



## After-School Reading

A reading program, adapted for use in the after-school setting, resulted in 48 more hours of reading instruction during the school year (20 percent more) for reading program students than for their counterparts, but it did not increase student achievement in reading. The impacts did not vary significantly in different grades or for students with different prior performance. Nor did the reading program students and their counterparts differ significantly on other in-school behaviors.

After-school programs receive federal support through the 21st Century Community Learning Centers, established in 1999. A primary purpose of the program is to provide opportunities for academic enrichment to help students meet state and local standards in core content areas. Findings from a previous national evaluation of the program indicate that the program grants awarded between 1999 and 2002 had, on average, a limited academic impact on the academic achievement of participating elementary school students.

A possible factor is that most academic activities at the evaluation sites consisted of homework sessions in which students received limited additional academic assistance (such as instruction or assistance with homework). In addition, attendance was limited and sporadic. But analyses comparing the academic outcomes of frequent and infrequent participants suggest that increasing attendance alone is unlikely to improve the academic findings. So, the limited academic effects and the low levels of formal academic assistance offered in these programs highlight the need for better academic programming. In response, the Institute of Education Sciences supported the development and evaluation of instructional resources in core content areas that could be used in after-school programs.

This brief presents findings for the first of two years of program operations (school year 2005-06) on a study for reading.

### The reading program

The curriculum developer—Success for All Foundation—was selected through a competitive process to adapt its school-day reading materials for use in the after-school setting. The developer was asked to create material that is engaging for students, tied to academic standards, appropriate for students from diverse economic and social backgrounds, and fairly easy for teachers to use with a small amount of preparation time.

The Success for All Foundation adapted its existing school-day reading program to create *Adventure Island*, a structured reading model with daily, 45-minute lessons that involve switching quickly from one teacher-led activity to the next. It includes the key components of effective reading instruction identified by the National Reading Panel and builds cooperative learning into its daily classroom routines, which also include reading a variety of selected books and frequent assessments built into lessons to monitor individual student progress.

## The study

The reading program was implemented in 25 after-school centers, which were chosen based on their expressed interest and their ability to implement the program and research design. The study sample of 1,828 students, in grades 2 through 5, were identified by local staff as in need of supplemental academic support to meet local academic standards and were enrolled in the after-school programs. Students were assigned by lottery to either the Success for All Foundation's *Adventure Island* reading program or to the regular after-school program. The regular program consisted primarily of help with homework or locally assembled materials that do not follow a structured curriculum.

The evaluation examines four primary questions:

- Does the *Adventure Island* after-school reading program improve reading proficiency over what students would achieve in regular after-school programs, as measured by test scores?
- What are the impacts of the after-school reading instruction for subgroups of students based on their prior academic performance and grade?
- Does the after-school reading instruction affect other in-school academic behavior outcomes, as measured by reports from regular-school-day teachers of student engagement, behavior, and homework completion?
- What does program implementation look like, and was it implemented as intended?

The second and fourth questions address information to better target and implement the intervention. The third question addresses whether extended learning leads to additional positive or negative student academic behaviors.

Impact findings from the first year are based on data collected from students, regular-school-day teachers, and school records. The Stanford Achievement Test, Tenth Edition (SAT 10), abbreviated battery for reading, was administered to students at the beginning and end of the school year to measure the gains in achievement. For students in grades 2 and 3, the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) was also administered to measure

fluency. A survey of regular-school-day teachers was used to measure student academic behavior. The study also collected information about program implementation and student attendance.

## The study's findings after one year

In the first year of the study, *Adventure Island*, the reading model put in place in 25 after-school centers, produced the following interim findings.

### *Student reading skills and other academic behaviors*

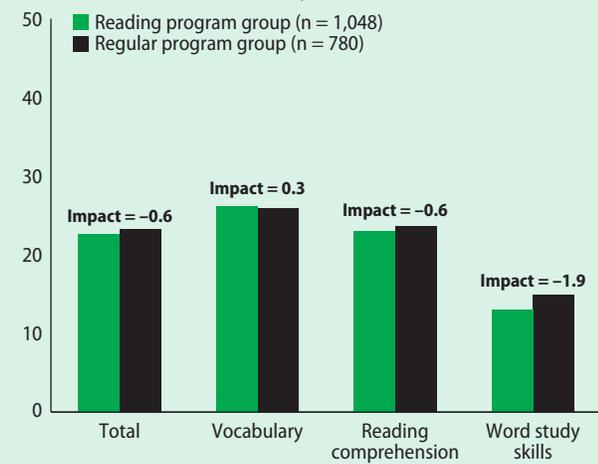
Students in the reading program did not experience a statistically significant impact on their performance on the SAT 10 reading test, overall or on any of the three sub-components. There were positive and statistically significant program impacts on one of the two measures in the DIBELS fluency test, but after accounting for multiple comparisons, this finding is no longer statistically significant. The program had no positive or negative effects on teacher reported student behaviors during the school day.

- The average total SAT 10 reading score of the *Adventure Island* group increased over the school year by 22.6 scaled points, compared with an increase of 23.2 scaled points for the other group, resulting in a difference that is not statistically significant. There were also no statistically significant impacts on the three subcomponents of the SAT 10—vocabulary, reading comprehension, and word study skills (figure 1).
- The estimated difference between the *Adventure Island* group and the other group was a statistically significant 3.7 points (effect size = 0.12) in the nonsense word fluency subtest of DIBELS. But after accounting for multiple comparisons, this finding is no longer statistically significant. For the oral fluency subtest of DIBELS, the difference of 2.3 points (effect size = 0.07) was not statistically significant.
- Reading score impacts were not statistically significant within or between any of the subgroups—by prior achievement or by grade.
- The reading program did not produce statistically significant impacts on any of the three academic behavior

FIGURE 1

**Student growth on reading test scores**

Growth from baseline (scaled score points)



measures: homework completion, attentiveness in class, or classroom disruptiveness.

**Program implementation**

The strategies supporting the reading intervention were implemented as intended, but teacher feedback and program observations indicated some teacher implementation challenges. Student program participation led to an estimated increase in reading instruction of 20 percent more hours of reading instruction (48 hours) during the school year.

- Of the reading program staff, 99 percent were certified teachers, most often with three or more years of teaching experience. More than 80 percent reported daily preparation of at least 30 minutes. The average student-to-staff ratio of 9:1 was as intended.
- All 50 after-school teachers interviewed reported experiencing some challenges related to pacing. Seventy-four percent of observed program observations

indicated that teachers did not complete all the components of the lessons in the allotted time; 84 percent of the observed teachers did not model or practice fluency as was intended during the lesson.

- On average, the reading program students attended the after-school program for 70 days (73 percent of the instruction days offered), which was 7 more days than the other group. This translated into an increase in reading instruction of 48 hours (55 hours for reading program students compared with 6.5 hours for other students, who received normal after-school programming).

**Upcoming report**

The study was expanded to include a second year of implementation and data collection in 12 of the original participating reading centers. This sample includes students who were part of the study in the first year and students who were new to the study in the second year, allowing the new wave of data collection to shed light both on the cumulative impact of the enhanced after-school program on returning students and on the impact of a more mature program on new students. The results will be presented in the final report of the evaluation.

**For the full report, please visit:**

<http://ies.ed.gov/pubsearch/pubsinfo.asp?pubid=NCEE20084021>

Black, A.R., Doolittle, F., Zhu P., Unterman, R., and Grossman, J. B. (2008). *The Evaluation of Enhanced Academic Instruction in After-School Programs: Findings After the First Year of Implementation* (NCEE 2008-4021). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

NCEE developed the Evaluation Briefs to offer short synopses of complex technical evaluation reports. This brief was not prepared by the study authors.