

# Bye Bye Blackboard

Shaker schools have fully entered the era of the new electronic teaching tools, one step at a time. The benefits have been extraordinary.

BY NANCY O'CONNOR  
PHOTOS BY KEVIN G. REEVES

**Below:** Shaker High teacher Suzanne Gyurgyik uses technology in her French class to make lessons more interactive.  
**Opposite page:** Caroline Walsh, left, and Anushree Aneja study medieval history using a SMART board.

As Shaker families prepare for the start of the 2010-11 school year, teachers across the District are preparing to enhance the learning experiences for their 5,500-plus students far beyond books and blackboards.

From hand-held "clickers" and scientific probes to interactive whiteboards and sophisticated software programs, technology is increasingly being used in the classroom to further engage and educate students.

Many families are already familiar with ProgressBook, an online teacher gradebook system where parents and students in grades 5-12 can log in and check on homework and test scores. Grades K-6 are also using software that allows teachers and students to collaborate in setting learning goals and graphing progress toward them so that a teacher can diagnose problems early and intervene promptly.

"These are exciting times with technology," says Kathy Fredrick, the District's Director of Library, Media, and Instructional Technology. "There are so

many tools, programs, and interactive software options that support effective teaching and enable kids to take in information and create and share what they are doing."

The District is keeping pace with the digital revolution, she says, "but our aim is not to be cutting-edge. We don't want to lag behind, but we want to see a product establish a track record before jumping in."

Fredrick says the District "tends to start small. We'll test a new technology with even just one teacher, leaving time for teachers and administrators to decide what is best for students. Then we will get to scale with those we find most effective in the classroom."

Another benefit of moving deliberately is that the schools get more bang for the buck as technology drops in price. The District has received a huge assist in technology purchases through funds raised by The Shaker Schools Foundation, A Night for the Red & White, and individual donors.



PHOTO BY CAYDIE HELLER



Herein, Shaker Life gives parents and students a look at technologies at work in classrooms to support effective teaching, successful learning, and greater family involvement. (Insider tip: If you're still sitting on stock in chalk companies, now would be a good time to sell.)

⇒ Clickers. The student-response system called Turning Point, commonly referred to as "clickers," puts a remote control unit in students' hands to allow them to respond anonymously to questions posed by the teacher. The responses are then tracked by a transmitter, providing immediate feedback on how many students answered correctly or incorrectly.

Shaker Middle School history and science teacher Amy LaMotte Davis (whose mother and grandmother also taught in the Shaker schools), says she was initially interested in using Turning Point because research shows it has improved student achievement.

"I can get an immediate sense for the students' comprehension of the topic and know if I can move on or if we need to probe further or re-teach," she says. "The students aren't intimidated to respond, as their answers are anonymous. Students who would ordinarily be hesitant to volunteer an answer will take the risk, giving me more information than I would normally get in class."

In Katie Settle's fourth-grade classroom at Fernway Elementary School, the clickers have increased the level of class participation and helped to set the pace for different lessons.

"The students' responses can guide how fast or slow we go throughout the lesson," she says. "If many students click incorrect answers, then I know to go into detail on that topic. On the other hand, if all the students are clicking correct answers, then it's apparent the students understand the material, and we can move on."



SMART Boards. So long, ordinary chalk and erasers. The blackboard is fast becoming obsolete as more and more classrooms are outfitted with electronic SMART Boards. When connected to a classroom computer or teacher's laptop, the SMART Board becomes in effect a giant computer screen displaying text, images, videos, websites, and more.

But unlike a typical computer screen, this one is touch-sensitive. Content on the screen can be dragged, highlighted, printed, and saved, all with the brush of a finger.

The first SMART Board in the Shaker schools arrived four years ago, thanks to the determination of Shaker Heights High School French teacher Suzanne Gyurgyik. Gyurgyik and a colleague wrote a grant proposal to the Martha Holden Jennings Foundation in the summer of 2005. By the fall, she had her grant, and by winter, she had a SMART Board.

Gyurgyik spent her winter break that



year learning how to use the new technology and introduced it to her students in January 2006.

"I've been using it non-stop ever since," she says. "I couldn't teach French without it. Students can touch, manipulate, and interact with the board. It's all very hands-on, and it has revolutionized the way we can teach."

About 80 SMART Boards have been deployed in the schools to date. As funds become available, more are added; each classroom has been equipped with the requisite ceiling-mounted projector (which can also be used with a traditional screen).

Teachers have observed that SMART Boards hold students' attention and are particularly helpful for students who have difficulty maintaining focus.

Melissa Becerra, a second-grade teacher at Boulevard Elementary School, finds that having a SMART Board helps motivate her as well as her students. "The SMART Board program offers ready-made lessons that align with state standards, and those lessons can be adapted to fit your class," she says. "But you can also design lessons from scratch. I really enjoy creating lessons that students get excited about."

➔ **Science Probes.** High School physics and physical science teacher James Schmidt can't say enough about the technological tools now available to science

students and teachers.

"This is really, really cool technology," he says of the measurement probes that connect to a computer to transmit data that can then be downloaded for analysis. "When I was in high school, to analyze the speed of a falling object, we used ticker-tape and marked every tenth of a second manually. It led to a lot of errors."

The new probes, which have applications for physics, biology, chemistry, and physical science, allow students to spend less time collecting data and more time analyzing the information.

"We're able to focus on results and analysis rather than on data collection," Schmidt says. "The scientific measuring is clearer with the probes, and the analysis is significantly better."

Moreover, the technology will better prepare students for college. "College labs have much of this same equipment, and our students will be expected to know how to use it," Schmidt says.

↓ Document cameras. A new document camera-and-projection system is similar to the overhead projectors of old, except this system requires no transparencies and can project even three-dimensional objects. Instantly.

Noel Polantz, a second-grade teacher at Mercer Elementary School, believes the system has taken her students' writing

"to a whole new level" by enabling her to project writing samples and get the entire class involved in revising the work as needed.

"When my students write something amazing, or carefully sketch an important picture, I can also blow it up and share it with the entire class instantly. Children can use the document camera to share problem-solving strategies or completed assignments. It gives them the opportunity to reflect on their work and the work of others, and to feel good about the things they are doing in school."

Use of the document camera has also helped her students to understand that there may be many different ways to solve a problem. "By showcasing student work, my students have realized that it is okay to think outside the box and to do things in unique ways," Polantz says.

At the Middle School, students in Addie Rae Tobey's English class love seeing their work on the screen. "They are willing to let classmates critique it because we've created a supportive environment," she says. Projecting from the document camera to the SMART Board "really helps keep the kids interested and involved," she says. "When I first started teaching here 13 years ago, I never could have imagined having this. I can download lessons onto my jump drive [a portable memory device, also known as a flash drive], plug it into the computer, and it is on the screen in seconds."

↓ Moodle. A growing number of teachers at all levels are using this interactive website to create a "virtual learning environment," where students and parents can access important documents, daily homework, and links to course-related websites. Features include Forums, Ac-

tivities, Calendars, Latest News, and Upcoming Events. The site has become a popular way not only to deliver content to students but also to keep them and their families up-to-date on classroom activities.

"Moodle is a wonderful communication tool for students because it can become interactive," says Fernway's Katie Settle. "My students have user names and passwords they can use to log in and complete activities such as journal writing."

The site also allows the teacher, students, and parents to communicate effectively. "The expectations are clear to everyone involved in the student's success throughout the school year," Settle says.

She found some students enjoyed interacting via Moodle even when school wasn't in session. "Over spring break last year, I posted a journal entry where the students had the option to go in and write about how their spring breaks were going. It was so much fun to learn about what they were doing and to see the enthusiasm for the assignment. There were students who responded who struggle with writing in the classroom. The technology and ownership motivated them to communicate in a real-life manner."

⇒ Naviance. For high school juniors and seniors making important college decisions, this web-based program offers in-depth information and tools for managing the college application process.

Using log-in codes provided by the guidance counselors, students and parents can look up and compare colleges of interest, track application requirements and deadlines, sign up to attend onsite college visits, and exchange messages with the guidance counselor.

One highly popular feature, Accep-



**Opposite page:** Caitlin Cullina, left, and Hannah Ivary review their work on a laptop computer at Onaway school. **Above:** Onaway students Maya Gulani and Daniel Krouse work on a project in Kristina Hayward's class.

tance History, can offer a realistic assessment of a student's chances of admission at colleges where prior Shaker students have applied. Students can compare their GPAs and standardized test scores with those of recent Shaker graduates who were accepted, rejected, or wait-listed by the particular school and view the results in standard chart or scattergram formats.

It's important to keep in mind, educators say, that the emerging technologies don't take the place of teachers. For Mercer's Noel Polantz, the new tools are welcome additions to what she calls her "instructional toolbox," which also contains things such as "patience, creativity, and dedication. But technology does help us to enhance instructional practices by connecting students to real world experiences and actively engaging them in their learning."

While technology has transformed how she teaches, Lomond Elementary School's Jill DiPiero cautions, "technology is still just a tool. It has not changed what is most important, which is truly knowing your students, providing great books to read, and giving them time to learn from each other."

When used well, she says, technology can be an equalizer. "It allows students to learn material in multiple ways – via video, photos, games, music – so a visual learner and auditory learner can use their strengths to learn."

In the end, agrees Shaker Middle School's Amy LaMotte Davis, "Technology can enhance education, but it can never replace the need for effective teaching and best practices in the classroom." ↗



**Middle School** English teacher Addie Rae Tobey.