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Avatars, Blabberize, and Cell Phones: ABC'S of the Digital Age [paper]

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Abstract

The Digital Age is revolutionizing education. Educators need to be well-trained on the variety of technology tools available. Technology tools captivate the interest of students and encourage high-levels of engagement. Often, the daily lives of students are rich in technology, while teachers lack the knowledge or skills to integrate technology into the curriculum. Two university teacher education professors will share innovative technology tools to enhance instruction. The tools were modeled in education courses for preservice teachers and transferred into K-12 classrooms. Technology tools included: Skype, PhotoPeach, Prezi, Blabberize, Xtranormal, Poll Everywhere (voting with cellphones), Tagxedo, GPS, and GIS. For example, Skype was used to connect to a local weather broadcaster, a foreign student, and classroom to classroom conversations. Poll Everywhere was utilized as a formative assessment to determine students' understandings of concepts discussed in class. Xtranormal introduced concepts in an innovative ways with dialogue between Avatars. Hand-held GPS units were used for geocaching. Examples of student work and benefits of technology tools will be discussed.

Keywords: technology, teacher education

1 INTRODUCTION

The days of using a chalkboard to impart knowledge to students is long in the past. Educators must be fluent with the next generation of technology and prepared to interact with students using the myriad of technology tools that are available (and that will be invented). Not that many years ago teachers communicated with parents through telephones and notes sent home by the student. Now teachers use blogs, send email, create webpages, send text messages, "tweet," or host electronic video meetings. Teachers candidates must be introduced to and have experience with technology tools to deliver content, receive assignments, develop assessments, communicate reports, and create more professional teaching materials. Teacher candidates must also be competent with skills and strategies to seamlessly integrate technology to advance and motivate student learning. With the rapid evolution of technology, universities need to alter current courses, research new tools, and stay abreast of the digital age.

U.S. schools have spent millions of dollars equipping classrooms with internet and state-of-the-art hardware and software. Education Market Research (1) envisioned expenditures on technology products to reach an estimated $8.1 billion for the 2010-2011 school year. Despite the saturation of schools into technology, students are not gaining the benefits. Often, school districts embraced technology without acknowledging that many teachers do not have the skills to utilize these tools. While teacher candidates have a generally positive attitude toward technology, nationally a large number state that they are unprepared to effectively incorporate technology into instruction (2). Therefore, universities must step up to the plate and provide the technology training for future teachers. Although many universities recognize this need, challenges for integrating technology into undergraduate programs include training, technical support, lack of funding, and limited technology resources (3).

There are many free technology resources available to teachers. However, it is important to realize that since these websites are free there is sometimes content that is inappropriate for students. Teachers should monitor students as they use the sites. The following are descriptions of a variety of types of technology used in university classes by two teacher education professors, and subsequently by the teacher candidates with classroom students. University teacher candidates were highly receptive to their use and indicated that they intended to use similar ideas in their own classrooms when they graduate and secure jobs.

Animoto (http://animoto.com/education) and *Photo Peach* (http://photopeach.com/) are sites that create a moving slide show with music, pictures, and scrolling text. Students were able to create sophisticated presentations that go beyond the typical PowerPoint. One popular feature available is the option to embed timed quiz questions in the presentations. This allowed teacher candidates to use a snappy presentation as a formative assessment for the students in the classrooms. Teachers also used this as a technology option for K-12 students to create presentations. The K-12 students enjoyed the creative elements to this site as well as the quick creation of a professional presentation. They carefully selected pictures that would appropriately match with their content and wrote succinct text to go with the images. The K-12 students enjoyed sharing their presentations with the class instead of giving a traditional speech.

Blabberize (http://blabberize.com) is a website that allows a person to upload a picture and then record voices to make that image speak. Teacher candidates used this site as an alternative for student oral presentations. The use of a "talking picture" (such as an historical figure) can be a humorous addition to any lesson.

Glogster (http://edu.glogster.com/) is a web version of a poster with some interactivity. This link is a specific version of Glogster for teachers. Students were able to create online collages or posters on this website. Within the Glog, students could embed photos, videos, graphics, sounds, and drawings. Teacher candidates noted that this site might be used for book reports, presentations, and class projects. Glogster provided opportunities for students to use their creativity while bringing an air of fun into the assignments. K-12 students or teachers could use this site to introduce themselves to the class by profiling their interests and strengths in this interactive format.

Facebook (http://www.facebook.com/) is a social networking site that allows people to communicate with each other via the web. Teacher candidates in one class used Facebook to create profiles of famous people in history. For example, a facebook page of George Washington, first President of the United States, was created. Photographs and general information were posted about the President, as well as, friends that would have lived during his time period. Another student created a Facebook page for geography content. Links to websites, books, maps, and photos with geographic content were created. Each of the pages could serve as a resource page for teachers.

Google Documents provide an opportunity for students to collaborate on documents online. This resource was used to replicate the professional learning communities that exist in many public schools. While working in different locations, teacher candidates used this resource to design their alignment task collaboratively. This technology was demonstrated to show how K-12 students could collaborate with other students across classroom or schools on a project, or even allow students to work at home on the project or in various locations within the school. Secondary teachers discussed how helpful this resource would be for group projects that are not finished at school. Through this site, students can continue their work in various locations without having to email the assignment to each other and wonder if they had the most recent draft.

GPS (Global Positioning System) hand-held units were used in a variety of ways to introduce students to these useful geographic tools. Teacher candidates were first taught how to program in latitude/longitude coordinates to set waypoints. After programming in specific points,
they were then sent on a scavenger hunt around the university campus to find significant iconography. Teacher candidates were required to mark the monument or memorial on a campus map, then take a photo of themselves (using cell phones) with the specific iconography. Other uses of the GPS units included giving teacher candidates the opportunity to mark specific places to hide a geocache, then downloading the points to create a treasure map for students to follow.

Poll Everywhere (www.polleverywhere.com) is a website that transforms cell phones into a student response system. When students call into the site and use the appropriate text number assigned to each multiple choice answer choice, the website creates a chart showing students' selected choices. With this chart, teachers can get quick formative assessment feedback to address misconceptions. In the university setting, it was used to ascertain teacher candidates' understanding of Bloom's taxonomy by having them determine which level on the taxonomy was used for the activity described. Often questions were specifically selected to determine if teacher candidates thoroughly understood the content and to address any misconceptions. In this case, the question was about the Bloom's level of "Creating a PowerPoint on George Washington." This type of resource reduces the amount of time teachers spend grading assessments while providing them real time data to adjust instruction. In addition, an open-ended question can be posed with students texting in their thoughts. To review the essential

questions of the course, preservice teachers texted in their answers to the questions. This format gave everyone a chance to participate in the discussion while not feeling that they had to wait for others to respond. Within seconds, the screen was filled with their thoughts. They enjoyed this alternate way to assess their understandings. While some districts have opposed using cell phones in K-12 classrooms, we found this technology to be very popular with teacher candidates. Another web site, *Poll Daddy*, (http://polldaddy.com/) provides a similar resource, with students using computers to respond to the question rather than cell phones. This site would be particularly helpful for those schools who have embraced the one-to-one laptop initiative. Students in these schools would have laptops in class and thus the teacher could easily utilize this resource to ascertain student comprehension.

Skype (http://www.skype.com/intl/en-us/home) is another free resource that has been used by teacher candidates. Foreign language teachers can easily connect with people across the world to give students an opportunity to accurately hear the dialect of a certain region. Often teachers will use this as a resource to have inter-classroom game competitions between two schools. One local first grade classroom connected with another first grade classroom in a different state to talk about Abraham Lincoln. Since Lincoln was born in the first state and grew up in the other state, it was very interesting to hear the students' perceptions of the great American President. Another third grade class, connected with the local weatherman. The class designed questions based on their weather unit and the weatherman answered those during the Skype conversation. This technology allows experts who might not have the travel time to quickly join a class without having to come to leave the job. With the new smart phones, expert speakers can even connect to classrooms while they are in a coffee shop or walking down the street.

Tagul (http://tagul.com/), *Tagxedo* (http://www.tagxedo.com/) , and *Wordle* (http://www.wordle.net/) are online resources that create word clouds. The word clouds can be in specific forms or randomly shaped. If words are inserted more frequently than others in a text, then those words will show up with larger font size. These sites were used by students to examine text to see if words were repeated. A user would paste in the text and, based on the frequency of words used, would see the text size change.

Visuword (http://www.visuwords.com/) creates an interactive word web showing synonyms for words. This site is provided a great opportunity for students to use as an online dictionary or thesaurus while viewing the various meanings of words. After insertion of a word, the site will create a word web. The creator could change the web by selecting key words and moving them around to show various associations, or double clicking on the word to produce more links with synonyms.

Wall Wisher (http://www.wallwisher.com/) allows for collaboratively developed online wall postings. This tool was helpful for students to post question, concerns, or thoughts about content being presented. Instructors could then respond to those prompts to clarify information. In schools where the students have laptops or meet in computer labs, this site provides teachers a great way to collect student feedback.

Xtranormal (www.xtranormal.com) is another engaging resource using avatars to speak what the author's writes. It can be used as an entertaining way to review key components of a lesson or for students to introduce themselves to each other. The use of avatars is an effective hook to engage students' attention or a humorous review of the lesson. With teacher candidates, the professor designed a Xtranormal presentation on Bloom's taxonomy to summarize the levels. This resource was also used as a formative assessment by allowing K-12 students to create a dialogue using the avatars to address key questions. For example, K-12 students created a dialogue between two major leaders during World War II. They envisioned what would be in that conversation and then wrote the script. One attraction for foreign language students was the option that the avatars can be programmed to speak other languages. The avatars can be directed to walk, move their hands, switch positions, or pause while speaking. The creator can select one or two avatars and the background. Users can also change the camera angles to make the presentation look more professional.

3 CONCLUSION

Technology is ever present in the daily life of students. In order for teachers to meet the needs of students and engage them in active learning, traditional instructional strategies must evolve to embrace these tools. In P-12 schools, often students are not allowed to use the plethora of resources available to them due to lack of knowledge and skills of teachers. It is imperative that new resources for integration of technology are adopted and that teacher training programs provide the necessary instruction for the use of these resources. All of the resources presented in this paper are free online resources that can enhance instruction, assess understanding, and promote students' technology skills. Teacher candidates are more than willing to adopt new technologies.

However, new technologies must be modeled appropriately in university classes, and the knowledge and application skills assessed within teacher candidates' lesson plans. In this way, the millions of dollars spent each year on technology will not stand idle, but be utilized and have a strong impact on student learning.

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