New Online Technology Tools Can be Used Effectively in Traditional Classrooms

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I. Statement of the Research Question

Have you ever felt like the world is technologically spinning out of control? The dizzying advancements in every facet of life are mind boggling; often leaving individuals longing for a teacher to instruct them on how to turn on a television. Over the course of history, the transformation of education has been dramatic; from a one room school house with chalk and slate to a student taking classes via computer. The change continues in a seemingly exponential manner. During my short educational career, I have taught in a school that had only one computer with Internet access, and more recently in a school that has more than two hundred computers with Internet access, a wireless mobile lab, and high school students taking online courses. The introduction of technology into the field of education has transformed instructors, learners and classrooms. As new forms of web-based technology and online classes continue to explode with popularity, traditional classroom teachers will need to learn how to comfortably and effectively integrate these tools into their classrooms. New online technology tools can be used effectively in any traditional classroom.

II. Summary of Relevant Literature

In order to see the importance of new technology tools and different instructing methods, one needs to gain a better understanding and appreciation for today's 21st century learners. Today's students are referred to as "Digital Children" (Jukes, 2008) or "Millennials" (Pedro, 2006). In short, students today are very different. "Not just because they mature years earlier….not just because of the clothes they wear or don't wear….not just because they seem to have more body parts -- which they seem to want to pierce, tattoo, and/or expose…" but because they have "grown up in a new digital landscape" (Jukes, 2008). Pedro (2006) tells us that

"Millennials are the first generation to grow up surrounded by digital media, and most of their activities dealing with peer-to-peer communication….are mediated by these technologies." This is the first generation that is proficient with multiple forms of technology and is naturally able to multitask (Pedro, 2006). Millennial learners have a distinct comfort level with the Internet, online video and audio, blogs, wikis, video games, podcasts, cell phones, and text messaging many of which are utilized in their daily lives (Pedro, 2006). Unfortunately, many traditional classroom teachers do not possess the training or desire to incorporate these tools into their curriculum. According to Jukes (2008) many teachers are considered, "digital immigrants who struggle to come to terms with the rapid change, powerful new technologies and change in thinking."

In order for traditional classroom teachers to embrace new web-based technology tools, they need to be trained and supported by their administration in their technology integration efforts. "The best programs,' according to Alden (n.d.), "offer incentives and support, teacher-directed training, adequate access to technology, community partnerships, and ongoing informal support and training opportunities." Through effective training and workshops, teachers will be equipped with examples of integration that will demonstrate each tool's unique ability to engage learners. "If we are to gain the many benefits technology offers our children in learning and their futures," Alden (n.d.) said, "our teachers must be provided with on-going opportunities to develop their understanding of the value of technology to themselves personally and professionally and effective uses in the classroom." When teachers experience new technology training, they need to reflect and ask themselves, "Which lesson can I integrate this tool into and is the training successful (Starr, 2009)?" In addition to attending trainings, district teachers can learn from each other by demonstrating how they are incorporating on-line technology tools into

their lessons. This allows traditional teachers to view technology integration as 'real' because their own peers are showcasing their expertise. Administration plays a vital role in technology integration by organizing district technology sharing sessions, scheduling early release dates for teachers to 'play' with new technology, and by providing technology training follow up opportunities. When teachers are provided technology time, they have the opportunity to play with new tools as well as maintain the tools they already use.

Concerns that arise when dealing with any new technology, including tools, can often delay integration and can sometimes cause complete failure of integration. One concern is whether or not the tools are readily available. A challenge associated with locating useful on-line tools arises as the result of limited time and resources allotted for attending out-of-district seminars. This challenge is further compounded by the lack of resources to contract with on-site training and the desire to schedule "one size fits all" training opportunities. A second concern is whether there is a cost for the tool and is the tool compatible with the district's current network and/or individual work stations? If a cost exists, is the tool proven to be cost effective? Beyond the technological and financial aspects, will the tool prove to be both useful and practical for traditional classroom use?

Educational technology has recently been influenced by the learner's ability to manipulate and navigate today's gadgets. Student motivation and engagement were, for both teachers and innovators, the most powerful drivers behind using Web 2.0 tools for learning (Crook, Fisher, Graber, Harrison, Lewin, 2008). There are numerous on-line technology tools that are free and available for teachers to utilize even if the number of classroom computers is not plentiful. A few of these tools include blogs, audio files, video files, Google documents,

wikis, email, remote labs, and simulations. Each of these tools has the amazing ability to actively engage learners, especially the millennium learners!

Blogs are a way for teachers, who are comfortable with technology, to create a boundary free classroom where students are able to actively share ideas, discussions, works of art, and links to pertinent classroom material (Crie, 2006). Blog postings are usually short and updated often which makes blogging easy and enticing for students. If a student has Internet access, blogs can be accessed and updated twenty-four hours a day, three hundred sixty-five days a year. Crie (2006) also tells us that "although blogs have been around for years, they have recently gained in popularity and consequently have received more media coverage."

Audio and video files provide learners with a digitally enhanced form of engagement. Many textbooks are shipped with a DVD or on-line links in which students can listen to the chapters. This is a definite benefit for students who are visual learners, auditory learners, or who are poor readers. According to Jukes, (2008) "this digital generation is completely comfortable with the visual bombardment of simultaneous images, text and sounds because for them, such experiences can convey more information in a few seconds than can be communicated by reading an entire book."   Utilizing audio and video technology, such as Animoto, captures the learner's attention and provides the learner with an interesting avenue in which to glean information for collaborative projects. Teacher's can have their students upload their pictures and music to create a video that captivates the entire class! Students can take Animoto one step further and post their videos to their class website (Western, 2008). This nifty tool allows technologically savvy parents and grandparents to experience what is currently being taught in the classroom.

Document sharing software, such as Google documents, allows students to "promote group collaboration and creativity, facilitate the writing process, and encourage collaborative presentation skills" (Google, 2008). This type of tool provides all students the opportunity to actively participate in a discussion or collaborate on a group project and provide comments, via the computer, instead of verbally in front of the class. This tool can be particularly effective with students who are writing a paper and do not have access to a flash drive, are collaborating on a group project, or taking distance courses.

Wikis provide instructors a place to post assignments and students with an on-line area in which they can collaborate and share thoughts about classroom topics (Ferris & Wilder, 2006). As long as students have Internet access, they are able to access class discussions, math problems and solutions, history research projects, and daily assignments (Western, 2008). This tool has been extremely beneficial for the students who have been absent due to illness or school activities. In order for wiki's to be effectively utilized in the classroom, deliberate and creative planning must take place (Ferris & Wilder, 2006).

Email is a tried and true web-based technology tool that provides learners and instructors with the ability to "communicate with anyone or anything at anytime, anywhere day or night" (Jukes, 2008). Instructors and students are able to assist each other, through email, by providing assignment guidance and topic clarification. Email is one of the easiest forms of communication in an educational setting. When our students receive their email privileges, they are informed of the Email Golden Rule; "don't write anything in an email, that you wouldn't be able to say to someone's face." This helps remind students that distance does not give one the right to be rude or intolerant.

Remote labs provide learners with the unique opportunity to perform real experiments on-line. The results produced with this technology mirror those of an actual classroom experiment. This type of learning excites millennial learners! I recall student reactions to this new form of technology with phrases such as: "Mrs. Block this is awesome, watch this!" and "Guys, this is so cool!" Students must often look beyond the awestruck of the technology in order to realize the importance of focusing on the actual experiment.

Simulations also have the ability to engage cognitive learning and increase problem-solving skills. Examples of simulations include interactive science experiments, human body tours, biology dissections, gaming, and flight simulators. According to the Glencoe/McGraw-Hill site (2005) "students are often highly motivated by computer simulations, increasing the desire to learn and the capability for retention." Each type of simulation has the ability to provide students with a real-world occurrence that they normally would not experience and encourages higher-learning skills. Because much of this learning takes place quickly and repetitively, students learn a tremendous amount of information in a short amount of time (Pedro, 2006).

Each of these on-line tools can be effectively integrated into the traditional classroom with proper training, a willingness to integrate, and allotted time for investigation and planning. As with any new concept, follow-up training and preparation time is necessary for effective implementation. As teachers in traditional learning environments adjust their teaching style and take on the role of facilitator, these tools will help promote participation, enhance engagement, and increase collaboration (Filcher & Miller, 2000). Once these forms of on-line technology are

embraced by traditional classroom teachers, millennial learners will definitely thrive in the learning environment!

III. Effect that the Distance Education Position Could Have

As the technology in our world continues to evolve, so does the field of education. Today's learners are active Internet and digital media users who thrive on high speed communication and instant gratification. For traditional teacher**s** to actively and effectively engage today's learners, instruction styles must be tailored to the digital movement.

Education and training with the new available technology tools is inevitable. Resistance to technology is becoming virtually nonexistent; rather skepticism and the fear of the unknown causes hesitation for embracing technology tools. Once traditional teachers have a few of their questions answered, however, the process of change and acceptance will begin. Questions like: "What are teachers doing with the technology tool? How do the tools impact teaching and learning? and What factors hinder or assist the teachers use of the technology tools?" (Crook et al., 2008). When traditional teachers have the opportunity to see the technology tools modeled, when they are provided with adequate training, and when they accept the tools as the wave of the future, integration will take place.

IV. Conclusion and Recommendation

The content of a course will be the only constant in the future. The delivery will continually evolve as the tools used for delivery continue to advance. The challenge for teachers in the future will be to effectively implement technological tools that are driven by the abilities

of the learners. Obviously, the younger educators, millennial learners, will embrace this challenge more than their experienced colleagues, digital immigrants.

New online technology tools can be used effectively in any traditional classroom. Introduction to the new technology tools, along with proper training, time to collaborate with other teachers, and technological resources, will ensure successful integration in the traditional classroom. Ultimately, the teacher is responsible for integration. Any teacher striving to successfully implement technology tools in the traditional classroom will require thorough planning. This planning must include adequate investigation and preparation of the technology tools to be utilized. With proper planning and integration, online technology tools will effectively enhance the traditional classroom.

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