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## Reading Apprenticeship Academic Literacy Course

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Researchers examined the impact of WestEd’s Reading Apprenticeship Academic Literacy Course teacher professional development on grade 9 students reading two to five years below grade level.

Funded by the Institute of Education Sciences, the study—known as The Enhanced Reading Opportunities Study: The Impact of Supplemental Literacy Courses for Struggling Ninth-Grade Readers—also examined one other grade 9 reading intervention, Xtreme Reading, from the University of Kansas. Findings were reported in terms of individual program results and pooled results.

Students and their teachers in 34 schools nationwide participated in the Enhanced Reading Opportunities study, conducted by independent research agencies MDRC and AIR, to measure course implementation and student outcomes, including reading comprehension, persistence in school, course-taking patterns, and performance on high-stakes tests.

Half of the schools (17) were randomly assigned to implement the Reading Apprenticeship Academic Literacy course, and half were assigned to implement Xtreme Reading. At each school site, students scoring from 2 to 5 years below grade level in reading were recruited for random assignment to either the year-long, supplemental intervention course or a control condition consisting of a regularly scheduled elective class.

**Research Questions:** Researchers addressed the following questions:

- What are the effects of the interventions (the Reading Apprenticeship Academic Literacy course and Xtreme Reading) on students' reading skills and other academic outcomes such as attendance, persistence in school, course-taking patterns, and performance on high stakes assessments?
- For which subgroups of students are the interventions most effective?
- What factors appear to account for the impact (or lack of impact) on reading achievement and other outcomes?
- What factors promote or impede successful implementation?

**Intervention:** The treatment for this study was a year-long supplemental reading intervention course, either Reading Apprenticeship Academic Literacy or Xtreme Reading. Implementation of Reading Apprenticeship Academic Literacy is guided by the concept of "flexible fidelity" — that is, while the program includes a detailed curriculum, teachers are trained to adapt their lessons to meet the needs of their students and to supplement program materials with readings that are motivating to their classes. Teachers have flexibility in how they include various aspects of the Reading Apprenticeship curriculum in their day-to-day teaching activities, but they have been trained to maintain the overarching spirit, themes, and goals of the program in their instruction.

**Design & Sample:** Thirty-four high schools in 10 districts participated in the three-year, group-randomized experimental study through a special Small Learning Communities Grant competition. Within each district, high schools were randomly assigned to use either the Reading Apprenticeship Academic Literacy program or the Xtreme Reading program for a period of two years. Experienced, full-time English language arts or social studies teachers were self-selected and approved by the U.S. Department of Education's Office of Vocational and Adult Education to teach the programs.

In the 17 high schools implementing the Reading Apprenticeship Academic Literacy course, 2,782 students participated in the study over two years. Fifty-eight percent of these students were randomly assigned to the course and the remaining 42% were assigned to the control group.

On average, students in the Reading Apprenticeship Academic Literacy school sample scored 4 years behind grade level in reading comprehension at baseline. Thirty percent of these students were overage for their grade, 45% spoke a language other than English in their homes, and 68% were eligible for free and reduced-price lunch.

**Analysis Plan:** Evaluation data were collected with the Group Reading Assessment and Diagnostic Examination (GRADE) reading comprehension and vocabulary tests and a survey, administered to students at two points during the ninth-grade year: a baseline assessment and survey at the start of ninth grade and a follow-up assessment and survey at the end of ninth grade. To learn about the fidelity of program implementation, the study also included observations of the supplemental literacy classes.

**Outcomes:** Early findings from the AIR/MDRC evaluation demonstrated that the 9th Grade Reading Apprenticeship Academic Literacy Course had a positive and statistically significant impact on student reading comprehension scores. The Reading Apprenticeship Academic Literacy program improved reading comprehension test scores by 1.4 standard score points and this impact was statistically significant ( $p < .015$ ).

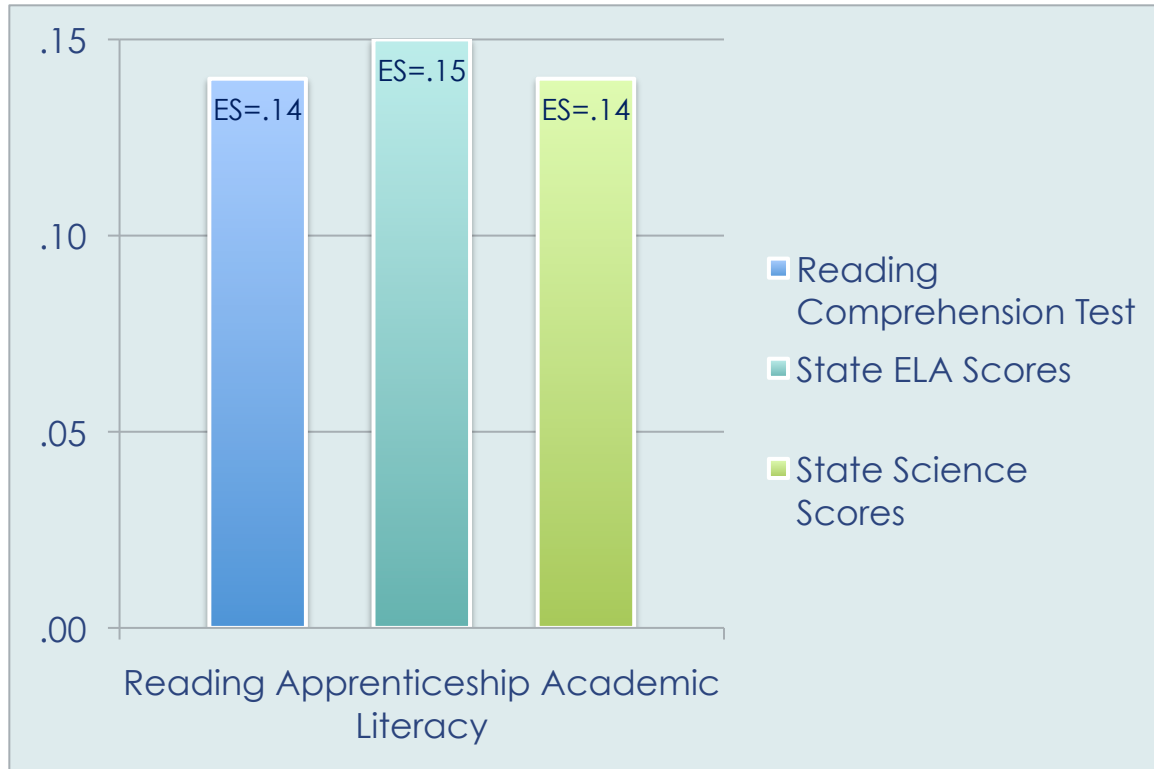
The impact of 1.4 points on reading comprehension test scores represents a 33 percent improvement over and above what the Reading Apprenticeship Academic Literacy students would have achieved if they had not had the opportunity to attend the intervention course.

The final report pooled data from two cohorts of students, across two program years. The impact of Reading Apprenticeship Academic Literacy for both cohorts combined was 1.2 points (effect size = 0.12,  $p = 0.002$ ). In the final report, impacts on student performance in core academic classes and, where available, state tests, were analyzed.

Reading Apprenticeship Academic Literacy had a positive and statistically significant impact on students' grade point average in core subject areas; students in the course received better grades in history and science classes than their counterparts in the control condition. In addition, the Reading Apprenticeship Academic Literacy course had a positive and statistically significant impact on students' state test scores in both English

language arts (effect size = 0.15,  $p = 0.006$ ) and science (effect size = 0.14,  $p = 0.033$ ) (see Figure 1).

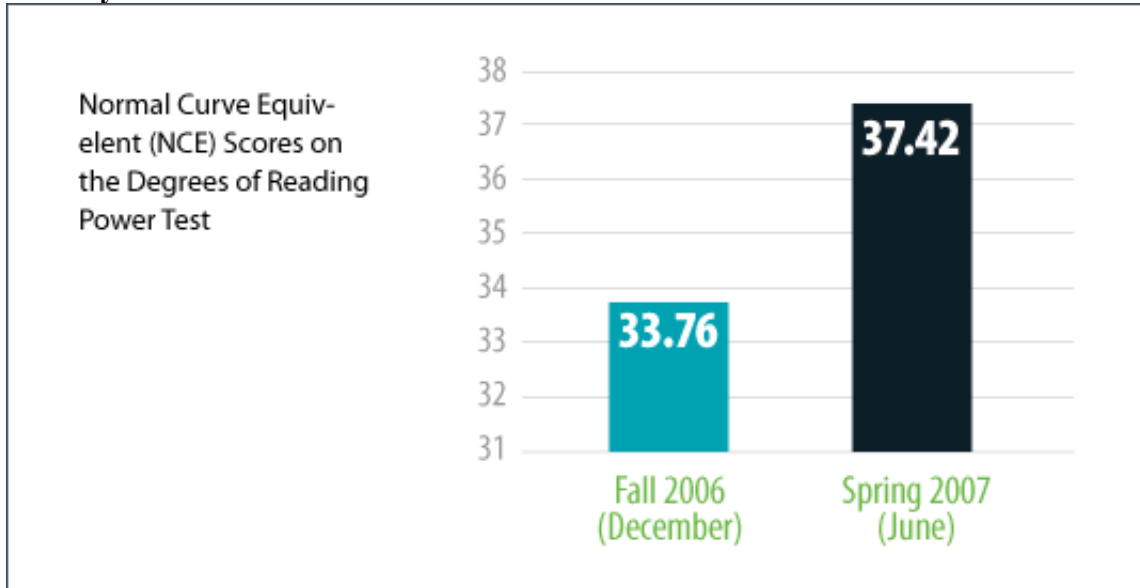
**Figure 1: Reading, ELA, and Science Standardized Test Score Effect Sizes for Students in Academic Literacy Course**



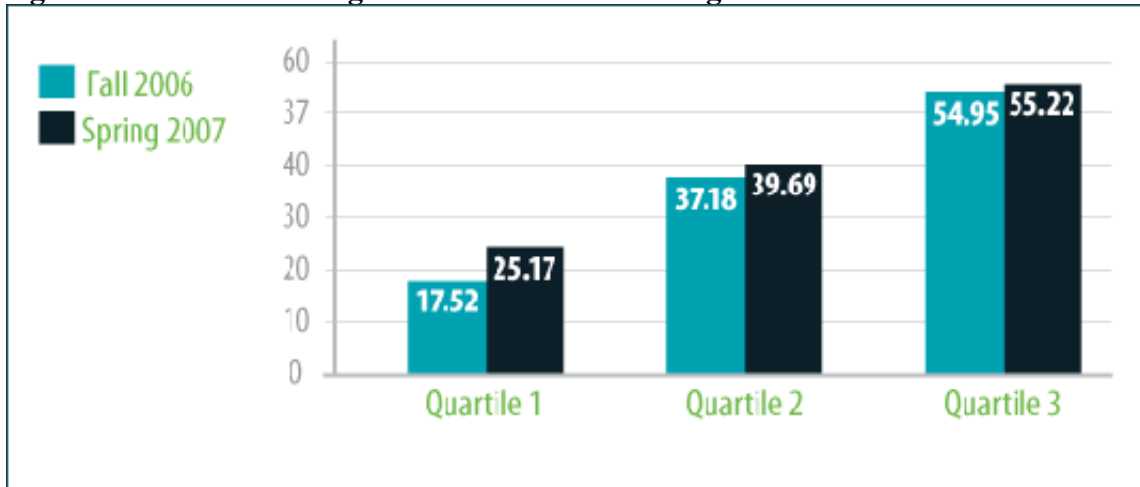
Although these academic impacts were not sustained in the follow-up year, when students were not taking the course, in Reading Apprenticeship Academic Literacy schools, fewer students who took the course were ever suspended in the follow-up year (effect size = 0.09,  $p = 0.025$ ), an indicator used to gauge program effects on student behavior. Sustained acceleration of academic benefits for students entering high school reading four years behind grade level therefore may require sustained support.

Additionally, WestEd collected Degrees of Reading Power standardized reading comprehension test data for 580 students who participated in the Reading Apprenticeship 9th Grade Reading Apprenticeship Academic Literacy course. In six months, the students made statistically significant gains in reading scores (see Figure 2). Students who made the largest gains were those in the lowest two quartiles (see Figure 3).

**Figure 2: Degrees of Reading Power Improvement for Students in Academic Literacy Course**



**Figure 3: DRP Gains Largest for Lowest Performing Students**



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