



AP Photo

A remote-control device for GTCO CalComp's latest classroom tool, the personal response system, sits on a student's desk at the University of Maryland College Park. Using the new technology, professors can test students instantly and repeatedly throughout every class to ensure learning is taking place.

New tool helps students

■ Technology allows professors to quiz students through lecture, showing who's paying attention and who's asleep

By Jen Degregorio
The Daily Record

COLUMBIA, Md. (AP) — So much for college students sleeping through another dusty old lecture. Using a new technology by a Columbia-based firm, professors can test students instantly and repeatedly throughout every class to ensure learning is taking place — and snoozing is not.

GTCO CalComp, which started 30 years ago as an electromagnetic digitizing company, now uses input-peripheral technology to market products for interactive classrooms. InterWrite — widely used in elementary and middle schools around the country — is GTCO's futuristic version of the traditional classroom blackboard and projector.

And GTCO CalComp's latest classroom tool, the personal response system, connects professors and college students in a lecture room. Students are given remote-control devices with which they can log answers to multiple choice questions posed throughout lectures. The remote controls are connected to a computer where the professor can calculate the number of students who answered correctly to gauge their comprehension of lectures.

"The nice thing about those response systems is that it really fundamentally changes the relationship between the professor and the students," said Rob Meissner, vice president of marketing for GTCO CalComp. "It gets the students far more engaged in interacting with the typical lesson."

With InterWrite teachers can create lessons on a laptop — ranging from basic word-

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processed texts to PowerPoint presentations — and project them onto an electronic "white board" to students, who are connected via an electronic SchoolPad, a computerized writing tablet that allows them to demonstrate their understanding of the lecture to the class.

At Halls Crossroads Elementary School in Harford County, fourth-graders sit attentively at their desk waiting for a turn to write on the SchoolPad, where they can highlight text from a story to show reading comprehension or solve math problems with an electronic pen.

"It's very motivating for the students," said Karla Wienhold, a fourth-grade math and reading teacher. "They know that if they're not seated correctly or behaving they won't get a turn to write."

Aside from behavioral motivation — which Wienhold said arises from a sense of "fun" — students get from using a computer "toy" in the classroom — Wienhold said InterWrite has quickened students' understanding of lessons.

Not much changes from elementary

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Donald Langenberg
University of Maryland professor

school to college when it comes to students' excitement about interactive learning.

The GTCO CalComp personal response system has "helped make lectures more like jazz," said Donald Langenberg, a physics professor at the University of Maryland.

"It's like one kind of musical performance. You can play from a fixed score and play the notes the way the composer put them down, no variations: That's analogous to a typical lecture," Langenberg said.

The result of classroom "jazz" has been better test scores for students, Langenberg said, according to studies by the physics department, which redesigned classes about five years ago to incorporate the personal response systems.

"There have been studies of the best ways to get students to learn things, including physics particularly. And one of the things that keeps coming out is that the standard lecture is the worst possible way," Langenberg said.

"It's all too easy to just sit there and pretend that they are absorbing information from the lecturer," he said. "It's much better to have something that directly engages the students in thinking about the questions that are raised and developing their own answers."