

Running Head: TEACHING WITH TECHNOLOGY

The Journey of Teaching with Technology

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Abstract

This reflection paper looks at the teaching and learning process as a journey through the pathway of technology. Along this path there are some ~~of the~~ issues that need to be discussed. One is constructivism and how it can be a positive method of teaching technology. Another is the instructional evolution and where this author and her students fit into the process. The redefining of the student-teacher relationship and how peer tutoring can be an effective method for teaching technology is an interesting issue that is explored. Finally, a discussion on the skills necessary to become a successful technology leader is addressed.

Technology and teaching are becoming intertwined and we as educators need to prepare ourselves in order to create environments where learning flourishes.

The Journey of Teaching with Technology

Teaching is a journey that we chose to take at sometime in our life. Learning on the other hand is a journey of discovery we take throughout our entire lifetime. Along the way we ~~get to~~ make choices about the paths that we can chose in our teaching and learning experience. One of those pathways is technology. Some of us are delighted with this trail; others drag their feet or even refuse to go. I believe that this pathway of learning with technology has just started to explode into a superhighway. The teachers of the future are going to be required to use technology in the classroom. It is a journey that we must transition into so that our students will be prepared to function properly in our society. In this transition we must be open to new and exciting ways of teaching technology to our students.

Constructivism and Technology

Constructivism theory is unique way of learning. In the traditional classroom environment or "real school" the teacher stands up in front of the class and spreads knowledge while the students listen, take notes or perhaps engage in discussion. Constructivism allows the students to become proactive in their learning process. Through activities they will take their ideas, experiences, and perspective's and create their own learning course. The teacher is not the one in control of the learning environment. Instead the teacher becomes a facilitator of learning, guiding and assisting students, but letting the students take off in their own direction.

With the No Child Left Behind policy too many schools today are focused on the test scores of their students. They don't teach their students to think or learn for themselves, but limit instruction to drills and practice test. Students are better test takers, but at a terrible cost (Sandholtz, Ringstaff, & Dwyer, 1997).

I embrace the constructivism method of teaching. I would much rather students discover and learn information on their own than having me step them through the process. Adult learners, like children should be given opportunities to construct and interpret meaning for themselves rather than being fed information (Sandholtz, Ringstaff, & Dwyer, 1997). I find that the classroom environment is exciting and the students are more motivated when they actively participate in their own learning.

Technology is a great tool for helping to incorporate the theory of constructivism into the classroom. Students have access to the Internet and software that can aid them in their journey to discovering the world of knowledge. Technology also allows many different ways to learn the knowledge. This is very beneficial, because not all students learn or develop in the same way.

I really believe that we should encourage our students to learn for themselves how to discover knowledge, solve problems and create ideas. This will create an excitement for learning and help to build lifelong learners.

Instructional Evolution

The stages of instructional evolution are entry, adoption, adaptation, appropriation and invention. I find that my students and I fluctuate between all of these stages during the course of the semester. I teach computer literacy to adults at the college level. I have to address many different ages and levels of knowledge. At the beginning of the semester we all are adjusting to changes that were made to the classroom or upgrades that were installed on the computers during break. We are momentarily in the entry stage, but progress rapidly to the adoption stage. In this stage we are getting comfortable with the equipment, the software, navigating the Internet and learning how to utilize the technology. In the next phase of adaptation some of my students stall

out. They become productive and learn just enough of the basics to get through the class. Most of my students function in the following phase of appropriation. They maneuver seamlessly in the computer environment. Switching back and forth from the Internet, to the word processor cutting and pasting information. They gain knowledge without being frustrated by the technology. I function at the invention phase most of the time. I am creating new ways for my students to use the technology. I design web pages for my student, use the online classroom and introduce software updates. I get my students ~~to become~~ involved in this phase by challenging them to teach me the new technology. The best part of technology is that it is always changing. I love the interaction I have with my students and how we learn from one another.

Redefining Student-Teacher Roles

As a student, I was educated by traditional strategies. The teacher was in control and knew more than the students. As an instructor of technology to adults, I never assume that I know it all. I want my students to teach me as much as I teach them. The role of student-teacher needs to change from a superior-subordinate environment to a cooperative learning environment with the teacher serving as a guide. We must teach students to think and learn for themselves so they can continue to learn throughout their whole life. Unfortunately, some schools give more importance to knowledge and numbers and grammar than to knowledge about learning (Kafai, Yasmin, & Resnick, 1996, p.11). Our society is changing as Peter Drucker points out in his article, The Age of Social Transformation. He states, "An educated person will be somebody who has learned how to learn and who continues to learn, especially by formal education, throughout his or her lifetime" (Drucker, 1994).

One way to redefine the role of student-teacher is through peer tutoring. A technology rich classroom is an environment that is well suited for peer tutoring. Allowing students to assist each other has many benefits. It frees the teacher from having to deal with all of the questions and lets the learning move at a faster pace. It gives students confidence and reinforces the thoughts and ideas that they are learning. Most of all it lets the students become active learners. There are a several considerations to consider when using peer tutoring. They are: 1) allow the lower-achieving students to take the role of the expert, 2) students should not be limited to share their expertise only with their peer, 3) students need guidance in how to tutor their peers and 4) traditional forms of assessment may not be adequate (Sandholtz, Ringstaff & Dwyer, 1997).

A Technology Leader

To be an effective leader one needs to have very good communication skills. Not only for getting your point across to others, but an effectual leader needs to also be a good listener. Giving emotional support is a very important factor. A teacher maybe teetering on the edge of giving up on technology because of a small problem that can be solved by just listening. Technical support is vital to being a technology leader, however teachers can abuse this support. The technology leader needs to empower the teachers to solve problems by showing them how to trouble shoot on their own. Instructional sharing is really where you want teachers to function. Getting them to interact with each other is a key to the success of using technology in the classroom. There is simply too much out there for one technology leader to learn and share with everyone. The leader needs to inspire the other teachers to interact with each other when they discover something new. Team teaching is a tough one, but can be most effective. Finding the right personalities to work together is the biggest challenge. There has to be a real trust and commitment that comes with team teaching.

As an adjunct instructor at a community college I would love more interaction with other instructors. It is not promoted and often I feel isolated. Everyone does his or her own thing. I believe that the students would benefit if we shared teaching ideas and how we utilize technology in our classrooms. The closest I come to team teaching is when I have a guest speaker come in to address the class on a part of technology where I lack expertise.

Before teaching I worked in a design setting and we always worked in teams. I find it strange that teachers like to isolate themselves in their classrooms and rule over their own little kingdom. It may be more comfortable for them to retain this control, but the students would benefit more if teachers worked together to form cooperative learning environments. Technology is a wonderful tool that allows teachers to communicate and share their ideas and methods.

Conclusion

We are living in an exciting time, where technology is literally everywhere in our society. As educators we must be open to new and innovative learning tools and methods that loom on the horizon. To those looking for a powerful tool to support collaborative learning environments, technology holds a tremendous potential (Sandholtz, Ringstaff & Dwyer, 1997).

We should embrace technology and its potential and explore new methods of teaching so that we become better teachers and give our students the tools they need to become successful citizens and lifelong learners.

References

Drucker, P.F., (November 1994), *The Age of Social Transformation*, The Atlantic Monthly

Kafai, Yasmin, & Resnick, Mitchel (1996). *Constructionism in Practice: designing, thinking, and learning in a digital world*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Sandholtz J.H., Ringstaff, C., & Dwyer, D.C., (1997), *Teaching with Technology: Creating Student-Centered Classrooms*, Teachers College Press: Columbia University