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Can After-School Programs Boost Academic Achievement?

An Impact Evaluation of a Reading Intervention in an After-School Program

STUDY RATIONALE

With the heat on schools to meet current federal and state accountability goals, many educators have high hopes that after-school programs will help boost students' academic achievement. As they see it, after-school programs may be a venue for students who are struggling academically to catch up through a little more "seat time" and exposure to instruction in reading, mathematics, and other academic content areas. This view of after-school programs is relatively new. Before the late 1990s, academic instruction, if offered at all, tended to be homework assistance or projects with little academic content, such as reading recipes to bake cookies or using mathematics to calculate basketball scores.

More and more, many funders and school districts see after-school programs as a crucial setting in which to deliver academic instruction. For example, after-school programs with funding from the U.S. Department of Education's 21st Century Learning Centers are required to offer academic activities, and several states—including California, Kentucky, and Maryland—have stepped up funding for after-school programs as a key strategy to keep children learning after the school bell rings. After-school programs are also a preferred

environment in which to deliver "supplementary education services" required under the No Child Left Behind Act of 2002 for schools that show no progress in meeting their Adequate Yearly Progress goals.

Yet despite the growing popularity of academic interventions in after-school settings, research has yet to address whether such interventions can be implemented properly, whether elementary school children are too tired to absorb rigorous instruction, and whether teachers have stamina to provide after-school instruction, much less whether such interventions make a difference in test scores. The scant literature on academic instruction in after-school programs underscores the lack of consensus about whether academics should be central to after-school programs, and if so, whether children will actually do better in reading, mathematics, and other core academic areas. What is lacking are studies that use rigorous methodology to isolate the impact of academic interventions in the after-school setting on learning outcomes.

STUDY DESIGN

To help inform the discussion about the role of after-school programs in

boosting academic achievement, the William T. Grant Foundation funded MPR Associates' researchers to undertake a study, conducted in the 2005–2006 academic year, to evaluate the impact of *READ 180*—a promising, structured intervention for struggling readers that was adapted for after-school settings. *READ 180*, developed by Scholastic, Inc. and based on the work of Dr. Ted Hasselbring of Vanderbilt University, was released in 1999–2001 and is now being used in about 10,000 fourth-through twelfth-grade classrooms nationwide. The researchers selected this intervention not only because it is suitable for after-school programs and is designed for struggling readers but also because *READ 180* provides a clear way to organize instruction and reading activities. The adapted version of *READ 180* for the after-school setting requires that the 90-minute model is reduced to a total of 60 minutes, including three rotations: *small group direct instruction*, *independent and modeled reading*, and *READ 180 software or computer*. This model was implemented after school for four days each week.

To assess the impact of *READ 180* on after-school attendees, MPR researchers collaborated with the Brockton Public

School District, a large, urban school district in southeastern Massachusetts with an ethnically diverse, low-income population. In 2003–04, the District served more than 16,000 students, many of whom read below grade level according to the state assessment, and each year schools in the District struggle to meet their Adequate Yearly Progress goals under No Child Left Behind.

Once the 300 fourth, fifth, and sixth graders eligible for the study received the reading assessment and completed the baseline survey, they were randomly assigned using a 50/50 split to either a treatment group or a control group. All students read below proficiency according to Massachusetts' state assessments. The researchers ensured that only students assigned to the treatment groups received *READ 180*, and that the prescribed dosage was delivered. Students were then further grouped by the after-school supervisor and the principal in each school into twenty classes of about 15 students, typically from the same grade, and assigned to a teacher who was credentialed and taught in the same school during the day.

STUDY FINDINGS

Researchers measured the impact of *READ 180* on three sets of outcomes: attendance in and attitudes toward the after-school program; self-efficacy, behavior, and attitudes toward reading; and reading skills in phonemic decoding, oral fluency, word recognition, comprehension, and vocabulary. The analysis also focused on how the impacts differed among the grades, the three schools, and some subgroups of students. Because the District did not permit the random assignment of teachers, it was not possible to ascertain whether any treatment/control differences at the end of the year were due to differences in teachers' background, credentials, or other variables. The following presents the highlights of the evaluation results:

- *READ 180* had a positive impact on students' attendance in the after-school program. The findings indicate that *READ 180* students, compared with those in regular after-school programs, attended the program more regularly and with-


draw less frequently. Also, survey data and anecdotal reports from the teachers and principals suggest that *READ 180* students seemed more motivated and eager to participate in the after-school program than the other students and that the intervention enhanced their after-school experiences.

- Even though the teachers and researchers observed that *READ 180* students enjoyed and seemed to benefit from their participation in the program, overall few differences were observed between students in the control and treatment groups in how they viewed themselves as readers, their attitudes toward reading, and their reading behavior. However, there were two exceptions: *READ 180* students were more likely to indicate that they were "good at remembering words," and, not surprisingly, to report that they "read more books in [their] after-school programs."
- The impact of *READ 180* on oral reading fluency, as measured by the DIBELS (Dynamic Indicators of Basic Early Literacy Skills) assessment, was positive and significant although it varied by grade and school. For example, fourth graders in two of the schools had substantial gains in oral fluency (reading 10 and 12 words more than controls correctly per minute).
- *READ 180* had a positive and statistically significant effect on word recognition, as measured by the TOWRE (Test of Word Reading Efficiency) assessment, with *READ 180* students making more than an average year's progress in word recognition skills compared with the control group students. Combined with the gains in oral reading fluency, mentioned above, these findings suggest that participation in the intervention led to greater fluency by improving students' ability to read words more quickly and accurately.
- The results of the GRADE (Group Reading Assessment and Diagnostic Evaluation) assessment indicate that there were no statistically significant differences in the vocabulary and comprehension scores of the *READ 180* and control group students.

- *READ 180* appeared to have its largest impact on raising the test scores of students who started the year with a low interest in reading and on fourth graders.

CONCLUSIONS

Can a reading intervention delivered after-school for 1 hour daily, 4 days a week, for 1 academic year make a difference in students' academic achievement? Some say probably not because the amount of time students can spend in an after-school intervention is too small to make a real difference. Others argue that day-to-day exposure to a high-quality, engaging, and well-designed intervention should indeed make a difference because "something is better than nothing."

How do these findings inform the debate about the role of after-school programs in boosting academic achievement? First, the findings show that a relatively demanding, structured intervention, such as *READ 180*, can be implemented with high fidelity in the relatively informal environment of after-school programs. Second, they show that elementary school students can become highly engaged in academics in an after-school setting, so much so that the learning itself actually motivates them to continue attending throughout the year. Third, the findings indicate that a reading intervention can result in small but positive gains in such reading skills as word recognition and fluency, which may bolster the beliefs of those who think that after-school programs should offer more academic content. Finally, this study underscores the need for more data and research on which interventions work, how much, and for whom in the after-school setting. In the meantime, strengthening academics in after-school programs remains a viable strategy. 

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