

# Student Expectations Unmet: Where Are the Electronics?

BY RAYMOND J. McNULTY

**R**ecently, I approached a sink in an airport restroom and waved my hands under the faucet. When nothing happened, I waved them again. Still nothing. As I tried the next sink, an older gentleman pointed to a knob by the basin and said, “Push that.”

Chuckling at my blunder, it occurred to me that the confusion I felt because of my presumption about the sink must be similar to the bewilderment today’s learners feel at school. They expect technology, which is an ordinary part of their daily lives, will be integral to their education — yet often it isn’t.

Students’ exposure to technology in school varies widely by teacher. Unless a school has a dedicated initiative, laptops may not be welcome in a classroom. Personal electronics, considered a distraction, typically are banned. Ironically, rather than helping students focus on the subject at hand, such measures hinder schools from preparing students for life in a digital world.

## Constant Access

To create true 21st-century schools where technology is used as fundamentally as it is in the workplace, we must transition away from what we have always done. Where textbooks used to anchor the curriculum, technology is at the core of today’s most successful schools. Yet technology integration can create an enormous challenge for school administrators, who must manage the gamut of expectations from tech-confident Millennial students to tech-resistant Baby Boomers.

While many Baby Boomers are comfortable immigrants to the world of the digital natives who populate our classrooms, some regard technology as gadgets best left outside learning spaces. Other educators are uncertain how to incorporate technology effectively in their teaching. Even Gen Xers, who came of age as technology was emerging and use it extensively themselves, may have difficulty envisioning its role in today’s classroom because they were educated under the old model.

Then there are the Millennials. Accustomed to having constant access to information through technology, they are waving their hands under the faucet, but instead of a gush, there is not even a trickle.

It is not enough for schools to give every student a laptop. A one-to-one student-to-

computer ratio is important, especially with large socioeconomic gaps among students, but teachers must translate that technology into learning. Tech-successful schools articulate explicit goals about technology and what they expect teachers and students to be able to do with it. Then they develop tech-infused curricula; provide hardware, software and connectivity; and commit to high-quality professional development and support.

## Taking Advantage

Here’s an introduction to three tech-successful schools, all with populations where 50 percent to 80 percent of students qualify under federal guidelines as economically disadvantaged.

A magnet high school, A.J. Moore Academy in Waco, Texas, ensures teachers can help students take full advantage of available technology resources by employing a full-time specialist who provides instructional technology support and coaches faculty in creative technology integration. Traditional instruction is augmented with artificial intelligence software that helps students improve writing skills. Science classrooms feature computer-based microscopes. Online science and math programs help students practice real-world concept application. Students in A.J. Moore’s Academy of Information Technology expand their skills by conducting tech trainings for parents.

At Ashe County Middle School in rural Warrensville, N.C., teachers and students are partners in exploring technology. It is expected learners will be tech competent when they enter high school. The school is working toward providing laptops for all students, and teachers already have them for grading, e-mail, research, data review and management, and connecting to SMART Boards in their classrooms. A full-time media specialist teams with teachers to develop engaging, rigorous and relevant lessons that integrate technology to simulate real-world experiences. Teachers participate in weekly technology trainings.

English Estates Elementary School in Fern Park, Fla., has made technology a priority. A full-time



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technology facilitator supports creative and independent use of instructional technology throughout the K-5 school. The school also has a designated network administrator, so the technology facilitator is able to focus on supporting teachers and students in gaining proficiency in existing and emerging technologies. Each classroom has several fully wired computers for students to practice

using software and explore online resources. Digital still and video cameras are available to teachers to enhance project-based learning.

## Skeptical Thinkers

Creating a 21st-century school requires serious thought and legwork. For leaders who are readying their schools to embrace this challenge, here are three key elements to consider.

First, it is imperative to set a vision that includes technology as a central component of learning, not an add-on or a fad. Successful school leaders build a transition plan that connects a clear vision to an agenda that establishes technology as an integral, everyday part of the learning experiences of staff and students.

Second, high-quality, ongoing professional development and support are vital. Technology changes quickly, so occasional in-service days are insufficient. Professional development should not be geared toward the learning speed of the fastest few but to the pace of the slower many. Successful schools support staff in multiple ways, such as peer mentoring, frequent trainings, online support, on-site coaching from specialized staff and more.

Third, winning over the digital skeptics begins with an understanding about the ever-increasing role technology plays in our lives and therefore in our schools. The Millennials, with a lifetime of technology at their fingertips, are not the students the system was designed to teach, and our schools are not preparing them for the present, much less the future.

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