

County schools utilize Singapore math program

By Rebecca Feldhaus rfeldhaus@paducahsun.com

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Over the summer, elementary school teachers in McCracken County de-constructed new school standards. In the middle of all that, some elementary school teachers added a new math program to their plate.

Tina Hayes, district director of elementary instruction, said the Singapore math initiative is not an additional program for teachers to learn, but rather a tool to teach the new common core standards. With the implementation of Kentucky's Senate Bill 1 this year, students encounter new expectations in their learning.

This is the second year schools in the district have participated in the Singapore math approach. Last year Concord and Hendron-Lone Oak Elementary Schools implemented the Math in Focus program for kindergarten through fifth-graders. Reidland, Heath and Farley Elementary Schools took on their own version of the program this year.

Because text books from Singapore are written in English, the integration into American education — noticeable between 2004 to 2008 — was fairly smooth, Linda West said. West is the business manager with SMARTTraining and Singapore Math NOW!, companies that train teachers to use the Singapore math programs.

There are two systems to teach the program, West said. Primary Math is the original curriculum, straight from Singapore-style books. The Math in Focus curriculum is an Americanized version of the program.

“The people in Singapore didn't re-invent anything,” West said. “They sent people all around the world, looking at the math programs, beginning back with what they thought were the best parts.”

It's more of a global math program, West said. Essentially, the program works on how to teach math. Math is math, she said. Getting kids to understand it in a different way is the goal.

Singapore math seeks to get students to the mastery level of learning math. Instead of teaching more than 20 topics a year, West said they teach 13 to 15 topics to mastery.

“We consider mastery 80 percent,” she said. “We don't move on until 80 percent of the students are scoring 80 percent.”

Teachers instruct students to understand the math principle conceptually, pictorially and then move to the actual equation. Students work with manipulatives, like counting blocks or some other physical representation of the math, before moving on to a two-dimensional representation of the concept. Only when students demonstrate fluency in the first two steps do teachers move on to the actual equation.

First-grade students in Marcie Jackson's class at Reidland Elementary School played with paper dominoes in class last week. Children worked in small groups to match up domino values that made 10. Instead of asking students just to count to 10, Singapore math challenges them to think within that 10.

Holli Watkins, first-grade teacher, said her kids are excited to participate in games. One student brought in toothpicks to use as manipulatives. She showed her classmates four toothpicks, and true to Singapore math style, asked them what the other part would be to make a whole of 10.

Watkins, Jackson and Wendy Poole, work with number bonds, rather than just looking at equations. Jackson said it's algebra very early on.

"You'll say 10 is the whole, two is the part, what would the other part be," Jackson said.

It's a complex idea for a first-grader, but with more challenging material upfront, hopefully American students can catch up, Hayes said. If teachers follow through with Singapore math, students would finish calculus as sophomores in high school. It's a lofty goal, but Hayes said starting early will give all kids a better chance of being successful in the future.