Math in Focus®
Singapore Math® by Marshall Cavendish

Grades K–5 Meets ESSA "STRONG" Evidence Criteria

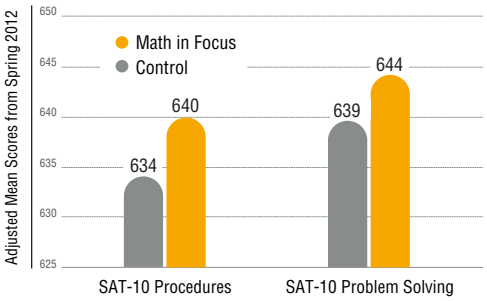
The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study.

PROGRAM OVERVIEW

Math in Focus: Singapore Math® by Marshall Cavendish® places problem-solving at the heart of mathematics and is known for its consistent and deliberate use of visual models across grade levels, which results in the ability of students to apply mathematics competently and confidently to both routine and novel mathematical situations. The program follows the pedagogical framework developed by the Singapore Ministry of Education emphasizing concept mastery, a concrete-to-pictorial-to-abstract approach, metacognitive reasoning, and the use of model drawing to solve and justify problems. The principles underlying the program are drawn from a solid base of foundational research that has identified effective approaches to mathematics teaching.

STRONG
ESSA EVIDENCE RATING

DISTRICT: Clark County School District, Nevada
STUDY YEAR: 2011–2012
STUDY CONDUCTED BY: Empirical Education

EVIDENCE CRITERIA	STUDY EVIDENCE & HIGHLIGHTS
Well-designed & well-implemented experimental study or Randomized Control Trial (RCT)	An experimental clustered RCT study, where intervention teachers implemented *Math in Focus* K–5 for one school year. Results were analyzed using hierarchical linear modeling of student's Stanford Achievement Test (SAT-10) as the dependent variable, while controlling for student and teacher level variables and student baseline performance. Grade 3-5 teachers in 12 schools were randomly assigned to use either *Math in Focus* or continue using their current curricula as their core math instruction during the 2011–2012 school year. Surveys of teachers indicated that over 90% of *Math in Focus* teachers participated in all of the professional development sessions throughout the year. In addition, 80% of Math in Focus teachers reported following the program's instructional pathway with fidelity throughout the school year. On average, teachers reported using the *Math in Focus* program as their daily core instruction at least 80% of the time.
Large & multi-site sample, overlapping with populations and settings proposed to receive the intervention	*Math in Focus* was studied in a large and diverse school district with 12 schools that varied in urbanicity and student populations ANALYTIC SAMPLE: • Large and diverse school district • 12 schools • Grades 3–5 • 1,641 participating students • 10% African American; 47% Hispanic; 28% White • 7% Asian; 6% Mixed; 2% Other • 11% Students with disabilities • 56% Free/reduced-price meals
Shows statistically significant & positive effects	Students using *Math in Focus* had signficantly (p = .05) greater SAT-10 Problem Solving scores than control students, after controlling for student and teacher characteristics. There was also a marginally significant (p = .10) effect in that students using *Math in Focus* had greater SAT-10 Procedure scores than control students. 

To learn more about the research behind *Math in Focus*, visit hmhco.com/MathinFocus

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