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Bill Schlotter

UCSB PROFESSOR GETS $1.16 MILLION GRANT TO DEVELOP CURRICULUM TO MAKE TEACHERS TECHNOLOGY LITERATE

In our 21st century digital, dot-com, computerized world, the abilities to upload, download, select and click will be essential tools with which to pursue education and success.

But in our schools, the effort to make students computer-literate is being hampered by a dearth of teachers capable of doing much more than distinguishing between mouse and modem.

"We're spending a lot of money to put computers in our schools but many teachers don't yet know how to use them," said Willis Copeland, a professor in the Teacher Education Program of UCSB's Graduate School of Education (GSE), who has just received a $1.16 million federal grant aimed at correcting that problem.

"The hardware resources will be wasted if we don't upgrade people, too."

Copeland's grant from the Department of Education is to develop a curriculum for teachers in training that will turn out educators well-versed in using computer technology to educate children.

The project is funded for three years as a major partnership between GSE faculty and students and 13 Goleta, Santa Barbara and Carpinteria schools representing three districts and the Santa Barbara County Office of Education.

"I do want to stress that this is a partnership," Copeland said.

"We're going to have a major impact on these schools.

And their districts have made financial commitments to support our project."

Indeed, when the project is in full swing about 250 local teachers and their classes will be involved.

In addition to creating a curriculum with emphasis on using computers to learn, Copeland must also provide training to UCSB faculty members who will be entrusted to teach it.

The program also requires extensive computer training for teachers at the partner schools.

It makes little sense, Copeland said, to place UCSB student teachers under the supervision of professionals who lack the very skills the students are seeking to perfect.

"A substantial portion of the grant is going to educate those cooperating teachers that our students work with so that they are good technology users," Copeland said.

Chief among the skills teachers must have is the ability to teach students how to use the World Wide Web, Copeland said.

"The internet has radically changed the role of teachers," Copeland said.

"Before, the teacher and the textbook were the only ways that information got to students.

Now huge amounts of information are available without the teacher or the textbook."

Now, in addition to teaching students how to find information on the Web, teachers must help them learn to think critically about the information they are finding.

"They didn't have to do that before," Copeland said.

"The teacher would say, 'Out of all that is known about a subject, this is what you need to know.'

Now the students have to learn to decide -- not just as students, but throughout their whole lives -- what is worthwhile.

There is a lot of bogus information out there."

Teachers also need to know how to teach their students to construct and play back multi-media presentations on computers.

"In the past, when teachers gave assignments, they were completed by either writing or typing on paper," Copeland said.

"And that is a good way for some people to communicate.

But there is also music and sound and photos and movies and so on."

With computers, students can create term papers using a variety of media to record sounds, photographs, pictures, video on a disc.

"If it's a biology thing, they can go out and take pictures of frogs," Copeland said.

"They can bring in photos from the Web.

They can record interviews with scientists.

And they can bring it all together in a way that communicates their own ideas best."

Teachers must know how to run educational computer programs, too, Copeland said, such as those that simulate flying an airplane or running a nuclear power plant or governing a medieval community.

"They can have students act as rulers in ancient Sumeria and make decisions about when and what to plant," Copeland said.

"And since it's just a computer program, you can make bad decisions without bad consequences.

And in the process, you learn what good decisions are."

Teachers must be skilled, too, with word processing programs to help their students with more conventional writing tasks, Copeland said.

"Now, students can polish their compositions in ways they never could when so much effort had to go into typing," he said.

"Rather than being inked on paper, words appear as light on the computer screen and can be reviewed, changed and improved with ease."

And from a merely procedural standpoint, in 2002, teaching candidates across the state are going to have to be able to perform 31 different computer tasks in order to earn a teaching credential.

That requirement is going to spell trouble for those coming out of traditional education programs, Copeland said.

"But not for us at UCSB," he said.

"We're going to be right there."

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.