

## Using Educational Technology to Enhance the Three Modes of Communication (應用科技提高二語學習者三種溝通模式的能力)

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**Abstract:** This study explores recently innovated language learning tools to emphasize their use in engaging learners to develop second language skills in the three modes of communication: the interpersonal, interpretive, and presentational. A literature review and our own use of these tools in the classroom suggest that Chinese learners across age groups and proficiency levels find freely accessible technology, including Go Formative, Edpuzzle, and Google Sites, motivating. This study presents evaluative data, focuses on each tool's pedagogical effects on the three communicative modes, and provides instructors with evaluation rubrics and task examples as a foundation for incorporating these tools into classroom use. In addition, the present study recognizes limitations in using pedagogical technology, and discusses them from both instructor and learner perspectives.

**摘要：**本研究探討如何將近年來創新的科技教學應用於培養二語學習者的三種溝通技能：(1) 雙向溝通、(2) 理解詮釋、以及 (3) 表達演示。根據相關文獻以及本篇文章作者們收集的研究資料顯示，總體而言不同年齡群和不同中文程度的學習者均認為像是 Go Formative、Edpuzzle 跟 Google Sites 等之類的開放式科技應用有益于提升他們的學習動機。為了能讓教師們容易地將這些科技工具運用在他們的課堂之中，本研究提出評量性的數據、說明每個科技工具在三種溝通模式方面的教學效果，並提供測評的評分表和溝通任務的實例。此外，本研究從教師及學習者的角度探討科技使用的限制與挑戰。

**Keywords:** Second language acquisition, pedagogical technology, three modes of communication

**關鍵詞：**二語習得，教學科技，三項溝通技能

## 1. Introduction

The use of pedagogical technology to enhance second language acquisition (SLA) has received attention from both researchers and classroom teachers. For the latter, it is often the practical needs in teaching and learning that drive the selection of technology tools. A teacher's decision can be made based on ways that tools can potentially help learners accomplish tasks, achieve proficiency goals, and support student needs in becoming world-ready. To leverage pedagogical technology in an attempt to support second language (L2) learning is an overall goal for its users. Specifically, analyses and discussions on how different tools yield varying learning outcomes in diversified learning contexts can inform L2 instructors on the applications of pedagogical technology in their classrooms and the aspects of one's language skills that these tools can improve.

This study aims to report the extent to which three technology tools, Go Formative, Edpuzzle, and Google Sites, address the development of language functions in the three modes of students' communication skills: the interpersonal, interpretive, and presentational. These three applications are selected to address learners' language development in the three modes of communication based on their common and independent features. Go Formative, Edpuzzle, and Google Sites share two important features in common: cloud computing and content creation. Cloud technology enables all the participating members, including instructors and learners, to store and access data and programs over the internet, instead of on their computer's local drive. The anytime-anywhere open accessibility on any internet-connected device makes these three tools welcoming and user-friendly. In addition, teachers are able to conveniently use these three applications to create learning content that aligns with the desired pedagogical outcomes in order to hone students' skills.

Moreover, the individual features of these tools further their utility. Go Formative provides opportunities for learners to improve both writing and speaking interpersonal communication skills. Individual students can interact with teachers and peers through question-answer exchanges based on prompts designed by the teachers or they can form discussion forums to engage more peers. Edpuzzle is a useful tool to improve learners' interpretive language skills because it allows teachers to conveniently edit authentic videos and embed comprehension questions that meet the objectives of their courses. On the other hand, students can replay the edited videos as many times as they need to achieve the desired comprehensibility. They can then review their progress along with their wrong answers any time of the day and wherever they are. Finally, Google Sites offers opportunities for students to collaboratively practice their presentational skills and receive teachers' feedback. It is also an archived platform, which shows student work (with privacy settings) and uses a variety of mashup materials, such as texts, images, audios, and videos.

According to ACTFL (2012), the three modes of communication provide the organizing principle for classroom L2 instructors to describe learners' language performance. The distinctive language functions, one of the parameters for the language learner's performance in each of the three communicative purposes, can guide the design

of classroom activities. This paper, therefore, analyzes each of the three technology tools with a focus on task examples, student comments, assessment rubrics, and their potential to develop language functions in the target mode of communication.

## 2. Literature Review

The three modes of communication are a cluster assessment in Integrated Performance Assessment (IPA). Research conducted on the three modes of communication sheds light on the influence of IPA on instruction and student performance. The initial project conducted by ACTFL that involved approximately 40 language teachers and 1,000 students of Chinese, French, German, Italian, Latin, and Spanish across grade levels 3-12, indicated the usefulness, feasibility, and challenges of IPA. Teachers indicated that IPA makes them more aware of the need to integrate the three modes of communication into their lesson planning on a regular basis. For example, the IPA prototype encourages them to use authentic documents in designing standards-based interpretive tasks, integrate more open-ended speaking tasks for interpersonal speaking tasks, and use more standards-based rubrics to assess student language performance (Adair-Hauck, Glisan, Koda, Swender, & Sandrock, 2006). On the other hand, teachers also reported the challenges of implementing IPA to enhance the three modes of communication. This type of assessment lacks age-appropriate authentic texts, and as a result, it is difficult to help students prepare for oral presentation tasks in which they are expected to react spontaneously rather than read from a prepared text (Adair-Hauck, Glisan, & Troyan, 2013).

More research was conducted subsequently on IPA at the post-secondary level to examine its feasibility and to analyze student performance across the three modes of communication. The study was conducted in an advanced Spanish course to examine how many students exceeded, met, or did not meet expectations (Glisan, Uribe, & Adair-Hauck, 2007). The researchers revealed that, in the interpersonal mode, the students did not perform as well as in the presentational mode, which is related to the previous finding regarding the challenge of teaching students to communicate spontaneously. Secondly, the interpretive mode was the only mode in which some students did not meet expectations. They reported that they were not exposed to the listening strategies enough. The students performed the best on the presentational tasks, which may have something to do with the reality that presentational tasks tend to be the predominant mode in most language instruction (Adair-Hauck et al., 2013).

The previous research has shown the benefits and challenges in integrating the IPA prototype in instruction. Although the three modes are widely recognized in language education, very little research has investigated how they can be enhanced through the use of technology for Chinese learners. In order to fill this gap in pedagogy, this paper aims to provide Chinese teachers an overview of how ACTFL's three modes of communication are aligned with three technology tools.

## 2.1 Second Language Pedagogical Technology and Student Learning: Benefits and Limitations

The use of technology in assessing projects and activities and its importance are not new in the study of language teaching and learning. Researchers such as Klopfer, Osterweil, Groff, and Haas (2009) claim that using technology can create a more deeply engaging learning experience. Hmard (2006) also discusses how computer-assisted interaction in a web-based environment helps develop assessment strategies in the learning process. In addition, many researchers favor technology use because it also promotes autonomous learning. These studies inform us that the use of technology plays a crucial role in assessment. However, there is little written about how to use computer-aided assessment tools for assessing Chinese proficiency in terms of the three modes of communication. Lai (2017) suggests that technology tools enable teachers to differentiate instruction and adapt classroom activities and thus enhance language learning experience. For example, the implementation of ThingLink, Padlet, and HomeStyler helps students create, analyze and synthesize materials by developing multimedia projects that draw on multiple literacies. With technological tools applied to facilitate curricular activities, students can actively learn the target language in multiple authentic contexts (Dema & Moeller, 2012). In addition, in investigating the benefits of the planned and purposeful use of technology for L2 learning, Shrum and Glisan (2010) find three advantages. Technology can: 1) enable learning to happen anywhere or anytime, which thus results in a better and more effective use of class time; 2) individualize learning at the learners' own pace, and; 3) empower learners through more accessible assessment tools. Yang (2001) suggests that online experiences invite learners to participate in the culture of the target language, which in turn enables them to compare the target culture with their own. Furthermore, a technology-supported environment enlarges the scope of the learners' language learning and opens a broader range of connections and meaning-making among learners (Lai, 2017).

While previous research has provided a foundation for understanding the significance of using technology in SLA, it is equally critical that language educators are aware of the limitations in the use of technology. The effectiveness of any technological tool often depends on the knowledge and expertise of a qualified language teacher who manages and facilitates the language learning environment (ACTFL, 2017). It can be challenging for many instructors to find the best way to teach with technology, to figure out what students like or dislike, and to determine what works or does not work (Wu, 2013). A teacher's attitude can also lead to students' frustration in integrating technology tools in their language learning. Bourgerie (2013) finds that students' negative attitudes toward technology are the result of unenthusiastic teacher support and failure to integrate the materials into a larger learning environment. On some occasions, the majority of classroom students simply surfed the Internet instead of participating in language learning (Dema & Moeller, 2012). Taking the three modes of communication into account, this paper presents some benefits and limitations of technology tools used in the Chinese language classrooms to measure students' progress and to maximize their learning experience.

## 2.2 Second Language Pedagogical Technology and Three Modes of Communication

In 1952, the Civil Service Commission developed a register of language skills for government employees. But the Commission had neither a system of proficiency tests nor outlined criteria for test construction. It also had no form of standardized speaking tests across academic institutions. As a result, ACTFL began developing speaking assessments in the late 1980s and 1990s with college-level students and even older learners in mind. It now also includes assessments of listening, reading, and writing (Cox, Malone, & Winke, 2018). The ACTFL Proficiency Guidelines were first published in 1986 for the academic community of the U.S. Government's Interagency Language Roundtable (ILR) Skills Level Descriptions. Updated and revised during the past several decades, the current ACTFL Proficiency Guidelines (2012) provide descriptions of what learners can do in terms of various functional aspects of language ability (listening, reading, speaking and writing) in real-world spontaneous and non-rehearsed contexts. This current iteration underlies the development of the ACTFL Performance Guidelines for K-12 learners to describe how well learners meet content standards.

While the Proficiency Guidelines and Performance Descriptors accompany each other, their approach to describing the function of language learning is somewhat different. The Proficiency Guidelines are organized in terms of individual language skills (listening, reading, speaking and writing) with limited elaboration on how each skill is used in the three modes. For example, under the speaking section, the Proficiency Guidelines elaborate the characteristics of speakers' functional language, with a brief explanation that these speaking guidelines can be used to assess speech that is either interpersonal (two-way communication) or presentational (one-way communication). In contrast, the Performance Descriptors outline how language learners demonstrate performance of the three modes of communication in explicit instructional settings. The Performance Descriptors help educators implement the standards and offer descriptions of how language learners can perform with their language skills in terms of the three modes of communication.

Features of the three modes described in the Performance Descriptors (ACTFL, 2012) and by Kissau and Adams (2016) to assess learner performance are identified as: 1) the interpretive mode is one-way communication without negotiation of meaning with the producers as evidenced in the reading (websites, articles, or stories), listening (messages, speeches, or songs), or viewing (videos, movies, or TV shows) of authentic materials; 2) the interpersonal mode is a two-way active negotiation of meaning, including adjustments and clarifications, as seen in speaking and listening (voice messages and conversation) as well as reading and writing (text messages, emails, or social media), and; 3) the presentational mode is one-way communication with limited opportunities for feedback (ACTFL & P21, 2011) as seen in writing (articles or reports), speaking (telling a story, giving a speech, or performing a rehearsed skit), or visually presenting something (videos or PowerPoint). Adair-Hauck et al. (2006) suggest classroom achievement tests and standardized instruments still rely on easily quantifiable, non-contextualized testing procedures that isolate only single skills. In contrast, integrating the three communicative modes requires multiple skills that are typical of real-world communication.

The ACTFL Statement on the Role of Technology in Language Learning (2017) strongly recommends that language educators leverage technology to support learning and it emphasizes that technology should be used to enhance human interactions. Rather than being an isolated tool, technology should be the key curricular component woven into language learning in multi-modalities such as text, audio, video, image, and a variety of mixes. These tools can be identified as either synchronous or asynchronous. Communication using synchronous tools tends to involve face-to-face communication, such as instant video or audio chats, and written communication, such as texting or group chats. In contrast, asynchronous communication involves time lapses of turn-taking, such as emails, online discussions, and blogging (Kessler, 2018).

In summary, there have been abundant studies that propose theoretical frameworks about what learners can do in terms of single skills in listening, speaking, reading, and writing. In contrast, less attention has been paid to integrating the three modes of communication, especially with regard to teaching Chinese as Foreign Language (CFL). To better understand the role instructional technology can play to enhance the three modes of communication while aligning with national standards, this study illustrates the use of technology tools in instructional settings, and provides feedback from learners.

### **3. Theory to Practice: Description, Analysis, and Discussions**

#### **3.1 Interpersonal Mode: Go Formative**

Go Formative is a digital formative assessment tool that teachers can use to assess students by adding content and questions, checking answers instantly, and giving timely feedback. A traditional assessment is simply a check for understanding, such as a vocabulary quiz or unit test. Go Formative is a platform where the teachers can add both content and questions. Content includes image, text, video, and whiteboard. Adding content allows teachers to add learning materials from YouTube (such as a movie clip about traveling) or images (such as a picture of a train ticket). Students in turn gain more exposure to learning in authentic contexts. Teachers can also add a variety of question types, such as open-ended, multiple-choice, short answer, true or false, and audio responses. Although language teachers traditionally have given students vocabulary lists and pictures for memorization, Ousselin (2013) argues that a simple picture with a basic word or sentence does not engage students to their fullest capacity. For instance, the “Show Your Work” feature in Go Formative goes beyond a list or a picture and can annotate an image with video, audio, and textual tags to strengthen vocabulary learning. The “Audio Responses” and “Feedback” features help teachers interact with students’ responses verbally and non-verbally. They give and receive feedback, creating interpersonal communication. Hattie and Timperley (2007) found that the most effective type of feedback is to offer assistance (e.g., cues or reinforcement), and utilize technology (video, audio, or computer) in feedback delivery. “View Responses” in Go Formative can be used to promote interpersonal communication by showing student responses in front of class. Based on responses, students can form discussion groups to complete tasks such as think-pair-share. Go Formative therefore serves as a platform for

students to easily interact and negotiate meaning in written form and spoken conversations. Furthermore, learners share information, reactions, feelings, and opinions in multiple directions, i.e., teacher-student and student-student. Thus, one aim of this study is to examine the impact of feedback with the implementation of Go Formative on enhancing students' interpersonal communication skills.

The two learning outcomes for the interpersonal mode are: 1) students observe and monitor one another's responses in authentic contexts through the annotation of key words and highly contextualized formulaic phrases, and; 2) students utilize supporting details and contextualized clues to provide feedback to each other by initiating, negotiating, and sustaining the conversation spontaneously. Examples of the tasks used in this study were video clips, images, and websites across a variety of topics.

To understand the strengths and limitations of Go Formative, twelve college students in a Chinese language course at the Novice level were recruited for the study. At the end of the semester, student feedback on their use of Go Formative as part of the teaching and learning materials was collected through a survey and interviews with the instructor. The Go Formative assignments comprised 15% of their final grade. The focus of this tool is on interpersonal communication (two-way, verbal, and non-verbal). Therefore, students were required to provide answers, investigate a question, and exchange communication through body language and text messages. Go Formative is used to break down information into short segments, which makes it easier for the students to memorize. Sections designed to assess students' performance in Go Formative include: the instructor's summary video, grammar points, handwriting practice, basic questions, dialogue practice, and interpersonal activities (think-pair-share and interview). After the students learn the basic vocabulary and grammar, they seem more comfortable in using them to create with language. Student performance was evaluated by the interpersonal rubric (Adair-Hauck et al., 2013).

Sample Question: Read the Chinese website (Figure 1) for booking flights below and answer the following question based on the information given:

往返 上海(SHA) 昆明(KMG) 2017-07-22 星期六 2017-07-24 重新搜索 高级搜索

历史查询: 往返 上海 - 昆明 2017-07-22 - 2017-07-24

筛选 (共62条航班信息) 清除全部

| 日期                     | 起飞时间 | 到达时间 | 准点率 | 价格    |
|------------------------|------|------|-----|-------|
| 07-19 周三去<br>07-21 周五返 |      |      |     | ¥2060 |
| 07-20 周四去<br>07-22 周六返 |      |      |     | ¥1952 |
| 07-21 周五去<br>07-23 周日返 |      |      |     | ¥1860 |
| 07-22 周六去<br>07-24 周一返 |      |      |     | ¥1780 |
| 07-23 周日去<br>07-25 周二返 |      |      |     | ¥1778 |
| 07-24 周一去<br>07-26 周三返 |      |      |     | ¥1778 |
| 07-25 周二去<br>07-27 周四返 |      |      |     | ¥1778 |

为什么选携程?

- 放心的服务: 领先的服务标准 独创的保障体系
- 放心的价格

| 航班信息                             | 起飞时间              | 到达时间               | 准点率 | 价格             |
|----------------------------------|-------------------|--------------------|-----|----------------|
| 春秋航空 9C8829<br>空中客车 A320(中型)     | 13:05<br>虹桥国际机场T1 | 18:35<br>常德        | 69% | ¥1860起<br>往返总价 |
| 祥鹏航空 8L9888<br>空中客车 A320(中型)     | 14:40<br>虹桥国际机场T2 | 20:15<br>宜春        | 34% | ¥1862起<br>往返总价 |
| 祥鹏航空 8L9890<br>空中客车 A330-300(大型) | 22:10<br>浦东国际机场T2 | 01:30+1天<br>长水国际机场 | 7%  | ¥1862起<br>往返总价 |

Figure 1 A screenshot from an authentic Chinese website for booking flights

Question: 从上海到昆明差不多几个小时?

(Hint: Don't change the word order; just replace the question word with your answers.)

Interpersonal Task: You are studying in a language school in Shanghai. Summer vacation is coming up. You want to explore another city in China. Pick a city, book a round-trip ticket, and share your travel plans with your classmates.

Choose round-trip ticket "往返"

出发城市: 上海

到达城市: ?? (Pick a city of your choice!)

出发日期: 2018/8/1

Go online: <http://www.ctrip.com> (Try to play around!)

Tell us: topics include but are not limited to...

- 1) A city you want to visit in China. 你要去哪个城市?
- 2) How many hours from Shanghai? 要坐几个小时的飞机?
- 3) How much is the airfare? 飞机票多少钱(RMB)?
- 4) Your own question

With a partner, interview each other about your travel plans!

In the example task given above, the students were learning about traveling. First, the students went through a series of questions related to the topic and were given authentic materials (a site in Chinese to book flights) to complete the questions before they were able to complete the interpersonal task. The interpersonal task is given to assess students' speaking ability. Students were required to initiate a conversation with classmates and to talk about their travel plans. The student performances were evaluated using the ACTFL interpersonal rubric (Adair-Hauck et al., 2013), and the aspects that were included in the evaluation were as follows: language function, text type, communication strategies, comprehensibility, and language control. Student performance was qualitatively ranked on a continuum: Exceeds Expectations; Meets Expectations-Strong; Meets Expectations-Minimal; Does Not Meet Expectations. A sample answer to prompt #1 that would be given a rating of "Meets Expectations-Strong" is: "我去香港, 日本, 也去台湾" because the student is able to understand and produce highly practiced words and phrases and make a list. An example of a "Meets Expectations-Minimal" answer is "票, 多少五十钱," which shows that the learner is unable to fluently use highly predictable and formulaic phrase, but is able to minimally complete the exchange based on prompt #3 in the above example.

The students' feedback on the use of Go Formative is positive. Findings reveal that 92% of the students indicated that it is a very helpful tool. More than 90% of the

students found that most of the sections are very helpful, except for the handwriting practice (53%). In follow-up interviews, 50% of the students indicated that Go Formative was the most effective aspect of this language course. They stated that Go Formative helped them build up the vocabulary needed to ask, understand, and answer questions. In addition, because Go Formative can integrate listening, reading, typing, and handwriting practice in a single platform, it helps them to create with the language. Go Formative enables learners to learn oral, written, and non-verbal communication skills and encourages them to interact with each other. Learners do not just learn basic vocabulary and grammar; they also strive to create with language and move beyond memorized phrases in an interactive manner.

### **3.2 Interpretive Mode: Edpuzzle**

Edpuzzle is a free online free tool that is designed for teachers to easily choose and edit video clips from the Internet with only a few limitations. Edpuzzle engages students with authentic videos and enables instructors to assess students' receptive language skills and to collect learning data. With Edpuzzle's user-friendly editing functions, instructors can shorten or crop videos to be an appropriate length or size that focus student attention on the key points of the videos and meet the needs of the lesson. The quiz feature of Edpuzzle allows instructors to individualize popup questions as a means to assist different students and subsequently review how they fared on the questions and the amount of time they spent on completing each of the embedded questions in a video. In addition, the audio voiceover feature makes it possible for instructors to record their own voiceover in an online video. Its benefits include allowing instructors to have a voice in the material while students independently watch the video and align content with the learning objectives of a lesson. Moreover, Edpuzzle videos can be easily embedded in learning management systems, such as Blackboard and Moodle, and they allow instructors to place restrictions on videos so learners have to watch the video and answer all the associated questions without being able to fast forward.

The primary objective of the implementation of Edpuzzle in this study is focused on enhancing students' interpretative listening skills and developing specific L2 learners' language functions in comprehending: 1) meaning through the recognition of key words and highly contextualized formulaic phrases at the Novice level; 2) the main ideas and some supporting details at the Intermediate level, and; 3) the main idea along with supporting details of narrative, descriptive, and straightforward persuasive texts as well as inferences derived from context and linguistic features (ACTFL, 2012). Examples of the video clips used in the present study were TV commercials, news, talk shows, movies, and documentaries across a variety of topics with four to eight multiple-choice and/or open-ended questions each added to the use of authentic materials in learning Chinese.

The implementation of Edpuzzle in a CFL classroom can take different formats depending on the conditions and resources of each teaching and learning context. In this study, the fourteen student users of Edpuzzle were enrolled in an advanced content-based language course in an intensive Chinese program at the college level. The fourteen students were either in their junior or senior year of college, and their oral proficiency was Intermediate-High or Advanced-Low on the ACTFL scale at the time data were

collected. The students were required to watch the assigned Edpuzzle clips and answer the embedded popup questions on their own, then discuss any linguistic and extended content questions from the videos in class. The popup questions on Edpuzzle were designed by the instructor specifically to evaluate two sets of the learners' comprehension skills: literal and interpretive. The former assessed the students' ability to literally understand: 1) keywords; 2) main ideas, and; 3) supporting details of the given video clips. The latter explored the learners' interpretative comprehension of: 4) organization; 5) contextualized meaning; 6) inferences; 7) narrator's perspective, and; 8) cultural perspectives. These were the eight criteria that the instructor intended to evaluate.

Ms. Yuan Yuan Liu's 2014 speech<sup>1</sup> was one of the Edpuzzle clips that was used in the present study. Part of her speech in the video and the subsequent embedded question are as follows.

片段：

現實生活是一種很神奇的生活，在現實生活中那些尊重規則的老實人往往一輩子都默默無聞，反倒是那些弄虛作假的人到最後會名利雙收，於是乎像我這樣的年輕人就經常有那些看著很有經驗的前輩過來拍拍你的肩膀跟你說“年輕人你還不懂。

題目(1)：為什麼“現實生活是一種很神奇的生活”？

- a. 尊重規則的老實人卻不會名利雙收。
- b. 弄虛作假的人卻會默默無聞。
- c. 有經驗的前輩常拍著年輕人的肩膀

題目(2)：演講者提及“年輕人你還不懂”。從演講者的觀點看來，年輕人不懂的是什麼？

In the preceding example, the popup questions appeared in order on the screen at the end of this paragraph of Ms. Liu's speech. Students were required to answer both the multiple-choice and open-ended questions before they could continue watching the video. Question 1 was intended to evaluate students' literal comprehension skill with regard to the main ideas and supporting details in the paragraph. Question 2 set out to assess students' interpretive comprehension skills pertaining to making inferences about the speaker's perspective.

On the teacher account of Edpuzzle, the instructor was able to access an overview of a quantitative measure of the students' comprehension based on the answers to the multiple-choice questions. In addition, the students' comprehension was qualitatively evaluated on a continuum using the IPA interpretive mode rubric (Adair-Hauck et al., 2013, p. 125). The IPA rubric articulated the instructor's expectations for her students' interpretative comprehension by listing the eight criteria and describing levels of quality from outstanding to poor. This helped the instructor facilitate the implementation of

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<sup>1</sup> c..f. <https://www.youtube.com/watch?v=-X-rCTkmMbl>

Edpuzzle tasks—from designing the popup questions to giving specific feedback on the students' skills in the interpretive mode of communication.

More specifically, an example answer to the preceding multiple-choice question was “C” (有經驗的前輩常拍著年輕人的肩膀). In addition to being informed that the answer was wrong, the student was also given a qualitative rating of “Did Not Meet Expectations.” The student's answer seemed to suggest that he was unable to identify the key words or main idea appropriately within the context of the text and that he possessed minimal interpretive literal comprehension in the categories of word recognition and main idea detection. An example answer to the preceding open-ended question “演講者提及‘年輕人你還不懂’. 從演講者的觀點看來, 年輕人不懂的是什麼?” was “年輕人不懂現實生活和我們想的不太一樣。我們覺得好人會有好的結果, 可是常常壞人卻過得更好.” This answer on Edpuzzle was rated as “Exceeds Expectations” for both categories of guessing meaning from context and inferences between the lines. The rating of “Exceeds Expectations” was given because the student successfully interpreted contextualized meaning and accurately inferred the meaning of unfamiliar words and phrases in a highly plausible manner.

In order to investigate how students and instructors perceived the usefulness of Edpuzzle in terms that improve learner interpretative language skills, the researcher interviewed the participants individually. The interviews began with the participants' narrative regarding their overall feedback on their use of Edpuzzle and continued with follow-up questions from the researcher. The use of Edpuzzle at the advanced level was generally well received. The three comments with regard to language functions in the interpretative mode of communication that were most commonly shared among the fourteen students are as follows. First, the popup questions directed the students to reevaluate what they had thought they knew about the content of the clips and to learn to make inferences beyond what was directly presented to them. Second, Edpuzzle practice focused student attention on the details of the supporting arguments in addition to the main ideas and directed them to identify and justify the standpoints in the videos. Third, cultural authenticity in the assigned Edpuzzle videos imparted knowledge of cultural norms to the students in context and connected cultural products, practices, and perspectives. Other student reflections include remarks that the instructor's audio voiceover and the back-tracking feature gave them a sense of being supported as they independently rose to the challenge of tackling authentic materials. Moreover, inserted questions along the way engaged the student participants and guided them to discover new concepts that they might have otherwise overlooked. Finally, the use of Edpuzzle changed the landscape for the student participants and added novelty in the selection of learning materials.

Edpuzzle is not without limitations as a classroom pedagogical technology tool and, like any other tool, it is only as effective as the teacher makes it. One of the students commented that Edpuzzle video clips can be most engaging when their length ranges from one to two minutes. It thus requires teachers to selectively edit down most available online videos to be concise enough to sustain student interest but also long enough to cover the learning objectives. In addition, the pool of videos for Edpuzzle is wide,

including most major public websites, such as Youtube, TedTalk, National Geographic, and the Khan Academy. The wealth of available online videos can pose challenges for instructors because they will need to search patiently for suitable clips that have appropriate content, allow purposeful popup questions intermittently, and provide linguistic features that push them upward on their proficiency scale.

Despite certain drawbacks, Edpuzzle engages learners to hone their language functions in the interpretative mode of communication by using authentic materials. It also offers an opportunity for instructors to collaboratively edit videos and share teaching resources. In addition, because of the authenticity in the materials, students' comprehension of Edpuzzle videos can inform instructors about students' proficiency independent of any specific teaching materials, and it is indicative of the gap between what is covered in class and what students need to know to be world-ready.

### **3.3 Presentational Mode: Google Sites**

According to Performance Descriptors (ACTFL, 2012), an essential function of presentational communication is the ability to present information by creating with language. Learners present information by writing (journals, articles, or reflections), speaking (telling a story or giving a speech), or visually representing (student-made videos or PowerPoint). Can-Do Statements (NCSSFL & ACTFL, 2017) reflect the continuum of growth in communication skills which learners: 1) identify and set learning goals to chart their progress towards learning proficiency; 2) reflect an interactive process that captures interaction between learners and teachers/facilitators, and; 3) promote self-feedback and assessment. Technology paves the way to implement integration with the pedagogical curriculum, and Google Sites is a powerful tool to support the presentational mode in L2 learning. It is useful for educators who wish to show students' learning experience, and also for learners to demonstrate their creation of messages to inform, narrate, and reflect on their learning that can be shared with various audiences of listeners, readers, or viewers.

Following the aforementioned guidelines and statements, Google Sites is a structured web-page creation tool where multiple people can collaborate and share files. Google Sites is therefore an effective tool to be used as an ePortfolio that shows learners' learning experience in context. An ePortfolio allows students to display evidence that demonstrates their communicative skills and allows teachers to construct measures of assessment and feedback. Students choose what to integrate from assignments and products into their ePortfolios, acting as autonomous thinkers. Google Sites has the following features: 1) as an archive for students' work in the form of their learning ePortfolio; 2) as anecdotal evidence of the presentational mode to show learners' creation in writing, speaking, or videos, either in public or private group settings for collaboration, and; 3) as easily embedded external content, including texts, images, audios, and videos (audios and videos use third-party online tools due to storage limitations). Additionally, Google Sites can be organized based on themes, classes (groups of students), or language tasks.

Three classes of a total of 38 high school students were informed that Google Sites would be used in language learning. Their ages ranged from fifteen to seventeen years old. Everyone took the ACTFL Assessment of Performance toward Proficiency in Languages (AAPPL) test one month before the data were collected, and their scores in the presentational skills (speaking and writing) ranged from Novice-High to Intermediate-High. Students knew that they would use Google Sites in the following three ways:

- To write a paragraph summary and/or reflection: students could choose to listen to a podcast or watch a video clip or TV show in Chinese, then write a summary paragraph of their reflection.
- To write an essay based on oral or written prompts: for example, students could write about their favorite travel destination and include travel photos.
- To perform a rehearsed skit: students could plan and work in groups to make videos which they would upload to YouTube and then embed on Google Sites.

Before they began, students were given presentational rubrics to understand expectations. Grading criteria include contexts/content, text type, language control (i.e. vocabulary use and grammatical structures), and cultural awareness. Expectations also included that students would be able to communicate information, make presentations, express thoughts about familiar topics, and use sentences as well as a series of connected sentences at a functional level through spoken and written language while making comparisons with the target culture (Can-Do Statements, 2017). Depending on the assignment, students sometimes had the opportunity to engage in peer review by posting comments in response to their peers' work. The teacher also gave feedback based on the rubric provided.

A questionnaire survey was used to collect feedback at the end of the year-long course after the students had used Google Sites for one academic year. The survey consisted of questions in relation to the participants' experiences with and their attitudes toward their general use of Google Sites and their perceptions on how effective the tool was in their learning. The feedback was positive. For example:

Student 1: "I like Google Sites because I can see my own personal development."

Student 2: "Google Sites is easy to use, I can work independently or with friends."

Student 3: "I can see my previous work from previous years, including the feedback all on one page."

Although Google Sites is a user-friendly tool, a considerable time investment is required to figure out how to set it up for student access. Further drawbacks for teachers who have not used it before include the need for initial guidance to create the sites and pages for students to access, and the fact that some students are uncomfortable allowing peers to view and comment on their work. However, for teachers who are willing to learn

the system and be sensitive to student reservations about sharing, Google Sites is an engaging and useful tool that enhances classroom learning.

#### 4. Conclusion and Pedagogical Implications

According to Lai (2017), the use of technology can broaden the horizon of L2 learning. To further understand how technology tools can specifically add to teaching and learning in a classroom, this study reviews the use of Go Formative, Edpuzzle, and Google Sites in relation to the three modes of communication. The objective is to demonstrate the facilitative role of technology in classrooms and to offer ideas that encourage teachers to incorporate free online tools to engage their students in learning Chinese. This article includes classroom task examples and rubrics to evaluate student performance in an attempt to show teaching professionals how technology and its associated language proficiency assessments can be incorporated into day-to-day teaching practices. The preparation for the effective use of technology requires teachers to identify technology tools that meet their teaching objectives and to explore student interests in terms that motivate them to use technology to assist their learning. In addition, teachers will need to familiarize themselves with the technology tools of their choice, make plans to appropriately embrace technology to maximize their pedagogical efficacy in the classroom, collect feedback from their students on their use of pedagogical technology, and continue to improve the ways that technology is incorporated into the traditional classroom to enhance the student experience in learning foreign languages.

While the student comments show that technology can engage them in learning Chinese, it is not yet clear to what extent the use of these tools affects students' acquisition of Chinese in the three modes of communication. Student feedback collected in this study shows that Go Formative, Edpuzzle, and Google sites are useful tools in motivating students to develop their language skills in the three modes of communication. The tools provide a platform for a variety of learning materials to be stored and processed. The three applications also engaged the participating learners in practicing their language skills through various activities either independently or with different groups of audiences, such as viewers, listeners, and readers. While the benefits of using these three tools were acknowledged in the students' feedback, the current study was not designed to empirically measure the effect of these three tools on the learners' acquisition of Chinese or their language improvement in the three modes of communication. Because these technologies are user friendly for both instructors and students, are well received by students, and provide instructors with robust evaluative opportunities, their effectiveness in fostering SLA is a topic that merits further research.

#### References

- Adair-Hauck, B., Glisan, E. W., Koda, K., Swender, E. B., & Sandrock, P. (2006). The integrated performance assessment (IPA): Connecting assessment to instruction and learning. *Foreign Language Annals*, 39(3), 359-382.

- Adair-Hauck, B., Glisan, E. W., & Troyan, F. J. (2013). *Implementing integrated performance assessment*. Alexandria, VA: American Council on the Teaching of Foreign Languages.
- American Council on the Teaching of Foreign Languages. (2012). *Performance descriptors for language learners*. Retrieved from <https://www.actfl.org/sites/default/files/pdfs/PerformanceDescriptorsLanguageLearners.pdf>.
- American Council on the Teaching of Foreign Languages. (2012). *Proficiency guidelines for language learners*. Retrieved from <https://www.actfl.org/publications/guidelines-and-manuals/actfl-proficiency-guidelines-2012>.
- American Council on the Teaching of Foreign Languages. (2017). *Statement on the role of technology in language learning*. Retrieved from <https://www.actfl.org/news/position-statements/statement-the-role-technology-language-learning>.
- American Council on the Teaching of Foreign Languages, & National Council of State supervisors for Languages. (2017). *Can-do statements*. Retrieved from <https://www.actfl.org/publications/guidelines-and-manuals/ncssfl-actfl-can-do-statements>.
- American Council on the Teaching of Foreign Languages. (2011). *21st Century skills Map*. Retrieved from [https://www.actfl.org/sites/default/files/pdfs/21stCenturySkillsMap/p21\\_world\\_languagesmap.pdf](https://www.actfl.org/sites/default/files/pdfs/21stCenturySkillsMap/p21_world_languagesmap.pdf).
- Bourgerie, D. S. (2013). Computer aided language learning for Chinese: A survey and annotated bibliography. *Journal of the Chinese Language Teacher Association*, 38(2), 17-47.
- Cox, T., Malone, M., & Winke P. (2018). Future directions in assessment: Influences of standards and implications for language learning. *Foreign Language Annals*, 51(1), 104-115.
- Dema, O., & Moeller, A. K. (2012). *Teaching culture in the 21st century language classroom*. In T. Sildus (Ed.), *Touch the world: Selected papers from the 2012 central states conference on the teaching of foreign languages* (pp. 75-91). Eau Claire, WI: Crown Prints.
- Glisan, E. W., Adair-Hauck, B., Koda, K., Sandroock, S. P., & Swender, E. (2003). *ACTFL integrated performance assessment*. Yonkers, NY: ACTFL.
- Glisan, E., Uribe, D., & Adair-Hauck, B. (2007). Research on integrated performance assessment at the post-secondary level: Student performance across the modes of communication. *Canadian Modern Language Review*, 64(1), 39-67.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112.
- Hnard, D. (2006). Design issues related to the evaluation of learner-computer interaction in a web-based environment: Activities vs. tasks. *Computer Assisted Language Learning*, 19(2-3), 261-276.
- Kessler G. (2018), Technology and the future of language learning. *Foreign Language Annals*, 51 (1), 219-224.

- Kissau S. & Adams M. (2016). Instructional decision making and IPAs: Assessing the modes of communication. *Foreign Language Annals*, 49 (1), 105-123.
- Klopper, E, Osterweil, S., Groff, J., & Hass, J. (2009) *Using the technology of today in the classroom today*. Retrieved from [https://education.mit.edu/wp-content/uploads/2015/01/GamesSimsSocNets\\_EdArcade.pdf](https://education.mit.edu/wp-content/uploads/2015/01/GamesSimsSocNets_EdArcade.pdf).
- Lai, A. (2017). Implementing online platforms to promote collaborative learning in Chinese language classrooms. *Journal of Technology and Chinese Language Teaching*, 8(2), 39-52.
- Ousselin, C. (2013). *ThingLink for world language educators and learners*. Retrieved from <http://aatftech.blogspot.com/2013/06/thinglink-for-world-language-educators.html>.
- Shrum, J. L., & Glisan, E. W. (2010). *Teacher's handbook: Contextualized language instruction*. Boston, Mass: Heinle & Leinle.
- Wu, J. (2013). Students in the new millennium: How much do we know about them? In B. Zou, M. Xing, Y. Wang, M Sun, & C. H. Xiang (Eds.), *Computer-assisted foreign language teaching and learning: Technological advances* (pp. 118-137). Hershey, PA: Information Science Reference.
- Yang, S. C. (2001). Integrating computer-mediated tools into the language curriculum. *Journal of Computer Assisted Learning*, 17(4), 85-93.