Implementing Online Platforms to Promote Collaborative Learning in Chinese Language Classrooms
(中文课堂中借助网络平台提升学生合作学习之应用与实例)

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Abstract: Today's students were born digital. Technology has become an essential tool that they use and rely on in everyday life. Technology also plays an important role in language learning. It mediates language learning by forming a bridge between the authentic world and the language learners. Based on the idea "to give students language input, provide opportunities for interaction, and encourage output", the author gives three examples of implementing online platforms into a Chinese class. Student feedback shows that the online cooperative learning projects can expose language learners to different opinions, experiences and thinking processes. Students also gain a deeper understanding of the target culture through the online learning experience. With carefully deigned instructional activities via online platforms, technology can help students to become active participants and develop their 21st century skills. The author also discusses limitations and provides further study suggestions.

摘要：今日的学生属数位原生世代，科技成为他们日常生活不可或缺之物。科技 也占语言学习的重要部分，它是联系语言学习者及真实世界的媒介与桥梁。本文作 者基于"给予学习者语言输入，提供语言交流机会及鼓励输出"的概念，提出三个 于中文课堂中应用网络平台的实例。由学生反馈得知网络学习计划使学习者得以接 触不同意见，经验及学习历程。学习者亦由此网络学习经验获得更深层的文化理解。 透过审慎设计的网络教学活动，科技可辅助语言学习者成为积极的参与者，并发展 学习者 21 世纪所需技能。本文作者亦提出研究限制及未来研究方向供华语教学之参考。

Keywords: Online platforms, language and technology, 21st century skills, collaborative learning

关键词：网络平台，科技与语言，21 世纪技能，合作学习

1. Introduction

Today's generation, Generation Y, is the generation of "digital natives", a concept first introduced by Marc Prensky ("Policy Brief", 2011). In his article "Digital Natives, Digital Immigrants", Prensky (2011) commented that today's students represent the first generations to grow up with new technology. They think and process information differently than their predecessors. They are all "native speakers" of the digital language of computers, video games and the Internet. Some of the significant characteristics of digital natives are: They are used to receiving information quickly; they like to parallel process and multi-task; they prefer graphics before text; they prefer random access; they function best when networked; they thrive on instant gratification and frequent rewards; and they prefer games to serious work. Technology, like language, is an essential tool that we use and rely on in everyday life (Wang & Chen, 2013). Today's students are born with accessible technology at their fingertips, but are today's educators ready to embrace technology?

2. Language Teaching and Technology

Described in American Council on the Teaching of Foreign Languages (ACTFL) "Role of Technology in Language Learning" (2017), in recent years, technology has been used both to assist and enhance language learning. Teachers have incorporated various forms of technology to support their teaching, engage students in the learning process, provide authentic examples of the target culture, and connect their classroom to classrooms in other countries where the target language is spoken. For example, through Web searches, students can extend the input contained in the course materials and find written and spoken sources that are more up-to-date and of greater relevance to their own interests (Hampel & Pleines, 2013). In addition, some technology tools enable teachers to differentiate instruction and adapt classroom activities and homework assignments, thus enhancing the language learning experience. Those online activities give students the opportunity to practice and revise content and language introduced elsewhere and to expand and update the existing content. Technology continues to grow in importance as a tool to assist teachers of foreign languages in facilitating and mediating language learning for their students.

Shrum and Glisan (2010) concluded that better and more effective use of class time, individualized learning and empowerment are three benefits of the planned and purposeful use of technology. Technology mediates language learning by forming a bridge between the authentic world and language learners. Yang (2001) suggested that online experiences allow learners to participate in the culture of the target language, which in turn enable them to learn how one's cultural background influences one's view of the world. A digital learning environment opens up a broader range of connections and meaning-making among learners.

While technology can play an important role in supporting and enhancing language learning, the effectiveness of any technological tool depends on the knowledge

and expertise of the qualified language teacher who manages and facilitates the language learning environment (American Council on the Teaching of Foreign Languages [ACTFL], 2017). According to Hong and Samimy's (2010) study, students who showed a relatively more positive attitude toward the use of technology reported that their teachers were more actively involved in using technology. On the other hand, educators are increasingly under pressure to use technology to prepare students to live in a technologically interconnected, globalized world (Chun, Kern & Smith, 2016). Wu (2013) argued that many instructors often struggle to find the best way to teach with technology because they are not sure what students like or dislike, and what works or does not work for them. Bourgerie (2003) explained that unenthusiastic teacher support and failure to integrate the materials into a larger learning environment contribute to students' negative attitudes toward technology. Dema and Moeller (2012) found that on some occasions, the majority of classroom students simply surfed the Internet rather than participated in learning.

3. Technology and Collaborative Learning

According to Vygotsky's sociocultural theory, learning is the consequence of interaction with other people, objects or tools, and culture in socially organized and goal-oriented activities (Cole & Engestrom, 1993). Fung (2004) explained that learning takes place in a social milieu, within which the negotiation of shared meaning through social interaction will result in cognitive dissonance, allowing individual learners to restructure their own concepts. Within the paradigm of the sociocultural theory of learning, the notion of scaffolding is central. Scaffolding was initially defined as the assistance given by an expert to enable a novice to reach a higher level of performance than would otherwise be possible, and was subsequently re-conceptualized to include the assistance shared among peers in the collaborative construction of learning (Hsieh, 2017). Wang and Chen (2013) stressed that meaningful learning occurs in the process of negotiation among the participants through dialogues, collaboration and interaction. Without social and cultural interaction, the meaning of context and content would not exist. Therefore, collaboration serves as a powerful vehicle of socialization in human psychological development (Wang, 2007).

Published by American Council on the Teaching of Foreign Languages in 2011, "the 21st Century Skills Map for World Languages" highlighted "collaboration" – students as collaborators use their native and acquired languages to learn from and work cooperatively across cultures with global team members, sharing responsibility and making necessary comparisons while working toward a common goal as one of the essential skills. Collaborative learning, either among students or between students and teachers, is essential for assisting each student in advancing through his or her own zone of proximal development- the gap between what the learner could accomplish alone and what the learner could accomplish with the help of others who are more skilled or experienced (Warschauer, 1997). Chen and Wang (2013) stated that the benefits of collaboration in learning are the promotion of deep learning, critical thinking skills, shared understanding, and high levels of participation, achievement and self-esteem.

Collaborative learning requires learners to identify for themselves their common points of interest. Its success resides in the learners' intrinsic motivation to participate in group learning and the sharing of ideas.

Technology paves the path for the development of students' 21st century skills, including problem solving, critical thinking and collaboration (McKeeman & Oviedo, 2015). It enables the sharing of resources between students and encourages interaction between teachers and students, and between students themselves during the process in which learning can happen (Guo & Guo, 2013). Technology allows for creative, dynamic and collaborative learning venues, both within and outside the school day (Haywood, Johnson, Levine & Smith, 2010). Chen and Wang further explained that online collaborative learning exposes learners to different opinions, experiences and thinking processes, and provides them with opportunities to interact with other learners, educators, experts and content. Supported by technologies, learning can happen anywhere and anytime. Kiddle (2014) also pointed out that digital language learning tools and materials can potentially support individual or collaborative learning in any physical location. Online collaborative learning creates a shared understanding of meaning through dialogue among learners. Learning communities can be formed at the local, national, or global level, expanding participants' global awareness.

4. Using Online Platforms in Chinese Class

Technology has played an increasingly important role in the field of Teaching Chinese as a Foreign Language (TCFL). In the early 1970s, Chinese instructors using computer assisted language learning programs (CALL) focused mainly on characters, reading, pronunciation, grammar drills and practice. Communicative CALL, such as text reconstruction, language games and real-world simulations focusing on learning elements of the language, was popular in the 70s and 80s (Wu, 2016). Multimedia (TV, recordings or text), Internet and mobile devices are considered the newest phase of TCFL. Studies about CALL, e-learning projects, online learning materials and mobile applications in Chinese class are abundant (Bourgerie, 2003; Guo and Guo, 2013; Chen, 2013; Wu, 2016; Lee, 2016; Han and Yang, 2016; Chuang, 2016). However, studies regarding the use of online platforms in TCFL are rarely found. This article aims to provide Chinese instructors with directions and practical examples when they integrate technology into Chinese class. In addition, some problems occurred during the implementation process are identified for further research.

According to Frank et al. (2008), technology use has the potential to enhance the five primary functionalities of foreign language learning and teaching. They are: organization, input, output and interaction, feedback, and collaboration. Based on the idea "to give students language input, provide opportunities for message-focused interaction and negotiation of meaning, and encourage output" (Hampel & Pleines, 2013), the author implemented three online platforms—ThingLink, Padlet and Homestyler—into a Chinese class. As shown in the Input-Process-Output (IPO) model (Figure 1), at the beginning, the author provided language input and a comfortable learning environment. Next, the author

interacted with students in the target language to encourage output. Lastly, students produced output through collaborative learning.
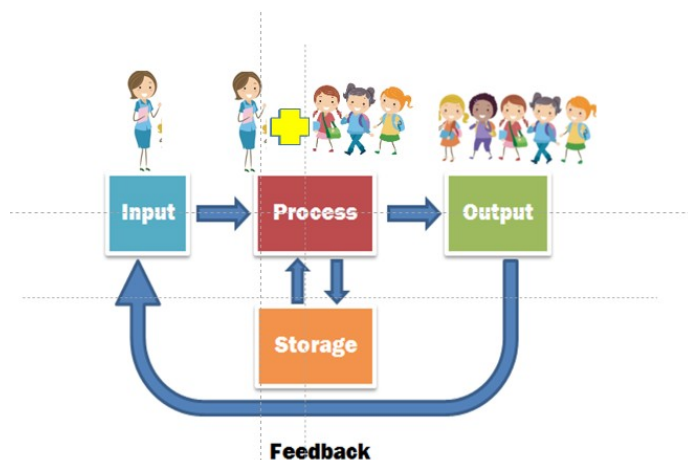

Figure 1. Input-Process-Output (IPO) model

The introduction of each platform as well as student work and student feedback are described below.

4.1 ThingLink

Traditionally, language teachers have given students vocabulary lists to memorize followed by pictures to label. While it is important that the students interact with visual content, a simple picture with a basic word or sentence does not engage students to their fullest capacity (Ousselin, 2013). ThingLink is a Web tool that allows students and teachers to annotate an image with video, audio and textual tags. The tool is useful for educators who wish to provide a more thoughtful introduction to vocabulary, grammar or culture with interactive elements. It is also an excellent assessment tool for learners as it requires them to demonstrate their comprehension of a concept beyond the basic translation. ThingLink provides a space for students to feel that they are learning through a self-guided investigation.

Figure 2. ThinkLink example: Students design an interactive poster of different medical symptoms

Dema and Moeller (2012) suggested that when teachers integrate powerful technological tools into their instruction, students are allowed to personally interact with real data and solve open-ended problems. Technology promotes socially active language learning in multiple authentic contexts. It gives foreign language teachers various opportunities to create better and more effective instructional materials to teach both the language and the culture (Dema & Moeller, 2012). When it comes to cultural products, practices and perspectives, technology reinforces, encourages and provides the opportunity to interact and engage with culturally authentic materials.

Based on the learner-centered approach, the author divided the class into several groups and invited them to compile their own vocabulary lists, create examples and upload images to ThingLink. Each group had to research online and upload two links related to the topic (traditional Chinese medicine). This approach flips the authority in the classroom from the teacher to students. Students take responsibility for their own learning and apply what they have learned in engaging, practical and collaborative ways.

4.2 Padlet

Padlet is a virtual pin board that allows students to upload a variety of files, including Word documents, YouTube videos, PowerPoint presentations, etc. It is an interactive platform that enables participants to write notes on and upload links to a shared page. It is a collaborative tool, which means that everyone with a link to the pin board can access it and add their comments. Harrison (2015) concluded the following benefits of using Padlet: It allows those who are less confident to have a voice in the larger classroom; it confirms that the student is on 'the right track' with the task; and it provides a snapshot summary of the various perspectives in the room. De Berg (2016) commented that Padlet motivates individuals to research a topic more in-depth and also improve language skills.

Padlet is a good alternative for reducing the communication gap among students, teachers and peers. It provides a platform for generating new knowledge. Collaborative learning encourages cognitive processes as the learners acquire new ideas from sharing knowledge through Padlet (DeWitt, Alias & Siraj, 2015). In the Padlet collaborative project, the author provided a vocabulary list to the students and showed them an example of a birthday invitation card. Following the example, the author and the students designed a birthday card together. Then the whole class discussed major holidays in America and how people celebrate them. Next, each student was assigned a holiday (Halloween, Thanksgiving, Christmas and Birthday) to design an invitation card for and upload the cards together with a vocabulary list to Padlet. In addition to design the invitation card, the students had to read each card and reply to it.

Figure 3. Padlet example: Students design invitation cards for different occasions

4.3 Homestyler

Homestyler is a free online home design software program that allows users to create and share their dream home designs in two dimensions and three dimensions. The online tool allows users to either upload their existing floor plan or create a new one via a simple drag and drop system from the catalog. You can view your design in three dimensional-mode and rotate it to view it from different angles. The three dimensional view enables viewers to get inside the room and see what it looks like. The virtual-reality image makes users feel like they are real interior designers. When teaching "Location and Position", the author invited the students to participate in a project called "My Dream House". The students were paired up in three teams. Each team used Homestyler to design a dream house. The house had to contain at least a living room, a dining room, a kitchen, a bedroom and a bathroom. There are different styles of furniture, appliances, accessories and décor on Homestyler for the students to choose from. When one team member preferred one design rather than another, he or she had to negotiate or compromise with his/her partner. After the dream house was done, each team had to show the 3 dimensional image and make a presentation of the house using location and position words.

Using technology in support of collaborative learning can foster student engagement and allow teachers to keep track of student cooperative work. Instructors who use computer-supported collaborative learning can monitor student understanding and achievement in collaborative learning activities (Resta & Laferrière, 2007). For example, while the students were exploring this online home design website, the instructor walked around the language laboratory and gave feedback on the project. The instructor also used peer correction techniques to enhance student engagement and peer learning.

你们好！欢迎你们来看我们的家。请跟我们来。
这是大门入口。客厅在餐厅的对面。客厅里边有电视，沙发和壁炉。电视的旁边有音响系统。
我常常在客厅看电视。
我们的家有一个餐厅和一个厨房。厨房里边有燃气灶，冰箱，和微波。桌子上边有咖啡机和烤面包机。
我很喜欢做菜。我每天在厨房做饭。
客厅的后边有厕所。这个厕所没有浴缸。这个厕所很小。

我们喜欢我们的家！！！

年恩 · 妍珠-
我的梦想家

Figure 4. Homestyler example: Students design their "dream house" and present it in class

A few students gave their feedback on the online collaborative projects using ThinkLink, Pallet and Homestyler.

-Student1: "Being able to write and add to the Padlet could help everyone in the class become much better at speaking and learning Chinese. Padlet also offers a different way to learn a language instead of just listening to a teacher in class".

-Student2: "Overall I think that it is very helpful in learning a language. I like that the online tool is customizable as it makes it seem like it would be easy to incorporate pictures and videos to learn about the culture of a county. I like that it is easy to share our work and be able to look back on how we and our other classmates progress".

-Student3: "It helps create stronger bonds between students and the teacher. It is a nice learning tool that makes it easier for us to share things within the classroom that is appropriate".

-Student 4: "I think those are useful tools for learning as they allowed us to diversify our learning environment. They forced us to better comprehend the information we had learned and be able to apply it".

-Student 5 "The collaborative project had us research traditional Chinese culture, immersing us in the culture. This helped us to learn more about

China as a whole and not just about the language. Creating our own work made us go more in-depth with our sentence structure and vocabulary use. This was a great learning experience because we made the vocab sheets for our classmates to help them understand our invitation, demonstrating our knowledge of the topic".

-Student 6 "I think those websites were extremely useful in expanding my Chinese knowledge. I enjoyed the corroboration aspect. I liked how multiple people could work on it at once. People can share their ideas with one another. Not only can I use these in Mandarin class, but I can work on them with other classmates from other classes in the future".

-Student 7 "Using Homestyler to design our houses helped in many different ways. First, it changed up the style of the class. Because of this, it engaged us in a different form to make sure we really knew what we were talking about when we were constructing sentences and making our houses. As we built our house, we would describe it in Chinese so it gave us more practice with constructing sentences, which is typically the toughest part about learning spoken Mandarin. Also, we used this collaboratively with a teammate so we could converse with one another to figure out our presentations. Having this teamwork and sentence structure element were really beneficial to learning the topic of the house and directional words".

Shoffner (2013) suggested that technology offers various ways to support the development of higher order thinking skills. Students can use social networking sites to aid in their collection, questioning and evaluation of information. Through implementing the three online platforms in Chinese class, the students create, analyze and synthesize materials by developing multimedia projects that draw on multiple literacies. They also collaborate with peers for meaningful discussions. Technology implementation increases student learning, understanding and achievement. Integrating technology into instruction transforms teacher-dominated classrooms into more student-centered classrooms (Kaya, 2015). By sharing resources among group members, students save time in producing the resources on their own. In addition, students do their best and learn comprehensively as a group.

5. Future Studies

Previous research has mentioned student adjustments (Yang, 2001; Lee, 2016), student characteristics (Resta & Laferrière, 2007), student e-readiness (Wu, 2016; Lee 2016) and student attitude (Chuang, 2016; Luo & Yang, 2016) regarding using technology in language learning. Yang (2001) summarized that learners who do not adjust well appear to have much learning anxiety and cognitive disorientation. Yang further stated that the full educational significance of technology will not be realized by using it to present information to students but by empowering students as multimedia

composers, giving them new insights into organizing and synthesizing information. Those learners who show reluctance toward technologically oriented projects need careful guidance and support.

Among the most positive feedback the author has collected, here are two different aspects that drew the author's attention. One student wrote: *"With ThingLink, the set up was a little more confusing and difficult to get around"*. Another student wrote about the Homestyler experience: *"At first, the app was a little hard to use, but after a few minutes we got a good base knowledge of it and were able to function well. After one class we were really able to use a lot of the full functionality that the app provided and this opened up many more options for us"*. This student added: *"In this day and age, this is not a confusing app; the generation coming up through college should, in general, be able to handle picking up apps like these, which also makes this a useful part of class. There is very little time wasted in having to do training just to use the app; we sat down and almost instantly started building our houses"*. According to the author's observations, students who expressed frustration or had less motivation spent more time finishing the projects. This also reflected their partners' willingness to participate. One student told the author that he didn't want any confrontation. He simply agreed with his partner on everything. Although teacher enthusiasm leads to greater student achievement, student e-readiness and student acceptance of technology is the key component of whether the e-learning experience is successful. Providing scaffolding, both when using Internet applications and when orienting the learners to the task, is vital to the successful implementation and integration of technology into the curriculum. Further research with regard to student e-readiness could be conducted for future studies.

6. Conclusion

Laakkonen (2011) commented that technology changes the position of learners from consumers to producers and creators. By involving learners in the actual design of learning materials and structures through selected tools and applications, work modes and resources, learners no longer play the roles of passive recipients of information but become active participants in the process of developing their own expertise through selecting, demonstrating, building, and creating knowledge and new meanings together with their interlocutors. When designing a course, teachers should provide students with enough structure to keep their studying on track while giving students enough freedom to work creatively and flexibly on the course (Guo & Guo, 2013). There were a few limitations of this study. First, the relatively small size of the class (10 students) made it difficult to apply the results to all Chinese classes. Second, the research data was based on student feedback. There was no standardized test to measure student learning outcome. It was also difficult to generalize student performance based on the projects as creativity was one of the main requirements when the author implemented those projects. Despite the limitations, the author found those projects very productive and rewarding. Parmaxi and Zaphiris (2016) concluded that technology depicts a significant shift from the four basic language skills toward a body of skills that would enable our learners to succeed in today's workplace. With the use of technology, teachers can guide students toward

thinking critically about what they are learning, building interpersonal communication skills, working more effectively in teams, creating and innovating new ideas, concepts, and products and developing students' 21st century skills. Taking the Padlet project as an example, students were able to design invitation cards similar to authentic Chinese invitation cards. The students put more thought and consideration into the Homestyler project because they see the dream house as their real home. With the use of various technological tools and applications, teachers can tailor language learning to individual students as they interact, explore, and experiment with the target language and culture (Dema & Moeller, 2012).

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