

This philosophy of technology education has evolved in line with the changing technology over the course of several years. Educating the children of this technological age is a challenge. They have always had technology in their lives. These students have not known a world without computers and cell phones. Integrating technology into my classroom seamlessly is a priority. This philosophy is based on teaching experience, the constructivist approach to education and the research that has been proven to be best practice when it comes to integrating technology into education. Students expect the use of technology in their education and need to have many opportunities to practice and to hone their 21st century skills. It is a teacher's job to provide these opportunities to all students.

The classroom experience looks different in the 21st century than it did 50 years ago. Many students are no longer in a physical building and are being educated in an online environment where technology is their lifeline to learning. Students in today's classroom are encouraged to use technology for communication, collaboration, creativity and critical thinking. These skills having been identified as the skills that will help students be successful in their world. (Ross, 2018) .

The first way to use technology in the classroom is by teaching students to become critical thinkers. Teaching students to be self-motivated, seek answers, have a willingness to change their view and to grow in knowledge are all ways to help them become critical thinkers. The process of teaching students to think critically, using only textbooks and paper, can be a slow process. Use of technology in the classroom for research, using the internet effectively, provides students with expanded options and speed to gain much knowledge on any topic

The next way to use technology in the classroom is through expanded communication and collaboration. This is another way technology provides options to help students develop critical thinking skills. Connecting with other cultures or experts from around the world can be a helpful tool in forming opinions, deeper understanding and problem solving. Students connecting with peers in a classroom in another state or a different country provide insights into how culture, location and circumstance affect thinking and outcomes. Tools like webcams and programs like Skype, or FaceTime are valuable tools providing direct interaction with their peers.

Students need the opportunity to work out problems while collaborating with students from around the world. This is a strength of using technology in the classroom. Students are able to expand their knowledge, meet with students of different cultures and gain a deeper understanding of varied viewpoints and ideas.

Using digital media to help developing student's creativity, another important 21st century skill, can be accomplished by providing students the freedom to express their ideas using different technology tools.(Ross, 2018) Doing this allows each student to uniquely express their ideas while using their preferred learning methods. Giving students the choice of tools to use to showcase their expertise helps motivate and improve student engagement. Choices of expression include drawing using computer software, making a video, writing a poem or song, writing a report or making a podcast. Using these tools will also, on occasion, inspire students to new combinations and uses of these tools. My role is to guide the students, giving them opportunities in the classroom to experiment with each medium allowing them to make informed decisions when choosing the tools that suit them and the learning situation best.

In today's environment it is easy to expect that the students will have their own one to one devices available so that they could have the technology at their ready. Many school districts seem to be embracing this idea. Several schools, in my area, provide a laptop to every student as they become freshmen in high school. While this would create an ideal situation, limitations and constraints to incorporating technology into lessons are often imposed by access or lack thereof to the various technologies. Many people, around the world, do not have access to computers, internet, or phones. These limitations must be a priority consideration when incorporating technology into lessons. Students must be provided ample time, during class, to work on projects and lessons ensuring that they have the resources they need to reach the outcomes expected of them.

Teaching ethical use of digital media is important in any classroom. It is very easy for students to search for images, video and audio clips, adding them to their presentations without considering the source of the materials. Students must be educated in the appropriate use of media as well as the words that they write. Downloading music and video is illegal. (Williamson & Redish , 2009), Plagiarism is unethical. Copying and pasting, words, music, pictures and videos from websites or online publications are not their original work. Students must be provided appropriate reference material to understand the pitfalls of copyright violations and plagiarism. Students must be educated in the definition of 'original work' and held to a standard that demonstrates their understanding of these concepts.

Technology is always used in my classroom. Students log on daily, accessing their learning management system. Collaboration tools are the way of interacting with other students and their teachers. Designing lessons that leverage these tools, often in different and engaging ways, is a challenge. Using the TPACK model will help design these lessons.

The TPACK framework explains how pedagogy, content, and technology knowledge work together to create a learning environment that is ready for the 21st century. The TPACK framework is a fluid model allowing you to choose a starting discipline; technology, pedagogy or content and then integrate the other two. For example, if you are an expert in the content area, you pick the content you want teach, decide how you want to teach it and then decide what piece of technology that will be used in the classroom. Mishra and Koehler explains that the intersection of content, pedagogy, and technology happen on the fly in the classroom when instruction is happening. (Herring, Mishra & Koehler, 2016)

This model provides the freedom to start where a teacher feels the most comfortable. You should start with the content piece when designing lessons for math and science if that is where your expertise lies. You could start with the pedagogy piece when designing lessons for reading or writing because a teacher might not have the content knowledge but the expertise lies within how to teach these subjects. Even though, if you are very knowledgeable and comfortable incorporating technology into lessons, that is not where teachers start when designing lessons. Content and pedagogy must stand, independent of the delivery method(s). (“The Digital Curriculum”, 2018) Digital media will be integrated in all lessons, but you don’t want to set the parameters for what kind of technology the students will use. Students should look at the problem or project being presented and decide for themselves what type of technology tool will work best for them to achieve the lesson objectives. This is part of the ISTE Standards for students. The standard says that the students will use appropriate platforms and tools for meeting the desired objectives of their creation or communication. (“ISTE Standards for Students”, 2018)

Teaching and learning looks very different in the 21st century. Students must be prepared to be part of a global community where they will be able to contribute in a positive manner.

Incorporating meaningful lessons using all types of technology will help them become critical thinkers, good communicators, and work with others productively.

Being a lifelong learner is important. Education is changing to incorporate digital media and I am keeping that in the forefront when exploring changes to my lessons. Your colleagues are a great source for continued learning. Seeking out seasoned teachers to discuss new ideas on how they use digital media in their lessons helps teachers grow. Workshops and college courses keep teachers abreast of new and exciting ideas in education. Reading trade journals also help implement new delivery methods using technology and keep students excited and interested in learning.

Finally, all students should leave the classroom with a greater sense of the importance of education. They should go on to become important contributing members in society by learning a trade, going on to college or performing in the arts. A teacher's hope is to instill in them the love of lifelong learning and the appropriate use and respect of technology.

References

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