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ABSTRACT

The digital age in education inspires Chinese teachers to integrate Web 2.0 technologies into Chinese as a second language (CSL) curricula to enhance teaching effects. However, few studies examine the challenges that teachers face when integrating Web 2.0 technologies to improve student oral proficiency in Chinese. This study aims to investigate students' perceptions of the effectiveness of the Web 2.0 technology VoiceThread (VT). It examines the challenges of integrating VT to enhance student oral proficiency. The authors conducted two studies with 31 students responding to a questionnaire in Study 1 and 48 students responding to the same questionnaire in Study 2. All students are beginner-level CSL learners. Three results were obtained. Result 1 shows that documents and articles report VT as popular and easy to use, however, few teachers employed VT in their teaching practices. Result 2 indicates another discrepancy. Although students highly evaluated the usefulness of the VT-facilitated activities, they were reluctant to perform these activities. By comparing Study 1 and Study 2, the authors obtained Result 3: Students in Study 2 evaluated VT-integrated teaching practices consistently higher than those in Study 1. Teachers' using experiences primarily led these perception differences. This study provides CSL teachers with a vision of the opportunities and challenges that may occur when they integrate Web 2.0 technologies into curricular to improve CSL oral proficiency.

Keywords: Chinese as a second language, oral proficiency, VoiceThread, Web 2.0 technologies

Introduction

With Web 2.0 technology development and the teachers' and students' improvements in technology literacies, the number of teachers and institutions using technology to enhance language learning is increasing (Koubek & Bedward, 2015). VoiceThread (VT), as one of the most popular Web 2.0 technologies or cloud-based platforms, has been adopted by an increasing number of educators and educational institutions. According to Tu (2011), the U.S. News and World Report Education Global 2011 rankings report claimed that an excess of two million people from more than 150 countries and over 25% of the top 100 U.S. universities and colleges are using VT for connection and collaboration. The American Association of School Libraries (2009) recognized VT as one of the best websites for teaching and learning.

Developing oral proficiency in U.S. Chinese as a second language (CSL) is primarily important because Chinese learning is difficult for U.S. English speaking learners. Chinese learning is regarded by Foreign Service Institute as a Group Five (i.e., most difficult) language

because of its difficulty for native English-speaking learners. One difficulty comes from the fact that the Chinese spoken system and written system are separate. Another difficulty is that Chinese is a truly foreign language (Jorden & Walton, 1987) for English-speaking learners because Chinese is linguistically and culturally unrelated to English. The U.S. Chinese curricular developers have to take the factor of difficulty into consideration when they design Chinese curricula and put the curricular emphasis on the most important factor which, in the current mainstreams of U.S. foreign language (FL) pedagogy, refers to the goal of developing cross-cultural meta-awareness and communicative competence. In the U.S. CSL context, the learning goal should be the development of Sino-American cross-cultural spoken communicative competence. The strategy of primarily developing speaking and listening abilities, compared to the traditional FL emphasis on the development of four integrated skills of speaking, listening, reading, and writing Chinese, has its advantages for beginner-level Chinese learners to reach the communication goal. In addition, the current overall drop in U.S. FL enrollment (MLA report, 2009[1], 2013[2], 2016[3]), including Chinese language enrollment, calls for FL programs to adjust their curricula (MLA Ad Hoc Committee, 2007). By focusing on spoken Chinese over written, CSL programs can make learning less intimidating and more effective.

The investigated Chinese program in this study, similar to many other U.S. collegiate Chinese programs, is small in scale with high enrollment pressure because the school has no institution-wide FL requirement for undergraduate degrees. This situation requires the curricular developers to cut down weekly class hours to attract students to elect Chinese language courses. At the same time, they need to ensure more students reach course objectives by increasing students' learning interests and learning time outside the classroom. Web 2.0 technologies, because of their ease in using, collaborating, and interacting in learning activities, can help achieve the course objectives and make learning more flexible, engaging, and effective.

This study aims to employ a VT-integrated Chinese curriculum to illustrate the challenges of integrating Web 2.0 technologies into a FL curriculum to enhance student oral proficiency. This investigation has hitherto been largely neglected in the literature of technology-integrated FL learning and CSL pedagogy. Therefore, this study offers some much-needed insights into this topic.

Literature Review

VoiceThread.com was founded in 2007. Since then, many conference presentations, YouTube videos, and journal articles have introduced this tool, described its functions, and provided VT examples that were created for numerous courses, such as nursing courses, business policy courses, and various FL courses. For example, articles from Chen (2011), Zhang (2011), and Yan (2015) describe their methods for using VT in the CSL context. Many papers in other FL classes also introduce various types of VTs, such as "25 Types of Fun VoiceThreads for Foreign Language Classes[4]" and "7 Tips for Using VoiceThread in Online Courses[5]." The VT official

[1] Retrieved from https://www.mla.org/content/download/2872/79842/2009_enrollment_survey.pdf1
[2] Retrieved from https://www.mla.org/content/download/31180/1452509/EMB_enrllmnts_nonEngl_2013.pdf
[3] Retrieved from https://www.mla.org/content/download/83540/2197676/2016-Enrollments-Short-Report.pdf
[4] Retrieved from https://www.colorado.edu/assett/2012/07/05/25-types-fun-voicethreads-foreign-language-classes
[5] Retrieved from http://blogs.onlineeducation.touro.edu/7-tips-for-using-voicethread-in-online-courses/

website[6] also provides VT examples used in FL classes, including Chinese, German, Hindi, Spanish, and French classes.

Below are three articles that illustrate the ways teachers use VT in their Chinese classes. Yan (2015) illustrated six types of activities created in VT: (1) developing VT as previewing lectures, which students utilize to practice pronunciation and grammar outside classes; (2) creating VT for reviewing lectures, through which students can make audio recordings or type comments; (3) developing special lectures, which instructors use to interpret homophones or synonyms; (4) developing culture forums for students to comment; (5) creating language drills for teachers and students to interact with each other; and (6) providing students opportunities to create their own VTs. Chen (2011) also described examples of using VT for Chinese learning, such as lesson reviews, culture reports, group work, discussion, and exams. Zhang (2011) proposed four categories of proficiency-oriented activities with ten types of performance-based learning activities, which are similar to the ones in the articles of Chen (2011) and Yan (2015).

Beginning around 2010 and 2011, VT-related empirical studies started to emerge. Many studies and articles focus on the effectiveness, usefulness, and acceptability of VT in facilitating language learning (Burden & Atkinson, 2008; Chan & Pallapu, 2012; Ching & Hsu, 2013; Lin & Huang, 2011). However, few studies investigate the challenges when integrating VT, as a tool, into a FL curriculum (Carlson & Archambault, 2013; Dugartsyrenova & Sardegna, 2016; Lin, Huang, & Chen, 2014). Dugartsyrenova and Sardegna's (2016) study is close to the current study in the sense that their study also explores learners' perceptions of using VT to gain insights into effectiveness of VT regarding oral skill development. Their study focuses on the advantages and disadvantages of using VT to develop oral proficiency based on the researchers' own strategic explorations in Russian language context. However, little research focuses on the challenges of integrating Web 2.0 technologies, particularly VT, into a CSL curriculum to enhance student oral proficiency.

Among these studies, some are experimental by nature. For example, Chan and Pallapu (2012) reported a two-phase exploratory study about the effectiveness of VT. 22 students participated in a VT exercise, which consisted of an exam review followed by a survey on the use of VT in the first phase. Thirteen of the 22 participants were sent follow-up questions in the second phase. Chan and Pallapu's (2012) investigation is in an experimental context, in contrast to the current study examining students' real user experiences when VT is integrated into a FL curriculum. Some studies explore students' user experiences when VT is integrated into an entirely online course. For example, Ching and Hsu (2013) examined twenty graduate students' experiences of using VT for a collaborative activity in an entirely online course to explore students' perceptions of multi-modal communication for collaboration and knowledge sharing.

The digital age has inspired scholars and researchers in education to speculate how teachers might use new technologies to redefine teaching and learning (Koubek & Bedward, 2015; Ware & Helmich, 2014). However, the presence of technology does not guarantee that educators feel compelled to use it in their instruction. According to Koubek and Bedward (2015), the National Center for Education Statistics conducted a survey in 2010. In the survey, only 40% of K-12 teachers reported using computers frequently in the classrooms and of those using it, 60% employed it for administrative duties and creating presentations, with only 9% of teachers utilizing more innovative digital technologies such as wikis and blogs in their classrooms. Teacher technology literacy in this study is a key factor as to whether or to what degree Web 2.0

[6] Retrieved from https://voicethread.com/about/library/category/foreignlanguage/

technologies can be successfully integrated into a FL curriculum. In the literature of VT-related empirical studies, little research has been completed on the role of teacher technology literacy in enhancing student oral proficiency.

Within this context, the current study extends previous research in a number of ways. First, student perceptions in this study are based on a whole semester or one year's real using experience, rather than the first use in experimental contexts (e.g., Chan & Pallapu, 2012). Second, this study differs from other research by emphasizing the challenges of integrating Web 2.0 VT into a CSL curriculum instead of focusing on effectiveness in many other studies. Third, this study focuses on a Web 2.0 technology-integrated curriculum with its emphasis on developing oral proficiency in U.S. collegiate CSL context, which is rarely addressed. Finally, this study addresses teacher technology literacy in influencing the effectiveness of integrating Web 2.0 technologies, another topic rarely addressed in the CSL context. Specifically, four research questions guide this study:

1. Does the ease of VT propel CSL teachers to use it in their teaching practices?
2. Does the usefulness of VT propel students to use it to facilitate their learning?
3. Do teachers' practices influence students' perceptions of VT-integrated activities?
4. What are the advantages and disadvantages of VT-mediated activities designed for improving oral proficiency?

Methods

VT-Mediated Tasks

VT-mediated tasks were designed either for speaking assignments or speaking tests. Students usually received one speaking assignment and one speaking test for each learning unit. For each assignment or test, the number of tasks, the number of questions within each task, or the length of questions to each answer vary depending on teaching goal and student proficiency levels.

Figures 1-3 are screenshots, which show typical VT task screens. As shown in Figure 1, the center of the user interface is the visual prompt. To provide such visual prompt, teachers can upload a wide variety of file formats, including textual, audio, and video, to elicit students' speeches. For example, teachers can convert a PowerPoint file and each PowerPoint slide corresponds to a VT slide. If an original file is in Microsoft Word format, one Word page equals one VT slide. Similarly, one PDF page is equivalent to one VT slide. Audio recording entries can be made by teachers as audio prompts and by students to as audio responses. User icons on the left side of the user interface represent entries made by each person. The streamline at the bottom consists various lengths of each entry, which corresponds to the icons on the left. These VT-mediated tasks were designed either for speaking assignments or speaking tests. In assignment mode, students can access each other's answers. In testing mode, only teachers have the access to a student's answers.

This study adopts three common types of tasks in VT. Figure 1 demonstrates the first task type in which a teacher initiates a question and students respond to it by audio- or video-recording. The teacher, then, provides corrective feedback, followed by students' responses to feedback. In this particular task, the teacher recorded an audio entry (as shown in the first icon) and asked "*Ni jiao shenme* (What is your name?)," and students responded individually. The

second icon is a student's response. The third circle-shaped icon with a lock is the teacher's corrective feedback to this student's input, and the fourth icon is the student's response to the teacher's feedback.

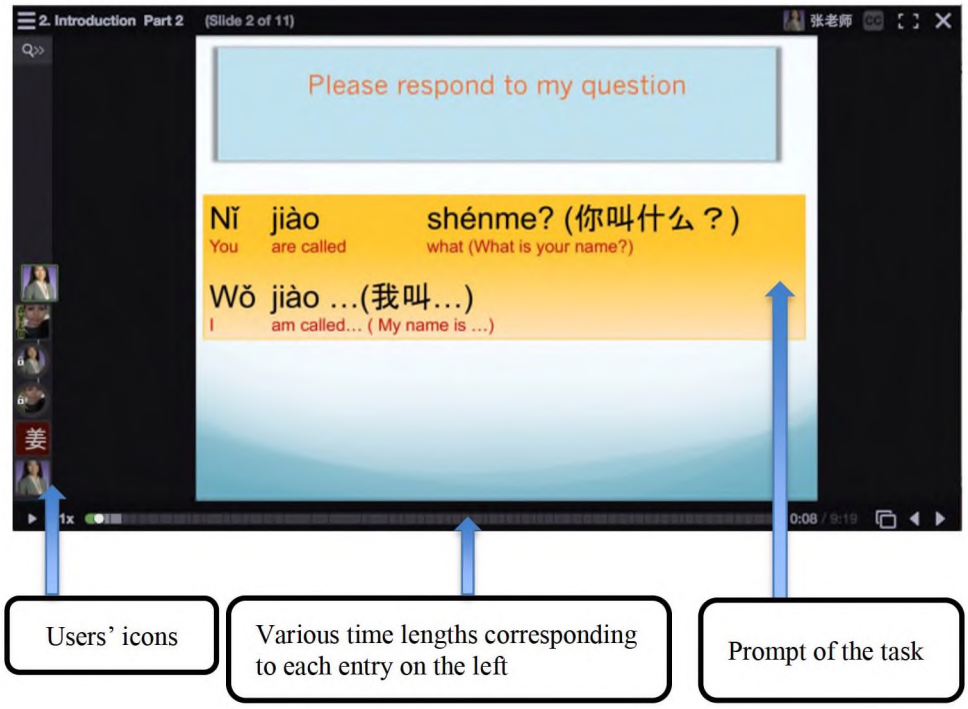

Figure 1. A Typical VT Task Screen

The second task type is shown in Figure 2, the teacher asked multiple questions in one task, thus students were required to produce answers in multiple individual sentences. In this particular task, students were required to respond to four questions within one task: (a) *Ni de aihao shi shenme? Qing ni shuo liangge* (What are your hobbies? Please list two.), (b) *Zhoumo ni changchang zuo shenme? Qing ni shuo liangge* (What do you usually do on weekend? Please list two activities.), (c) *Shangge zhoumo, ni kanshu le ma* (Did you do some readings last weekend?), and (d) *Zhege zhoumo, ni xiang zuo shenme? Qing ni shuo liangge* (What do you want to do this weekend? Please list two activities.)

The third type of task requires students to provide paragraph level responses. For example, the task in Figure 3 required students to introduce a family and talk about their names and occupations with the hints given.

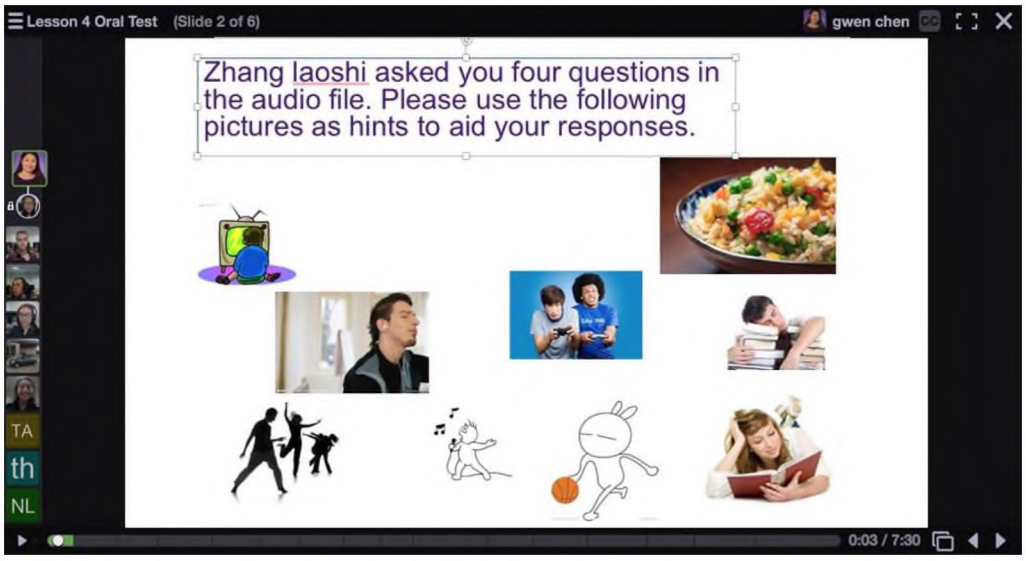

Figure 2. VT Tasks Requiring Students' Responses at the Individual Sentence Level

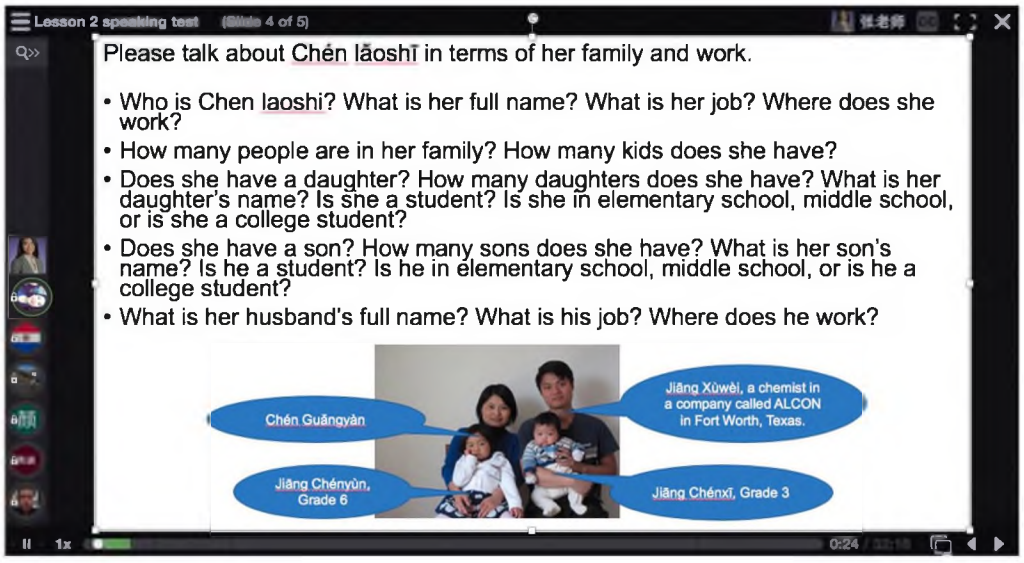

Figure 3. VT Tasks Requiring Students' Responses at the Paragraph Level

Questionnaires

The authors conducted three studies: a pilot study in spring 2015, Study 1 in spring 2016, and Study 2 in spring 2017. In each study, a questionnaire was adopted as the main instrument to explore student perceptions of integrating VT into the Chinese curriculum to enhance oral proficiency.

The authors created the initial questionnaire based on approximately two semesters of teachers' VT using experiences. Teachers started to use VT in August 2014 and formulated the initial questionnaire in April 2015. They used the initial questionnaire to solicit students'

perceptions of the VT-mediated activities in the pilot study. The teachers continued to use the tasks that received high student evaluations and stopped using some tasks that received low student evaluations. Further, the teachers adjusted their VT practices between Study 1 and Study 2 as their experiences were accumulated. In particular, they adjusted the number of slides for each assignment, limited the number of questions to one prompt, and controlled the length of answers to each question on each VT slide.

After the pilot study, the authors revised the initial questionnaire and collected students' responses to this revised questionnaire in April 2016 (Study 1) and their responses to the same questionnaire in April 2017 (Study 2). The purpose of conducting two studies was to compare students' perceptions of teaching practices in VT. The revised questionnaire consists of seven parts and 18 items:

1. Items 1-3 provide background about the investigated Chinese curriculum.
2. Item 4 investigates students' VT using experiences.
3. Items 5-8 examine interactions between teachers and students in VT.
4. Items 9-10 explore the possibility of using VT to develop flipped learning materials.
5. Items 11-13 investigate students' perceptions on the effectiveness of using VT for speaking assignments and tests.
6. Items 14-16 compare speaking tests between the face-to-face and the VT methods.
7. Items 17-18 employ open-ended questions to investigate the advantages and disadvantages of integrating VT into the Chinese language curriculum.

Participants

Participants of this study primarily consist of 31 students in Study 1 and 48 students in Study 2. All participants were college students at a southwestern U.S. university. During the survey time, all students were either taking the second semester of the first-year Chinese course or the beginner-level business Chinese course. Most of these students had no Chinese learning experience before registering these Chinese courses.

Results

Research Question 1: Does the ease of VT propel CSL teachers to use it in their teaching practices?

Item 4. Have you used VT before your Chinese class? Yes. / No.[7]

Among the investigated students in both Study 1 and Study 2, only one student reported that he/she used VT before enrolling in the Chinese courses. At the 2016 annual conference of the American Council on the teaching of FLs (ACTFL), the authors presented a VT-related paper and conducted a one-question survey by asking the audience to respond to the following options.

[7] In the results section, the authors listed the items first and then analyzed students' responses to these items.

20 audience members responded[8]. Among the 20 audience members, seven chose option A, five chose B, two chose C, and only one person chose D.

A. This is my first time hearing about VT.
B. I heard about VT before, but I never used it in my teaching.
C. I occasionally use it in my teaching.
D. I often use VT in my Chinese teaching practice.

Students' responses to Item 4 manifest the fact that few of their teachers used VT in their teaching practices. Student responses are consistent with the survey results obtained in the ACTFL annual conference that teachers rarely use VT in their practices. These results appear to be in contrast with the descriptions about the popularity of VT, as stated in the 2010 U.S. News and World Report Education Global rankings report (Tu, 2011) and the American Association of School Libraries (2009).

The ease for teachers to use VT is mentioned in some articles. For example, Ferriter (2007) stated that there is almost no tech-barrier to overcome. The skills necessary to use VT are minimal and the focus of any digital effort remains on the content rather than the technology because the tool is simple by nature. Similarly, Nakagawa (2010) posited that the ease of using VT makes it time efficient. Teachers can master the basics of VT with a minimal amount of time and effort and this ease in turn facilitates the use of this technology as a professional development tool. Because of its ease, both Ferriter (2007) and Nakagawa (2010) regard VT as an easy technology that allows teachers to seamlessly integrate digital collaboration into a curriculum.

Taken together, student responses and the survey results support the statement that the ease of VT does not propel FL teachers, including CSL teachers, to use it in their teachings.

Research Question 2: Does the usefulness of VT propel students to use it to facilitate their learning?

Item 5. I often listen to my classmates' recorded speeches before I respond to my teachers' questions.
Item 6. Listening to classmates' recorded speeches is useful.
Item 7. I often listen to my teacher's feedback.
Item 8. My teacher's feedback helps me recognize my errors.

Table 1 shows student perceptions about student-student and student-teacher interactions. Regarding the usefulness of the interactions (Item 6 and Item 8), high percentages of students chose "Agree" or "Strongly Agree" in Study 2 (35.4% + 52.1%) and Study 1 (45.1% + 41.9%) for Item 6. Similar high percentages also occurred for Item 8 with "72.9% + 25%" in Study 2 and "35.5% + 48.4%" in Study 1.

Compared to students' beliefs about the usefulness of the interactions, relatively lower percentages of students actually practiced in VT (Item 5 and Item 7) with "23% + 35.4%" in

[8] Strictly speaking, the 20 audience members are also participants of this study. However, the primary participants are the students who responded to the questionnaires in Study 1 and Study 2. The results in this study mainly based on these students' perceptions. These audience members' responses only work as complementary data to support Result 1. Therefore, the authors did not include them in the subsection of participants.

Study 2 and "9.7% + 16.1%" in Study 1 for Item 5 and "52.1% + 37.5%" in Study 2 and "16.1% + 35.5%" in Study 1 for Item 7.

Table 1. *Interactions between Teachers and Students in VTs*

Items		Strongly agree (Percentage)	Agree (Percentage)	Disagree (Percentage)	Strongly disagree (Percentage)
Item 5	Study 2	23	35.4	33.3	8.3
	Study 1	9.7	16.1	61.3	12.9
Item 6	Study 2	35.4	52.1	12.5	0
	Study 1	45.2	41.9	12.9	0
Item 7	Study 2	52.1	37.5	10.4	0
	Study 1	16.1	35.5	45.2	3.2
Item 8	Study 2	72.9	25	2.1	0
	Study 1	35.5	48.4	16.1	0

In sum, students' responses to Items 5-8 manifest a discrepancy between the usefulness of the VT-facilitated activities and their relative reluctance of taking advantage of these activities. In other words, the usefulness of VT cannot guarantee that students feel compelled to use it to facilitate their learnings.

Research Question 3: Do teachers' practices influence students' perceptions of VT-integrated curricular activities?

Perceptions of Feedback Practices

As demonstrated in Table 1, perceptions of the usefulness of student-student interactions (Item 6) were approximately the same between the two studies. In contrast, regarding the usefulness of teacher-student interactions (Item 8), "35.5 + 48.4" percentage of students chose "Strongly Agree" and "Agree" in Study 1 and Study 2 has a higher percentage (72.9 + 25). Students' perceptions of the better teacher-student interactions in Study 2 manifest that teachers improved their feedback practices in VT.

Table 1 shows that the percentage of students' actual practices of listening to their classmates' recorded speeches (Item 5) was "23% + 35.4%" in Study 2, which was significantly higher than "9.7% + 16.1%" in Study 1. This higher percentage again implies that teachers improved their teaching practices in VT. Similarly, the percentage of students' actual practices of listening to their teachers' feedback (Item 7) was "52.1% + 37.5%" in Study 2, which was also higher than "16.1% + 35.5%" in Study 1. This difference, again, indicates that teachers bettered their teaching practices in VT.

Possibility of Applying the Strategy of Flipped Learning in VT

Item 9. I feel comfortable when providing my responses in VT, so that future Chinese learners can use them.
Item 10. I will improve my speaking ability if I preview previous learners' responses in VT before each class.

Table 2. *Possibility of Applying the Strategy of Flipped Learning in VT*

Items		Strongly agree (Percentage)	Agree (Percentage)	Disagree (Percentage)	Strongly disagree (Percentage)
Item 9	Study 2	47.9	41.7	10.4	0
	Study 1	29.2	60.4	10.4	0
Item 10	Study 2	25.8	61.3	12.9	0
	Study 1	16.1	80.6	3.2	0

Table 2 shows student perceptions about the possibility of using VT-integrated tasks and the corresponding student responses as flipped learning materials. Flipped learning refers to "a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter." [9] Traditionally, a typical flipped learning lesson plan gives students a preview of the learning materials developed and prepared by teachers. In this study, the teacher-developed tasks and students' responses to these tasks constituted the flipped learning materials in VT. Students, therefore, had accesses to the input from both teachers and their peers.

Students' perceptions of their comfort level when sharing their VT with others (Item 9) in Study 2 (47.9% Strongly Agree + 41.7% Agree) were slightly better than those in Study 1 (29.2% + 60.4%). Regarding Item 10, similar percentages of students in Study 2 (25.8% + 61.3%) and in Study 1 (16.1% + 80.6%) believed that they would improve their speaking ability when previewing other learners' responses, but the percentage of "Strongly Agree" in Study 2 was higher than that in Study 1. The two comparisons further demonstrate teachers' better practices in VT.

Speaking Assignments and Tests in VT

Item 11. Speaking assignments in VT improve my speaking ability.
Item 12. I agree to continue to use VT for future speaking assignments.
Item 13. I agree to continue to use VT for speaking tests.

Table 3. *Speaking Assignments and Tests in VT*

Items		Strongly agree (percentage)	Agree (Percentage)	Disagree (Percentage)	Strongly disagree (Percentage)
Item 11	Study 2	52.1	45.8	2.1	0
	Study 1	45.2	38.7	16.1	0
Item 12	Study 2	60.4	39.6	0	0
	Study 1	45.2	51.6	3.2	0
Item 13	Study 2	35.4	58.3	6.3	0
	Study 1	29	48.4	19.4	3.2

[9] Retrieved from https://flippedlearning.org/wp-content/uploads/2016/07/FLIP_handout_FNL_Web.pdf

Comparing Items 11-13 in Study 1 with those in Study 2, the authors found that teachers slightly improved their practices, as displayed in Table 3. A higher percentage of students in Study 2 (52.1% Strongly Agree + 45.8% Agree), compared to the percentage in Study 1 (45.2% + 38.7%), believed that speaking assignments in VT improved their speaking ability (Item 11). A slightly higher percentage of students in Study 2 (60.4% + 39.6%) than the one in Study 1 (45.2% + 51.6%) agreed to use VT for future speaking assignments (Item 12). Similarly, a relatively higher percentage of students in Study 2 than in Study 1 chose "Strongly Agree" and "Agree" regarding the continuous use of VT for conducting speaking tests (Item 13).

In sum, students generally evaluated teacher practices better in Study 2 than those in Study 1. The authors ascribed teachers' better practices to the improvement of teacher technology literacies for the following reasons. First, students in Study 2 were statistically assumed to be the same as those in Study 1, because both student pools were primarily U.S. English-speaking learners and consisted of students who either have one semester of Chinese learning experience or none. The same teachers designed VT tasks during each study time. The questionnaire was the same across the two studies. With other variables remaining the same, teachers' using experiences improved, namely, teachers' technology literacies improved, which should constitute a valid explanation for students' better evaluations of teachers' VT practices.

Research Question 4: What are the advantages and disadvantages of VT-mediated activities designed for improving oral proficiency?

The Advantages and Disadvantages of VT-Mediated Speaking Tests

In the questionnaire, students were asked to respond to the following items concerning the two methods of conducting speaking tests:

A: Answering teachers' questions face to face (face-to-face oral interview with your teacher).
B: Answering teachers' questions in VT.

Item 14. Which method do you prefer? A / B And why?
Item 15. Which method is more challenging? A / B And why?
Item 16. Which method better demonstrates your communicative ability? A / B And why?

Table 4. *Comparisons of Speaking Tests between the Face-to-Face and the VT Methods*

Items		Option A (Percentage)	Option B (Percentage)	No preference (Percentage)
Item 14	Study 2	45.8	52.1	2.1
	Study 1	38.7	61.3	0
Item 15	Study 2	83.3	8.3	8.3
	Study 1	71	25.8	3.2
Item 16	Study 2	75	12.5	12.5
	Study 1	74.2	19.4	6.4

Table 4 compares speaking tests conducted in face-to-face and VT-mediated settings. Student responded to Items 14-16 similarly in both studies. Regarding students' preference of the

two methods (Item 14), more students chose Option B in both studies (52.1%, 61.3%). Students chose the face-to-face method primarily because this format was closer to real conversation. The students who chose VT-mediated speaking tests believed that the VT-mediated format was less intimidating, more comfortable, and more flexible in giving students more time to prepare and practice.

Most students believed that the face-to-face method was more challenging (83.3% of the students in Study 2 and 71% in Study 1). The challenges came from the fast speech of the teachers, unexpected flow of conversations, and the pressure of immediate responses.

In response to Item 16, approximately 75% of the students chose Option A—the face-to-face method—because this method more closely resembled real communicative competence.

The Advantages and Disadvantages of VT as a Facilitating Tool in Developing Student Oral Proficiency

Item 17. Please list the advantage(s) of using VT (the features that facilitate your learning).
Item 18. Please list the disadvantage(s) of using VT (the features that hinder your learning).

The above open-ended questions explored students' perceptions regarding the advantages and disadvantages of integrating VT into Chinese language courses. Students' mostly mentioned advantages of VT include the ease of use; the convenience of accessing learning materials at home, the dorm, and the library; the convenience of repeating, redoing, editing, and listening to student and teacher feedback; and the feelings of relax and low pressure.

Students' mostly mentioned disadvantage was technology instability. For example, students sometimes cannot make a textual comment because of VT system instability. When students performed VT-mediated tasks at the same time and in the same location, they were often disturbed by each other. Students also complained about the non-interactive feature of VT-mediated activities. Practices in VT were more like mechanical drills for building memories of dialogues and less like interactive communications.

Some of the advantages and disadvantages related to teachers' effective uses of VT rather than VT as a tool. For example, when preparing a paragraph-level answer to a task in VT, students often deleted their answers by an accident and had to start over. If teachers were experienced in using VT, they would teach students strategies to avoid this unnecessary trouble. Some students complained that locating teacher feedback was sometimes difficult when dealing with a high number of entries. This complaint might come from the fact that teachers did not move their feedback right after students' entries. All of these students' feedback was valuable in improving teachers' future VT task designs.

Discussion

Conditionally Interpreting the Effectives of VT-Integrated Activities from the Investigated Curricular Features

As shown in the results section, students generally perceived all VT-integrated activities as effective. This result might be influenced by the features of the investigated CSL program, including student senses of achievement of learning in this program and this program's capacity of attracting students' interests. In the questionnaire, the authors designed three items (Items 1-3)

to assess these features. Students' responses to Items 1-3 worked as complementary data to interpret the obtained results.

Item 1. Why are you learning Chinese at the investigated university?
Item 2. My Chinese learning is fun when I compare it to my other courses.
Item 3. I learned a lot from the Chinese course(s).

Among the participants (31+48) who responded to Item 1, 35 students mentioned their interests of learning Chinese, 16 reported their interests in learning FLs, 10 mentioned their interests in Chinese culture, and seven students showed their interests in communicating with Chinese people. Additionally, 45.8% of the students chose "Strongly Agree" and 54.2% chose "Agree" for the statement that Chinese courses were fun when compared to other courses (Item 2). 68.8% of the students strongly agreed that they learned a lot from the Chinese courses and 31.2% chose "Agree" (Item 3).

Students' responses to Items 1-3 indicate that this investigated program successfully developed students' interests in learning Chinese and encouraged students the sense of achievements. These successes denote students' positive recognitions of teachers' overall pedagogical practices. These recognitions might influence students to overemphasize the positive aspects of VT-integrated teaching practices. Therefore, when looking at the results, readers should be cautious in interpreting the high percentages of "Strongly Agree" and "Agree."

Evidence of Teachers' Technology Literacies in Optimizing VT-integrated Chinese Teaching Practices

The students in Study 2 evaluated VT-integrated teaching practices higher than those in Study 1. In line with the obtained results in this study, teachers' practices of integrating VT into the curriculum improved on almost all aspects, as described in Items 5, 7, 8, 9, 10, 11, 12, and 13. As noted earlier in the results section, with other situations remaining the same, teachers' increased using experiences, namely, teachers' improved technology literacies, were the key elements of affecting students' perceptions of teachers' better practices in Study 2.

Teachers' consistent better practices in Study 2 indicate that the key elements in successfully integrating Web 2.0 technologies are not simply the knowledge of how to use the technology because most Web 2.0 technologies are easy to use (Ferriter, 2007; Nakagawa, 2010). The key elements are not the facts that Web 2.0 technologies are useful and effective (e.g., Burden & Atkinson, 2008; Chan & Pallapu, 2012; Ching & Hsu, 2013; Lin & Huang, 2011), either. As Sadik (2008) argued, the use of technology can only be effective if teachers themselves possess the expertise to use technology in a meaningful way. The key elements of using technology meaningfully relate to teacher knowledge, experience, and competence in accommodating the features of a Web 2.0 technology to learning content so as to optimize integration effects. This statement echoes Zhang's (2011) argument that VT activity design should align with the goal of learning. This current study contributes to the literature of Web 2.0 technologies and CSL by providing the evidence that teachers' increased experiences of using VT resulted in a better student evaluation of teachers' practices in VT.

Students' responses to Item 4 and the survey results obtained in the ACTFL annual conference demonstrate that few teachers employed VT in their academic teachings, even though documents and articles report the popularity and ease of VT. Based on casual conversations with the teachers who attended the VT-related presentation in the ACTFL annual conference, the authors concluded that time-consuming VT task design is a challenge in practice, and this might contribute to FL teachers' reluctance to integrate VT into their teaching practices. VT-integration requires a significant time of commitment from teachers. Teachers need not only to design teaching materials and interactive activities used in traditional classroom settings, but also to build the corresponding materials and interactions in VT settings. In addition, teachers have an obligation to provide corrective feedback to student speeches and to monitor students' responses to teacher feedback. As Grisham and Smetana (2011) pointed out, educators need time, resources, and support in order to effectively incorporate technologies in their instructions. In the same vein, Lin, Huang, and Chen (2014) explained that the barriers for CSL teachers to adopt Information and Communication Technology in their teaching are from the fact that CSL is not ready to provide adequate supports for developing technology-driven pedagogies. In other words, current FL education lacks systematic technology-oriented pedagogies, materials, and activities. It cannot provide a sufficient support for teachers to integrate Web 2.0 technologies into FL curricula.

Another challenge when the teachers integrate VT into the CSL curriculum comes from the discrepancy between the perceived usefulness of the VT-facilitated activities and students' relative reluctance of performing these activities. This discrepancy is consistent with the result obtained from Ching and Hsu (2013). Their research shows that half of the students felt more connected to peers in VT; however, feeling more connected did not result in more participation as most of the students only participated at the level that met the course requirement. This discrepancy, from a student perspective, illustrates the fact that FL education is not ready for a technology-driven pedagogy so as to engage students into learning and to optimize learning effects.

In sum, despite the fact that the digital age requires FL teachers to have the corresponding technology knowledge and competence, this case study of investigating VT-integrated CSL curriculum illustrates the challenges in integrating technology into the CSL curriculum. One challenge comes from teacher technological literacy. Jacobsen (2001) noted that many teachers worldwide cannot adopt technology for designing teaching and learning tasks, and the gap between technology presence and its effective use is wide. Taken together, all above results indicate that integrating Web 2.0 technologies into FL education is still inchoate and needs tremendous additional contributions from all FL researchers and practitioners.

References

American Association of School Libraries. (2009, July 12). *Awards for best websites for teaching and learning*. Presentation delivered at the American Library Association Annual Conference, Chicago, IL.

Burden, K., & Atkinson, S. (2008). Evaluating pedagogical affordances of media sharing Web 2.0 technologies: A case study. In R. Atkinson & C. McBeath (Eds.), *Hello! Where are you in the landscape of educational technology? Proceedings of the 25th ASCILITE Conference* (pp. 641– 652). Melbourne, Australia: Deakin University.

Chan, M., & Pallapu, P. (2012). An exploratory study on the use of VoiceThread in a business policy course. *Journal of Online Learning and Teaching, 8*(3). Retrieved from http://jolt.merlot.org/vol8no3/chan_0912.htm

Chen, J. (2011). Application of VoiceThread in Chinese teaching and learning: Some examples. *Journal of Technology and Chinese Language Teaching, 2*(1), 81-94. Retrieved from http://www.tclt.us/journal/2011v2n1/chenj.pdf

Ching, Y.-H., & Hsu, Y.-C. (2013). Collaborative learning using VoiceThread in an online graduate course. *Knowledge Management & E- Learning, 5*(3), 298–314.

Dugartsyrenova, V. A., & Sardegna, V. G. (2016). Developing oral proficiency with VoiceThread: Learners' strategic uses and views. *ReCALL*, 1-21. Retrieved from https://www.hse.ru/data/2016/10/03/1122922162/Dugartsyrenova-Sardegna_2016_First_View.pdf

Ferriter, B. (2007, November 10). *Using Voicethread for collaborative thought...* Retrieved from http://blog.williamferriter.com/2007/11/10/using-voicethre/

Grisham, D. L., & Smetana, L. D. (2011). Generative technology for teachers and teacher educators. *Journal of Reading Education*, *36*(3), 12–18.

Jacobsen, M. (2001). *Building different bridges: Technology integration, engaged student learning, and new approaches to professional development.* Paper presented at AERA 2001: What We Know and How We Know It, the 82nd Annual Meeting of the American Educational Research Association, Seattle, WA, April 10–14.

Jorden, E., & Walton, A. R. (1987). Truly barries languages: Instructional challenges. *Annals of the American Academy of Political and Social Science, 496,* 110-124.

Koubek, K., & Bedward, J. C. (2015). Effective cloud-based technologies to maximize language learning. In A. J. Moelle (Ed.), *Learn languages, explore cultures, transform lives* (pp. 133-153). 2015 Report of the Central States Conference on Teaching of Foreign Languages.

Lin, C.-Y., & Huang, C.-K. (2011). Wanglu fuzhu zhongwen hunhe xuexi kecheng sheji yu pingjian: shiyong zhe guandian tantao yan jiu. 網路輔助中文混合學習課程設計與評鑑: 使用者觀點探討研究. *JCLTA, 46*(3), 85-115.

Lin, C.-Y., Huang, C.-K., & Chen, C.-H. (2014). Barriers to the adoption of ICT in teaching Chinese as a foreign language in US universities. *ReCALL, 26*(1), 100-116.

MLA Ad Hoc Committee on Foreign Languages. (2007). *Foreign languages and higher education: New structures for a changed world*. Retrieved from https://www.mla.org/Resources/Research/Surveys-Reports-and-Other-Documents/Teaching-Enrollments-and-Programs/Foreign-Languages-and-Higher-Education-New-Structures-for-a-Changed-World

Nakagawa, A. S. (2010, April). *Using VoiceThread for professional development: Probeware training for science teachers*. Paper presented at the 15th Technology, Colleges & Community Worldwide Online Conference (TCC 2010). Retrieved from https://scholarspace.manoa.hawaii.edu/handle/10125/15364

Sadik, A. (2008). Digital storytelling: A meaningful technology-integrated approach for engaged student learning. *Education Tech Research Dev, 56*, 487–506.

Tu, C. (2011, October 11). *VoiceThread app on iOS* [Web log post]. Retrieved from http://etc647.blogspot.com/2011/10/voicethread-app-on-ios.html

Ware, P., & Hellmich, E. (2014). CALL in the K-12 context: Language learning outcomes and

opportunities. *CALICO Journal, 31*(2), 140-157.

Yan, W. (2015). *Efficient use of class time through VoiceThread*. Retrieved from http://clta-us.org/wp-content/uploads/2015/09/Efficient_Use_Class_Time_VoiceThread.pdf

Zhang, P. (2011). Using VoiceThread to boost proficiency development: Performance-based activity design. *Journal of Technology and Chinese Language Teaching, 2*(1), 63-80. Retrieved from http://www.tclt.us/journal/2011v2n1/zhang.pdf