TOOS for LEARNING SCHOOLS

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Summer 2013 Vol. 16, No. 4

EVERY EDUCATOR ENGAGES IN EFFECTIVE PROFESSIONAL LEARNING EVERY DAY SO EVERY STUDENT ACHIEVES

CROSSING the DIGITAL DIVIDE

By Valerie von Frank

he great digital divide exists mainly in educators' minds, according to educational technology leaders who say schools have few excuses for not using technology across the curriculum.

Howard Pitler is chief program officer at McREL, working with schools, districts, and state agencies on technology for the education research organization. Pitler said schools that sometimes complain about a lack of hardware or training are not always taking advantage of the options they *do* have.

A Pew Research Center survey that explored technology use among 802 youth ages 12-17 and their parents found:

- 78% of youth now have a cell phone, and almost half (47%) of them own smartphones. That translates into 37% of all youth who have smartphones.
- 23% of youth have a tablet computer.
- 95% of youth use the Internet.
- 93% of youth have a computer or have access to one at home.

(Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013) Teachers and parents both say helping students become more engaged and active in their own learning is



a goal, and that technology can offer real-time feedback, provide hands-on learning, help differentiate learning for students, and connect them to the real world (LEAD Commission, 2012). Yet the majority of teachers don't believe they receive the training they think they need to integrate technology into their teaching (Hart, 2012).

INTEGRATING TECHNOLOGY

Glenn Maleyko, human resources director for the Dearborn (Mich.) Public Schools, takes a "no excuses" approach toward integrating technology into the classroom. He sees devices such as tablets and web-connected phones as today's version of the chalkboard and textbook.

Maleyko was a teacher in the 1990s at Salina Intermediate School when he and colleague Bob Attee became *Continued on p. 2*



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interested in finding ways to excite and motivate students to learn. The two also were fascinated by technology.

Beginning by attending state technology conferences, Maleyko and Attee developed their skills. When they could, they wrote grants for training. At times, they learned on their own dime. Then, with their principal's support, they taught what they knew to colleagues in their school who were interested. Salina was a challenging school where 97% of students received free or reduced-price lunch and threefourths were English language learners, so they sought Title 1 and professional development funding to purchase what equipment they could for the school.

Maleyko became assistant principal and then principal at Salina. Maleyko worked to develop teachers' skills by encouraging them to present their technological knowl-

What does it mean to integrate technology?

"Integration is not the use of managed instructional software, where a computer delivers content and tracks students' progress. Integration is not having students go to a computer lab to learn technical skills while the classroom teacher stays behind to plan or grade papers. Integration is not using the Internet to access games sponsored by toy manufacturers or popular televisions shows. Integration is not using specialty software for drill and practice day after day. Integration does not replace a teacher with a computer.

"Integration is when classroom teachers use technology to introduce, reinforce, extend, enrich, assess, and remediate student mastery of curricular targets."

Source: Hamilton, B. (2007). *IT's* elementary! Integrating technology in the primary grades. Washington, DC: ISTE.

edge to their colleagues in "technology camps" at the school. Unlike a conference, he opened classrooms for observation so teachers could see how students were using technology. Soon, others from the district and even outside were attending. When teachers didn't have the expertise, Maleyko had students take the lead, sometimes presenting or co-presenting with their teachers at the annual, three-day event.

Maleyko then became a principal in a very different school, one with a higher socioeconomic demographic and no access to Title 1 funding. He repeated the experience he'd created at Salina, this time by

forming a community committee and getting stakeholders, including the PTA, involved in providing what equipment he could get.

Maleyko had every teacher begin a blog of classroom information, and parents were notified by email each time a teacher posted new information. The art teacher worked with students on animation, posting student work on the Internet.

"By getting people to believe in a vision, by creating a

professional learning community, you can" get technology in play anywhere, Maleyko said. "It's building capacity."

SIX LESSONS FOR CLOSING THE DIGITAL DIVIDE

Maleyko and Pitler suggest six lessons for getting teachers to cross the digital divide and begin using technology in the classroom.

Begin with adult relationships.

Building leaders model learning for other adults in the school, Pitler and Maleyko stressed. Maleyko said his excitement helped shape the vision, but he had to create a culture where everyone was part of the change.

"To convince teachers, the first thing was that they had to believe what I stood for and we had to develop our vision together," Maleyko said. "We developed mutual respect."

Key, Maleyko said, was keeping the vision focused on students and the effect on their learning. He said any of the technology tools the schools adopted supported the school technology committee's goals, which aligned with the school improvement plan.

Start with the trailblazers.

Both Pitler and Maleyko stressed that every school has trailblazers. It's natural to begin with those who have an interest.

Maleyko said, "I think the expertise is there. It may not be fully there, but a few in the building will have an interest. Then they learn it. If you want to learn how to do a blog, for example, browse the web. You just need a couple of people to bring it back and share the knowledge. They just have to have the willingness to learn, the motivation. If they need a little motivation, that's where the leader applies positive pressure."

Maleyko said effectively integrating technology across the curriculum may take three years to get the entire school involved and suggested approaching the process in phases. Identifying and working with trailblazers initiates the change, followed the next year by spreading practices to additional teachers. The last phase involves the leader working with those who are reluctant to adopt new practices.

Focus on the lesson, not the technology.

Teachers need to know not just how to use the technology — the smartphone, document camera, interactive whiteboard, application on the Internet — but how to determine which support the lesson objective. The tools are constantly changing.

Pitler says teachers should not begin to think of technology until they have identified a clear objective for the lesson. Begin by asking, How clear is the learning objective? *Continued on p. 3*

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What is the target? Pitler said. Then the objective should be in writing for students to see.

He said technology can support lesson objectives when, for example, teachers use online surveys to determine what students already know before they begin a lesson, help students use graphic organizers to map their objectives and learning progress, and teachers find web-based resources to create a student learning assessment.

Recognize that everyone is a learner.

Don't know how to use Google docs? Want to Skype with a scientist hundreds of miles away, but unsure how to connect? A student likely will know how and be willing to help, Pitler said. Students also may help by understanding what tools can support the lesson, helping teachers envision a new landscape for learning.

"The kids are experienced in the technology. They are used to (glitches) and it doesn't bother them," Pitler said. "Teachers need to understand that their role is to be educational facilitators of learning, to go change the paradigm for students to be creators, for students to learn how to learn, and allow kids to bring their personal learning networks into the classroom."

Use what you have.

Maleyko said the key is using what is available. "Even if we had just had a monitor in the room, how do we use that? Do we use video streaming? Everybody has access to the Internet. How do you use that? You might not have a set of computers in your room, but what resources *do* you have? At Salina we didn't have a lot, but the question was, What are you going to do with what you do have?"

Districts across the country are experimenting with ways to provide 1-to-1 technology to students. While some are finding ways to purchase technology, such as a tablet or laptop for every student in certain grades, others are experimenting with making use of what students own and can bring to class.

For educators worried that students from lower socioeconomic backgrounds would put some schools at a disadvantage, a *New York Times* article points out an inverse relationship between having technology and income (Richtel, 2013).

And, Pitler points out, "Whatever device they have can add to the mix."

Find a personal learning network.

"Teachers are finally realizing the power of social networking," Pitler said. District policy needs to follow. Facebook and Twitter, he said, provide opportunities to share ideas with educators all over the nation and world. He said a Twitter #edchat one recent night included a hundred or more educators discussing grading practices over an hour. He follows education policy and research through his Twitter networks. "I get answers within hours," he said.

Maleyko said he regularly turns to social network sites in his current role as human resource director. He's connected to others in the same job within the county and farther afield and relies on their knowledge when he has questions, wants to test a theory, or just wants to know how other districts do things. "I'm using my colleagues' resources," he said in a sort of human search engine.

CONCLUSION

Learning to use technology to support classroom instruction will be an ongoing issue for educators, Pitler said.

"Technology professional development is, What are you doing different in the classroom and how is technology enabling that?" he said. And while ever-evolving technology

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All educators have an obligation to improve their practice.

can be hard to keep up with, it's a necessary aspect of today's learning. Pitler advises a Nike approach to integrating technology. "Just get out there and do it. Don't worry about not being good at it."

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