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Effects of early intervention targeting mathematically at-risk first grade students

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In the 2006-2007 school year, 7.3 percent of third grade students scored in the lowest percentile in mathematics on the Missouri Assessment Program test. This percentage increased as students progressed through school. In tenth grade, 24 percent of students scored below average. Although it is troubling that 7.3 percent of students were already struggling in third grade, this data shows more students are falling behind in mathematics as they progress through the grades. These percentages stress the importance of reaching students during early grades because a sound base in mathematics will keep students at grade-level throughout their schooling. Our study targets two first grade students who have been identified as mathematically at-risk by their teachers. One is a Caucasian male while the other is an African American female. The project examines whether or not individualized tutoring sessions based on an intervention program can increase the students' procedural and conceptual understanding in mathematics. Initial assessments measuring the students' understanding of mathematical concepts were administered. The research team met with students biweekly for tutoring sessions that targeted the skills they struggled with on the assessments. Students' progress was monitored throughout the year and the research team adjusted the students' activities based on each student's strengths and areas of concern. In May, students will be reassessed using the initial assessment. Results from the two time points will be compared and analyzed to ascertain how the students' performance has changed. The study will focus on students' performance in all of these areas with the assumption that the intervention program will have a positive influence. If significant improvement does not emerge, a reevaluation of the tasks and a consideration of what other factors might have affected student performance will be undertaken. Early intervention programs, such as this one, are an important step in helping mathematically at-risk students perform at grade level.