

# copyright

## HELPING CALIFORNIA KIDS WITH THE NUMBERS GAME

When it comes to kids and algebra — the math monster for any middle schooler — California isn't hitting its numbers. Algebra is too hard for as many as 50 percent of all California eighth-graders — all of whom, however, are required to take it. But they have help in the form of the UCLA Center for Mathematics and Teaching, Inc. (CMAT), which has created a textbook endorsed by the state of California that could help students learn math.

It started when Shelly Kriegler, Ed.D., faculty advisor Ted Gamelin, Ph.D., and their colleagues in the UCLA math department found teaching materials woefully lacking for eighth-grade algebra students throughout California. They decided to fix the problem themselves by creating a new way to help students who were failing the state-mandated standards.

Wanting to direct the marketing and use of the textbook, UCLA's Office of Intellectual Property helped CMAT by devising an agreement so the foundation could license the copyright and serve as publisher for the textbook. "We came up with a very nice agreement so that our private foundation will be selling the materials and doing the training, and the University is going to get a licensing fee," Kriegler says. "What's cool about this is we have written something that

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has potential for commercial success, and we wanted to do it in such a way that it would benefit the university and math education in general, as opposed to just trying to sell it to a private publisher."

Kriegler is director of UCLA's Math Content Program for Teachers and Students, a group that has strived for nearly a decade to raise money, mostly through grants, to help teachers learn better techniques to teach math. "The money started to dry up" at about the same time the state was developing plans to require all eighth-graders to take algebra, she says.

"Probably more than 50 percent of them aren't ready to take algebra in the eighth grade," Kriegler says. Part of the reason is poor instruction, she says, "and a lot of it is just maturation. They're just not ready for abstract thinking yet."

Many eighth-graders needed help. Traditional textbooks seemed inadequate, so the Center for Mathematics and Teaching, Inc. came up with an "out-of-the-box" program, as Kriegler put it, after conferring with mathematicians and math educators.

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The effort was supported initially by a pilot program involving 3,000 students, then grew to 10,000 students. School districts paid a fee for each student, providing the funds to move the project into high gear.

The UCLA program was submitted to the state as a textbook, and in 2007 it was one of only 11 algebra-readiness programs adopted for K-8 schools. It is among the top three or four programs that school districts are choosing, Kriegler says. Her group also plans to market the program nationally.

"To develop something from scratch in two years is pretty impossible," she adds. "So the fact that we did it at all was pretty surprising. But we did." ●