Abstract

This article reviews research on the achievement outcomes of elementary mathematics programs. 85 rigorous experimental studies evaluated 64 programs in grades K-5. Programs were organized in 6 categories. Particularly positive outcomes were found for tutoring programs. Positive outcomes were seen in studies focused on professional development for cooperative learning, classroom management, and metacognitive skills. Professional development approaches focused on helping teachers gain in understanding of mathematics content and pedagogy had little impact on student achievement. Professional development intended to help in the adoption of new curricula had a small but significant impact for traditional curricula, but not for digital curricula. Traditional and digital curricula with limited professional development and benchmark assessment programs found few positive effects.

