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## Exploring Perspectives, Negotiating Computer-mediated Landscapes, and Integrating Technology in Linguistically and Culturally-diverse Learning Spaces

*Explorando perspectivas, negociando contextos mediados por computadoras e interactuando con tecnología en espacios de aprendizaje lingüística y culturalmente diversos*

*Explorando as perspectivas, negociando contextos mediados por computadores, e interagindo com a tecnologia em espaços de aprendizagem de línguas e culturalmente diversificada*

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**Abstract:** Global trends in the 21st century highlight the importance and necessity of technology use for students to demonstrate their learning processes, thus facilitating their language learning in meaningful technological contexts (Eaton, 2010). This paper seeks to address some issues dealing with the importance of technology in relation to second language learning and teaching, including the benefits, challenges, considerations, and perceptions of teaching with technology. The purpose of this paper is threefold. First, it explores technology in education as it has been commonly construed, challenged, and used. Secondly, it presents technology in education ideas to second language learning, and discusses some benefits and challenges implicit in the interaction of both. Lastly, it shares ways in which the authors, all currently working in diverse educational contexts, have implemented some of the free resources that they collaboratively compiled in an online LiveBinder.

**Keywords:** Computer-mediated interaction; second language learning and teaching; technology-enhanced classrooms.



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**Resumen:** Las tendencias globales del siglo 21 destacan la importancia y la necesidad de usar tecnologías para que el estudiantado evidencie su proceso de aprendizaje, si se facilita su aprendizaje de un idioma en contextos tecnológicos significativos (Eaton, 2010). Este artículo enfatiza algunos aspectos en relación con la tecnología y la enseñanza, y el aprendizaje de un segundo idioma; incluye beneficios, retos, consideraciones y percepciones de la enseñanza y la tecnología. El propósito del artículo se basa en tres componentes. El primero explora el uso de la tecnología en la educación, tal como ha sido construida, conceptualizada y usada. El segundo analiza el uso de esa tecnología en la educación y en los procesos de aprendizaje de un segundo idioma, así como los beneficios y los desafíos implícitos en la interacción de ambos. Por último, se comparten técnicas usadas por las autoras, las cuales trabajan en diferentes contextos de educación, con recursos gratuitos compilados en un *LiveBinder* en línea.

**Palabras claves:** Enseñanza y aprendizaje de un segundo idioma; interacción mediada por computadoras; tecnología aplicada en clases.

**Resumo:** As tendências globais no século 21 destacam a importância e a necessidade de usar a tecnologia para permitir que os alunos demonstrem seus processos de aprendizagem, facilitando assim a aprendizagem de línguas em contextos tecnológicos significativos (Eaton, 2010). Este artigo procura abordar algumas questões relacionadas com a importância da tecnologia em relação à aprendizagem e ensino de segunda língua, incluindo benefícios, desafios, considerações e percepções de ensino com tecnologia. O objetivo deste artigo é baseado em três elementos. Primeiro, explora a tecnologia na educação, como tem sido comumente interpretado, desafiado e usado. Em segundo lugar, apresenta a tecnologia em idéias de educação para aprendizagem de segunda língua e discute alguns benefícios e desafios implícitos na interação de ambos. Por fim, e compartilha maneiras em que os autores, que atualmente trabalham em diversos contextos educacionais e implementaram alguns dos recursos gratuitos que forma colaborativa em um *LiveBinder*.

**Palavras-chave:** Ensino e aprendizagem de segunda língua; interação mediada por computador; salas de aula com tecnologia aprimorada.

## Introduction

Many of us are already familiar with the transformative possibilities afforded by 21st century technologies in teaching and learning. A number of contemporary societies are rife with technologies that challenge and inform the ways people from around the globe learn, communicate, work, and play (Shaffer, Squire, Halverson, & Gee, 2005). In education, technology provides navigation of literacy sites that comprise digitally and globally connected contexts which provide a plethora of possibilities for education (Gee, 1991; Knobel, 1999; Luke & Elkins, 2000). For example, at any time, a teacher located in Central America can exchange ideas with other teachers around the world synchronously (in real time), or asynchronously (where the message is waiting to be seen), via micro-blogging sites, social networking media, collaborative

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online spaces, communication applications, or professional learning networks (PLNs). Students also have access to many of the same resources, where they can freely research information, share writing, give and receive feedback, and learn through social interaction.

Part of connecting with others across the globe means learning to navigate cultural and linguistically diverse environments. For students who form part of education systems where learning other languages is an educational priority, language learning may be compounded by the complexities of an increasingly technology-enhanced world. Global trends in the 21<sup>st</sup> century highlight the importance and necessity to use technology to allow students to demonstrate their learning processes, thus facilitating their language learning in meaningful technological contexts (Eaton, 2010).

This paper seeks to address some issues dealing with the importance of technology in second language learning and teaching, including benefits, challenges, considerations, and perceptions of teaching with technology. In the next sections, we present background on technology in education and theory concerning possible benefits of using technology for education and second language learning. In addition, we offer teacher's concerns and other challenges when implementing technology in the classroom. We also share our collaborative LiveBinder, which is a compilation of free online resources for readers to peruse and decide whether they are beneficial or not in the classroom. Lastly, the authors, all currently working in diverse educational contexts, share ways in which they have implemented some of the resources.

## Technology in education

Historically, as humanity progressed, skills and competencies such as creativity, innovation, critical thinking, problem solving, communication, and collaboration were increasingly important literacy considerations. Now, technological advances of the 21<sup>st</sup> century have spurred a renewed emphasis on the acquisition of these same competencies, which have been dubbed "21<sup>st</sup> century skills" (National Council of Teachers of English, 2008; Partnership for 21<sup>st</sup> Century Skills, 2007). Compounded with technology, this demands that people have a variety of literacy skills at their disposal, engaging traditional and nontraditional competencies which they are constantly called to adapt, depending on the context and technology used. This rebooting of literacy acquisition and use, unconstrained from traditional educational trajectories, has raised substantive conversations as to if, how, and to what extent, technology has influenced, benefited, or challenged educational endeavors.

There is a consensus among several stakeholders that working within existing and emerging complex technological environments can increase opportunities of engaging in meaningful literacy practices, learning through social interaction, learner self-monitoring, and helping to promote cultural and linguistic literacy enrichment (Chandler-Olcott & Mahar, 2003; Davidson, 2009; Lam, 2009). In addition, there is a common belief that the use of technology can enhance



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learning, productivity, and performance, which is linked to success on a global scale (Association of Latino Administrators and Superintendents, 2011; Davies, 2011; Evans, 2005; International Society for Technology in Education, 2007; U.S Department of Education, 2010). However, there are also those who challenge this consensus and debate whether technology improves learning (Mayall & Robinson, 2009; Mims, Polly, Shepherd, & Inan, 2006), enhances curriculum (Brandt, 2001; Wehrli, 2009), or if potential benefits outweigh concerns (Harris, 2005; Tobin, 2000).

In part, concerns stem from lack of consensus as to what counts as a fully integrated, technology-enhanced classroom. For example, does teacher use of technology during instruction count as sufficient or effective technology integration? Do students need to have hands-on experiences with technology? If so, how often? How can teachers effectively integrate technology to impact student learning? While there are still no quick or certain answers, these are important considerations when choosing to implement technology in the classroom.

One study by Mims et al. (2006) found that it is not enough for teachers to be familiar with technology. They suggest that both teachers and students need access to explore technologies, see technology modeled by peers, and have personalized support throughout the learning process. In other words, technology integration initiatives must consider how to use technology, how to integrate it to enhance curriculum, and how it may impact student learning. These three issues must work in simultaneous, complementary ways. It is through knowing, integrating, and enhancing learning that we can begin to access the potential that technology may afford in various culturally and linguistically-rich educational environments.

## Technology and second language learning

Nowadays, students are immersed in multifaceted settings where technology is “at the heart of all aspects of their lives” (Conole, 2008, p. 136). Technology is unavoidably part of our present and future, but why should we foster the use of technology for second language learning? It is through interaction that students explore, learn from others, and receive and provide feedback, thus using and developing language.

Sociocultural Theory, as a second language theoretical framework, celebrates active participation and collaboration among all individuals in the learning context. This theory promotes social interaction, meaningful communication, and the use of relevant content. In this sense, learning a language acquires a meaningful, authentic stance since purposeful communication is required to actively engage in a collaborative environment where individuals can problem-solve and negotiate meaning in real-life contexts. Language learning is reinforced when individuals use it to socially construct knowledge (Vygotsky, 1978). In this social process, students can interact with one another in an environment that allows them to be active participants collaborating and working together in the classroom (Genishi & Dyson, 2009).

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Results about the use of technology indicate that technology provides and fosters an environment for meaningful language production (Leloup & Ponterio, 2003). Students also embrace the interactionist component of using technology highlighting three aspects including student positive attitude, motivation, and greater student participation to interact with native language speakers (Gray & Stockwell, 1998; Liu, Moore, Graham, & Lee, 2002).

General findings regarding technology-enhanced education in second language classrooms can be summarized as follows,

- Blogging enhances writing performance (Arslana & Şahin-Kızılb, 2010)
- Computer-based collaborative activities encourage language use and development (Hsieh, 2017)
- There is integration of content, language, and culture (Warschauer & Meskill, 2000)
- Motivation of students to actively engage in second language learning is present (Billings & Mathison, 2012)
- Linguistic gains and academic success takes place (Billings & Mathison, 2012)
- Technology capitalizes authentic, practical and meaningful contexts, which are considered to be at the core of effective language learning (Ban, Jin, Summers, & Eisenhower, 2012).

### Technology integration challenges

An important aspect to consider when dealing with technology is the preparedness of students and teachers to use technology. Winke, Goertler, & Amuzie (2010) indicate that students need to receive specific training on technology; otherwise, tasks can result in frustrating, overwhelming experiences. Instructors might lack confidence to use or integrate technology in their classrooms (Mims et al., 2006). There is also the fear of trying new things. Most of the time, it is indeed the fear of change, which can be related to teachers' need of training and lack of experience with technology. Instructors in second language scenarios where there is mediation of technology need not only support, but also preparation to adopt new roles, new pedagogical and technical skills (Stepp-Greany, 2002). Technological competency needs to be promoted and fostered in the instructors (Mims et al., 2006). Technology-enhanced lessons require practice and demand the development of certain skills where learning is a process (Gronseth et al., 2010).

Additional challenges include the investment of time and money along with school infrastructure, such as computer labs and Wifi connection throughout the buildings (Warschauer



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& Meskill, 2000). There may also be the need to break down of traditional, “teacher/expert-centered” hierarchical and patriarchal teaching practices to more collaborative approaches (Eaton, 2010). Finally, there is the lack of research on effective teaching practices in technology-driven classrooms (Gronseth et al., 2010; Kozma & Anderson, 2002; Leloup & Ponterio, 2003; Salaberry, 1996; Warschauer & Meskill, 2000). Most importantly, there is a need of professional development courses for in-service and pre-service English teachers, second language teachers, or foreign language teachers, which must emphasize the use and integration of technology to effectively increase student learning in the second language settings (Mims et al., 2006).

## Resources

The authors of this paper encourage the readers to carefully reflect on the ever-changing and transforming nature of technology and how these innovations continually impact language learner engagement, motivation, learning, and success. To provide motivation and some direction, the authors of this paper have compiled a growing list of free, online resources for your perusal. In addition, the authors, all currently working in diverse educational contexts, present their personal experiences when using some resources available in the collaboratively-created LiveBinder. The resources (find the complete list at <http://bit.ly/1tp1q9h><http://www.livebinders.com/play/play?id=607394>) will encourage the readers to begin to use or enhance existing technology integration for language and literacy learning.

## Cruising with technology: A Costa Rican professor experiences

As a language professor teaching in a public university in Costa Rica, the teaching of English can be quite challenging. In the context of the university where I work, English must be taught holistically; that is, integrating all skills and sub-skills of the language with significant time constraints. English is taught as a language class yet, for some courses, it has an English for Specific Purposes (ESP) twist, where one must integrate the teaching of the language and content as well. Teaching English under these circumstances requires careful use of time to ensure effective language learning. The following are three technological tools I have implemented to enhance language use and development in my classes.

## Do you dare to write?

In the second semester of 2011, I was teaching an advanced English for Specific Purposes (ESP) course to twelve students majoring in Business Administration in a higher education context in Costa Rica. At the beginning of the course, I noticed that when speaking, there were some fossilized errors in grammar (verb-tense, subject-verb agreement), syntax, and lexicon (wrong word choice). Students also needed to improve their writing skills. In conversations with them, they indicated

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they lacked practice in writing. Not surprisingly, they did not want to write. In the course syllabus, students must master all four macro-linguistic skills yet most emphasis was put on receptive skills such as reading and listening, speaking was also part of the class. Yet writing was a skill that was not given enough attention and importance. Students had made explicit comments on how writing was a monotonous, boring task. As a course goal, I decided to let writing play a more important role in the course with the hope that through their writing practice, students would improve their oral skills along with enrichment of their grammar and lexicon. Since they did not find writing appealing, I needed to make writing fun and attractive to them. I immediately thought about *Storybird*, which is a collaborative storytelling website where students can create and tell stories digitally. I needed to engage my students into writing and I thought about technology providing the students with the fun required to get them interested in writing. So I introduced them to artful storytelling (<http://bit.ly/18k6snY>). First, I got a teacher account at *Storybird* and became familiar with the site. I created a private class and added all the names of my students. Automated usernames and passwords were provided for them, which I printed and then gave to students to customize. Next, I created an assignment. The first class was spent at the university's English lab, where I guided students and fostered an environment to familiarize them with the site. Together as a class, we walked through the process of signing up, creating individual profiles, going over other students' profiles, the assignment, and the "create and explore" tabs of the website. For the assignment, I referred the students to a previously-written story in *Storybird*. The title of the story was "I couldn't possibly write a storybird" (<http://bit.ly/18k6agR>). I chose this story for its grammatical simplicity and powerful message. The students could easily relate to it, and the graphics used were engaging, modern, and gothic-like (catchy for the students). The assignment required students to read the story and respond to it by creating a new story. I indicated that students could write a story expressing how writing makes them feel. The stories were empowering, genuine creations. Students opened up and wrote from their souls, talked about their fears and ways to overcome them, showed great imagination and motivation. As a complement to the writing assignment, students were asked to respond to at least five of the storybirds written by other classmates, adding a meaningful component to the assignment. Over the course of the semester, students got very motivated and wrote amazing, interesting stories (or storybirds). Their speaking, grammar, and lexicon highly improved. They became aware of their linguistic inconsistencies and errors by writing. Most importantly, they enjoyed writing, and were eager to write every week.

## Speaking avatars

What to do with first-year students coming from low socioeconomic status who need a great deal of motivation to produce basic English? You use Voki (<https://bit.ly/2D7DCKt>)! Voki is an interactive website where students create customizable avatars for various purposes including presentations and classroom games. In the first semester of 2011, I was teaching a remedial basic English class. Students were twenty-five freshmen and lacked motivation and confidence to



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produce basic English structures. It was their first official encounter in a communicative English course in a university in Costa Rica. I decided to use Voki since it is interactive and motivating; the main objective for choosing this technologic tool was to engage students into communicating, and losing fear over expressing their ideas. First, I created an account, looked for an avatar with specific features (hair and eyes color, clothing, etc.), and recorded a welcoming message for the students. I used basic language, spoke slowly, and had a friendly, excited tone to engage students. Once my Voki was done, I shared it with my students through their emails and asked students to sign up for an account. Once their avatars were ready, I requested students to create a simple message introducing themselves with very basic information (personal information, likes and dislikes, among others), and then share it with the rest of the students. I gave students a week so that they had time to listen to all Vokis and then respond to three of them. During the course of the semester, we engaged in these Voki activities every two weeks with specific topics (food, sports, clothing, family, etc.). Students were eager and looking forward to the Voki activities. Students constantly changed their avatars and felt very excited to be interacting in this manner. Through this activity, they were less shy and wanted to speak more.

### Conversations in the cloud

I used Voicethread with a group of advanced tourism students in the first semester of 2011. The class was an ESP in which students were expected to put touristic content into practice with some communicative competence. Voicethread is a website that provides collaborative spaces, where video, voice, or text can be shared. For this particular group, I wanted to develop students' critical thinking skills through the use of English. Therefore, I decided to embark students into Voicethread. I first created an account and studied the website. I then uploaded a YouTube video entitled *Costa Rica: A little bit of paradise* (National Geographic, 2012, 04:04). Before sharing this video, I created a safe-to-share link through the Safeshare site to take away ads, or any other cluttering information that might draw student's attention away from the video content. After that, I uploaded the new video (<http://bit.ly/18NfXA3>). I shared it with my students (whom had already created their accounts). Students were given four questions to comment about after having watched the video: (1) What does "pura vida" mean for the sake of tourism in Costa Rica? (2) What are prime spots for tourists to visit in Costa Rica? (3) What other important information about Costa Rica would you have included? and (4) Was there any information presented in the video that was not accurate? Students engaged in very insightful conversations over the next two weeks. I carefully read all comments and brought some conclusions to the class. Then, I divided the class into groups of five students and had them reflect on the conclusions. Finally, there was a whole class discussion. Students argued, compared, contrasted, presented their points of views, and reflected on others' points of views. The use of *Voicethread* fostered students' critical thinking skills in a safe collaborative environment.

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Because of all these three experiences with technology, I have embraced and integrated technology in my language classrooms more often; implementing technology has resulted in more interactive lessons. Technological-enhanced approaches are highly related to second language learning theories since they deal with key tenets about learning including sociocultural, communicative, and interactionist theories, motivational issues, and meaningful learning perspectives. Technology provides genuine opportunities for language production and it is highly appreciated by the students: they are motivated and engaged. Reflecting on the students' specific academic needs and deciding on a specific use of technology takes time. Yet investing time is mandatory to guarantee the success of the technology used targeted at reaching for the students' cognitive and linguistic requirements. Also, students must be comfortable with the technology used; otherwise, their experiences can be frustrating and overwhelming. As a language instructor, one must walk the students into the technology to be used and create a safe, encouraging environment where learning can take place. Incorporating technology in the second language learning classroom opens up a new window; it transcends traditional teaching-learning barriers. Nowadays, and more than ever, students need dynamic, collective, engaging, hands-on experiences to more effectively learn and use a second language.

### **Experiences about teaching English as a Second Language (ESL) in the United States**

Recently I worked as an English as a Second Language teacher at a public, K-8 educational campus in Washington DC. My classes included students from multiple grade levels and English language proficiencies. The school has an ESL "pull-out" program, where students are extracted from their classrooms for a period of the day to receive English language support. The focus is on small group instruction and on providing meaningful opportunities for English language production.

#### **MyStoryMaker**

One of the lessons I taught included an exploration of creative writing for my students in upper elementary. We studied story elements, character development, and text features, among others. Part of the teaching challenge included providing students with meaningful opportunities for written language production that was relevant to the content and their different language production levels. I thought of the benefits of including visually-rich resources that would supplement students' understanding and production of written language. My StoryMaker, by Carnegie Library of Pittsburgh, is an online story maker that provided students with creative tools to craft and illustrate partially animated text.

Once I taught students the basic components of a story, we used My StoryMaker to put their newfound knowledge to use. The site highlights key concepts, where students identify themselves as an author by writing their name or choosing a pseudonym. This is followed by a



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choice of realistic and fictional characters. Once chosen, a list of one-two word goals encourages students to think about what will motivate their character. Will it be to defeat, rescue, make friends, or something else? Depending on the choice, another list of possibilities appears. This program emphasizes the main idea of the story by then creating a title based on the choices made by the students. For example: The lion who defeated the genie.

What I found unique and helpful that this program offers English language learners is the flexibility in language use. Students can choose from different objects, other characters, emotions, and interactions and either type the story on their own or be provided with sentences based on their choices. This allows students to practice using story conventions (i.e. once upon a time), action (the lion danced), and prepositional phrases (while holding a ball).

The program is highly visual and encourages creativity. Characters can interact with each other in various, animated ways, as well as hold objects and show emotion. What I found most necessary for students to successfully use this program to write a story was to let them explore. As they created the silliest, funniest, shortest or longest stories, students took turns sharing the process, asking for help if they got stuck, and learning the way the program worked. This allowed for a much richer lesson, as students had to practice the vocabulary they had learned and give meaning to their stories.

Finally, My Storymaker saves all stories, publishes them, and provides the user with a unique code to access their story at any time. Once students finished their stories, we printed them; students informally shared the online and printed version; we discussed the process; and then students formally presented their stories to their peers. The revisiting of the stories allowed students to practice the language. The program and published piece became motivators for these students to engage in meaningful language use. Students pushed themselves to flesh out their stories, thought carefully about the emotions their characters presented and how that tied in with the plot, and exchanged ideas on how to improve their writing. They also expressed they wanted to write more stories.

## Class dojo

Typically, Class Dojo is a program that allows teachers to track and reward student behavior, in real time, using a computer or handheld device, such as a tablet or smartphone. It comes preloaded with positive and negative behaviors for which students can gain or lose points (i.e., being on task vs. being off task). The program features include adding, editing, and deleting student names, choosing avatars for each student, creating behavior reports for any period of time, including personalized notes in the reports, and providing parent and student access to behavior reports.

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While the program proved useful in providing students with a visual representation of their behavior, one particular feature allowed me to transform this behavior management tool into a language-use tracker. Class Dojo allows the user to create new positive and negative categories, which can be unique to every classroom. In order to promote the increased use of English in the classroom, motivate students to use new vocabulary daily, and track individual students' mastery of content and language objectives, I included new categories. Some of these are: used today's new vocabulary when speaking, demonstrated mastery of today's language objective, and used complete sentences in English when writing.

I make a point to show students their progress and they can see the percentage of time they spoke English, which may progressively increase until they have all the tools they need to engage the class in English 100% of the time. Once I began using the program in this way, I noticed students' increased motivation to use the words of the day and consult with a friend or an anchor chart to find words for what they want to say. While language learning cannot be quantified, this program provides a guide for students' learning, which is a powerful motivator and can help empower students to take ownership of their bilingual (or multilingual) abilities.

### **Technology in use: Experiences in an American library**

Unlike my colleagues, I am not a teacher for English Language Learners, but a librarian at a community college with a diverse population in Largo, Maryland. My classes are one-shot sessions where students learn about information literacy and how to use the different research databases available through the college's library. There are two kinds of sessions; one that lasts 50 minutes and another that lasts 75 minutes. These sessions are scheduled ahead of time by professors. Most are targeted to a specific assignment that has been coordinated between the librarian and instructor. Since these are one-time sessions, instruction and assessment must take place within the given time.

### **Audience response systems (Socrative & Poll Everywhere)**

Making a one-shot session on information literacy engaging and informative is a challenge. Most students come with pre-determined attitude that research is boring and that they do not need it. It is up to the librarian to connect with the student and engrave upon them the importance of research, not only for scholarly purposes, but also for life. In my search to break the monotony of these sessions, I started using an audience response system called TurningPoint. My library is fortunate to own a set of 30 response clickers that interact with the software. But, these clickers are not required. The software used to create the polling questions is free and the company provides a free app for both Android and Apple devices. The app turns any smartphone into a response device or clicker. Since I do not interact with these students on a daily basis, I use the set of 30 clickers.



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I started using audience response systems after I learned about them in a professional development training session. Initial set-up is easy; all it requires is to download the software from the website. The TurningPoint software has two components, an addition to PowerPoint and Anywhere Polling. For my sessions, I use the PowerPoint addition, which allows me to add special polling slides to my presentations. I use two types of questions: multiple-choice and true/false. These type of questions required single digit input with the devices, either a number or letter. While the software allows for many different types of questions, I choose the type that will fit with the timeframe of the session.

I start the class with two questions: (1) have you used the library's website before? and (2) are you familiar with research databases? These two questions serve as a way to establish student's previous knowledge. They also give the students an opportunity to become familiar with the clickers.

Once these questions are asked, the following section is focused on search strategies to use while searching the databases. I go over the following topics: determining keywords from a given question, narrow broad topics, generating additional keywords and using Boolean Operators. To help students identify keywords, I give a sample research question and have them pick out the keywords aloud in class first. I then show them another sample and asked them to choose the keywords from three different options (multiple-choice). From there I move on to cover the rest of the material. After teaching all the concepts, I have a variety of questions about them. I make sure that my multiple-choice options have a variety of easy choices (one is obviously wrong) and harder choices (all answers being with the same three letters).

After using the audience response system in my sessions, I have realized that clickers have a variety of advantages:

- Assess students while still in class - I can ask students questions that will provide on the spot assessment of the material. Which is a great way to reinforce what was taught.
- Allows for re-teaching of material that is not understood - if a concept is not clear, I found that it serves as a way to clarify concepts. After the question is asked, and the responses recorded, a bar graph displays that tells what the percent of answers was for each item and what the correct answer is. If a majority of answers is wrong, it allows for re-teaching on the spot.
- Allows all students to participate in class, without being called out or singled out in front of the class - this is particularly useful in an environment where the students do not know the instructor and are reluctant to participate.
- Session statistics - after each session, the software captures student's responses and creates statistics that can be saved for analysis. These statistics can be used for a variety of purposes, mainly course reviews.

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I have also learned some drawbacks from using the system:

- Do a test run before introducing it to the class - you do not want to be stuck with a presentation that does not work the way you envision it. Check that the correct answers and bar graphs display. I always use two or three clickers to test the questions. I use one to answer correctly, one incorrectly and one randomly. This will let me know that the receiver is working correctly and that my correct/incorrect settings are valid.
- System might not work correctly: like with most technology, if you change computers or upgrade systems, the software can have glitches. In my case, my bar graphs and multiple-choice options were misaligned on screen. Also, old presentations might not work with newer software versions.
- Not all students might have a mobile device, be prepared- this is typically not a problem for my sessions, unless there are more than 30 students. But, if you decide to use the mobile app version, make sure that you plan for students that do not have smartphones. One solution is to make answer cards for them with the numbers or letters, then they can hold up the card with their answer when the question is asked.
- Plan time for downloading and installing the app in class - double check that each student downloads the correct app and that it works properly with your presentation. Be prepared to answer questions about the process. I suggest going through installation yourself, so that you are familiar with the procedure.
- After initial sessions, it might get predictable, so do variations - I found that after doing five or six sessions with the same questions, I got tired of them. Where the experience is new to my students, I, as an instructor, was bored. I started keeping a question bank that I could interchange between my different sessions. I revised and wrote new questions periodically.

Using audience response systems in my sessions have made them interactive, and engaging. I found that students focused on the material and I got more interaction from them.

## Conclusion

Technology integration in classrooms continues to be challenging; presenting a constant fluidity of adaptation, transformation, and change, which have become characteristic of 21<sup>st</sup> century environments. There has been a recent enthusiasm for technology and language teaching and learning due to how intertwined they work in educational contexts. Second language learners, through the use of technology are motivated and get engaged easily in using language when it is socially situated in meaningful, authentic scenarios.



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Language and learning are indeed particular acts of creativity, imagination yet most importantly they are acts of “exploration, expression, construction, and profound social and cultural collaboration” (Warschauer & Meskill, 2000, p. 318). In order to promote successful second language learning, the tasks planned with technology must be meaningful, have a genuine interactional component, and have a purpose for authentic communication. According to Levy (2009), “we need to continue to reflect on pedagogy in technology-mediated language learning environments and assess the extended use and value of older technologies, as well as those that are state of the art, which can remain highly relevant for language learning” (p. 779).

Within these times of continuous change, it is important to approach technology with an open and flexible mind. We must also be aware that contexts are unique; different resources will impact and enhance education in a range of ways. What we know today may change or be somehow altered tomorrow. It is this idea of constant change for which it is imperative we prepare all students. We recommend that;

- Teachers approach technology as a resource. No single piece of technology, or style, or method, is the answer to every challenge in education. However, technology presents real challenges students will have to face, making them an important resource for use in the classroom.
- Educators should be conscious and reflect on technology use in the classroom. Important questions to consider in practice include: what is the intended purpose of the technology used? In what ways could its use enrich the learning experiences of students? In what ways does the technology allow for meaningful language and literacy enrichment?
- Teachers should model technology use not just for students, but also for colleagues. Collaboration is an important consideration in 21<sup>st</sup> century technologies.
- Educators seek out and foster innovation, creativity, and collaboration in all environments, not just those that are technology-enhanced, so that students are submerged in environments where they can practice and internalize 21<sup>st</sup> century skills.

Leloup & Ponteiro (2003) concur with the idea that the use of technology is not enough. That is, a poorly planned task will be ineffective whether it is done in a computer-mediated environment or in a face-to-face interaction. It is mandatory, as language instructors to internalize that we need to use technology to fully humanize and enhance the teaching and learning process.

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