The Media Center: Giving Future Teachers a Boost

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In embracing tomorrow's educators, media specialists have the potential to influence their use of technology, model collaboration, and be advocates for our media/technology programs. These future teachers will soon be our teaching partners.

My primary focus is helping them have a positive experience using media/technology and working with them to develop sound learning experiences for their students.

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More rigorous standards in teacher education programs are leading to a higher caliber of student entering the education field. But are tomorrow's teachers prepared to use technology effectively in their teaching? I'm fortunate to work with many future teachers each school year. Some are field-experience students, who are required to spend 40 to 60 hours in a classroom; others are student teachers from two local universities and occasionally from out of state. I'm also privileged to teach "Integrating Technology in the Curriculum," an undergraduate university methods class that focuses on elementary and middle level practices and possibilities.

Promoting Integration. The integration-class students enroll to fulfill a technology requirement and demonstration of their technological and instructional abilities. They know their knowledge, skills, and ability to apply technology to the curriculum are inadequate for future employment. In initial self-assessments, they describe themselves as proficient with word processing, e-mail, basic Internet searching, and PowerPoint. They have acquired their skills in high school, as users of the laptops the university requires all students to have, and to a limited extent, in other methods classes. Their self-assessments agree with a study by Market Data Retrieval that concluded "the average first- or second-year teacher doesn't have much of an edge over educators who have taught for more than a decade&emdash;at least when it comes to how they assess their own high-tech readiness." (Woodall, Martha, "New teachers not necessarily more adept with technology, survey finds." Detroit Free Press, July 15, 1999 http://www.freep.com/tech/qtchr15.htm)

The students I teach have not had extensive, transforming experiences with technology that one might expect of the digital generation. They admittedly know little or nothing about how to apply the technology to develop technology rich and meaningful lessons for screen-happy kids. The integration course is structured around Minnesota Higher Education standards for teacher preparation programs developed by the International Society for Technology in Education (ISTE) for NCATE (National

Council for Accreditation of Teacher Education) as well as the national standards developed by the Interstate New Teacher Assessment and Support Consortium (INTASC). < http://coe.winona.msus.edu/technology/>

Core components are:

* Basic Computer/Technology Operations and Concepts
* Personal and Professional Use of Technology
* Application of Technology in Instruction

Readers will recognize the standards as similar to those developed by ISTE for K-12 students and teachers. Detailed information about the standards is on the ISTE Web site. <http://cnets.iste.org/index3.html >

My goals are for them are as follows:

* Increase understanding of the possibilities.
* Learn how to align technology with curriculum as they develop integrated activities.
* Acquire confidence and transferable skills they can apply to evolving changing technologies and educational situations.

Like the 6th grade students I meet each fall, each semester's university students enter the class better skilled than their predecessors. Since it is no longer necessary to teach the basics, we really can focus on integration. Students who perceive themselves as Internet savvy tend to change their perception when they begin to learn about complex issues encompassing wise use of the Internet and meeting curricular objectives. They are surprised to learn there are search engines for children, interested in issues related to filtering and inappropriate use of the Internet, and eager to find quality Web sites. Last semester's discussion on technology ethics and copyright proved lively and was a tremendous eye-opener. One noted, "I never knew how many times I had broken the law."

Many projects the university students complete are identical to those completed by elementary or middle school students. Units are built around a curricular area, not the technology. For example, one unit is "Technology in Language Arts." Students map a children's story with Inspiration, research an author using Web sites or databases the state of Minnesota provides to Minnesota schools, and create a tri-fold brochure about the author. "The Technology in Social Studies" integration activity provides an opportunity for students to use scanners and timeline software, and to develop an integrated activity using The Library of Congress American Memory Collection, the favorite project this past semester. I make an extended effort to acquaint them with online encyclopedias, periodical databases, and online catalogs&emdash;tools they have too often ignored in their rush to use the Internet, their perception of information technology. Other units involve the normal range of instructional applications and teacher productivity tools used in K-8.

Students are required to spend two hours per week working in an elementary classroom and are very pleased to apply what they are learning. They were thrilled to work with 2nd graders following the Iditarod dog sled race just after exploring collaborative Web site possibilities in class. Many were impressed with the young students' overall skills. "I worked with 1st grade; the amount of computer skills they already know is just amazing to me!" said one. They were equally disappointed that some veteran

teachers are not skilled. One commented, "The teacher's own lack of knowledge about technology was tough on the students because they did not get a wide variety of things to do in the lab. Another "felt the experience was a waste of time because the teacher I was with had no idea about how to use a computer."

How do university students do when they have an occasion to apply what they have learned? Field-experience students and student teachers use our media center daily. My primary focus is helping them have a positive experience using media/technology and working with them to develop sound learning experiences for their students.

Student teacher Kathy, an elementary education major, came to the media center knowing she wanted to use something from the Library of Congress American Memory Collection to support the class novel, Gary Paulsen's Soldier's Heart. We met her need with Mathew Brady Civil War photographs ("Selected Civil War Photographs" http://memory.loc.gov/ammem/cwphtml/cwphome.html). As is typical of many new teachers, Kathy assumed the students would be able to work on their own. We discussed how unproductive it would be to turn students loose on their own without guidance, developed a class project Web page, and planned a lab activity that involved all of the students. The collaboration and the team teaching met Kathy's immediate need, modeled media specialist/teacher collaboration, and helped a nervous student teacher gain confidence.

Ronique, a highly motivated social studies student teacher, seemingly lived in the media center during his semester at middle school. Students were required to interview a family member and present the individual's life in a timeline. Working with his classroom teacher, we incorporated media/technology resources and activities in the unit. I introduced Ronique to Timeliner (Tom Snyder Productions), a collection of picture books on the decades from which students could browse for pictures to scan, and the "Jump Back in Time" collection that is part of Americas' Library (http://americaslibrary.gov). Ronique ran with the unit, suggesting ways to strengthen the original unit.

Preservice teachers like Ronique are often role models for veteran teachers. Consider Jessica, an English student teacher who was the first person to use a video projector in her supervising teacher's classroom; the supervising teacher was excited. Sara, a math major, field-tested and improved a teacher's directions for a spreadsheet-based activity and helped the classroom teacher become more comfortable with other technologies. Field-experience students in health classrooms became digital camera experts, inspiring the teacher to use it on a regular basis. It's a win-win situation for everyone.

Advocacy and Collaboration. Supporting future educators goes beyond helping them use equipment or locate resources. As illustrated by partnering with Kathy and Ronique, it's also about instructional design, careful planning, and collaboration in action. Joyce Kazman Valenza, a media specialist in Pennsylvania, vividly summarized the importance of working with preservice teachers. "It's about being available to sit down over the course of several preps to develop good questions, develop an online research pathfinder, and design instruction and assessment&emdash;from a one-shot lesson to a full-blown WebQuest unit. Nothing in their preservice preparation offered the promise of any such collaboration and support." Often these interactions are the only exposure many future educators have to media centers and their only interaction with media specialists. They are as surprised as they are appreciative that there is someone who will help them.

Are We There Yet? A skeptical colleague claims student teachers come to her media center only to sign up for space or fill time and are no less afraid or more knowledgeable than veteran staff. Many universities are still not requiring a specific course in technology integration, and infusion is not widespread in content-level methods courses. The integration course such as the one I teach and the slow infusion of technology in other courses are only a beginning. And of course, instructors who haven't been in the classroom for a while teach many classes. Valenza also expressed concern: "What I am seeing is a

group of tech-confident teachers who do not necessarily know how to search, [nor] the difference between a subject directory and a search engine, or the value of subscription databases. Many may be placed in a student-teaching-student teaching experience in a classroom where technology is rarely used or the teacher has a negative attitude towards technology."

Gigi Lincoln, a Michigan media specialist, is more optimistic: "I am impressed and pleased with what I see as more rigorous standards in teacher education; I find it professionally enriching to work with intern teachers as well as with certified newer staff members. They help keep the senior staff more connected and receptive to new ideas and trends in education and popular culture. I often find myself trying a little harder when working with an intern because I want to be sure that I can share some of my knowledge and experience with him/her."

I do not see preservice teachers using technology in innovative and exciting ways. I do see hard work and solid activities, and I hear good questions. I believe we are making progress. Preservice teachers and new teachers are better equipped with technology basics than they were even a few years ago. They are exposed to technology more often and are more conscientious. More to their advantage, they have grown up with technology. They view technology as an everyday tool, know they will be expected to use it in their teaching, and do not fight technology the way many veteran teachers have. University students who have been told they will need to use technology are surprised to observe or work with veteran teachers who do not model its use.

A combination of increased use, standards, and change in colleges of education will help our future educators do well. Perhaps it will be their positive attitude and acceptance more than specific aptitudes and skills that will help them most. Media specialists can ignore or embrace tomorrow's educators. In embracing them, we have the potential to influence their use of technology, model collaboration, and be advocates for our media/technology programs. These future teachers will soon be our teaching partners.

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