Philosophy of Instructional Technology

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Instructional Technology

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Using technology during instruction can enrich the learning experience for the student and also assist the teacher in collecting data, utilize limited instructional time and allow for a 21st century learning environment. Generally speaking, the 21st century skills concept is motivated by the belief that teaching students the most relevant, useful, in-demand, and universally applicable skills should be prioritized in today’s schools (Ed Glossary, 2016).

A top priority for educators today is to prepare their students for the future and the possible career paths students may take. Student success requires a highly qualified teacher who uses their expertise and assessment tools to diagnose learner needs, and then crafts targeted instruction with the available resources (McCarthy, 2018).

Education is always changing; the nature of how we teach students requires constant improvement and self-reflection from the teacher in order to meet students’ needs. The modern day classroom has changed so much in the past twenty years due to the technological advances that have been made. There is not a career or job that hasn’t changed somewhat because of technology. It is our duty as educators to assist students in being “tech savvy” and having an understanding of technology and how they can apply newly learned skills to their potential career.

Implementing technology in the regular classroom has many benefits. The world is now a much smaller place because of the online resources available to us. We are now more connected than ever before and when technology is used the right way in the classroom, it allows students to become competent 21st century learners. It is common for many school districts to have individual student access to chromebooks, tablets and laptops. Access to these electronic devices allows students to present knowledge gained in so many new and different ways. The 21st century classroom is moving further and further away from students displaying skills or learning goals accomplished, through a paper and pencil test. Paper and pencil assessments of course still have a place but practically every state across the country has moved to administering standardized tests through online platforms.

This is a big problem in education today, administrators and school districts want teachers to assess their students by differentiating assessments and allowing students to have a choice in how they want to present their knowledge gained in the classroom. But, educators are still going to be judged on how their students do on the standardized state test at the end of the school year! Having access to these digital tools allows students to present knowledge gained from learning through the use of PowerPoint presentations, Youtube videos, Prezi’s, live voting/polling and so much more. Educators with digital resources should make every effort to assess their students using a variety of online learning platforms and allow students choice in how they want to present their knowledge gained.

Another important component of being an effective 21st century educator is to encourage collaboration, creativity and critical thinking in the classroom. This is another problem educators face because many have the mentality of “teaching to the big test”. Educators need to promote and encourage the value of creativity, and give students every chance to show it in the classroom (Nicholas Provenzano, 2015). It is hard to facilitate creativity sometimes when learning goals are so concrete and black and white. Educators should be worried about creativity and how to ensure their classroom is a creative environment where all thoughts and ideas are encouraged and allowed to explore. Educators can assess students through open-ended projects.

A standard project requires students following a list of instructions and a rubric on which they will be graded. Creativity can exist within those guidelines but it can be tough when their grade is determined by following the instructions. Open-ended projects allow the students to select the type of project they want to create and select different rubrics to which they will be graded on. A simple open-ended project like this allows students choice and to display mastery in different digital formats set by the teacher.

Technology leaders in school districts face a challenge of encouraging educators who have been teaching for many years, who are fearful of change and unwilling to learn new 21st century methods. Despite the fast-paced advancements in the world of e-learning, there are still some teachers who are left behind. The teachers who have trouble integrating technology in education or they simply don’t want to change (Frolian, 2015). This can be accomplished when teachers are shown that digital tools can actually lead to lighter workloads for teachers. Through small group professional development, technology leaders can show the benefits of technology use in the classroom and how it positively impacts the learning experience of each student while facilitating a 21st century learning environment.

Another challenge that faces technology leaders and teachers is how to properly implement technology. Technology should be used to enhance the learning experience for the student. This can only take place when technology is appropriately selected to support the learning goals and objectives of the unit. Unfortunately, technology is sometimes used the wrong way. Teachers should not use technology as the main teaching resource. This method promotes the technology to be the focus for the student and not the converse. The learning goals should never be for students to learn a new technology but for digital resources to support curriculum goals.

Appropriate use of digital resources in the classroom should adhere to the TPACK model. The TPACK model (Technological, Pedagogy and content knowledge) is a framework that when used correctly allows educators to fully support learning. The TPACK approach goes beyond seeing these three knowledge bases in isolation (Koehler, 2012). Some educators may have skills that meet just one part of the TPACK model but with the successful implementation of all three components combined allows learners with different needs, behaviors and learning styles the opportunity to show growth in the content area.

It is the role of technology leaders in districts to ensure schools are utilizing the digital resources available to them. Technology vendors and their most engaged, enthusiastic customers say that many educators leave significant potential untapped because they are unable to see how technology could be more transformative or are unwilling to make the bold moves necessary to align curriculum with technology rather than the other way around (Finkle, 2012).

It is difficult for technology leaders to convince some educators to “change their ways” or learn about new resources to support learning in the classroom. It is also the technology leaders role to evaluate programs districts spend money on. Taxpayer money can be wasted if the technology leader does not ensure appropriate training for educators to implement programs in the classroom. Educators, along with technology administrators should collaborate on how best to implement technologies. This allows for meaningful discussion on how best to meet the learners’ needs.

Technology leaders also face the challenge of addressing legal, social and ethical issues when it comes to digital resources in the classroom. Educators have a large responsibility in adhering to FERPA laws that protect the personal and academic information of each student. Educators should never leave private information on open computer screens where other students can see. Educators must always be cautious about giving out information without consent. Technology leaders should also ensure educators in their districts are well trained and knowledgeable on current copyright laws and issues. Educators need to be cautious about what software they use and download on multiple computers as using one software license on multiple devices is breaking the law. Educators should also be trained in what steps to take in issues of student plagiarism. With so much available information online, it is too easy for students to steal information without giving credit for someone else’s work.

Finally, technology leaders and educators have many responsibilities towards effective and proper use of digital resources in the classroom. Technologies must support learning goals and be age appropriate to the learner. There must also be open collaboration between students, educators and administration to ensure all students’ needs are being met in the classroom.

References

Koehler, M. (2012, September 24). TPACK.ORG. Retrieved October 17, 2018, from <http://tpack.org/>

Partnership, G. S. (2016, August 25). 21st Century Skills Definition. Retrieved from <https://www.edglossary.org/21st-century-skills/>

McCarthy, J. (2018, September 24). Tech Integration in Blended Learning. Retrieved October 16, 2018, from

<https://www.edutopia.org/article/tech-integration-blended-learning>

Froilan, E. (2015, November 17). Bridging the gap between traditional teachers and modern students [Blog post]. Retrieved October 16, 2018, from <http://blog.neolms.com/gap-between-traditional-teachers-and-modern-students/>

Finkle, E. D. (2012, August 22). The latest, greatest tools won’t buy you success without a plan. [Blog post]. Retrieved October 16, 2018, from https://www.districtadministration.com/article/getting-best-roi-technology