

Case Study Three

Working Together to Effectively Integrate Technology—A Principal’s Vision

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Integrating technology into the curriculum is more than putting computers in the classroom. It's about creating a vision for how technology can be used effectively to enhance student learning. This case study shares the story of how an urban elementary school principal set about building a vision for technology integration in his school.

Leadership Role: Principal

District Profile:

Chicago Public Schools

Chicago, Illinois

Type - Urban

of Schools - 600

of Teachers - 25,000

of Students - 431,000

% Free and Reduced Lunch - 85%

ISTE NETS-A Standards and Behaviors Addressed:

IA, IB, IC, IIA, IIB, IIC, IID, IIE, IIIA, IIIB, IIIC, IIID, IIIE, and IIIF

As you read this case study, consider the behaviors used to promote and support technology integration, including:

- Collaboratively developing a vision for technology integration and involving the faculty as contributors and experts
- Building human capacity through professional development
- Sustaining the vision through sharing, modeling, and reflecting

Setting the Stage

An hour before the school day officially begins at the Horace Mann Math, Science, and Technology Academy on the south side of Chicago, the lights already burn bright in Dr. Larry Turner’s office. This principal is used to starting his day early. Turner turns on his laptop and answers e-mail, reviews his calendar, then checks for new announcements for principals

on the Web site maintained by the Chief Educational Officer for Chicago Public Schools (CPS).

Next, he takes a quick walk down the hall to one of the school technology labs. Turner is not surprised to find several students using their free time before school to do Internet research or work on various assignments. He stops to chat with a couple students, complimenting the progress they are making on projects.

Turner has spent all 32 years of his career in education in the public schools of Chicago. He has been a classroom teacher, assistant principal, principal, and district administrator. A decade ago, he left the district office to become principal of Horace Mann, a K-8 school of 950, serving a high-poverty population that is 99 percent African American. Gradually, he has been steering this school toward a vision of 21st century teaching and learning, with technology seamlessly integrated into every classroom. It's still a work in progress, he admits, but he sees promising signs almost everywhere he looks.

Back in his office, he finds a trio of veteran educators waiting to meet with him. This is the group he calls his "brain trust." Donna Sorrell has been the school's technology coordinator for six years. Eileen Gaynor, on the Horace Mann staff for 10 years, is the technology coordinator for grades K-3. Jackie Davis, in her eleventh year at Horace Mann, is the technology coordinator for grades 4-8.

Conversation flows easily among the four. Gaynor gets a laugh when she describes a second-grader who was upset when "her" computer needed routine service the day before. Students are assigned to a specific computer in the technology lab, and quickly learn to take responsibility for the equipment. "We want them to be relaxed about using technology," Turner reflects. "If something malfunctions or needs service, we don't make a big deal about it. We just get it fixed." Building that sense of responsibility early—starting in the primary grades—means that the school experiences virtually no vandalism with its computers and other equipment. The technology coordinators give the principal a quick update

about upcoming professional development plans, including a Saturday seminar on a topic that a few teachers requested. Then it's time for the "official" school day to begin, and the technology coordinators head out the door.

Building a Shared Vision

When Turner arrived at Horace Mann in 1995, he had a general idea of how technology could help to improve student learning. Student achievement was poor, with only about 20 percent of students meeting goals. "The kids were very pleasant, but they seemed to be very bored," he recalls. "I wanted to find a way to motivate children—they need to enjoy learning." Introducing them to technology—which many children lacked access to at home—was one strategy to increase engagement and begin building a stronger foundation for their academic success.

Rather than rolling out his own blueprint for change, however, Turner set to work to create a collaborative vision. He knew that just talking about the potential benefits of technology was not going to be enough. He began arranging site visits to other schools so his teachers could see technology in use. "You can't just talk about it—people have to see it for themselves," he says. When he heard about one school that was making strides at integrating technology, he chartered a bus and took his whole faculty on a field trip. Another time, he sent a team of teachers to New Jersey to visit an exemplary district. The school also began sending teacher teams to technology conferences, such as the National Educational Computing Conference (NECC) held each summer.

The principal was willing to consider any suggestions from teachers about potential uses or purchases of technology—with one exception. "I knew that we didn't want to use technology for skill-and-drill work," he recalls. His goal was not to increase test scores in the short run, but to create capable learners who could "use technology seamlessly, as a tool for learning and thinking."

Chicago Public Schools has a long tradition of site-based school management. That means the decision to acquire hardware falls to the principal,

with oversight from the local school council. Before he approved any new technology purchases, Turner made sure his teachers could make a strong case for how the equipment would be used to improve learning. He also made sure that the teachers who were most willing to master new software or learn to use new equipment were the first to receive new gear for their classroom.

In the process, Turner has developed technology advocates and experts within his staff. These “local experts,” as he calls them, have been instrumental in sharing effective ideas with their colleagues. Within the faculty, teachers know who they can turn to for a question or idea about presentation software, for example, or who can help them with a project that involves spreadsheets or graphs. “We have built a shared vision for this school,” Turner says, “and that takes a lot of talking and exchanging of ideas.”

In the same way that the school has reached a shared vision for technology integration, Horace Mann also takes a collaborative approach to professional development.

Professional Development: Sharing Expertise

It’s taken Turner most of a decade to ensure that every classroom has the basics: at least four networked computers, an interactive presentation board, enhanced audio (including a microphone for the teacher and speakers around the room), and a wide range of software and other resources. The technology labs provide additional computer access, along with the technical support of the technology coordinators.

In tandem with developing the technology infrastructure, Turner has been building the school’s human capacity to ensure that teachers will make effective use of these new resources. “The stages of acquiring equipment and providing professional development have to go hand in hand,” he reflects. “Once those are both underway, then you can move toward technology integration.”

On a daily basis, the three technology coordinators work closely with classroom teachers, providing ongoing and informal professional development, troubleshooting, and instructional support. Many teachers work with the technology coordinators when they first begin planning a project that integrates technology. The tech coordinator will work with students to develop their technical skills, leaving the classroom teacher free to concentrate on content. Davis, coordinator for grades 4–8, says she sees “more and more teachers joining in. Their comfort level is increasing,” as teachers see the benefits of integrating technology into instruction.

Both Davis and Sorrell are Master Teachers for the Intel® Teach program¹, and they have delivered the 40-hour Intel® Teach Essentials course to nearly half the teachers at Horace Mann. That shared professional development experience, focusing on integrating technology into standards-based unit plans, “has helped teachers become more creative in what they can do with technology,” Gaynor adds.

When Turner walks down the school halls, he often overhears teachers exchanging project ideas or sharing pointers about how to use certain applications. “Our teachers are constantly learning from each other—they are becoming the experts,” he reflects when he hears these exchanges.

Turner also encourages teachers to request more formal professional development. After school and even on weekends, the technology coordinators will provide special sessions on any topic of interest, even if just for a handful of teachers. When teachers approach the principal with an idea for using technology in a new way, he encourages them to be innovative—whether it’s for online social studies research about the Underground Railroad or reading instruction that gives first-graders opportunities to use the interactive board for kinesthetic learning. He spends enough time visiting classrooms to see how these ideas play out in practice.

"Dr. Turner tells us: The only thing that holds you back is your own imagination," says Davis.

When Turner spots an effective lesson or great project during his frequent classroom visits, he makes sure to compliment the teacher. "How do you let teachers know they are doing a good job? You have to tell them," he explains. For example, this afternoon he stops by a relatively new teacher's classroom to borrow samples of brochures that the students made, using publishing software. Turner explains that he wants to use the work samples in an upcoming class he is teaching for other administrators. As he walks away, Turner can imagine the teacher saying to himself, "Wow—my principal thinks well enough about what I'm doing to help my students learn that he wants to show the results to others."

Maintaining this collaborative culture takes ongoing effort, the principal admits. When Turner has staff vacancies to fill, he only considers applicants who are willing to integrate technology. He doesn't insist on technology fluency in new hires, but rather looks for a willingness to learn. "We can train them to use the technology, but they have to start with the desire to learn." Otherwise, newcomers would find themselves at odds with the school culture at Horace Mann, where professional development is ongoing, collaborative, and frequently focused on technology integration.

Sustaining the Vision: Sharing Success

After a decade of building his school's technology infrastructure and staff expertise, Turner often has visitors who want to see educational technology in use. Sharing the vision is important, he believes, especially among community members and with the local school council members who oversee budget decisions.

Turner also models technology use in his role as principal. In staff meetings, he often uses a presentation board or demonstrates new equipment. He analyzes achievement data, and uses spreadsheets and graphs to communicate results and trends. He led his school in piloting

the use of electronic report cards, and frequently meets with technology consultants to brainstorm new ideas that could reduce paperwork or maximize instructional time.

Sometimes, Turner overhears other school leaders lamenting all the reasons why they can't seem to integrate technology—not enough resources, reluctant teachers, lack of time for professional development, and so forth. Turner answers these concerns by inviting them to stop by Horace Mann. He asks them, "Do you want to see what it looks like?" Then he walks his visitors down a hall to a classroom where a young teacher is leading an active discussion with sixth-graders, using a presentation board, enhanced audio, and other tools to engage his students in a high-powered language arts lesson. Turner smiles at this "perfect teachable moment."

Of course, Turner acknowledges that technology has not solved every challenge at Horace Mann. Achievement scores have improved, with 36 percent of students now meeting adequate yearly progress (AYP), compared with 20 percent a decade ago. From disaggregating achievement data, Turner knows that his eighth-graders are making even greater gains—with nearly 60 percent making AYP in reading, for example. What's more, all eighth-graders engage in a rigorous, project-based curriculum that teaches them responsibility and teamwork, and instills the work habits that will be important for high school success and beyond. "If a child is not successful in high school, then we were not successful in elementary school," Turner often explains to parents. "Our goal is to get them ready to focus and succeed in high school."

At the end of the school day, Turner pauses to consider the changes he has seen in his 32 years in Chicago Public Schools. He knows from long experience that priorities and school politics are subject to shift. Nonetheless, he is convinced that the current technology initiative is here to stay. "In this society, how can technology not last?" When a school comes together to embrace a shared vision that integrates technology in the way that this school has, he says, "You have to communicate that to others. And then you have to stay the course."

About the Leader



Dr. Lawrence (Larry) Turner (lturner@cps.k12.il.us) is the principal at Horace Mann Math, Science, and Technology Academy in Chicago, Illinois. In 1995, he left the central office to return to the principalship. He believes that technology can be used to motivate and help students rekindle a love for school. While interviewing with parents for his position at Horace Mann, he vowed that the school would have nothing less than any well-funded suburban school. Working with these same parents, Dr. Turner has made Horace Mann one of the best equipped schools in Chicago.

Resources

¹Intel Teach Program (www.intel.com/education/teach)