Technology in the classroom: What's good; what's not?
Selecting tools of the trade requires battery of questions

By Brenda Bernet
brenda.bernet@amarillo.com
Publication Date: 11/10/09

Students don't have to thumb through an encyclopedia to see a map of Europe. In a matter of seconds, they can search online to find maps, photos, video and news stories about truffles in France and traffic in Rome.

Moments later, they click on the CIA's World Factbook for a full profile on Turkey, including major industries, the population and currency. A research project might not be restricted to a black-and-white, 500-word essay, but rather a colorful multimedia presentation with video and music.

With the proliferation of devices, software programs and the Internet, technology continues to change education. But a key question is whether the technology allows instructors to teach in a way that isn't possible without it.

"There's worlds of difference," said Dirk Funk, instructional technology director for the Tascosa cluster in Amarillo Independent School District. "There are certainly huge possibilities. Not every classroom takes full advantage of that. Teachers have learned to be selective about the tools they have at hand to provide instruction."

New whiteboards and tablets have ushered in a transition away from a 45-minute lecture to a lesson that allows students to move out of their seats and participate. Interactive whiteboards and tablets combine a chalkboard with a computer screen. Teachers and students can write on them with a special pen, manipulate and create documents or search Web pages.

Funk foresees potential for electronic books and textbooks.

Pleasant Valley Elementary School has ordered Kindles to provide electronic books for students. Students at Childress High School have textbooks on their school-issued laptops. Within the past several years, Canyon Independent School District has accumulated 391 interactive whiteboards.

Annual costs for new technology can vary from thousands for a small district to millions for the state's largest districts.

For Hereford schools, the annual cost is $50,000 to $500,000, depending on the year's focus in updating technology, said Joe Mendez, the district's technology director. Last year, the district provided teachers with laptops. Two years ago, it updated most computer labs with new iMacs. A $500,000 grant will allow it to provide all of this year's eighth-graders with laptops in January, Mendez said.
School districts should look to technology that mimic the tools students will need in 21st-century professions, which often require at least a proficiency in using a computer and even a smartphone, said Don Knezek, chief executive officer for the International Society for Technology in Education, a leading source of information for school districts on the use of technology in classrooms.

Before purchasing new technology, teachers and administrators first should consider the educational purpose and have in mind an educational goal the technology will help them achieve, he said. They should seek out scientific research and talk to colleagues in other schools to avoid pitfalls and find the potential.

Eric Folks has a "smart" classroom at Canyon High School. He has a document camera, a video projector, a large interactive whiteboard that sits atop a dry erase board and access to a classroom set of clickers, which are like electronic answer pads that he can used for a quiz instead of pencil and paper. With the interactive whiteboard and the software that comes with it, Folks’ English students have created a variety of games to assist in their learning.

With the document camera, Folks can take a student's assignment or book and project it onto a screen. It saves him the time he would have spent copying an example onto plastic, writing on the plastic with markers and cleaning up the mess in time for the next class, Folks said. He devotes that time to more effective lessons that incorporate video and audio and allow the students to participate.

"I don't know what I'd do without it," he said. "It allows students to take charge of their own education."

Technology can assist, but research continues to stress the importance of a teacher in the classroom, Amarillo Superintendent Rod Schroder said.

"In talking with superintendents who have districts that are high performing, none of them mention technology as the magic bullet," he said.


© The Amarillo Globe-News Online