Philosophy of Teaching: Teachers are the Modern Day Techies

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ABSTRACT

The integration of technology into educational classrooms affects learners, educators, and technology leaders. The philosophies of educators such as myself and the role of technology significantly impacts student learning within a classroom. Educators, district administrators, and professional technologists are challenged by the constantly evolving technologies and ethical issues that surface. In a classroom, teachers need to be as technologically savvy as possible in order to arm students with the 21st century skills that will be needed to compete in society after graduation.
Philosophy of Teaching: Teachers are the Modern Day Techies

The purpose of this paper is to explore the integration of technology into educational classrooms and my teaching philosophies pertaining to learners, colleagues, and technology leaders. First, I will explore my classroom philosophies and the role of technology as it impacts classroom dynamics. This section delves into history of communication, learning skills, as well as purposes and ethical uses of classroom technologies. Similarly, the subsequent sections will explain these same educational aspects in relation to the school districts and professional technology leaders. Hence, successful 21st century teachers need to be the technology leaders in the ever evolving educational systems.

Has the goal of education changed at all in the last few centuries? History supports that by definition teachers are expected to assist students in the acquisition of knowledge. On the other hand, philosophies of education, the classrooms, and educators have changed. Teachers no longer just disseminate information while students memorize it. Many teachers, myself included, are proponents of the constructivist views for teaching. Teachers adhering to this educational philosophy create real world problems that the students must solve. Modern classrooms often integrate technologies to assist the students as they do research to uncover answers. Effective classroom educators engage the learners in challenges that promote creativity. Many of these projects require students to interact not only with technology, but also other experts as well as their classmates. Teamwork, cooperation, and communication skills are essential in a constructivist classroom. Students can collaborate on shared documents with applications such as Google Apps. Regardless of the subject matter, educators provide the parameters, yet students
are given flexibility and creative licensure to solve problems. Students navigate through websites, webquests, podcasts, and databases during research. Using digital cameras, videos, microphones, etc., students create various presentations in PowerPoint, Excel, SmartBoard, Microsoft Word, Adobe Photoshop software, just to name a few. Hence, teachers and students interact with various technological tools, content information, resources, and unknown challenges together in an effective 21st century classroom.

Personally, I believe that we are all lifetime learners. Now, with the addition of ever evolving technology into the classroom, “teachers become lifelong learners who are willing to contend with ambiguity, frustration, and change,” (Colbert, Boyd, Clark, Guan, Harris, Kelly, et al., 2008). Generally speaking, electronic technology has eased itself into education over the last half of a century. Similar to how the English language and communication as a whole have evolved, technology as a communication tool (2008) has also evolved. Consequently, education has been significantly impacted by the evolution. For example, oral communication has changed from personal story telling, music, telegraph, phone, television, radio, recordings, film, cell phones to more modern podcasts. Written communication has advanced from 3500 BC with the Phoenicians’ alphabet, papyrus (500 BC), paper (105 BC), ink/handwritten, printing/book (305 AD), computer (Internet, presentation software), to e-books and wikis (About.com, 2010). With each new emerging technology, classroom education has morphed (new technology term) slightly (dictionary .com).

Within each of these modern electronic formats, multiple other digital communication devices have been developed. The computer alone is not only a communication tool, but also a “tool for design and construction,” inquiry, and artistic expression (Colbert, et al., p. 7). In the classroom, educators have had to learn constantly changing technologies, teach the students how
to use them, and then redesign and reteach lessons and skill sets based on the latest technology devices and features. Hence, students constantly need to develop evolving skills. In a classroom based on constructivist ideas, both teachers and students utilize 21st century technology tools for teaching and learning such as “critical thinking skills, collaboration, adaptability, creativity, initiative, communication, and data analysis” (Abbey, p. 9). What began as skill and drill exercises on the computer has grown into high tech communication, (i.e. blogs, IMing, synchronous and asynchronous chat rooms, email, webcams, shared documents, and various other social networking systems), sophisticated presentation software (i.e. PowerPoint, Flash, Photoshop, Open Office Impress, etc.), and the Internet with its millions of webpages at a learner’s fingertips. Staying abreast the ever changing digital media is challenging for everyone in education, especially classroom teachers.

With every benefit of having the modern technology in the classroom exists an equally negative concern. “According to Lanthrop and Foss (2000), the deterioration of ethics among young people seems to be closely related to the Internet and other advanced technologies,” (Ma, Wan, Lu, 2008). The emergence of vast Internet resources being so accessible to the world has instigated an explosion of plagiarism, cheating, and pirating.

Plagiarism among students is increasing. Educators and students unskilled at paraphrasing and citations have willingly, or unwittingly, claimed others’ work as their own. “One high school study (Center for Academic Integrity, 2005) reported that over half of the students admitted to some level of plagiarism through the Internet,” (Ma, et al., 2008). Secondly, teachers need to be aware of how prevalent student sharing is. Students copy each other’s homework assignments all the time. “Some young people find it hard to distinguish between collaboration and cheating,” (Ma, et al., 2008). Since Internet access is such a routine part of
many teens’ lives, they rarely think about the ramifications of “stealing” someone else’s words; it’s as easy as a couple mouse clicks to cut and paste. Students have admitted to copying essays and downloading tests with questions and answers. Today’s teachers need to explicitly clarify and carefully review the ethical considerations and consequences when using the Internet. In fact, educators themselves are often guilty of questionable practices. School districts and teachers alike have stolen, or pirated, software by breaking licensing agreements and copyright laws. An example of each would be: one book is purchased and photocopied (without permission) for a classroom or one software license or program is purchased and applied to multiple computers. “If caught pirating software, there may be large fines and legal costs if the school is sued by the software author or developer,” (Lesinko, 2003). No matter how an educator can justify the need for more software, i.e. lack of funds, student benefits, etc., software piracy is always illegal. In education, teachers, students, and even administrators need to act responsibly to avoid plagiarism, cheating, and piracy.

At the district level, similar philosophies, roles, and concerns arise. As a whole, districts are responsible for the education of hundreds and even thousands of children. Technology is often infused into the classrooms as well as the offices. First, districts want to produce graduates that are capable of surviving and functioning productively in today’s modern high tech society. Secondly, it is the responsibility of administrators to attain the appropriate personnel and equipment to achieve these goals.

Providing adequate funding is also handled at the district level. Whether it’s hiring skilled employees, imparting the faculty’s trainings, or funding new purchases and maintaining existing technology, these are all the district’s responsibility. Hiring skilled educators and continuing to educate them in the latest advances is the task of the district. Professional training can occur
during in-service days or other off site conferences throughout the year. Well trained faculties are better equipped to meet the technology goals of the district.

District level administrators themselves most likely are surrounded by modern technology. The office equipment today doesn’t look anything like it did fifty years ago. Consequently, advancements in communication have evolved into needing technologically savvy administrators. On a daily basis, personnel may encounter multiple high tech systems. A district-wide phone system supporting a networked Internet system and emergency contact line may seem the norm in many offices today. Copiers that can scan, fax, and email documents are typical office equipment. District level administrators use complex software programs to keep detailed records and perform their job tasks efficiently. Some administrative employees and assistants compile district-wide information, handle purchases and ordering, maintain budgets, payroll, etc. Many districts have websites that must be professionally maintained. In fact, the realm of district technology is so vast that it’s almost impossible to cover every aspect.

Similar to educators in the classroom, administrators must carefully monitor unethical behavior. Districts can be sued if teachers or other personnel engage in the aforementioned practices of copying software onto large numbers of computers without proper licenses or illegally photocopying books for classroom use. “For example, in 1996, the Los Angeles Unified School District was cited for having illegal copies of Microsoft Word, WordPerfect, and Adobe Photoshop installed on its microcomputers. As a result, the district was ordered to pay over $300,000 in fines and an additional $4.5 million to replace the 1,400 copies of unlicensed software that spread throughout the classrooms,” (eSchool News, 1998).

Professional technology leaders would be the personnel hired at the district level to maintain and oversee the technology in the district. I will base the following information upon
what I know to be true for my district and Williamson and Redish’s ISTE’s Technology Facilitation and Leadership Standards book. Professional technology leaders have complex job descriptions. This IT leader may (or may not) be provided a team to help in each building. If so, as a group, they would be responsible for the maintaining the networking systems between all the buildings and offices in the district. This would include, but not be limited to, the hardware, software, maintenance, and troubleshooting issues for all equipment district-wide.

In effectively running districts who have a technology vision, technology leaders would be involved in many of the administrative endeavors for the district such as motivating, researching, planning, and funding existing and future technological needs. Technology leaders would do the behind the scenes research on the latest available technology, its effectiveness as well as current and future costs. Classroom improvement due to technology can only occur if the technologist is capable of determining current “best practices.” Furthermore, technologists might oversee writing grants for the acquisition of new classroom technology and creating budgets for short-term and long-term purchases. The leader would need to work closely with the community and district level administrators to develop a technology vision for the district.

When districts are in the acquisition phase, technology leaders would construct and convey the vision for each building. This would include “an action plan describing goals and strategies,” (Williamson, Redish, 2009). Most likely, a technologist would be responsible for collecting a team of volunteers to help plan and execute the district’s vision as it applies to each specific building’s learning goals. Unfortunately, “non-technologists tend to view technologists as being shallowly enthusiastic, ignorant of education and learning theories, and unaware of the realities of classrooms and schools,” (Colbert, et al., 2008). Once the educators are convinced the acquisition plan will enhance classroom learning, which could be a daunting task in and of itself
for the leader, the educators would then contemplate the leader’s recommendations (and budget) to decide upon the most beneficial classroom technology. The district may ask the IT leader to facilitate professional trainings and continued education for the teachers after the attainment of the new technologies.

Naturally, in a district, there would be a certain amount of division of tasks for setting up the newly acquired and existing technology. The leader would be responsible for working collaboratively on hiring, training, organizing, and assisting a technology team, or facilitators. To be efficient in large districts, some “techies” would be assigned by the leader to each building for daily issues and moved as demand necessitates. The leader would help the techies prioritize the “work order” requests as well as answer questions and provide other support.

Technology leaders would also have other dimensions to their job descriptions. For example, in education student records are considered confidential as are many of the administrators’ files. Hence, technologists would be responsible for the security of this stored information. The privacy issues in education are extremely important. Leaders would need to recommend the latest software programs to ensure protection and minimize hacking. Technologists might have to spend considerable hours searching for breeches in the security system. Technology leaders would also be responsible for preventing students’ access to socially unacceptable material that exists on the Internet. In a sense, there would be a certain amount of “policing” required for students, educators and other personnel with access to the district’s Internet. This might also include the coordination, creation, and maintenance of thousands of Logon Ids and passwords. Integrating and managing 21st century technology and skills in the classroom and work environment is a mammoth venture that can be accomplished through cooperation, communication, knowledge, and shared goals of all those involved. As an educator
and technologist, I must balance the aspects associated with my current and future positions in order to facilitate learning and prepare graduates to successfully enter the workforce ready for the current and next generation of technological advances.

References


