

A ‘direct link’ to learning

Kentucky Center for Mathematics coaching program helps schools make big CATS gains, but state funding crisis threatens its future

Enter the front hallway at Bullitt County’s Overdale Elementary School and the first thing you see is a row of large, brightly -colored posters. They are school-wide assessment reports by subject area, representing numerically and graphically the percentages of students who earned novice, apprentice, proficient and distinguished status.

KEA member Earleen Tudor, the mathematics coach employed by the Bullitt County Schools to work with Overdale teachers, shows the posters to visitors as if she were showing off pictures of her grandchildren.

“It’s part of the culture here,” Tudor said. “Our students have done well. They’re proud of it. And we are proud of them.”

But Tudor is proudest of the number 16. That’s the number of points by which Overdale’s math scores on the CATS test improved from 2007 to 2008—from just over 75 to almost 92. Tudor started working with the teachers at Overdale (and with those at the district’s other elementary schools) in the 2006-2007 school year but she believes the progress they made really began in her second year, when she was assigned just to Overdale and to Maryville elementary, about two miles away.

Tudor, a National Board Certified Teacher who started her teaching career in Jefferson County in 1983, had taught for 12 years in Florida when she came home to Bullitt County in 2005 to be closer to her children and grandchildren. She taught the last half of the 05-06 school year at Bernheim Middle School and was hired the following summer by the district to be a full-time math coach for its elementary schools.

She was accepted into the coaching program of the Kentucky Center for Mathematics for 2007-2008 and attended their two-week summer training in the cognitive coaching model before the school year started. She also got a \$10,000 grant to buy teaching materials for her two schools, but Tudor said the training was the key.

Through that training she “became better versed in how to more effectively work with the teachers—how to have planning conversations with them, to help them to think about the way they were teaching mathematics, to get

them to really think about their lessons and how they were planning for those.” She would watch them teach their lessons, sometimes “interacting with the lessons or co-teaching them,” then review the

is so effective. That is the point of it. And it’s the most effective model I’ve seen.”

Barbara Jacobs, the regional coordinator assigned to work with Tudor by the Kentucky Center for

they may no longer be able to afford to employ math coaches like Tudor. And that will have an effect on student learning.

KEA member Nicole Brock agrees. Brock, assistant principal and math coach at Corbin High School, is in the third year of the KCM coaching program.

“Many schools have not stayed in the coaching program for the long haul due to lack of funding for the coaches’ salaries,” Brock said, adding that her school district has made coaching math teachers one of her duties as assistant principal in order to be sure she can continue to do it.

Other schools and districts have been less fortunate. In 2006-2007 there were 70 coaches in the KCM program.

“To keep their coaches in the program,” Jacobs said, “districts have to have the funds to pay them at least half time as math coaches. We lost 30 coaches after the budget cuts.”

Renee Yates, a member of the KEA Board of Directors who is curriculum resource teacher and math coach at Junction City Elementary in Boyle County, said preserving funding for the Kentucky Center for Mathematics and for district math coaches should be “a priority” for legislators.

Her KCM training enabled Yates to help the school raise its math scores by nine points from 2007 to 2008.

She said “This is professional development of the most effective kind. It is job-embedded. I’m here with the teachers during the day; I can go into their classes with them and be a resource when they need it. Cognitive Coaching gives us a framework to help teachers improve their craft in a way that is student-centered and data-driven.”

Earleen Tudor said, “The Kentucky Center for Mathematics program—the way they train the coaches and support them through the year, with the ongoing training and the regional coordinators—it really works. This school is proof of that,” Tudor said. “We improved by 16 points after one year with the program!”

“Here is a direct link between funding and student performance. Funding for the Kentucky Center coaching program allows us to help our teachers be better at teaching math. Their students learn better. And the test scores reflect that.”



Bullitt County mathematics coach Earleen Tudor (right) meets with Overdale Elementary School teachers (from left) Kari Clemans, Meagan Rutledge, Jennifer Meyer, and Becky Roberts.

lessons later with the teachers. “I would come back and have an interactive conversation with them about the lesson, to help them reflect and determine if there was something they could have done better.”

Tudor looks at CATS score reports by individual goal areas within the math core content, identifies weaknesses and talks with teachers about how they are teaching those areas. Often, weakness in students’ performance on assessments reflects weaknesses in their teachers’ own knowledge and understanding.

Tudor said coaching can get “difficult” at times. “Obviously if your goal is to help them be more effective teachers, you have to look for the areas in which they need to improve. They know that. And they start out looking at you as administration, because you’re not in your own classroom. You have to be very careful how you walk that line. They have to look at you as support—as a peer—rather than as administration. As I begin to meet with them and get to know them and go through the conversations with them, they start to see me as a friend, rather than someone who is evaluating them.

“I’m there to help them and support them, not to judge them in any way. If they start thinking of me as someone who is evaluating them rather than working with them then I will lose them. That’s why the Cognitive Coaching model

Mathematics, said the Center’s coaching program is designed to help entire schools rather than individual students.

“With cognitive coaching, we want to have an effect on teachers. If you go in and tutor a child, you help that one child. But if you work with teachers—if you go in and help them change their thinking, help them to be more self-directed and to reflect effectively on what they have done, then you are helping thirty kids, or more if they have more than one class. The effect is felt in the school, much more broadly.”

What’s most important, Jacobs said, is that “the effect continues to be felt year after year. The teachers continue to improve, and year after year their students learn more.”

There are about 40 teachers in the KCM coaching program right now. The teachers will spend three years working in the program with their regional coordinators, attending training in the summer and during the school year, before “graduating.”

But funding for the Center for Mathematics—and for the coaching program—comes from the state budget. The budget passed by the Kentucky General Assembly in its 2008 session reduced funding for the Center, so it had to scale back the coaching program, taking on no new coaches this year.

Jacobs worries that if school districts see their funding cut again