



Celebrating Success

In 2008-2009, many KCM coaches have been recognized for their teaching expertise, leadership, and the impact of their coaching work on school culture and student achievement. They have received teaching awards, grant awards, and recognition in the press.

JEFFERSON COUNTY



Senior coach **Melanie Benitez** was the recipient of this year's Helen Cunningham Teacher Award, given by the Greater Louisville

Council of Teachers of Mathematics (GLCTM). Melanie was nominated by KCM Regional Coordinator and GLCTM member Barbara Jacobs.

At the awards ceremony, Barbara shared reasons why she nominated Melanie: Melanie has taught at Engelhard Elementary for 17 years. In that time, she has been both a Math Lead and a Math Coach. She has pursued her own professional growth by taking classes through the Harvard Graduate School of Education.

Melanie's teaching expertise is recognized by the Kentucky Department of Education, who requested to film her classes as part of a project to illustrate best practices in teaching mathematics. At this year's

National Staff Development Council conference in Washington, D.C., Melanie spoke about sustaining gains in student achievement at Engelhard, along with presenters from the KDE and Harvard Graduate School of Education. Engelhard Principal, Teresa Meyer, believes that Melanie's work with teachers is a big part of the reason why students have achieved such high math scores. She has a passion for teaching mathematics, which is contagious!



WARREN COUNTY



Sophomore coach **Kim Estes** was selected to receive the Warren East High School 2008-09 Campbellsville Excellence in Teaching Award. This has been Kim's first year of coaching at Warren East High School, although she's coached in the Warren County school system for many years. From 1999-2007, she worked as a math coach/consultant at Bristow Elementary, a feeder school for WEHS. During that time, students' mathematics scores steadily increased. Now a coach at Warren East High School, she feels very much at home. Kim shares this award with the KCM Community and thanks everyone for their support!

HARDIN COUNTY



Sophomore coach **Katherine Bright** applied for and was awarded a grant from Sylvan Dell Publishing. Her school, Parkway Elementary, received a

site license for a collection of ebooks that are read to students by the computer. Each ebook comes with student activities in many different academic areas—Reading, Math, Social Studies, Science, etc. The books can be used individually by students or by the whole class.

JESSAMINE COUNTY



Senior coach **Susan Gordon** was selected as Teacher of the Year at East Jessamine Middle School. She is now a contender for the Jessamine County Middle School

Teacher of the Year award and will be observed and interviewed as part of this process.

CLAY COUNTY



Senior coach **Jennifer McDaniel** has been selected to participate in the new Master Teacher Project made possible by a grant awarded to the Appalachian Mathematics

and Science Partnership (AMSP) by the National Science Foundation. The Master

Teacher Project is being coordinated by PIMSER.

Jennifer was one of 9 mathematics teachers and 3 science teachers from Kentucky, Tennessee, and Virginia who were chosen to be a part of this two-year program. The goal of the program is to create a group of highly skilled Master Teachers of mathematics and science by providing them with mentored professional and leadership development experiences. These master teachers will then serve as expert resources in high-need school districts within central Appalachia. In Jennifer's words, "This is an awesome opportunity to continue my professional growth and incorporate my coaching into this new venture. And, it is interesting that one of my mentors is our own Jim Moore [a KCM alumni coach]!"

BOONE COUNTY



Senior coach **Linda Black** has been appointed to the position of Highly Skilled Educator by the Kentucky Commissioner of Education. Highly Skilled Educators are

assigned to assist at-risk schools who need to raise their growth accountability indexes. The rigorous HSE application process takes place over five months and progresses through three phases: written assessments, performance events, and site visits.

KCM Numeracy Conference

KCM coaches Erin Kenney, Silvia Lister, and Denise Justice were among the 74 presenters who led sessions at the KCM Numeracy Conference on March 5th and 6th, 2009, in Louisville, KY. They were joined by mathematics intervention teachers, other Kentucky experts, and distinguished educators and researchers from around the nation, who shared their passion and knowledge with an enthusiastic audience of more than 300 mathematics educators.

JEFFERSON COUNTY



Sophomore coach **Erin Kenney** co-presented with Doss High School mathematics teachers Stacy Justus and Christina Punches about their department's monthly

Math Labs for engaging students who need to review essential mathematics concepts.



Sophomore coach **Silvia Lister** shared a self portrait project that she has used to engage Valley Traditional High School students in synthesizing and applying their knowl-

edge of conic sections.

GREENUP COUNTY



Senior coach **Denise Justice** (Raceland-Worthington Schools) shared a collection of classroom-ready activities for teaching K-8 mathematics concepts in fun and different ways other than those typically seen in textbooks.

At the closing luncheon for conference attendees, Denise Justice and Helen Blevins, a KCM Mathematics Intervention Teacher, both spoke about how the training received through the KCM had enabled them to make strides with teachers and students at their schools. **KCM Executive Director Kirsten Fleming** shared a vision for weathering the current storm of budget reductions and continuing to move forward with the collaborative work of the Center.

The luncheon concluded with remarks

from special guest **Kentucky Education and Workforce Development Cabinet Secretary, Helen Mountjoy**, who



underscored the importance of meaningful mathematics as well as the opportunities ahead for Kentucky educators and their students as a result of the KCM intervention and coaching initiatives.

Formative Assessment Project

Five KCM coaches—**Nicole Brock, Tonda Dunn, Kim Estes, Jeani Gollihue** and **Anita Hendricksen**—and Assistant Director of Coaching **Laura Bristol** are participating in a KDE-funded project led by Dr. Bill Bush and Dr. Jane Jones from the University of Louisville. Along with other secondary mathemat-

ics educators from Kentucky, these coaches will be meeting over the course of the next year to design formative assessments that align with the End of Course Assessments being piloted this spring. They will also be designing professional development to introduce teachers to the formative assessments, once created.

WHITLEY COUNTY
JEFFERSON COUNTY
WARREN COUNTY
GREENUP COUNTY
MONTGOMERY COUNTY



Math coaches help area schools improve student test scores



Junction City Elementary students Haley Bates, left, and Jacob Fowler receive a math lesson from Renee Yates. Yates is in her second year as the school's math coach. (David Brock photo)

By **DAVID BROCK**
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Several local schools are taking part in a state program that makes teaching the teachers a top priority. With CATS scores being released Wednesday, those involved hope the result is higher math scores for students.

The Kentucky Center for Mathematics Coaching Program is a three-year-old initiative to improve math teaching and learning in schools. Participating teachers attend training sessions several times a year and are required to spend at least half their time in their schools as a coach.

For Junction City Elementary School, the number of tested students in fifth grade performing below a proficient level on math CATS testing fell from 72 percent in 2006 to 63 percent in 2007. Renee Yates, the math coach at Junction City, believes the program played a large part in producing these results.

"We can already see the fruits of our labor," she said. "I believe this contributed directly to our improvement last year, and I think you will see the same thing happened this year when scores are released."

Hogsett, Toliver, Mercer County and Crab Orchard elementary schools, as well as Lincoln County High School, also have math coaches. Instead of focusing on a specific curriculum or teaching techniques, the system is based on a method called "cognitive coaching."

Jim Justice, director of the coaching program for the Kentucky Center for Mathematics, says the approach is designed to change the way teachers think. "Cognitive coaching has its basis in a wide variety of philosophical

and psychological theories about how people think and learn," he said. "What we do is train coaches in a process that supports their peers' thinking. The goal is to help math teachers direct their own thinking and promote reflection and self-evaluation."

Professional development

Educators spend hours each year - by mandate, as well as choice - participating in professional development. Yates believes that this kind of training is more effective for several reasons. "Instead of going somewhere for six hours on a Saturday and then trying to coming back and apply that during the week, I am here every day," she said. "It is also important that it is not an evaluation. Teachers understand that you are there to help."

Cynthia Aossey from the University of Kentucky is the regional coordinator of the area that includes Boyle County. She said academic studies bear out what Yates has found in classrooms at Junction City. "Research has shown that teachers benefit most from ongoing on-the-job professional development," Aossey said. "When teachers have a coach in the building, they have the ongoing support they need to try new things, tap into new resources and think deeply."

One of the goals of the program is to ultimately improve lagging performance on standardized tests. However, Justice believes that the program's effectiveness is difficult to measure in these ways. "It is a challenge to find data that directly proves a correlation between the program and test scores at this point," he said. "We have been told by principals that this directly leads to improved performance. However, we know that the support this provides has really helped in retaining math teachers and forging a network of cooperation between the coaches."

The program also has inspired an uncommon collaboration across district lines locally. Yates is part of a group of area coaches that meets once a month. "I get together with the coaches from Hogsett, Toliver and Mercer County to talk about what works in the classroom," she said. "It is refreshing, and really unique in this area, to share ideas and resources in this way. The more we can share with each other, the better it is for the students."

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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 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 lessons later with the teachers.

"I would come back and have an interactive conversation with them



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

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 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 Mathematics, said the Center's coaching program is

Jacobs worries that if school districts see their funding cut again 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."