21st century world language classrooms: Technology tools supporting communicative competence

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Abstract

There is an explosion of Web 2.0 technology tools that have the potential to enhance student communicative competence. However, evaluating the effectiveness of these tools can be challenging without a framework (rubric) to analyze and compare functionality, student engagement, and overall quality of these new tools. In an effort to gain greater clarity on the value of these tools and enable educators to begin to systematically identify and select which attributes provide the most value to their students, the authors of this paper have developed the Technology Evaluation Rubric for Communicative Competence (TERCC). This evaluative tool provides guidance in a world where these technology tools continue to quickly evolve, and where new tools are introduced frequently. By understanding these dynamics educators can identify the tools most relevant and beneficial to their students’ learning and communicative competence.

The educational landscape within world language classrooms is changing and evolving, embracing instruction to foster 21st century skills and dispositions. Fundamental skills and competencies still reside at the heart of curricular goals and outcomes; however, the path taken to achieve them and the
context within which they are embedded is developing to demonstrate increased rigor, relevance and real-world application.

In the last century we were a factory-driven society and schools were designed around that concept. Today we must create spaces where students can collaborate and participate in real-life environments where they can learn how to work on teams; that’s what they’ll be doing in the work world. (McCrea, 2012, p. 2)

Communication is the keystone within the world language classroom, and technology is affording teachers and students alike new ways to disseminate information and express themselves. “The ‘spaces’ where students learn are becoming more community-driven, interdisciplinary, and supported by technologies that engage virtual communication and collaboration” (Johnson, Smith, Levine & Haywood, 2010, p. 4). The abundance of open source technology available to both instructors and students creates instructional opportunities for second language learning in both synchronous and asynchronous formats. Understanding the development of these technologies and their role in teaching and learning can lead instructors to create authentic, collaborative and meaningful assignments to engage, stimulate and facilitate target language (TL) communication for students within a virtual environment. Meaningful and realistic interaction is essential in order for a second language learner to have the opportunity to take part in meaningful communicative interaction with highly competent speakers of the language.

Technology is a tool, a means of communication for students to succeed in the classroom (Grabe & Grabe, 2007). When used effectively, technology can facilitate language learning. “Technology dramatically extends and changes the breadth and depth of exposure that learners can have with the target language and interactive events in which they have the opportunity for language focus” (Chapelle, 2009, p.750). Determining which technologies are instructionally worthwhile and which support instructional goals and outcomes can be a challenging task for the instructor. The authors, in an effort to support 21st century learning, offer an evaluation tool, the Technology Evaluation Rubric for Communicative Competence (TERCC), to gauge the value and effectiveness of Web 2.0 technologies. In addition, Web 2.0 tools will be highlighted; results will be shared regarding how each faired upon evaluation by the TERCC, and specific examples will be outlined regarding how each was integrated within instruction.

**Communication and Communicative Competence**

In order to achieve native-like communication, one must have a solid grasp of the various communicative competencies. The framework of communicative competence is structured into four elements: grammatical competence, sociolinguistic competence, discourse competence, and strategic competence, functioning together as guidelines for communicative language teaching (Canale & Swain, 1980; Canale, 1983). When broken into their subcomponents, communicative competence refers to knowledge or the capability relating to language use rules. Strategic competence is speaking in an appropriate manner while maintaining awareness of the sociocultural aspect of the language. It is
the mastery of verbal and nonverbal communication strategies that are used by speakers usually to compensate for breakdowns in communication (Canale 1983). Sociolinguistic competence is the appropriateness of utterances, the authenticity or naturalness of speech, and the cultural references within language. Vocabulary, word formation, sentence formation, pronunciation, spelling, and linguistic semantics are all features of grammatical competence. Discourse competence is the description of knowledge and skills in using rules for cohesion in form and coherence in meaning (Canale, 1983). Discourse can be oral or written, a report, a letter, or a set of instructions. The elements of communication remain the same. These competencies are needed to successfully communicate whether it is face to face or within a virtual environment. It is the responsibility of educators to structure and provide learning opportunities that foster and support true and meaningful ways to engage within communication and all its communicative competencies.

Assimilating a language's structure, linguistic rules and vocabulary in the target language entails a different approach to learning thus bringing forth cognitive challenges for students. Learners need to acquire linguistic knowledge in a classroom environment in order to facilitate smooth learning transitions from their native language to the target language. “Learning strategies are procedures undertaken by the learner, in order to make their own language learning as effective as possible” (O’Malley and Chamot, 1990, p.43). Language learners must be metacognitively aware of their own abilities in order to continue to learn and develop within the target language. A language learner may apply cognitive learning strategies that are essential for language learning such as repetition of a word for memorization or pronunciation and organization of words to classify with other graphics in an attempt to recall vocabulary, these strategies can be implemented within both traditional and blended learning environments. At times learners will use social and affective strategies to interact and cooperate with other students or a teacher for question clarification trying to meet their learning needs (Mitchell & Myles, 2004).

21st Century Classrooms

Classrooms today are populated by 21st century learners, digital natives (Prensky, 2001), and in order to be highly effective, educators, need to structure our classrooms to foster meaningful language learning (Savingnon, 1997) that is grounded by curricular standards (ACTFL, 2012) and supports 21st century skill growth (P21, 2011). Language learning in the 21st century classroom is not “business as usual.” Students are not passive learners, rather active participants within the learning process, creating content and making meaningful connection with their learning. According to Theisen, students need engaging and relevant lessons and supportive learning environment where they can advance at varied rates and in different ways. We know they need choices, challenges, respectful tasks, flexible grouping, and opportunities to take on leadership roles. (2013, p. 7)
The Partnership for 21st Century Learning promotes this active engagement through the incorporation of the 4 C’s: collaboration, creativity, critical thinking, and communication. While not absolutely requisite, technology is routinely integrated within the 21st century world language classrooms. Technology is becoming an essential, instructional tool that can be applied to enhance teaching in a language classroom. The millennial generation is accustomed to utilizing technology on a daily basis, incorporating familiar learning strategies and tools in the classroom facilitate a student's ability to learn a second language, thus benefiting both the instructor and the student. According to Jonas-Dwyer and Pospisil (2004), Millennials, “like to work with the best and latest high-technology gadgets. The Millennials are into teamwork, group projects, service learning, and community service” (p. 196). Students see technology as an essential learning tool and not a disposable gimmick or trend. Whether situated within a blended learning environment, distance learning, or in a more traditional brick and mortar classroom, technology is an inevitable part of that landscape. In order for world language classrooms to prepare students for the expanding global climate, instruction must embrace 21st century skills and learning environments.

Technology Evaluation Rubric for Communicative Competence (TERCC)

Meaningful learning and technology are essential when developing assignments in order to achieve communicative competence using Web 2.0 tools. However, with so many different tools available, it can be daunting to decide upon which to use. The authors developed an evaluation rubric to assist in making the determination about the value of Web 2.0 tools that are being considered.

In crafting this Technology Evaluation Rubric for Communicative Competence (TERCC) (Table 1), the authors were guided by the belief that meaningful communication is at the heart of language acquisition (Lee & VanPatten, 2003) and that technology should be used to logically support the instructional objectives. Based upon these principles and the research base regarding effective second language acquisition (Krashen, 1982) and communicative competence (SavinNon, 1997; Omaggio-Hadley, 2001), a working rubric was created. (See Table 1.)

Communicative competence was analyzed via its components of strategic, grammatical, sociolinguistic, and discourse competencies. While each of these four components is vital for effective communication, some of the competencies can be emphasized more than others; therefore, each was examined individually. The first part of the rubric is broken into the separate components of communicative competence; the second part evaluates elements that are more holistic in nature.

Communicative burden refers to the individuals sharing the responsibility to maintain and continue discourse. Where there is shared communicative burden, the conversation is more authentic. Furthermore, if communication is synchronous, the timeliness of that communicative burden assists individuals in overall understanding by promptly responding to points of clarification, elaboration, and, when needed, explanation.
### Table 1. Technology Evaluation Rubric for Communicative Competence (TERCC)

The authenticity of communication supports the theory of second language acquisition (SLA) by examining the technology’s ability to support meaningful communicative input. The authors recognize that communication within an instructional setting is unique, and the goal is to as closely as possible mirror communicative settings to those found within the “real world.” When done effectively, technology supports students’ ability to realize the relevance of the conversations and discussions within an authentic real-world application.

As students develop within their target language learning, their internal monitor develops as well. Successful instructional activities encourage students’ internal monitors to work, grow, and develop. Krashen (1982) explained the internal monitor as the tool used to determine whether or not the language produced makes sense before being spoken. Therefore, with highly supportive instructional tools, Web 2.0 technologies encourage students to make cognitive connections; previously learned material serves as a bridge to new content, thus enhancing students’ internal monitors.

Feedback is a vital component for efficacious learning. Particularly within a language-learning environment, timely feedback helps students gauge the accuracy/correctness of their written and/or oral communication. This element of the rubric evaluates technology’s ability to offer feedback.

The TERCC is a semi-subjective evaluative tool. Pawson and Tilley (1997) state, “the ‘findings’ of evaluation are inevitably equivocal, but … they are still profoundly useful” (p. 16). The rubric is intended to provide a measure to assist

<table>
<thead>
<tr>
<th>Strategic Competence</th>
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<tbody>
<tr>
<td>Technology supports participants’ ability to compensate for linguistic breakdowns. Technology allows participants to create, express ideas/emotions, and solve problems.</td>
<td>Technology allows participants limited opportunities to create, express ideas/emotions, and solve problems.</td>
<td>Technology does not allow participants output of target language (TL).</td>
</tr>
</tbody>
</table>

| Grammatical Competence | Technology supports participants to translate written and oral communication, demonstrating knowledge of vocabulary, morphology (number & gender agreement), verb agreement, etc. | Technology allows participants to create, express ideas/emotions, and solve problems. | Technology does not allow participants output of target language (TL). |

| Sociolinguistic Competence | Technology allows participants to participate in socially and culturally appropriate ways that reflect the “real world” | Technology allows participants to create, express ideas/emotions, and solve problems. | Technology does not allow participants output of target language (TL). |

| Discourse Competence | Technology supports participants to demonstrate their communication is coherent, cohesive, and clear. | Technology allows participants to create, express ideas/emotions, and solve problems. | Technology does not allow participants output of target language (TL). |

| Communicative Burden | Technology supports participants to create, express ideas/emotions, and solve problems. | Technology allows participants to create, express ideas/emotions, and solve problems. | Technology does not allow participants output of target language (TL). |

| Authenticity of Communication | Technology supports participants to create, express ideas/emotions, and solve problems. | Technology allows participants to create, express ideas/emotions, and solve problems. | Technology does not allow participants output of target language (TL). |

| Internal Monitor | Technology supports participants to create, express ideas/emotions, and solve problems. | Technology allows participants to create, express ideas/emotions, and solve problems. | Technology does not allow participants output of target language (TL). |

| Feedback | Technology supports participants to create, express ideas/emotions, and solve problems. | Technology allows participants to create, express ideas/emotions, and solve problems. | Technology does not allow participants output of target language (TL). |
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instructors in determining if a particular piece of Web 2.0 technology is a good match for the instructional objective and supports overall communication.

Web 2.0 Tools in a 21st Century Classroom

As reflective practitioners, the authors are continually seeking tools to enhance and elevate instructional impact upon student learning. In order to choose appropriate technology tools, the TERCC was created to explore how chosen Web 2.0 tools impacted student’s communicative competence. In order to gauge the reliability of the TERCC, 20 inservice and preservice teachers used the rubric to evaluate four Web 2.0 technology tools (Ask 3, Go Animate, Story Creator, and VoiceThread). For the purposes of this project, the chosen Web 2.0 tools were used based upon mutually selective criteria. They needed to match form and function with the learning outcomes within the existing classroom. The technology tools needed to be: open source, asynchronous, user-friendly and intuitive, offer ease with classroom management features, allow for creativity, stimulate collaborative learning, and offer voice over, text, and video comment capabilities. The TERCC was then used to analyze and evaluate each of these technology tools in order to predict their potential success and value offered within the instructional setting. Following general qualitative research methods (Creswell, 1998) and incorporating a case study design (Stake, 1995), each Web 2.0 tool was then integrated as an instructional/learning activity. Internal Review Board (IRB) protocol was followed when informing participants of the scope and potential impact of this research. The participating classroom was a post-secondary entry-level Spanish class. The classroom was situated within a language lab, blended learning environment allowing for accessibility to technology and permitted ease of data collection through researcher observations and field notes. Blended learning within this environment offered students instructional opportunities via online delivery of content and the more traditional face-to-face classroom setting. Thirty-five student participants engaged with the technologies presented. Data collected from student participant artifacts, surveys, and qualitative comments coupled with researcher observations and field notes were triangulated with the TERCC data to create a more holistic analysis of how these Web 2.0 technology tools were impacting student communicative competence.

Ask3

The tool. Ask3 is a Web 2.0 cloud-based open-source web recording application released July 2013 (Ask3, 2013). Ask3 is an iPad application set up to share videos or graphics between members of a class via an iPad device; facilitating and ensuring student privacy. There is no limit to content storage. Teachers and students collaborate via threaded discussions, audio, and video conversation postings, thus allowing teachers and students to share and create videos. Students are able to login in to a class by use of a class code given to teachers during their sign up process. Ask3 enables both teacher and students to share their knowledge and collaborate remotely, creating quick visual lessons with recorded segments from either the teacher or the student. Students are
able to respond orally to a teacher’s question, by use of a written answer or both oral and textual. The application is equipped with practical tools that allow teachers to create and post videos. The drawing tools include the ability to change textual color, photo capturing and importing voice recording. Ask3 stimulates students’ creativity through use of video and audio in an online collaborative environment. The use of this application provides teachers additional forms of gathering informal assessment data within the classroom by use of sending students a link via e-mail. The iPad’s mobility, large screen, portability, and user friendliness outweigh Ask3’s disadvantage of not being able to create additional classes.

**TERCC results.** Ask3, in general, supports communicative competence (Figure 1).

![Figure 1. Ask3 TERCC](image)

Technology allows participants to create, express ideas/emotions/thoughts, and solve problems thus fostering strategic competence. However, due to the asynchronous nature of the tool, there is reduced need to circumlocute in order to compensate for linguistic breakdown. Grammatical competence is supported as a result of allowing students to practice written and oral communication, demonstrating their knowledge of vocabulary, morphology, and syntax. Sensitivity to the “naturalness” of the TL is afforded by Ask3 and the videos that can be created thus offering the potential to support and encourage student sensitivity to the TL dialects, registers, references, and expressions resulting in supported
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sociolinguistic competence. Through the contextual nature of the videos created by the Ask3 technology, discourse competence is supported, allowing participants to demonstrate their ability to organize TL into a coherent, cohesive fashion.

Once again, since the technology tool of Ask3 is asynchronous, timely, true 2-way communication is not supported, minimizing the communicative burden. There is limited authenticity in communication: rather, the technology supports meaningful communication but in an artificial setting. The technology of Ask3 offers the potential for students to grow in their TL through cognitive connections, connecting new and previously learned content. Opportunities exist to enhance participants’ internal monitors. Through the utilization of threaded discussions written feedback is available to students with the potential to be timely.

In action. The assignment was given to students as a post-reading activity upon completion of the family unit. Prior to completing the assignment students had completed a lesson covering adjectives, physical traits and/or characteristics relating to the nuclear and extended family. The Ask3 assignment was a collaborative, paired, in-class activity. Instructions were given in the target language within the Ask3 platform as an audio posting. Students began collaborating, interacting and communicating upon hearing the instructions. This was evident as a din of conversation erupted within the language lab, as students made an effort to communicate in the TL. One student supported this observation when he stated,

Using technology to learn a new language is highly beneficial. You have to think more of what you want to say. So you have a lot more planning to do, and it’s not just putting a slide up there. You’re actually thinking about how you’re going to say it, and how you’re going to present it.

Comprehension of TL instructions was evident as students proceeded to answer questions and record additional comments, reference the families and their physical traits. Prior to their recordings, students wrote their answers as they talked among themselves. Student participants continuously practiced TL vocabulary and simple sentence structure as they exchanged different point of views and scaffolded each other’s TL growth. A student participant shared, “Where one person didn’t know or needed help, other classmates knew or were available to help.” Ask3 enabled students to share their knowledge collaborating through recorded audio segments in their quest for TL communication.

GoAnimate

The tool. GoAnimate is a cloud-based web application for producing animated videos (GoAnimate, 2013). GoAnimate allows users a free 30 second clip. It allows students to develop narrative videos by use of animated characters, avatars. Characters speak via lip-sync and move around throughout the video presentations. A student is able to record his or her voice in the TL, creating a monologue or dialogue varying by assignment. Users have the choice of importing previously recorded audio clips or select a text-to-speech built-in software system allowing their voices to change through pitch and/or intonation. This particular feature provides a student the ability to create two characters and deliver the
difficult task of a dialogue without the need of a second person. Language learners practice engaging within TL discourse, using learned vocabulary, morphology, and syntax. All videos and animated characters are supported with music, character movement effects, and different background settings. These background settings replicate authentic virtual environments. The websites feasibility of drag-and-drop tools as well as thousands of character models makes the use of this application easy to navigate and was well favored by the students. GoAnimate’s multiple features include scripting and storyboarding, voice recording, visual backdrops settings, audio and publishing options. Diversity is well represented throughout GoAnimate; hundreds of characters can be customized into different shades of color allowing for individual identification of each project to be personalized by the student.

**TERCC results.** Inclusively, GoAnimate is supportive of communicative
voice to be varied through pitch and intonation helps to support sociolinguistic competence. Students can demonstrate their sensitivity to TL dialects and registers, knowledge of cultural references, and potential idiomatic expressions, thus supporting overall sensitivity to the “naturalness” of TL. Discourse competence is strongly supported with GoAnimate with language learners demonstrating their ability to organize the TL coherently and cohesively.

Due to the ability to create a video between multiple avatars, an artificial environment can be created to elicit communicative burden. Content created from the videos supports meaningful communication, but since the setting is artificial, there is only moderate authenticity of communication. Once again, the ability to plan, storyboard, and script out the dialogue for the video prior to enacting and producing it, encourages students to grow in their TL through enhancing their internal monitor. Cognitive connections are supported and links between new and previously learned content are supported. Finally, the technology tool of GoAnimate offers limited opportunities embedded within it to provide or receive feedback regarding communication accuracy.

**In action.** The GoAnimate assignment was a comprehensive final project. Students were able to choose any topic that had been covered throughout the duration of the course. The object of the final project was to promote creativity and give students the opportunity to produce a two-minute monologues or dialogues in the TL demonstrating knowledge of learned vocabulary and grammar over familiar thematic topics. Students could work individually or collaboratively to complete this in-class assignment. It was observed that students reacted to the technology with enthusiasm and engagement within the assignment. Instructions were given in the target language. As students made progress on the assignment and further engaged with the technology, it was noted that student creativity and TL relevance flourished. Students showed interest as they began to design their own projects; they took ownership and responsibility, arriving early to class and working on their projects. One student stated, “I loved it. Since you need knowledge and creativity; it helped spark my imagination and motivated me to learn and push myself.” Ideas began to shape their understanding of discourse. Students applied verbs and vocabulary words to form sentences, which eventually fed into their dialogue. Instant creativity and authentically meaningful conversation occurred even within a simulated online environment. For example, one group decided to have two parts to their project, including a section where they were at Starbucks ordering coffee. Their dialogue morphed from simple greetings into more complex sentence structures. Students applied prior vocabulary along with new vocabulary in order to meet their dialogue needs. Collaboration went beyond creativity as they strived to pronounce each and every word to perfection. In some instances a group would erase their recordings up to more than five times until they were satisfied with their pronunciation. Students were satisfied with the final outcome of the assignment. They were able to create meaningful dialogues and simulate authentic online environments based on their own experiences, creativity, and understanding.
The tool. Story Creator is a Web 2.0 open source application to be used for storytelling or narration on iPad or iPhone (Story Creator, 2013). Students are able to create and produce electronic books narrated through their recorded voice. The application allows students to take photos, video tape, and record voice over. They can also upload their pictures from devices, Flickr, Picasa, and Facebook. The application supports textual highlighting. Textual enhancement fosters users ability to attend to grammatical forms and assists with TL fluency while reading the electronic book. This application supports the ability to practice the TL by formulating sentences and practicing vocabulary as students record their voices in conjunction with the graphics being displayed on the page. Final products can be shared via Facebook or through e-mail.

TERCC results. Story Creator was overall highly supportive when fostering students’ communicative competencies (Figure 3).

<table>
<thead>
<tr>
<th>Strategic Competence</th>
<th>Moderately Supportive</th>
<th>Unsupported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology supports participants ability to circumscribe in order to compensate for linguistic breakdown. Technology allows participants to create, express ideas/emotions, and solve problems.</td>
<td>Technology allows participants limited opportunities to create, express ideas/emotions and solve problems.</td>
<td>Technology does not allow participant output of target language (TL).</td>
</tr>
<tr>
<td>Grammatical Competence</td>
<td>Technology allows participants to practice written and oral communication, demonstrating knowledge of vocabulary, morphology (number &amp; gender agreement, verb agreement, etc.), &amp; syntax (word order) through TL input and output.</td>
<td>Technology does not allow participants to engage within written or oral communication. Participants can recognize elements of grammar (vocabulary, morphology, &amp; syntax) as a result of listening to or reading TL. Supports language input and intake.</td>
</tr>
<tr>
<td>Sociolinguistic Competence</td>
<td>Technology supports sensitivity to TL dialects and registers, knowledge of cultural references, ideological expressions, etc. Participants can demonstrate sensitivity to the &quot;natureness&quot; of the TL.</td>
<td>Technology does not support the understanding of cultural references, ideological expressions, etc. Naturalness of the TL cannot be realized.</td>
</tr>
<tr>
<td>Discourse Competence</td>
<td>Technology allows participants to experience (read or listen to) coherent, cohesive TL (input).</td>
<td>Technology does not support coherent or cohesive TL, rather TL is segmented and independently framed, not a cohesive discourse.</td>
</tr>
<tr>
<td>Communicative Burden</td>
<td>Technology supports shared, timely (synchronous) communicative burden, supporting true 2-way communication.</td>
<td>Technology allows for communicative burden; however, communication may be asynchronous.</td>
</tr>
<tr>
<td>Authenticity of Communication</td>
<td>Technology supports communication that is meaningful, relevant, and within an authentic real world setting.</td>
<td>Technology supports meaningful communication in a artificial setting (one that is minimally authenticated).</td>
</tr>
<tr>
<td>Internal Monitor</td>
<td>Technology supports limited cognitive connections or connections to other contents and knowledge. Limited opportunities to explore participants internal monitor.</td>
<td>Technology does not support connections or participant’s internal monitor.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Technology offers limited opportunities to provide or receive feedback regarding accuracy of either their written or oral communication.</td>
<td>There wasn’t the ability to give or receive feedback regarding their oral or written communication.</td>
</tr>
</tbody>
</table>

Figure 3. Story Creator TERCC

This tool supports strategic competence, allowing language learners to create, express ideas/emotions/thoughts, and solve problems. While there is the ability for students to circumlocute ideas, since this is a publishing tool, it is the assumption that students would have already determined what would be said/written in the TL and, therefore, minimal circumlocution would be necessary. Story Creator allows
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for the potential of oral and written intake and output, thus allowing language learners to demonstrate competence and knowledge of vocabulary, morphology, and syntax (highly supportive in grammatical competence). Sociolinguistic competence has the potential to be supported, through the utilization of the Web 2.0 tool; however, much of tool’s support depends upon what TL the participant produces. Language learners can demonstrate the “naturalness” of language through the flow and fluency from TL production. Discourse competence is the subcategory in which Story Creator shines and is highly supportive. Story Creator allows language learners to demonstrate their ability to organize the TL into a coherent, cohesive fashion, as with storytelling.

In analyzing some of the ancillary elements of Story Creator, communicative burden is unsupported. Because the intent of the technology is to create a narrative or story, the creator/writer is communicating to the reader; however, communication is not two-way; clarification cannot be requested. These are all elements that have the potential to make comprehension more challenging. The other unsupported element of Story Creator was the lack of ability embedded within the technology to give or receive feedback regarding the oral or verbal communication. Conversely, Story Creator offers authenticity of communication that is meaningful and relevant. Students are able to take control of their interactions with the TL, which supports not only the authenticity and meaningfulness of the task but also supports the development of students’ internal monitor. When students can see and connect to the meaning and context of the TL, there is increased potential to grow in the TL as a result of making cognitive connections, connecting new content with that previously learned and an overall enhanced internal monitor.

In action. Students were asked to create a story; they were able to choose any topic that had been covered during the duration of the course. The activity was assigned as an individual activity. Instructions were written and given in the target language. The final product of Story Creator required more creativity from students due to the narrated story line application. Students completed assignments without any additional support from their classmates. Students explained that running into technology problems was frustrating because they had to resolve it by themselves. In addition to technological assistance, the ideas were limited based on limited collaboration or the impact of bouncing ideas off one another. As one student stated, “I envied when we worked in teams. When we ran into problems, we found solutions when we talked.” One student was almost done with her project and decided to begin from scratch due to misunderstanding the instructions. Students narrated their story line in conjunction with pictures they chose. The pictures chosen by the students were personal thus producing authentic conversation. Narrated conversation in a familiar social authentic environment influenced production of TL. For example, a student had recently visited Panama; she included a picture of a restaurant nearby and insisted on researching the correct pronunciation for a particular dish; *empanadas* (a flour tortilla baked with beef filling), an authentic food from Panama. At this point the assignment became meaningful, and the student dedicated more time toward
pronunciation, grammar, and sentence structure. She wanted to make certain her final project was a fusion of a language class with a summer vacation.

**VoiceThread**

The tool. VoiceThread is a cloud application, meaning there is no software needed to install. Voicethread is an online, open source, collaborative slideshow with built in audio that allows students to create, comment, and converse based upon embedded multimedia (VoiceThread, 2013). VoiceThread allows students to post comments on VoiceThread slides using one of five commenting options: microphone, webcam, text, phone, and audio-file upload in the target language as an individual or in a collaborative effort.

**TERCC results.** Overall, VoiceThread was found to be a highly supportive tool to use when fostering students’ communicative competence (Figure 4).

<table>
<thead>
<tr>
<th>VoiceThread</th>
<th>Technology Evaluation Rubric for Communicative Competence (TERCC)</th>
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<tbody>
<tr>
<td><strong>Highly supportive</strong></td>
<td>Technology allows participants limited opportunities to create, express ideas/emotions and solve problems.</td>
</tr>
<tr>
<td><strong>Moderately Supportive</strong></td>
<td>Technology allows participants limited opportunities to create, express ideas/emotions and solve problems.</td>
</tr>
<tr>
<td>** Unsupported**</td>
<td>Technology does not allow participant output of target language (TL).</td>
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**Figure 4.** VoiceThread TERCC

VoiceThread allows students to create, express ideas/emotions, and solve problems, being highly supportive of strategic competence. However, while possible, the tool does not intuitively encourage circumlocution. Particularly, since communication is asynchronous, linguistic breakdowns can be scaffolded and solved prior to the necessity of circumlocution. Through the production of either oral and/or written communication, grammatical, sociolinguistic, and
discourse competencies are all highly supported within VoiceThread. Through their output, students can demonstrate knowledge of vocabulary, morphology, syntax (grammatical competence), sensitivity to registers, cultural nuances, and language “naturalness” (sociolinguistic competence) and can organize TL within a coherent, cohesive fashion (discourse competence).

The asynchronous nature of VoiceThread allows for reduced communicative burden and limited opportunities to provide or receive feedback. Even though VoiceThread has these limitations, there are many elements that make it a valuable learning tool. Depending upon how the tool is used within instruction, VoiceThread has the potential to become highly supportive of authentic communication. Discussion surrounding the collaborative multimedia slideshows can support meaningful and relevant communication framed within an authentic, real world setting. There is also a high potential for VoiceThread to support a student's internal monitor. Particularly since VoiceThread affords students the ability to listen to/read their comments multiple times before they are published or posted, participants can work to develop their skills (McKeeman & Oviedo, 2012).

**In action.** The VoiceThread application was used to assign an individual activity and asked students to respond to a simulated ‘speed dating’ scenario. Students introduced themselves, talked about where they lived, where they were from, their age, and what they liked. VoiceThread instructions were written and given orally on the initial slide along with a graphic used to represent ‘speed dating.’ Student comments varied; some fulfilled activity requirements by answering the essential questions, while others responded creatively. Levels of communicative competence were evident by how they chose to comment within the VoiceThread. Intonation, voice, and fluency were recorded as students asked and answered questions, expressing their own thoughts to convey authentic ‘speed dating’ responses. A student stated, “This project helped me in a positive way. It furthered my ability to speak more fluently.” Students went beyond what was currently being learned to use verbs and vocabulary which had yet to be reviewed in class. Students connected new content with previously learned material in order to accurately express their ideas. A student’s response to giving her age was reformatted as a question: “¿Puedes adivinar mi edad?” (Can you guess my age?). The verbs poder (can, to be able to) and adivinar (to guess) had not been covered in class. Another student added a question at the end of his information as well as the verb ‘to choose,’ “Elijo a yo!” (Choose me). The structure of the sentence was grammatically incorrect, but his message was achieved. The student’s ability to communicate was heightened through motivation and interest and contextual engagement.

**Discussion and Implications**

Based upon the data collected and analyzed from the four Web 2.0 tools (Ask3, GoAnimate, Story Creator, and VoiceThread) and their integration within the classroom, the authors can generalize that the Technology Evaluation Rubric for Communicative Competence (TERCC) is a reliable and valid metric to use
when evaluating potential technologies. This rubric provides teachers a guideline with which to begin the evaluation process when choosing a technology tool for instruction. Teachers must be mindful of learning goals and objectives when choosing instructional activities and resources (McKeeman & Oviedo, 2012). Web 2.0 technology tools have great potential to support communicative competence and overall student learning; however, they must be integrated within instruction so that there is a natural fit and its effectiveness is realized. The TERCC offers a metric in which teachers can make decisions that are supported and validated, aligning Web 2.0 tools appropriately to instructional design.

It is the ultimate goal of world language classrooms to scaffold student learning in order to attain communicative competence and thus second language acquisition. The Web 2.0 tools integrated within this study's classroom shared some commonalities; they provided asynchronous interaction, offered written and oral TL practice, created an artificial, yet real-world based setting, were student-centric, supported the use of students' internal monitors, promoted creativity, and provided a platform for which students could express their personal ideas, emotions, and thoughts. These elements fostered communicative competence at some level, whether it is moderately supportive or highly supportive. However, as with any instructional tool, one must supplement learning with intentionally structured activities and chosen resources in order to complete a holistic learning experience. Based upon the Web 2.0 tools chosen within this study (Ask3, GoAnimate, Story Creator, and VoiceThread), grammatical competence and discourse competence were strongly supported within the learning activities. For example, one student stated, “I was able to hear myself and the mistakes I was making by hearing, so I was able to go back and make corrections.” Strategic competence was, to some extent, supported but the element of circumlocution to compensate for linguistic breakdown was not afforded by the chosen technologies. Therefore, face-to-face quick talks or impromptu discussions and dialogues are necessary in order to fully address strategic competence. Similarly, with sociolinguistic competence, the potential exists within the technologies to allow students to recognize and demonstrate cultural sensitivity within language; however, unless students take the initiative to capitalize upon it, this competency, too, could be an area in which more is needed. One student did just this within the study, “During this assignment I've learned how to not only make a conversation work through animation, but I was also able to practice motions that would be used in real conversation.” The chosen Web 2.0 technologies encouraged students to take control of their learning, thus making it meaningful and personalized to them. Each student was able to work at his/her own level to advance toward a greater communicative competence. When integrating any Web 2.0 technology tool within instruction, it is vital for teachers to maintain a solid grasp on the learning goal or objective in order to properly align the right tool for the right purpose.

Instructional decisions should be well grounded and based in research and best practices. The authors sought to explore and develop a way in which teachers could evaluate Web 2.0 technologies in order to gauge the tool's potential instructional value, determine how best to align its strengths with overall learning goals in
order to maximize communicative competence. The creation of the Technology Evaluation Rubric for Communicative Competence (TERCC) provides a metric to offer this grounding for which instructional decisions can be made.

References


