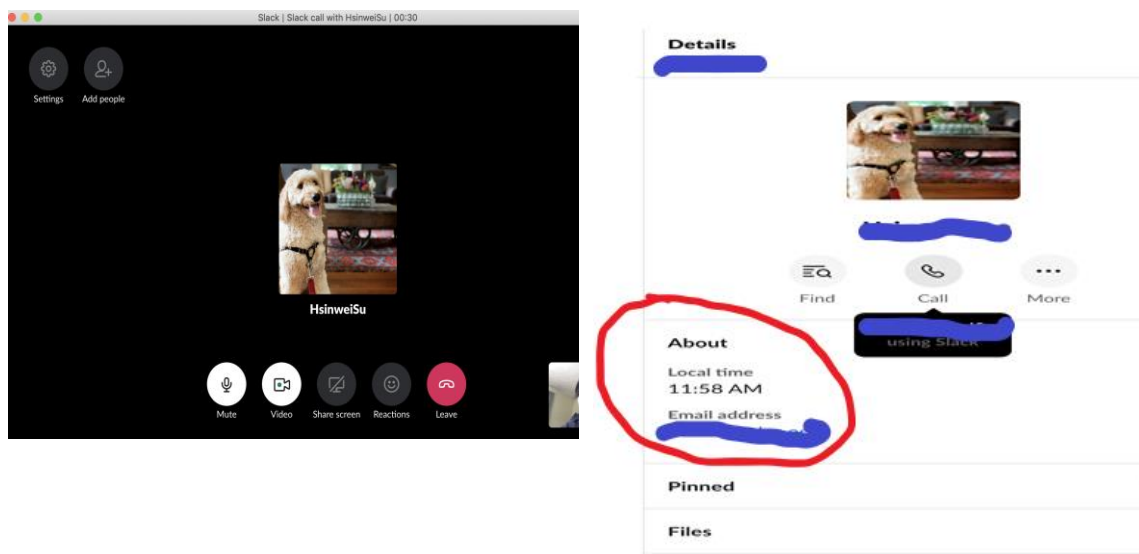


图 18 Slack 视频聊天及成员所在时区截图

网络课堂的社群讨论圈区别于普通的社交朋友圈，社群活动不应停留在为互动而互动的层面，而应让互动服务于课程教学，增强网络社群的认知临场感。为此，笔者采取了以下教学策略。第一，鼓励学生就课堂上遇到的问题提问讨论，并共享学习策略与资源。其次，布置在 Slack 社群讨论问题的任务。例如，要求学生就课文对话提问并回答其他同学的问题。第三，要求学生在 Slack 采访同学和母语者，并在 Flipgrid 平台录制视频，汇报采访结果。第四，学生在 Slack 发布自己制作的中文视频或者图片，并给其他同学留言。例如，学生 Ethan 就看病这一话题制作了中文网络梗图片并附上简短的解释，同班同学给该学生留言“很好笑”，并以大笑的表情包表达情绪（见图 19）。学生 Yuki 上传了她介绍上海这个城市的视频，其他

同学也给她提问和点赞（见图 20）。第五，鼓励学生用 Slack 的私聊功能直接联系组员和中文母语者，分别完成小组合作项目和语伴跨文化交流活动。综上所述，Slack 能满足三个 E 的要求，为学生和学生，学生和母语者社区，学生和老师搭建起高效沟通的平台，利于培养学生跨文化交际能力，也有助于提高学生的学习自主性。



图 19 发布自制网络梗及生生互动

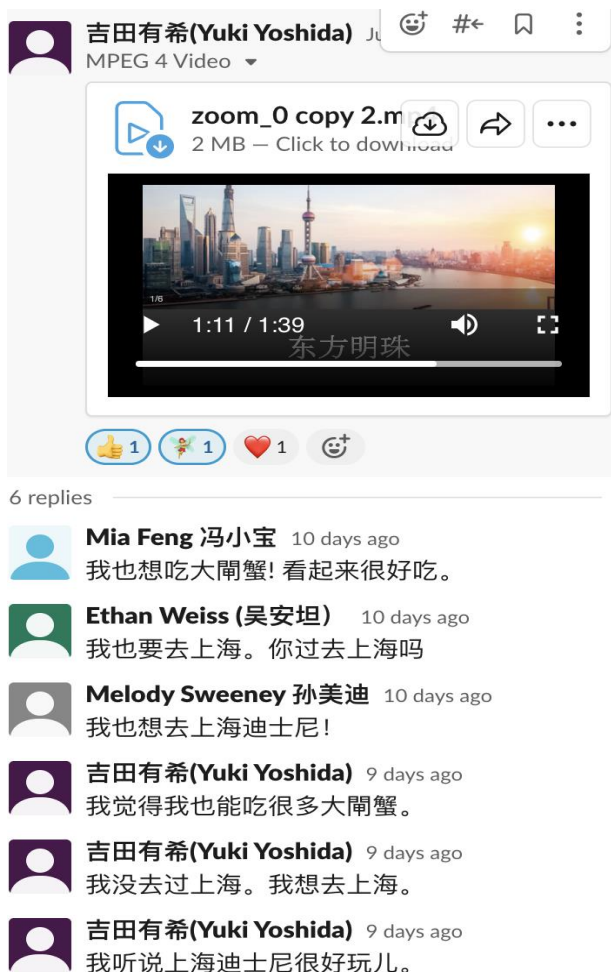


图 20 发布视频及生生互动

4.2.3 Google Jamboard

Google Jamboard 是谷歌公司发布的可在电脑及手机端使用的线上白板工具。Jamboard 的以下几个功能让它成为《初级汉语 II》同步教学模式中不可或缺的工具。首先, Jamboard 支持多人实时编辑和共享, 方便虚拟课堂管理和小组合作。《初级汉语 II》的 Zoom 实时视频会议常设 breakout room, 即教师将学生分组后, 学生加入分会议室进行组内讨论。但有限的课堂时间不允许教师参与所有分会议室的活动。Jamboard 的在线共享功能可解决该难题, 帮助教师在主会议室查看各小组活动进展。而 Jamboard 界面直观, 小组协作非常方便, 成员既可在同一 Jamboard 上进行协作, 也可编辑各自的页面, 再与其他成员分享想法。

第二, Jamboard 的工具多样, 包括画笔、便利贴、图片上传、文本输入等, 能够增强虚拟课堂活动的趣味性, 辅助三种沟通任务的完成。例如, 语言课堂上的合作阅读常用策略之一拼图阅读 (Jigsaw Reading), 该策略利用信息差促使学生进行阅读交流, 共同完成小组任务。图 21 的例子展示了如何利用 Jamboard 在虚拟 Zoom 课堂进行拼图阅读。教师先将自己到北京旅行的故事分成两个片段, 分别贴在

Jamboard 的第一页和第二页，要求 A 组的学生阅读第一页的故事，B 组的学生阅读第二页的故事。然后让 A 组和 B 组的学生形成新的小组，进入 Zoom 分会议室，讲述自己所读的部分，互相提问，从而将整个故事复原完整，从理解诠释、人际交流和表达演说三方面，培养了学生的沟通能力。

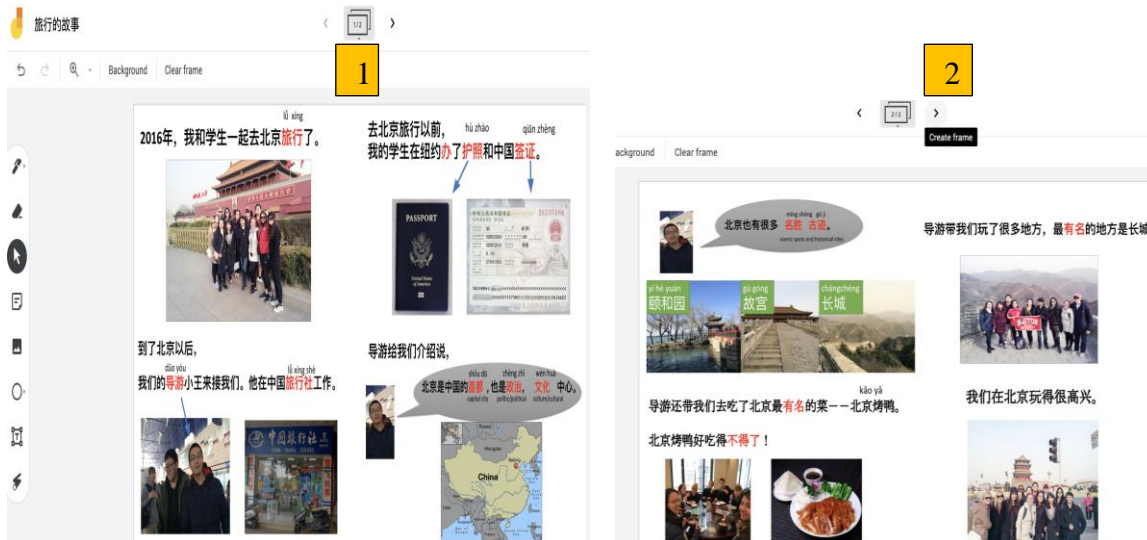


图 21 Jamboard 辅助的 Jigsaw Reading 活动

除了阅读，Jamboard 也可用于写作练习。利用便利贴功能，学生可在 Jamboard 页面进行头脑风暴活动，交流过后在进行写作。以图 22 的活动为例，学生先看漫画图片，添加带有关键词的便利贴，口头表述他们对图片的理解，再到各自的 Jamboard 上进行段落写作。该任务以便利贴的讨论环节热身，启发学生多角度思考问题，比起传统的看图写作任务，该任务更能加深他们对图片背后劝酒文化的理解，是写作前不可或缺的一个步骤。



图 22 头脑风暴与看图写作

值得一提的是，Jamboard与汉字动画结合起来使用，可以突破网络汉语课堂的汉字教学难点。Jamboard提供钢笔、画笔、荧光笔、毛笔笔刷四种写字或绘图工具，学生可以选择自己喜欢的“笔”，在白板上练习写钢笔字或毛笔字。教师可以亲自展示笔画，也可上传汉字动画的 gif 动态图（参见图 23），请学生在白板上练习汉字书写。

Jamboard 支持多种线上即时协作任务，在三个 E 的 Engagement 方面作用显著，促使学生积极参与虚拟教室的小组互动，并能培养他们的合作学习能力和语言交际能力。

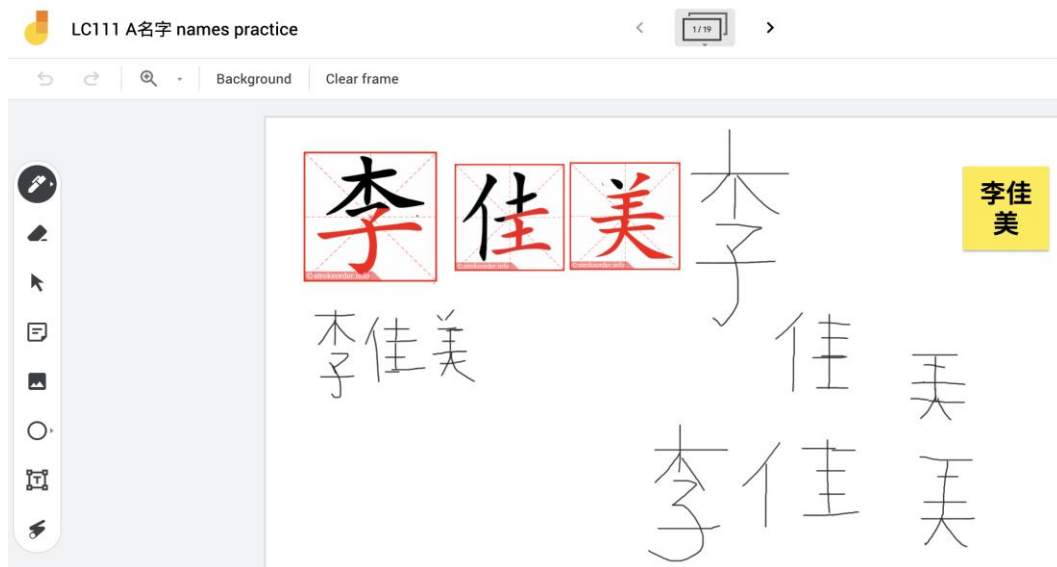


图 23 实时汉字笔顺动画演示及书写练习

5. 网络课程教学实施的反馈与评估

笔者于 2019 年秋季开始设计《初级汉语 II》网络课程，2019 年夏季正式在该校推出并担任授课教师，并于 2020 年夏季学期继续开课，共开设了 2 次，完成暑期课程人次共计 13 人次。期末结课前，学生通过 campuslabs.com 网站完成了课程评估。同时，笔者以问卷调查的形式，邀请学生在 Google forms 上完成关于主要互动科技工具认知的问题。一共 13 位学生匿名完成了课程评估和问卷调查，5 位（38%）为男学生，8 位（62%）为女学生。笔者通过对课程评估问卷和 Google forms 问卷的分析，得出以下结果。

首先在课程评估问卷采用了李克特量表（Likert Scale），请学生就一系列表述，从五种回答中（非常同意/同意/不一定/不同意/非常不同意）选择一个回答。表 3 选取了部分表述，总结了学生对网络课程的总体认知。在网络课程对语言技能发展的影响这方面，大多数学生非常同意网络课程提高了他们的语言听、说、读、写水平。所有的学生在课程的其他方面（目标、内容、作业、讨论、反馈、同伴联系、语伴

项目)都给出了“非常同意”的回答,具体包括“课程目标清晰,视频有助于理解概念,参与讨论很容易,作业利于知识和技术的应用,反馈很有效”等。学生们也一致同意和容易在线上与其他同学交流和联系,与同伴和母语者每周的互动非常有帮助。

表3 网络课程的部分评估结果

| | Question | N | M | SD |
|----|--|----|------|------|
| 1 | My Chinese speaking skill improved after the online course. | 13 | 4.85 | 0.38 |
| 2 | My Chinese listening skill improved after the online course. | 13 | 4.62 | 0.77 |
| 3 | My Chinese reading skill improved after the online course. | 13 | 4.85 | 0.38 |
| 4 | My Chinese writing skill improved after the online course. | 13 | 4.92 | 0.28 |
| 5 | The learning outcomes for each week were clearly stated. | 13 | 5 | 0 |
| 6 | Videos enhanced my understanding of the key concepts. | 13 | 5 | 0 |
| 7 | I found it easy to participate using the discussion tools. | 13 | 5 | 0 |
| 8 | The assignments provide an opportunity to apply the knowledge and skills gained in the course. | 13 | 5 | 0 |
| 9 | Feedback was informative, clear and supportive. | 13 | 5 | 0 |
| 10 | I found it easy to communicate online with other students. | 13 | 5 | 0 |
| 11 | I found the weekly pair work with my classmate enhance my learning. | 13 | 5 | 0 |
| 12 | I found the language buddy program (interacting with native speakers weekly) very helpful. | 13 | 5 | 0 |

评估问卷的第二部分请学生就课程的优缺点进行综合评价,给出评语。9位(70%)学生回答了这个问题。其中,66%的学生认为课程非常好,会大力推荐给其他中文学习者。44%的学生认为课程互动性和趣味性强。33%的学生对教师的反馈和支持表达了感谢。33%的学生提到这是自己修过的最好的课。20%的学生提到课程中收获的比预期多得多。有学生认为课程内容和电子教材丰富有用,有学生指出网课利于自主掌握学习进度,有学生提到网课很便利,可以远程完成,还有学生评价科技工具的使用提高了网课的教学质量。关于课程的缺点,有学生认为功课量太大,也有学生提出暑期课程时间太短,节奏有时候太快,希望能延长两周。

Google form 调查问卷则列出了“Quizlet, Skritter, Kaltura, Classkick, Slack, Google Jamboard, Zoom, Flipgrid, Thinglink”九个主要科技互动工具,请学生回答“你是否推荐在未来的LC112网课上继续使用这些工具?”另外,问卷也包括一个选答题,请学生就这些工具提出看法。就第一个必答题,13位(100%)学生均给了肯定的答复,一致推荐继续使用这些科技工具。就第二个开放性选答题,13位学生对不同的工具进行了点评,根据工具被点评的次数,表4总结了学生的工具点评率。所有学生都评价了的工具为网课使用频率最高的四个工具,即Classkick, Slack, Flipgrid和Zoom。

表4 工具点评率

| | Quizlet | Skritter | Kaltura | Classkick | Slack | Jamboard | Flipgrid | Thinglink | Zoom |
|---------------|------------|------------|------------|--------------|--------------|------------|--------------|------------|--------------|
| Response rate | 61% (8/13) | 61% (8/13) | 46% (6/13) | 100% (13/13) | 100% (13/13) | 61% (8/13) | 100% (13/13) | 46% (6/13) | 100% (13/13) |

由于本文重点介绍了 Classkick, Slack 和 Google Jamboard, 此部分仅介绍学生对这三个工具的看法。关于 Classkick, 85%的留言都是积极的, 关键词有“方便”, “利于查看老师的反馈”, “对听说读写都有用”。20%的同学提到 Classkick 是“最好的网课工具”。有一位学生指出在 Classkick 不支持暂停录音的功能, 一旦开始录音, 就得一次性录完。也有一位学生指出有时候网速慢, 需要等一段时间才能打开 Classkick 页面。关于 Slack, 所有的留言都是正面的。100%的学生提到 Slack 使用起来非常方便, 利于和同学老师交流。有学生提到 Slack 的界面很简洁, 有学生表示自己很喜欢看同学们发布在 Slack 上的故事, 留言, 视频和网络梗图片, 也有学生认为 Slack 方便自己迅速和母语者安排采访和交流时间。Jamboard 的留言均和它的优点有关。学生们反复提到的关键词有“有趣”“方便”。有的学生提到自己乐于在 Jamboard 上涂画写字, 有学生认为 Jamboard 让 Zoom 会议室的 breakout room 活动变得更有效率。

6. 小结

从 2019 年和 2020 年的课程评估可以看出, 学生对《初级中文 II》网络课程的满意度较高, 对自我语言学习效果评价良好, 对主要互动科技工具也持积极观点。证实了网络课程设计与科技辅助教学实践的可行性。至于课程对学生汉语水平有何影响, 有待日后针对学习成果的数据进行讨论。此部分对《初级中文 II》网络课程设计和实施进行反思。

首先, 《初级中文下》的实践证明, 网络课程仍可以借鉴实体课程的总设计原则, 根据学生群体的特点和需求, 按照《标准》提倡的五 C 方向、三种沟通模式、两个跨文化层面, 紧扣培养学生交际能力的学习目标, 提供有效的综合评估方式, 设计整体课程教学。但是网络教学模式不应照抄实体课堂, 选择完全线上同步教学, 受限于摄像头前有限的虚拟课堂; 也无需放弃实体课堂的同步互动元素, 将所有教学活动安排为非同步自学。而应结合同步交流的社交优势、异步自学的灵活自主优势, 利用母语者社区的文化资源, 混合多种网络学习模式, 最大限度地提升学习效果。

其次, 网课设计只是完成了语言网络教学的第一步。网络教学的关键还在于网课正式实施后的多方互动。互动主要体现在教师对学生学习的反馈支持, 学生和学生之间的合作沟通, 以及学生和母语者社区的相互交流。这些互动要素对于强化 CoI 所提的教学临场感、认知临场感与社群临场感至关重要。比起传统课堂, 网课的师生互动, 更强调学生作为自主学习者的角色和教师作为“协调员”的角色。介绍学习资源和学习方法, 观察学生学习情况, 及时提供个性化的反馈, 给予技术支持等细节, 都值得教师予以关注。另外, 网课上, 学生和学生相距万里, 但可以通过同步课堂的互动, 社交平台群聊, 小组项目, 文化活动等形式, 加强交流。需要注意的是, 学生的背景不同, 为了营造文化包容性班级, 防止网络社交冲突, 教师可制定“社群发言公约”, 提醒学生礼貌交际。通过网络与母语者进行互动, 作为有效的跨文化言语交际教学策略, 应引起教师的重视。为提高学生的跨文化敏感性和交际能力,

教师应让学生和居住在不同国家和地方的中文母语者接触，了解文化多样性，鼓励学生反思自己和母语者的对话，克服刻板印象。

再次，成功的网课教学离不开合理的科技辅助工具及活动设计。本文表 2 提到的工具，在辅助学生完成三种沟通模式的线上任务方面，有着不可替代的优势。而本文重点介绍的三个工具的特点，如 Classkick 的多模式反馈平台、Slack 的多样化即时沟通方式、Jamboard 的在线小组协作功能，促进了《初级中文 II》的师生、生生以及学生与母语者的交流。不可忽视的一点是，科技工具的使用应该服务于教学目标，选择科技工具和设计活动时，应参考 3 个 E，践行学习优先，科技辅助的理念。

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