Performing *WeChat* Recording Tasks in Mixed-Ability Study Abroad Content Courses
(案例研究：海外混合程度班以微信录音功能完成语言任务)

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Abstract: This case study explores the use of *WeChat*'s recording tool as a solution to the challenges of teaching mixed-ability students in content courses offered in study abroad programs. The tool successfully reduced anxiety and boredom, created opportunities for students to engage in personalized learning tasks in real time, enabled instructors to provide individualized feedback, and helped course curriculums stay on track. Data was collected from an online survey, email interview, and students' recordings of topics and instructor's feedback. The study determined that using *WeChat*'s recording function to complete linguistic tasks is a useful instructional tool for a mixed-ability classes in study abroad, despite limited technical difficulties.

摘要：本案例研究旨在探索以微信录音功能完成语言任务，作为解决学生水平差异较大之教学问题的一个有效办法。微信录音可减少焦虑、厌烦之情绪，提供个性化的口语练习，收到个性化反馈，以助学生更好地学习专业内容课程。数据来自网上及笔头调查，学生及教师的微信录音。虽然微信录音技术有些缺陷，但它却可以成为海外混合程度班的成功教学工具之一。

Keywords: Differentiated instruction, *WeChat* for content courses, study abroad

关键词：差异教学，微信应用，专业内容课程，留学中国

1. Introduction

Students populating Chinese classes taught in American universities have become increasingly diverse. One of the biggest challenges in teaching a foreign language is to meet a variety of student needs to maximize individual learning potential. This challenge becomes even more apparent in a mixed-ability class, where students have different language proficiencies, cultural backgrounds, and learning styles. To overcome this

challenge, differentiated instruction is generally recommended as a "philosophy of teaching and learning" (Theisen, 2002, p. 2) to accommodate diverse learners of different linguistic and cultural backgrounds, personal interests, and readiness levels of learning (Tomlinson, 2014). Through differentiating curricular elements, i.e. content, process, or product (output of language learning), teaching can be modified in response to each student's particular learning needs. Differentiated instruction further promotes equality and engagement of learning (Theisen, 2002).

However, differentiated instruction is not easily implemented in foreign language content courses because "many subject-area teachers want to maintain strong control over their particular courses and subject matter" (Grabe & Stoller, 1997). Ideally, learning linguistic knowledge while simultaneously learning content knowledge in content courses mutually enhances the learning process. As mentioned in Stryker and Leaver (1997, p. 5), "language proficiency is achieved by shifting the focus of instruction from learning language *per se* to learning language through learning content." When teaching content courses in the target language, the target language is primarily the medium through which students learn an academic subject matter (Crandall, 1994). Meanwhile, learning the content knowledge helps students learn how the target language is used in authentic and specific content areas. The instructor lectures and the students listen. This type of content course poses additional challenges for desired differentiated instruction because in traditional content courses, teacher-centered teaching deprives students of real communication opportunities (Lü, 2014), which are imperative for developing language proficiencies.

Additionally, limited class time is another challenge most teachers face when implementing differentiated instruction. The dual task of learning both language and content increases the demand for more time in foreign language classes. However, foreign language classes in American universities normally last only 50 to 60 minutes. This limited class time constrains language teachers to employing a "one-size-fits-all" type of instruction and feedback to students of different interest and readiness levels (Reese, 2011; Theisen, 2002; Tomlinson, 2014).

Time becomes even more constrained during intensive summer language courses taught abroad, where instructors are pressured with other tasks in addition to teaching and providing timely feedback on student work. Students often demand prompt responses from their teacher because future learning tasks generally depend on the instructor's feedback from previous assignments. Moreover, when studying foreign languages in the target language environment abroad, students are exposed to more learning materials and learning contexts where they can employ their content knowledge. Thus, providing timely feedback on students' practice of the content knowledge guides them in the learning process. Teachers must turn to technological means to enhance differentiated instruction and resolve the dilemma of providing individualized, differentiated, and personally meaningful instruction and feedback to language learners in content courses.

WeChat, a communication tool for mobile phones, has become the 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 become an important aspect of modern Chinese culture. Because of several useful functions embedded within the *WeChat* app, many language educators have discovered the benefits of employing *WeChat* in foreign language education.

This case study explores the benefits of using the *WeChat* voice message function in teaching content courses in Mandarin Chinese. Specifically, this case study observed students' involvement during the class, student-teacher contact time in the target language, and students' oral proficiency development via timely practice and individualized feedback from the instructor. Furthermore, this study explores the effective use of class time for content instructors. Data were collected from an online survey at the end of a summer program in Beijing, transcriptions of students' recorded homework, and email interviews with two content instructors. This case study finds that, despite occasional technical difficulties, using *WeChat*'s recording function to complete oral linguistic tasks increased students' overall involvement in class by reducing anxiety and boredom, improving oral proficiency development by creating opportunities for students to carry out personalized tasks simultaneously, increasing contact time for instructors to provide individualized feedback, and helping to ensure that content courses stayed on track.

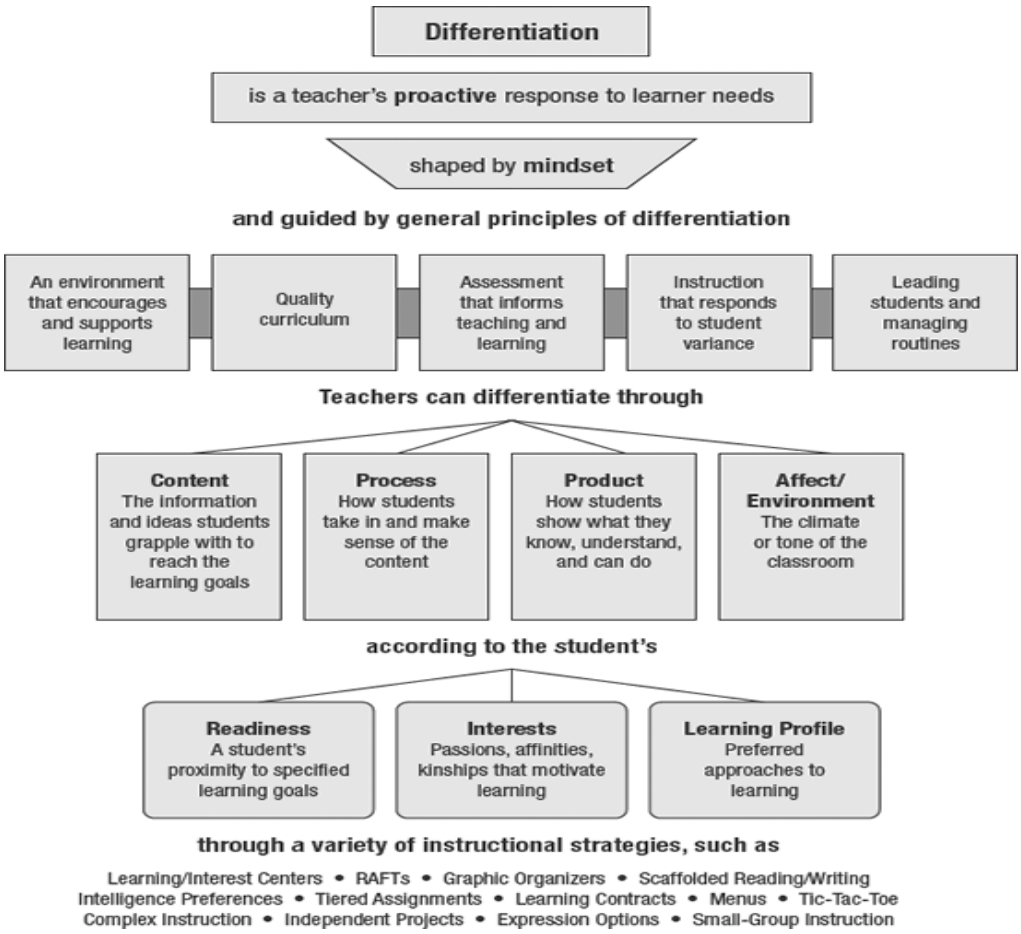
2. Literature Review

2.1 Pedagogical Considerations for this Case Study

Adult second language 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 the pedagogy. In order to help students learn and reach their full potential through technology-mediated Chinese language learning, sound pedagogical principles and learning theories must be considered meticulously. In this case study, the researchers designed *WeChat* learning activities based on pedagogical principles derived from differentiated instruction, best teaching practices in providing feedback, and mobile-assisted language learning theory.

2.1.1 Differentiated instruction

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



(Tomlinson & Moon, 2014)

Tomlinson's differentiated instruction principles provide a powerful and practical guideline for teaching. In the foreign language classroom, the researchers recognized that learners' characteristics may differ in proficiency levels; therefore, instructional strategies must be adjusted accordingly (Theisen, 2002; Roiha, 2014). The higher a student's level, more explicit and individualized instruction is needed to develop lexical precision, syntactical complexity, and organized speech (Leaver and Shekhtman, 2002; Ingold, 2002). Thus, providing differentiated instruction is necessary to advance students' language proficiency.

2.1.2 Feedback through assessment

As shown in the illustrative chart above, assessment is the central part of differentiated instruction. 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 explain (2014), whereas formative assessments serve to adjust course design in content, procedure, and product, summative assessments measure and evaluate student learning outcomes. From these two types of assessment, "differentiation places particular emphasis on pre-ass

differentiation places particular emphasis on formative assessment pre-assessment and formative assessment" (Tomlinson & Moon, 2013, p.20).

Feedback as an effective strategy for formative assessment has a powerful impact on learning. A meta-analysis study of the effect of feedback in educational research ranked feedback highest among hundreds of educational practices (Goodwin & Miller, 2012). Providing specific and timely feedback provides students with opportunities to identify their strengths and weaknesses, further revise and improve their work, and ultimately deepen their understanding. Particularly, research has found that feedback is most effective when provided immediately. For example, Opitz, Ferdinand, and Mecklinge's 2011 study found that in learning artificial language grammar, participants who were provided immediate feedback showed a significantly larger gain in performance compared to the participants who had received delayed feedback. All of these studies provide empirical findings of the importance of timely feedback on effective learning.

2.1.3 Mobile-assisted language learning (MALL)

Today's advanced technology provides many options for responsive teaching and differentiated instruction (Reese, 2011). Mobile devices, such as smart phones, have become an integral part of student life. The Pew Research Center (2018) reports that 91% of American college students own a smart phone. College student smartphone owners have 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 smart phones), advanced mobile technologies, and wireless network accessibility, mobile-assisted language learning (MALL) is considered an ideal solution to language learning constrains in terms of place and time (Burston, 2013).

Research across disciplines and subjects has found that mobile devices have 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 apps. An annotated bibliography reviewing the historical background of MALL from 1994 to 2012, shows that MALL studies covered a variety of topics, including "technical specifications, mobile device ownership, pedagogical design, learning theory, user attitudes, motivational effects, institutional infrastructure, and teacher training" (Burston, 2013, 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 have significant difference, those that investigated reading, listening, and speaking found that MALL had contributed to the development of target language skills in these aspects. The research findings encouraged more language educators to explore best practices and to 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 in its own right.

2.2 *WeChat* and Related Studies of *WeChat* Applications in CFL Instruction

2.2.1 *WeChat* development

MALL would not have been possible without the development of hand-held computing and mobile technology devices. From pocket dictionaries and PDAs to MP3 players, tablets, and smart phones, mobile technologies have launched the trend in MALL studies. A remarkable number of language apps have experienced surges in popularity over the years. Among many widely used smart phone apps, *WeChat* has become more popular worldwide in the past four years.

WeChat, a free instant message app lunched by Chinese company Tencent in 2001, has reached nearly 800 million users as of July 2017 (TechNews Report, 2017). *WeChat* is available on multiple platforms for mobile phones, tablets, or desktop computers. It is a worldwide social networking platform where users can not only post images and text as well as share photos and files, but can also chat 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 scanning or direct linking 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. The following table lists major developmental stages and features of *WeChat* and its functions.

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

Year	Development Features	Tools and Functions
2011	Start of development	
	First launch for iPhone	Private messages in text and voice to communicate Video editing to create videos Search other *WeChat* users nearby Group chat to interact with many users *WeChat* Moments to visually share information

2012	Reaches 100 million users; *WeChat* 微信 in Chinese	Added more foreign languages (Thai, Vietnamese, Indonesian, and Portuguese） Voice and video chat to talk live QR code scanning to quickly add people in *WeChat* Photo sharing *WeChat* payments Subscriptions or public platform (公众号) Desktop *WeChat*
2013	Reaches 300 million users *WeChat* for Android and Windows phones *WeChat* International	Voice and video chat with multiple users Mobile payment (bank card) Game center Scan function *WeChat* pay in Jingdong Store
2014		Didi taxi Red Envelope (to transfer money)
2015	Reaches 500 million users Huge scale in advertising	
2016	Reaches 700 million users Optimization of existing features	
2017	Controls Chinese mobile device market	Plugins (small programs)

2.2.2 Related studies of *WeChat* applications in CFL instruction

WeChat was not designed for learning foreign languages. However, many *WeChat* tools contain powerful functions and applications in 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. In Liu's 2014 report, 93% of beginner CFL learners already have *WeChat* accounts.

Chinese language educators have shown increasing interest in integrating *WeChat* in their 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 (akin to 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 Tencent News (腾讯新闻)

posted in *WeChat* Moments, students' reading speed and motivation in writing had greatly increased. Similar results have also been reported in Wang (2015), whose semi-experimental study found that students 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 Suisuinian ("汉语碎碎念") public platform in *WeChat* based on current CFL pedagogy and as well as other *WeChat* features. The platform provides intermediate level oral instructional materials, including voice, video, graphic, and hyperlinks. After field testing the platform for about 4 months, CFL teachers and learners were asked to take an online survey to share their experience. 83% of users reported that the platform helped teaching and learning spoken Chinese.

In a 2016 mix-method design study, Luo and Yang explored the benefits of using *WeChat* to teach lower level CFL students. 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. It was found that participants had expanded their time in learning, increased their linguistic gains, experienced more cultural learning, developed higher learning motivation, and had established a supportive Chinese language learning community. Particularly, mini-oral tasks through *WeChat* were considered the most useful. Students commented that mini-oral tasks were a fun way to practice communicating in Chinese and to develop their oral skills.

Nowadays, many study abroad programs in China choose *WeChat* as a primary learning and communication tool because almost all Chinese are using it for daily life. Li (2017) reported on his case study, observing what *WeChat* could provide to two CFL learners who were studying in Shanghai in an intensive summer program. Based on affordance theory, or "the opportunities for action offered by specific object or environment," Li's case study found that although the two participants were different in linguistic meaning-focused communication, linguistics resources and 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 competences needed in real-life conversations, and improved their confidence as users of Mandarin Chinese. Obviously, when studying abroad in China, *WeChat* can be a very convenient tool to learn the authentic use of Chinese and to build and maintain a connection with native speakers of Chinese.

The aforementioned empirical studies reported that *WeChat* is a powerful tool for teaching and learning the Chinese language, and is particularly helpful in oral proficiency development and providing access to authentic social interactions. However, no studies have thoroughly investigated how *WeChat* can be used in the classroom within a study abroad context. Furthermore, no studies have researched how this convenient app can be used to provide immediate and individualized instruction. These two applications of *WeChat* deserve more research attention. Thus, the focus of the present study is how to

use *WeChat* to enhance differentiated practice and feedback in a mixed-ability content class.

3. Present Research

3.1 Research Questions

The purpose of this study is to investigate *WeChat*'s function in students' involvement in learning, the contact time between teacher and student in the target language, oral speaking ability development, instruction time for content, and the limitations of *WeChat* for performing oral tasks. In particular, the case study investigates the following questions:

1. How does the use of *WeChat* recording help provide an anxiety-free environment or reduce boredom for mixed-ability students?
2. How does *WeChat* recording provide a more efficient way of oral practice?
3. How does *WeChat* help provide timely and individualized feedback?
4. How can *WeChat*'s recording tool assist a content instructor in using class time more efficiently?
5. What are the drawbacks of using *WeChat* recording for performing oral tasks?

3.2 Research Context, Participants, and *WeChat* Recording Tasks

This research was conducted from June 15 to August 15, 2015 in a study abroad program in Beijing. The program lasted 9 weeks during which three content courses were taught: Speech, Cross-Cultural Communication, and Introduction to Geography. Students had 3 hours of class daily, Monday to Friday, and 1-2 hours of homework. There was also a required 30-minute tutoring session Monday through Thursday. Students all stayed with a Chinese host family and spent at least 2 hours commuting to and from the classroom via public transportation.

The Speech and Cross-Cultural Communication courses were taught from the beginning to the end of the program. The Introduction to Geography course was taught from July 13 to August 9. During this period, there were 2 hours dedicated to geography daily, and 1 hour dedicated to the 2 remaining courses.

The program included one CFL instructor, one geography instructor, two tutors, and seven students. The CFL instructor was a Chinese native speaker who works as a professor in the United States. This instructor taught Speech and Cross-Cultural Communication courses. The Geography Instructor was a native Chinese high school geography teacher in Beijing who did not speak English. The seven students (two females and five males) from four U.S. institutions differed in their cultural and linguistic background, as well as their proficiency levels as determined by the ACTFL Oral Proficiency Interview via Computer (OPIc). After data screening, 5 students were selected for case studies. The participants' proficiency information is detailed below.

Table 2 Participants

Participants	Gender	Pre-Program ACTFL OPIc Level	Years of Chinese learning
S1	F	Had not taken OPIc	2
S2	M	Intermediate-Mid (IM)	2
S3	M	Intermediate-Mid (IM)	2
S4	M	Advanced-Low (AL)	Heritage; left China at age 6
S5	F	Advanced-High (AH)	Heritage; left China at age 10

All three courses required students to create speech. 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, 2017). In addition, since other popular tools, such as SnapChat, Google Chat, and Line are not accessible in mainland China, from the second week of the program, the participants began using *WeChat* to perform recording tasks inside and outside of class.

During the program, students created multiple oral recordings for their three classes. The topics varied from self-introductions to descriptions of a geographic location and natural resources. Speech tasks were differentiated to meet students' proficiency levels. For example, in a descriptive speech, lower level students were asked to describe their homestay house and the neighborhood, including the information about their address, the environment, how to get there by public transportation, neighborhood features, and the type of home (apartment or house). For the same topic, higher level students were asked to describe a landmark building in Beijing, including the design of the building, materials used, and its functions. Table 3 lists speech topics and corresponding differentiations.

Table 3 Differentiation in Speech Tasks

Speech type	Speech topic	Low Level	High Level
Description	Describe a place	Homestay house and neighborhood	A landmark building in Beijing
Introduction	Introduce a person	Homestay families or friends	A famous person in China
Information	Inform others about a Chinese province	Basic geographic information	Geographic information of a specific area (e.g. economic development of a province)

3.3 Data Collection and Analysis

Data were collected from online student surveys, instructor email inquiries, and students' recorded tasks. Through these three data sources, the research aimed to gather various information to answer the research questions.

The online survey was sent out at the end of the program to collect information about students' opinions of and experiences using *WeChat* for performing speaking tasks. The survey included 12 questions with 5 Likert scales: Strongly Agree, Mostly Agree, Somewhat Agree, Disagree, Strongly Disagree. Survey questions were classified into five categories: involvement in learning indicated by reducing learning anxiety and boredom (questions #1 and #2); oral proficiency development in terms of creating spontaneous speech at the student's own level (questions #3 and #4), individualized feedback and instruction in terms of receiving timely and individualized feedback (questions #5, #6, and #7), time for content learning in class (question #8), and *WeChat* limitations for learning Chinese (questions #9, #10, #11, and #12). In addition, there was one open-ended question to allow students to address any other thoughts they had on *WeChat* use during study abroad. The specific research questions can be found in Appendix 1.

A total of 111 recordings (78 from students and 33 from the language instructor) were transcribed. For each recording, length, speed, and characters were analyzed. Each speech was a unit of analysis. When analyzing each speech, the total length of the speech was counted in minutes and the speed was counted in number of characters per second.

The instructors' input about the use of *WeChat* in the class for content instruction was gathered through emails. The inquiry question for the two teachers was: *WeChat was used in your summer classes. What did you think of the use WeChat in your class for content instruction?* The emails were sent out after the completion of the summer program. Email responses from the two instructors were analyzed to find common themes about their opinions and experiences using *WeChat* in their content instruction.

4. Discussion of Results

The preliminary analysis shows that *WeChat* recordings could be used effectively to assist individualized instruction for mixed-ability content courses, but should not replace or reduce in-class student interactions. Further discussion of the findings related to research questions is presented in the following section.

4.1 About *WeChat* Use Regarding Student Involvement in the Class

Research questions #1 and #2 investigated students' perspectives on learning involvement in the class. Table 4 presents the survey questions and responses. The survey results found that 100 % of students agreed that when they were in a class with different proficiency levels and cultural backgrounds, *WeChat* use in class recording tasks helped reduce intimidation or anxiety because students only talk to themselves, not to the whole class. Furthermore, 80% of students agreed that in the same situation, the use of *WeChat* also helped them reduce boredom because they were only talking to themselves, instead of just sitting there waiting for other students to finish the task in class. Students can receive individual feedback as well. These results demonstrate that students were more engaged in class due to using *WeChat* functions.

Table 4 *WeChat* for Student Involvement in the Class

	Q1: *WeChat* helps reduce intimidation or anxiety		Q2: *WeChat* helps reduce boredom	
	Number of responses	Percentage	Number of responses	Percentage
-Strongly Agree	3	60		
-Mostly Agree	1	20	2	40
-Somewhat Agree	1	20	1	20
-Disagree	0	0	1	20
-Strongly disagree	0	0	1	20

(Q=Survey Question.Q1-Q11 means Survey Questions 1-11).

Responses from the open-ended question on the survey also support this finding. For Q1 and Q2, students also wrote comments. For Q1, 100% of students chose "Agree," indicating that anxiety exists for all students, despite proficiency differences. One advanced student said, "Although using *WeChat* recording may not be natural in a class, it is easier than speaking to the whole class." At the time of the program, some students even asked to make the recording outside of the classroom door. One other advanced student commented, "Discussion in groups according to students' proficiency levels also helped to reduce anxiety, and was more interesting than *WeChat* recording." This comment serves as a reminder to the researchers that students were aware of mixed ability challenges. There are multiple ways of reducing anxiety in such a class. The use of *WeChat* should not be too frequent, and should be used as only one methods among others.

For Q2, it seemed that advanced students were more likely to be bored and felt that *WeChat* was a tool to help them solve that problem. One intermediate student said, "Situational discussions in class better involved me, and thus reduced my boredom." As with some comments for Q1, one should not ignore other types of in-class student interactions. If using *WeChat* can save class time, perhaps the saved time should be used to create more in-class activities when feasible.

4.2 About *WeChat* Use Regarding Oral Proficiency Development

Survey result showed that 100% of students agreed that *WeChat* was a useful tool that provided more opportunities for them to speak at their own language level, as opposed to a situation where everyone took turns speaking in class. Moreover, by doing spontaneous recordings in class, *WeChat* helped students improve their ability to make impromptu speech in the target language. Corresponding statistical analysis is presented in Table 5.

Table 5 *WeChat* Use for Development of Oral Proficiency

	Q3: *WeChat* provides more opportunity to speak in class at one's own level		Q4: *WeChat* helps improve spontaneous speech	
	Number of responses	Percentage	Number of responses	Percentage
-Strongly Agree	4	80	1	20
-Mostly Agree	1	20	1	20
-Somewhat Agree	0	0	3	60
-Disagree	0	0	1	0
-Strongly disagree	0	0	1	0

Transcribed recordings were analyzed to understand how students at varying levels differed in their use of *WeChat* inside and outside the class to develop oral proficiency. Table 6 presents the number of total recording tasks each student completed, the length of recording tasks, number of total feedback the instructor provided, and the length of the feedback.

Table 6 Number and Length of Recorded Tasks or Feedback

Participants	Pre-Program OPIc	# of tasks	Average Minutes	# of teacher feedback	Average Feedback Minutes
S1	N/A	19	2.26	6	5.6
S2	IM	11	1.44	6	3.2
S3	IM	11	1.64	3	2
S4	AL	16	3.39	8	4.1
S5	AH	21	2.97	10	6
Total		78	2.46	33	20.9

Table 6 shows variations in speech length and task completion rates throughout the program. IM students spoke fewer minutes and completed fewer out-of-class tasks than the advanced students. The instructor *WeChat* feedback showed a parallel tendency. The data excluded those given in person or in class. It seems that the use of *WeChat* created a space where each student could express themselves at their own proficiency levels and speed, but the students themselves needed to take the initiative to use the tool for learning.

4.3 About *WeChat* Use Regarding Individualized Feedback and Instruction

Based on survey results, 100% of students agreed that *WeChat* helped them receive more individualized and timely feedback. Students became more aware of their strengths and weaknesses in their speech through listening to instructor feedback. Table 7 shows the statistics from the survey responses.

Table 7 *WeChat* Use for Individualized Feedback

	Q5: *WeChat* helps receive more individualized feedback		Q6: *WeChat* helps receive faster feedback from the instructor	
	Number of responses	Percentage	Number of responses	Percentage
-Strongly Agree	4	80	1	20
-Mostly Agree	1	20	1	20
-Somewhat Agree	0	0	3	60
-Disagree	0	0	1	0
-Strongly disagree	0	0	1	0

Table 8 *WeChat* Use for Individualized Instruction

	Q7: *WeChat* provides more opportunities to speak at one's own language level	
	Number of responses	Percentage
-Strongly Agree	4	80
-Mostly Agree	1	20
-Somewhat Agree	0	0
-Disagree	0	0
-Strongly disagree	0	0

In addition, in order to see if and to what extent *WeChat* recordings allowed for individualized speech and instruction, the researchers analyzed one in-class recording task and feedback.

On July 2, students in the Speech course were asked to speak on the use of one natural resource as part of the preparation for their speech on a Chinese province. Table 9 shows the variation in the topic, speech length, speed, and feedback length and speed.

Table 9 July 2 Students' In-Class Recording Task and Teacher Feedback

Participants	Pre-Program OPIc	Speech Content	Speech Length	# of Words per Second/ characters	Feedback Length	# of Words per Second Feedback/ characters
S1	N/A	Solar energy	2 mins	1.8/ 210	0.29 min	3.5/101
S2	IM	Forest	1.32 mins	1.0/135	0.31 min	3.7/116
S3	IM	Land	1.54 mins	1.5/152	0.29 min	4.0/115
S4	AL	Resource distribution	2.47mins	1.6/263	0.14 min	4.2/59
S5	AH	Resource distribution	2.25mins	1.9/279	0.30 min	6.0/178

As illustrated in Table 9, students 1-3 spoke about the use of one resource as the assigned topic requested, whereas students 4 and 5 chose to vary the topic and spoke about the distributions of several resources. In addition to variations in topics, students

also varied in speed. The AH student orally conveyed more content than the rest, at 1.9 characters/second; whereas student 2's speed was at 1 character/second. Students 1-3 also struggled with expressing the content. Errors occurred in pronunciation, word choice, and syntax. One IM student, for instance, could not distinguish between "ask for help" and "ask a question," a difference that students had been taught in their first semester of Chinese in college. Another student repeated the same words and sentences several times, as if to allow for more time to compose other sentences internally. Students 4 and 5, by contrast, clearly expressed the topic and even used formal language such as " 均衡," a word that some of the other students did not know.

The instructor's feedback speed similarly varied from 6 characters/second for the AH student to 3.5 characters/second for student 1. The feedback focused on one or two main characteristics in the recording. For the AH student, the instructor explained the difference between "assigning tasks" and "resource distribution;" both phrases begin with the same Chinese character. For the AL student, the instructor explained the idiomatic yet formal expression of "the western part" of a country. For the non-advanced students, the instructor focused on explaining some basic lexical and syntax issues.

4.4 About *WeChat* Use Regarding Saving Class Time for Content Instruction in Class

The survey results showed that 100% of students felt that opportunities for them to speak in Chinese about geography content would have been significantly less without the use of *WeChat* in the Geography class. Table 10 presents the statistical results.

Table 10 *WeChat* Use for Saving Class Time for Content Instruction

	Q8: *WeChat* provides more opportunity to speak about content knowledge	
	Number of responses	Percentage
-Strongly Agree	4	80
-Mostly Agree	1	20
-Somewhat Agree	0	0
-Disagree	0	0
-Strongly disagree	0	0

The survey results are echoed in the emails between the geographer and the CFL instructors. Their responses show a strong preference for the use of *WeChat* to record content tasks because it helped both instructors carry out content tasks in class more efficiently.

The geography instructor only needed to call on one or two students to speak about a geography topic, make a comment, and continue on to the lecture since every student had already interacted with the CFL instructor regarding the topic via a *WeChat* recording task. The reduced speed of the geography instructor's lecture facilitated student comprehension and provided more time for questions.

The CFL instructor commented that if every student took turns to perform an oral task in class, and the teachers took turns to provide feedback, it could take 20 minutes of class time. Using *WeChat* to do the same tasks simultaneously took only 5-6 minutes, and the teacher could provide feedback after class. As a result, the instructor could use the class time for more discussion and listening comprehension and reading practice.

4.5 About *WeChat* Use Regarding the Technical Limitations of *WeChat* for Learning Chinese

Although *WeChat* has been a popular communication tool for Chinese people in daily life, *WeChat* is not designed for the purpose of learning foreign languages. A few limitations are identified in *WeChat* if using it 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 accidently let go of the audio message button before finishing the recording, and; sometimes, mainly due to web connection problems, *WeChat* messages are not actually sent to the receiving party. Because of these limitations, the researchers of this study are interested in finding out how students perceived the use of *WeChat* for their course work.

The survey results show very positive opinions regarding the use of *WeChat* in the classroom. 60% of the students, despite minor technical problems, strongly recommended the use of *WeChat* in CFL education. Among those 60%, 40% were advanced heritage students. These results indicate that in the study abroad context, students became more tolerant of the flaws of *WeChat*. They considered *WeChat* as the best technological tool for maximizing student-teacher contact. Table 11 presents the specific responses to survey questions #9 to #10.

Table 11 Students' Opinions about Technical Limitations of *WeChat* Recording Function

	Q9		Q10		Q11		Q12	
	#	%	#	%	#	%	#	%
Strongly agree	1	20	2	40	1	20	2	40
Mostly agree	3	60	3	60	3	60	2	40
Somewhat agree	1	20	2	0	1	20	1	20
Disagree	0	0	0	0	0	0	0	0
Strongly disagree	0	0	0	0	0	0	0	0

5. Conclusion

This case study has much room for expansion and further analysis. The scope should be expanded to include more students. The majority of recording content awaits further analysis. Yet, the initial findings are encouraging, as demonstrated in the survey results, the instructor feedback, and the recording transcriptions. The use of *WeChat* recording to complete linguistic tasks helped provide: 1) an anxiety-free environment or the reduction of boredom for mixed-ability students; 2) a more efficient way of oral

practice, and; 3) timely and individualized feedback. In addition, the use of *WeChat* maximized teacher-student target language contact, which enabled content instructors to use class time more efficiently.

At the end of the program, the same four students who took OPIc at the beginning of the program were tested again. Of the five students, three had made progress. One Intermediate-Mid student reached Intermediate-High, and two Advanced-Low students reached Advanced-High. Perhaps *WeChat* recordings played a role in helping these students raise their proficiency levels.

Since summer 2015, the researchers have started demonstrating to students how to use *WeChat* to make sure they know that each recording can only be one minute long. Using *WeChat* to record tasks will continue to be used in future study abroad programs in China. Even if Google and other web recording devices are available, *WeChat* still appears to be most convenient, and thus will continue to be used in other CFL courses.

Regardless of the many limitations of this case study, the findings of this research can contribute to the CFL field through an in-depth investigation of the use of *WeChat* for teaching students in mixed-level content courses focused on oral proficiency development that are taught in a study abroad context. However, more future research is needed to address many unanswered questions in this study. For example, this study finds that students appreciated the instructors' timely and individualized feedback. But how exactly such feedback helps students remains unknown. Did the feedback help students most in pronunciation, ways of expression, or oral text structure? Future research is needed to answer these questions.

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Appendix

WeChat Recording Task Survey Questions

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 are 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 any, if at all, because you were only talking to yourself and receiving individualized feedback?
3. Do you agree that the use of *WeChat* provided more opportunities for you to speak at your own language level than a situation in which everyone takes turns to speak in class?
4. Do you agree that by doing spontaneous recordings in class *WeChat* helped you to improve your ability to make spontaneous speech?
5. Do you agree that by using *WeChat* you received more individualized feedback?
6. Do you agree that by using *WeChat* you got faster feedback?

7. Do you agree that by using *WeChat* to hear your teacher's feedback you became more aware of your strengths and weaknesses in your speaking?
8. 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?
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 accidently letting go of the audio message button before one finishes recording is a problem to be aware of but does not hinder oral communication?
11. Do you agree that sometimes *WeChat* messages not being actually sent to the receiving party (mainly due to web connection problems) is a problem to be aware of but does not hinder oral communication?
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 student-teacher contact?

