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Position Paper

Does Separate or Integrated Make a Digital Divide?

Is technology an integral part of the curriculum or a separate entity?

One of the main parts of my job is to help teachers integrate technology into their regular curriculum. This is a tough sell job because teachers see technology as a separate entity. How can this error be corrected?

According to Jane Healy, the effective integration of technology in schools can be accomplished by following some basic recommendations. First, support the innovators who are leading the way and devoting their time and energy to effect change. Move forward with the ones that are ready and the others will follow. Planning is another important component which includes planning for the infrastructure and staff development. Make the staff development hands on and ongoing. Keep it too the needs of the teachers while avoiding too many technological terms and explanations of inner workings. Finally, remember it takes time for this huge shift in educational philosophy to occur (Healy, 67-68).

Innovators make great allies because they are already accepting of change. They live for it. Innovators want ideas for using technology within their regular curriculum. They request help with lesson plans, applications,

and modeling of lessons. As they share successes with other teachers a fire is ignited and more teachers want to become a part of the group successfully using technology in their classroom.

Planning must take priority. Planning for equipment, software, and staff development needs is ongoing. Teachers with positive experiences in their classroom often discover other needs for their classroom. I found teachers that barely checked their emails would be asking for cameras once they had a few successful lessons under their belt.

Staff development is a key issue to the successful technology integration. Modeling lessons has been the most effective method of staff development. Modeling provides the opportunity to illustrate how technology is seamlessly integrated into a lesson similar to any other teaching strategy. By example teachers can observe first hand how this integration works. From that point it is important to provide the necessary support by helping the teacher in the classroom while the teacher leads the lesson.

Time and patience are important to the success of technology integration. It is important to assist educators in understanding that successful technology integration takes time. Change doesn't come overnight yet too many programs are written expecting full results to happen in one or

two years. The SchoolTECH grant is a state funded program that provides technology facilitators to work with teachers. It provides funding for a period of two years. This isn't enough time to get the 100% participation by teachers. I have had success in many of the areas such as all teachers and administrators are using email to communicate and 85% of the teachers have taken either TangiTECH I or TangiTech II. The majority of the teachers are using technology on a daily basis in some form but most still have difficulty changing their preconceived notion that technology exists as a separate entity from the curriculum.

Administrative support tempers that success. If technology integration is not a priority of the principal it will not be a priority to the faculty. The principal at one of my schools Hammond Eastside Upper School has made technology use a requirement for employment. It is part of the observation and evaluation process. He rewards the teachers that exemplify good technology integration. This action has caused some teachers to feel left behind due to their slow move toward technology. They feel isolated because of their insecurity with technology and in many cases unwillingness to make a paradigm shift. According to Thomas Kuhn, those unwilling or unable to move to the new paradigm must align themselves with another

group (Kuhn, 19). In many cases these teachers transfer out or opt to retire sooner.

Why is it so important to integrate technology rather than see it as a separate entity? As a separate addition to the classroom technology can be used for activities that are not always educational. Postman states, "It is a kind of friend that asks for trust and obedience, which most people are inclined to give because its gifts are truly bountiful. But of course, there is a dark side to this friend" (Postman, xii). The dark side is what we, as educators, are responsible for guiding our students through. When students are allowed to surf the Internet without clear objectives there is a danger of the dark side creeping in and shaping their minds. When technology becomes a strategies to meet curriculum goals and teacher guided and student oriented, the "gifts are truly bountiful" (Postman, xii). These gifts include increased student interest, self esteem, and academic achievement.

The need to meet student learning styles creates another justification for technology being completely integrated into the classroom. Individual student learning styles can be met through technology. Projects that give students hands on experiences with a variety of technological devices such as digital cameras, PDA's, camcorders, digital projectors, and

interactive software provide means of meeting (Schell, 14). Students love using technology and are proud of the project they create. It meets the needs of students that do not excel in the traditional paper/pencil world.

Technology provides opportunities to meet curriculum needs where time constraints are in place. The infusion of technology to achieve state benchmarks and standards only makes sense. A well planned lesson using the thematic approach and project based including a technology component allows teachers accomplish the challenges. The development of the thematic approach to technology education and curriculum objectives that layers problem solving with teamwork, technical skills, and academic competencies are a recipe for success (Pruitt, 58).

Teachers need to use computers in the same way as other educational materials. For example, teachers need to set up learning environments for children to explore and collaborate. They design activities that integrate the themes and topics that are studied throughout the school year. Leung discusses first goals to make an effective classroom that integrates technology: (1) integrating technology and curriculum, (2) promoting active, inquiry, problem-solving environments, (3) using technology to present and

represent ideas, (4) creating new ideas of constitutes as a manipulative, and (5) develop media literacy skills (Leung, 12).

Each of these goals will help make a successful integration of technology. Technology needs to be real life and make learning a positive experience while meeting state benchmarks and objectives. To make this happen successfully with teachers, we need to take the ideas and goals in this paper and make them a reality.

Another aspect of the separate versus integrated issue is the digital divide caused by differences in equity of current equipment and qualified staff. The lower socioeconomic schools have funds to purchase equipment while difficulties attracting qualified personnel to integrate into the classrooms. Schools with a middle range socioeconomic background have problems on both fronts. Public and private schools from upper socioeconomic status usually have it all. They have the equipment and the highly qualified, motivated teachers to integrate technology completely throughout the curriculum. The digital divide widens.

In conclusion, technology will only be successful in education if it becomes a part of the complete package. The complete package requires that current technologies and qualified, motivated teacher must exist in all

classrooms no matter the school's economic status. Also as long as teachers see it as an "extra" technology will not reach its full positive impact on education. These differences can only cause the digital divide to widen preventing the true integration of technology into education.

References

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