Teachers must push technology’s tidal wave

District technology initiatives must put the teacher in charge

By Miguel Guhlin

For technology to impact student achievement, teachers must be empowered. To empower teachers, administrators must provide extensive staff development and training. Teachers must be allowed to write their own building and district technology plans, all linked to instructional goals. Teachers who have learned how to link technology with curriculum objectives must train less experienced teachers.

When these things happen, teachers will have assumed ownership. This ownership results in teachers using technology to change the way they teach and, ultimately, the way students learn. This type of change requires a lot of work by instructional technology specialists. Although most of us are rightly skeptical of formulaic approaches to technology integration, there are some approaches that have worked for me in three districts.

Building-level Technology Initiatives

Building-level initiatives eventually lead to systemic change. Changes occur in the classroom — the site at which technology integration must occur. Initiatives at this level include:

- **Peer training.** While district technology trainers can provide training for building trainers, their training is not as effective as a teacher’s. Classroom teachers know what their peers need. More important, their peers are comfortable asking for their help.

- **Super substitutes.** Using the super-substitute model, teachers who integrate technology go into another teacher’s classroom and do activities related to instructional goals, facilitated by technology.

- **Building-level technology plan.** Building plans emphasize using technology as a tool to gather information and to facilitate comprehension and communication.

- **Parents’ technology institute.** Classes for parents can teach computer literacy and involve parents in...
activities their children are doing in the classroom.

- **Kids’ technology institute.** Theme-centered, content-driven use of technology allows students to use multimedia authoring software and other information management tools (word processor, spreadsheet, database). We began introductory training during the summer and continued the institutes throughout the year on Saturdays. Student participants also serve as “classroom technology facilitators.”

- **Computer club.** Students form a peer-training group that focuses on using technology to train other students. The key here is sharing how to use technology to accomplish personal goals, such as downloading a graphic or game off the Internet.

These activities at the building level, thrown into the mix all at once, will cause immediate changes. Teachers will feel the pressure as their peers, students, and parents begin to use technology. In a short period, perhaps a half-year, teachers will begin to ask for more opportunities for technology training.

At this critical moment, administrators must intensify their efforts to provide teachers with the needed information and training. Administrators also must allow teachers to take school computers home over long breaks.

**DISTRICT-LEVEL INITIATIVES**

Here are some suggestions for districtwide approaches to technology integration.

- Establish a district technology committee, composed of two classroom teachers from each building, and meet monthly to discuss current research. Some great resources include publications of the International Society of Technology in Education. Discussion topics might include training on modeling the use of instructional technology in the classroom and using the computer as a cooperative learning group manager.
- Invite administrators to participate in instructional technology classes at colleges and universities. Provide scholarships for teachers from each building.
- Allow students to publish their work on the Internet. For schools without a direct Internet connection, some Internet service providers will give space to develop a web page and publish student work. It is not difficult to set up a web page using shareware products available on the Internet.
- Establish guidelines that allow teachers to take school computers home over the summer. Offer a three-hour class that covers the essentials of caring for a computer. Send modems home and prepare handouts on how to access the Internet. When the teachers return to school in the fall, ask them to share their experiences via e-mail with a districtwide list.
- Emphasize how technology can be integrated across content areas.
- Give technology committee members subscriptions to technology journals.
- Communicate electronically with teachers in the district. You can do this through your state’s Internet service provider, a school-run computer bulletin board, or a local computer bulletin board that is willing to set up a special interest area for teachers.

Technology coordinators can help their districts reach “critical mass.” Technology integration is similar to a tidal wave, growing silently in strength, then falling with an unstoppable roar upon those who paid no attention or showed little interest.