

California Polytechnic State University, San Luis Obispo, California



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Cal Poly Helping Santa Maria Teachers Gear Up for California's Common Core Mathematics Standards

SAN LUIS OBISPO – Cal Poly's Mathematics Department is partnering with the Santa Maria-Bonita School District to improve students' mathematics skills.

Thanks to a \$250,000 one-year grant from the federal Improving Teacher Quality (ITQ) program, Cal Poly mathematics Professor Kate Riley will be holding workshops for Santa Maria-Bonita elementary and middle school teachers throughout the 2011-2012 school year. The Cal Poly grant is one of 14 awarded in California this year and was chosen from a field of 50 applicants.

The Cal Poly ITQ workshops will help 35 Santa Maria-Bonita fifth- through eighth-grade teachers gear up for the new California Common Core State Standards in Mathematics. The new standards, and testing to match them, will launch in fall 2014.

In addition to the workshops, the ITQ grant is funding a summer algebra institute at Cal Poly for the 35 Santa Maria-Bonita teachers, led by mathematics professors Riley, Todd Grundmeier and Elsa Medina.

The Cal Poly professors will illustrate and present lessons and activities that help students learn the building blocks they need in order to succeed in algebra. They will present best teaching practices and activities for teaching mathematics conceptually.

"Algebra is both the gateway to higher-level mathematics and the stumbling block for many students," Riley said.

To succeed in algebra, students need to develop critical problem-solving skills, particularly in the area of number sense and proportional reasoning, Riley said.

Number sense is an educators' term for a child's fluidity and flexibility with numbers, the knowledge of what numbers mean, and the ability to perform mental mathematics. Proportional reasoning is the skill used when working with fractions, ratios and percentages.

"One goal of the grant is to help teachers learn new teaching strategies so students learn more than just procedures for working math problems. We want to help students conceptually understand mathematics," Riley said.

The Cal Poly-Santa Maria-Bonita partnership also fulfills another goal of the ITQ grant program: making sure all students -- including those in "high-needs" districts -- have access to highly qualified teachers. High-needs districts are those in which at least 20 percent of children ages 5-17 live in poverty or at least 10,000 children in the district come from families living in poverty – a designation that fits

the Santa Maria-Bonita district.

Cal Poly held the first Santa Maria-Bonita teachers' workshop Nov. 3; another is set for late November. Contact Professor Riley for details on future workshops.

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