

Parents Express

Local schools think differently about math

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Does your child struggle with math? Your son or daughter's not alone.

In a 2009 comparison of 15-year-olds, the United States ranked 25 of 34 countries. The results are causing educators, parents and the government to ask, "how can our kids do better in math?" Maybe a new way of learning can help. One approach is called Singapore Math. This visual method for elementary students has contributed to Singapore's consistent top math performance in global evaluations.

The approach was developed by Singaporean publisher Marshall Cavendish Education and Singapore's Ministry of Education. Singapore Math emphasizes looking at math visually first before moving to abstract concepts. It not only helps average learners achieve higher levels, but it also engages advanced students in deeper thinking. Today, Singapore Math is part of school curriculums in over 50 countries and every U.S. state.

More than 2,500 schools in America are currently using the Singapore Math textbooks (Primary Mathematics and Math in Focus). They were created by Marshall Cavendish in partnership with **Singaporemath.com** and Great Source, an imprint of Houghton Mifflin Harcourt. Marshall Cavendish also introduced Math Buddies (mymathbuddies.com), an interactive multimedia learning platform teaching Singapore Math concepts. Select schools are currently piloting Math Buddies.

Dr. Yeap Ban Har, Principal of Marshall Cavendish Institute, trains teachers in Singapore Math. He says, "It is a program that uses math to help students develop visualization, the ability to see patterns, number sense, and the ability to manage complexity and communication."

"The program is based on a framework that has problem solving at its center," says Dr. Andrea L. Daniai, Head of The Episcopal Academy Lower School. "The important aspects of math developed throughout the program include skills, concepts, processes, attitude, and metacognition as presented below."

Folk Arts Cultural Treasures Charter School (FACT)

Since it opened in 2005, FACT in Philadelphia has been teaching Singapore Math in kindergarten through 6th grade.

"Singapore Math has provided a deeper understanding of math concepts for our students. A typical U.S. textbook covers close to 30 topics per year. A typical U.S. Edition Singapore Math textbook covers 12-13," says Bill Davidson, FACT's Math Coordinator. "The curriculum's only aim is to deepen elementary aged students' understanding of mathematics. Overall, our students love math class and are excellent problem solvers."

Davidson also works to train Singapore Math teachers. Although most popular in California, interest is growing in New York, Washington, Florida, Delaware and D.C.

The Episcopal Academy

The Episcopal Academy Lower School teachers in Delaware County reviewed several math programs before they chose Singapore Math. For the past two years, they've used the Math in Focus textbooks in grades 1 through 5, and students' math performances and attitudes have greatly improved. "We were looking to create students who would become mathematical thinkers beyond simple arithmetic doers," says Dr. Danial.

Neshaminy School District

Bucks County's Neshaminy School District wanted an approach that encourages teachers to think differently. Shelley Rosen, the Elementary Math Specialist, learned about Singapore Math at National Council of Teachers of Mathematics (NCTM) conferences.

This school year, both kindergarten and 1st grade are using the Singapore Math textbooks in their curriculum. Second through fifth grade teachers are being trained in the program. Current Singapore Math students "are talking math, making connections, and showing their thinking more than ever," says Rosen. "They are excited about how the manipulatives help them to understand the meaning behind the math."

Considerations

Pennsylvania and 47 other states and territories have adopted the National Common Core Standards. These standards prepare students for college and careers by providing consistent and focused education. Singapore Math textbooks and Math Buddies are aligned with the Common Core Standards. The Math in Focus textbooks "fits very nicely with the new Common Core Standards, especially the 12 mathematical practices required throughout the grade levels," says Rosen.

Singapore Math requires thinking about math in a new way. It takes time for children, teachers and parents to become comfortable with it. Naturally, "one of the challenges in adopting a new program is the commitment to continuous professional development of the teachers," says Dr. Danial.

Besides reading manuals, educators need to develop a deep understanding of the materials and apply that knowledge often. They can also attend Singapore Math workshops, meet with trainers, and speak with other schools. Many websites offer papers, videos, and tips for teachers and parents.

Probably the most recognized effect of Singapore Math on students is the attitude towards math. Dr. Danial sees students are excited about math now. The children "enjoy the process of analyzing what is being asked, developing possible methods for a solution and then finding the answer-but they enjoy going even further-they enjoy seeing the various approaches their friends may have used to find the same solution." Students and teachers are approaching math with an open mind.

Is your child learning Singapore Math? Share your story: info@marichellerocha.com.

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