

InFOCUS

After Two Years, Three Elementary Math Curricula Outperform a Fourth

Curriculum influences what is taught—and learned—in schools. Choice of curriculum is particularly important for math instruction as our nation seeks to boost core skills.

In elementary schools, this choice is critical, because schools tend to use one curriculum in several grades, affecting students for multiple years.

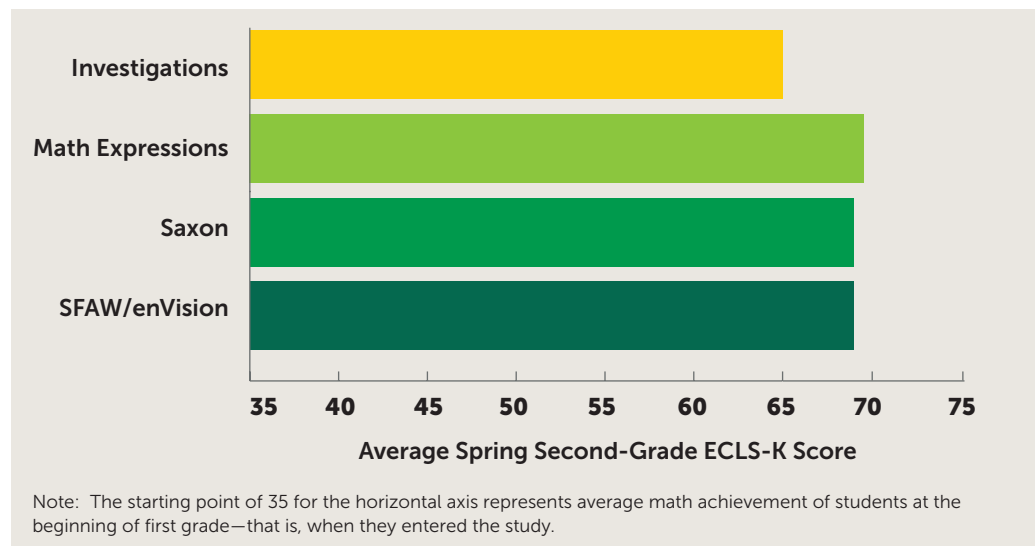
New findings from the evaluation update previous findings by showing how the study's four math curricula affect students' achievement across two years—from first through second grades.

Mathematica Policy Research has been conducting a large-scale rigorous study for the U.S. Department of Education's Institute of Education Sciences (IES) that can help educators choose an elementary math curriculum. The study sheds light on how different programs affect students' math achievement in the early grades.

The four programs include (1) Investigations in Number, Data, and Space (Investigations); (2) Math Expressions; (3) Saxon Math (Saxon); and (4) Scott Foresman-Addison Wesley Mathematics (SFAW), which the developer revised and renamed enVision Math (enVision) during the study. These curricula are widely used by U.S. elementary schools and differ in their approaches to teaching and learning.

KEY FINDINGS

- After two years, Math Expressions, Saxon, and SFAW/enVision improved first- through second-grade math achievement by similar amounts, and all three outperformed Investigations.
- The difference in achievement between the three higher-scoring curricula and the lower-scoring one is equivalent to moving a study student from the 50th to the 59th percentile in math.



SAMPLE/METHODS

The study enrolled 111 schools (from twelve districts) that agreed to participate for at least one year. Of the 111 schools, 58 agreed to participate for two years; the findings are based on the 58 schools (from seven districts) that participated for two years.

The study team randomly assigned the four curricula to the participating schools in each study district. Though not a representative sample of all elementary schools in the United States, the 58 schools included in these analyses are dispersed geographically and in areas with various levels of urbanicity. The participating schools also serve a higher percentage of students eligible for free or reduced-price meals than the average U.S. elementary school.

ABOUT THE STUDY

The [study](#), conducted by Mathematica and its subcontractor SRI International for the U.S. Department of Education's Institute of Education Sciences, is the largest of its kind to use an experimental design to study a variety of math curricula. More details about the study are available in the NCEE [Evaluation Brief](#), "After Two Years, Three Elementary Math Curricula Outperformed a Fourth," by Roberto Agodini, Barbara Harris, Neil Seftor, Janine Remillard, and Melissa Thomas.

