**21st Century Learning Environment Technology Integration**

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**To what extent do these sites serve as models for promoting meaningful learning?**

(What is required of an online learning environment to promote meaningful learning?)

 Why the need for technology? According to the Partnership for 21st Century skills article, “technology will continuously be a driving force in workplaces, communities and personal lives in the 21st century. With this type of environment, producing technologically literate citizens that are employable rises every year,” (Partnership for 21st, n.d.). The partnership also discussed how educators believe that using technology is the best way for them to teach. “By using technology educators can bring the world into the classrooms and make content more relevant and applicable to their students’ lives,” (Partnership for 21st, n.d.).

Resources such as the virtual learning environment of *Moodle* and *School Town* are essential to assist educators as they implement technology. However, the resources alone will not become beneficial if a strategic plan, adequate training, and appropriate use are not in place as stated below.

 “Perhaps the most fundamental requirement of creating an online learning environment is an organized, well-defined, and effective strategic plan from school administration,” (*Issues in Implementing Technology in Schools*, 2010). Jukes and McCaine state, “Furthermore, the availability and accessibility of resources to implement technology in classrooms should be established. Equally as important is adequate training for educators. If their [teachers] roles are to become the facilitators between traditional curriculum and the digital world, it is crucial that they receive the necessary training as well,” (*Closing the Digital Divide*, 2008).

 “What is also necessary inside of the classroom from the educator is the clarification of what exactly constitutes appropriate use. If an educator establishes their expectations on how the internet should and will be used in the classroom, it could alleviate the possibilities of distractions for students,” (*Issues in Implementing Technology in Schools*, 2010).

In the article, “*The 21st Century Teaching-Learning Environment,*” Hal Portner comments on the importance of organized and collaborative groups, “Research done by the Center for Public Education showed that students were more academically productive, more likely to participate in school activities, better behaved, and less likely to drop out of school when they learned in organized and collaborate groups,” (2009).

**How do some of the sites you visited promote meaningful learning?**

The Ohio 21st Century Skills Initiative appears to be an extremely proactive program as well. Aside from the traditional curriculum approach, they built other components which develop what they believe are the essential skills that a 21st century student will need to be successful when they are finished with their academic career (they are working to have their model applied from pre-school to collegiate). There approach includes: “21st Century Themes; Learning and Innovation Skills as well as Information, Media and Technology skills. All of their components are designed in a cooperative learning environment which fosters creative problem solving as well as developing community responsibility,” (21st Century Skills, 2010).

 Ohio’s 21st Century Skills Initiative and the Partnership for 21st Century skills (as stated previously) both conveyed the belief that there is definitely a gap between 20th and 21st century education. Both supported the theory that technology is inevitable and that education has to incorporate technology. Collaboration and cooperative learning, as well as the connection between real life by way of employment and education were also addressed within each site.

Overall, Ohio’s initiative referred to technology as a tool to be utilized to enhance curriculum. Perhaps David Warlick had a good point when he stated,

If the students' work can easily be done with pencil and paper, then they should use pencil and paper. If their work is to be compiled and published as a school literary magazine or to be communicated digitally to a distant audience with an authentic goal, then they should use a computer. If the information is available in an encyclopedia, then use the book. If the information or perspective that you seek is not available in print, or if the information is to be processed using computer software, then go to the Internet. When we use tools for teaching and learning, then we should use the tool whose qualities will help us accomplish our goals, (Warlick, 2002).

**How do these sites demonstrate attention to 21st Century learning skills?**

In today’s education world, technology is playing a much bigger role than it has in the past. This integration has led to the increasing need for students to develop 21st Century learning skills, which involves the combination of many competencies, including technology. Because technology of all kinds is at everyone’s fingertips, it is only natural that today’s students would thrive in an environment based upon these skills.

The articles that we focused on clearly portrayed 21st Century learning skills have importance in today’s education. Two main advantages of the incorporation of 21st Century learning skills were 1) that they support more critical, deeper thinking in students and 2) they provide students with various ways to display their knowledge. Overall, these skills will help prepare students for the challenges of everyday life in the “real” world.

 21st century skills involve developing new ways of thinking such as using knowledge and skills by “thinking critically, applying knowledge to new situations, analyzing information, comprehending new ideas, communicating, collaborating, solving problems, making decisions” (Partnership for 21st, n.d.). The incorporation of these skills is needed in classrooms, as they will eventually be needed in the real world.

According to the Partnership for 21st Century skills article, “Of course, these higher-level thinking skills, or learning skills, are not new, but they are increasingly important in workplaces and community life” (Partnership for 21st, n.d.). Ultimately, these newfound skills will be able to prepare students for the challenges they might face in real-life situations.

 Another advantage of the incorporation of 21st century skills that was pointed out is that they allow students to portray their knowledge in various ways. Thus, this provides many different kinds of assessment opportunities for the teacher. According to the State Education Agency article, some of these include “portfolio assessments, performance assessments, and virtual learning” (State Education Agency, n.d.). “Technology is integral to the effectiveness of portfolio assessment as it allows for the creation and sharing of a portfolio from within and outside of a school. Likewise, Technology can facilitate performance assessment by creating simulations of projects or activities that require, in accurate fashion, the same behavioral procedure and choices as the real‐life situation…virtual learning can be a great asset to schools, as it can supplement the bricks and mortar school approach to enhance learning and promote 24‐7 access, supporting the notion of life‐long learning” (State Education Agency, n.d.).

All of these opportunities are technology-enhanced, which is a major part of 21st Century skills. According to the Partnership for 21st Century skills article, “…technology is and will continue to be a driving force in workplaces, communities and personal lives in the 21st century” (Partnership for 21st, n.d.). These two articles have made it apparent that the incorporation of 21st Century skills are needed in order for today’s students to be as successful as possible, while both in school and in the real world.

**To what extent and how do these contribute to an improved learning environment for students?**

According to the Partnership for 21st Century skills article, “Today’s education system faces irrelevance unless we bridge the gap between how students live and how they learn,” (Partnership for 21st, n.d.). According to the State Education Agency article, “21st century learning environments [will] provide opportunities for collaboration and access to relevant content that would not usually be available to the highest need students being served by these programs,” (State Education Agency, n.d.). The Partnership for 21st Century skills article also states, “To strengthen core subjects and move toward a 21st century education, there are six elements schools can incorporate: 1) emphasize core subject, 2) emphasize learning skills, 3) use 21st century tools to develop learning skills, 4) teach and learn in a 21st century context, 5) teach and learn 21st century content, and 6) use 21st century assessments that measure 21st century skills,” (Partnership for 21st, n.d.).

21st Century tools mentioned above would include but are not limited to: “teacher laptop and productivity tools, a presentation device, a projector, learner response devices, a document camera, a digital camera, a video camera, robust software and digital content, a printer and training,” (State Education Agency, n.d.). In addition, combing the tools from above with learner management systems would also provide, “online tools like a discussion forums, file exchange, email, online journal/blogging, real-time chat…bookmarks, calendars, search tools, group work, electronic portfolios, registration integration, hosted services, quizzes/surveys, marketing tools/grade book, student tracking, content sharing, and an object repository, amongst other tool offerings,” (State Education Agency, n.d.).

To make the learning environment truly effective, the State Education Agency’s article goes on to state, “Teachers engage in on-going and job embedded professional development through access to on-line courses, professional learning communities, education portals with resources and lesson plans,” (State Education Agency, n.d.). The 21st Century Learning Skills article further states, “…by thinking critically, applying knowledge to new situations, analyzing information, comprehending new ideas, communicating, collaborating, solving problems, making decisions [students will utilize knowledge and skills effectively],” (Partnership for 21st, n.d.).

Works Cited

21st Century Skills Ohio, (2010). *Ohio’s 21st century skills initiative* Columbia, OH: Government Printing Office. Retrieved from <http://21stcenturyskillsohio.org/?p=1>.

Jukes, Ian, & McCain, Ted. (2008). *Closing the Digital Divide: 7 Things Education & Educators Need to Do.* The InfoSavvy Group and Cystar, 1-31. <http://www.committedsardine.com/handouts/ctdd.pdf>.

Lever-Duffy, J. & McDonald, J.B. (Ed.). (2010). From Chapter 11 of *Issues in Implementing Technology in Schools*. Boston, MA: Pearson Learning Solutions.

Partnership for 21st Century Skills (P21), (n.d.). Learning for the 21st century: a report and mile guide for 21st century skills. Washington, DC: Government Printing Office. Retrieved from <http://www.p21.org/downloads/P21_Report.pdf>

Portner, Hal. (2009, March 1). The 21st century teaching-learning environment (think outside the classroom box) [Online Forum Comment]. Retrieved from <http://teachers.net/gazette/MAR09/portner/>.

State Education Agency, State Educational Technology Directors Association (SETDA). (n.d.). 21st century learning environment models. Government Printing Office. Retrieved from <http://www.setda.org/c/document_library/get_file?folderId=281&name=DLFE-424.pdf>

Warlick, D. F. (2002). *Integration: Building 21st Century Learning Environments*. [Edited Excerpt of Third Edition]. (Online Version), Retrieved from <http://www.landmark-project.com/edtechnot_warlick/>.