

# RENAISSANCE<sup>®</sup>

SPECIAL REPORT

## Trends in Student Outcome Measures

### The Role of Individualized Reading Practice



 RENAISSANCE  
**Accelerated Reader 360<sup>®</sup>**

## Overview

Renaissance Accelerated Reader 360 balances students' independent reading practice with nonfiction reading and close-reading skills practice. For the purpose of this study, we focused on the independent reading component of the program to examine how patterns of growth and expected college and career readiness vary depending on the type of reading practice students accomplish. Specifically, we compared independent reading practice as tracked by Accelerated Reader with the typical performance of students who did not use the program.

## Main findings

Whether we examined students by grade or populations of interest (struggling readers, English learners, and students in free- or reduced-lunch programs), independent reading practice with Accelerated Reader was associated with better student performance and higher levels of annual growth. These positive outcomes increased the better the program was implemented.

## Data

The study data came from Renaissance's massive reading practice database from the 2013–2014 school year, which comprised over 2.8 million students in grades 1–12. The sample students participated in the Accelerated Reader program (by taking five or more reading practice quizzes during the school year) and completed a Renaissance Star Reading® pretest (first assessment taken August–November) and posttest (last assessment taken April–July). We divided students into three groups depending on program use (which was voluntary, meaning students were neither recruited nor randomly assigned to a particular comparison group):

- **Typical students**, who did not use Accelerated Reader
- Students with **moderate Accelerated Reader use**, who met targets of 85% or higher average percent correct (APC) on the program's quizzes with 15–29 minutes of engaged reading time (ERT)
- Students with **best practice Accelerated Reader use**, who followed the program's research-based recommendations of 85% or higher APC on quizzes with at least 30 minutes of ERT

We report results in two ways: (1) **student growth percentiles** (SGPs) that convey how each student grew relative to their academic peers (kids in the same grade with a similar score history),<sup>1</sup> and (2) **percentile ranks** (PRs) aligned to college- and career-readiness achievement levels, per the Smarter Balanced Assessment Consortium, that reveal end-of-year performance.<sup>2</sup>

## Results

### Overall

As figure 1 shows, students who used Accelerated Reader realized more annual growth, as evidenced by a higher median SGP, than students who did not use the program. The better Accelerated Reader was implemented, the more students grew. Also, students

**Students using Accelerated Reader grew significantly more than kids not using the program and were nearly twice as likely to be college and career ready.**

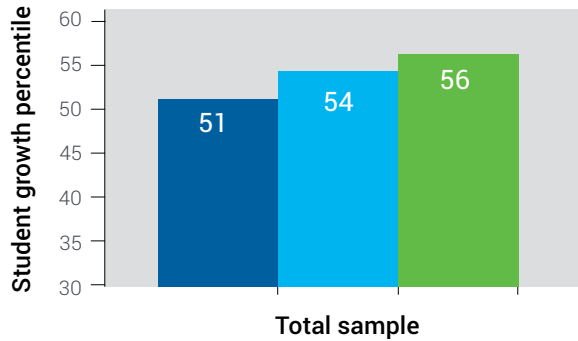
1 SGP is a widely accepted indicator of student progress used by states for instructional decisions and accountability reports. Its sophisticated calculation accounts for initial performance levels and provides context to evaluate if kids are growing at a typical rate. SGPs range from 1 to 99, with higher SGPs meaning more progress (50 is typical growth; over 50 indicates accelerated growth, which is important for kids working below grade level who need to grow quickly to catch up).

2 Based on posttest PRs, kids in grades 3–8 were classified as likely to be either *Proficient* (levels 3 and 4) or *Not Proficient* (levels 1 or 2) on the SBAC; Gewertz, C. (2014, November 17). Cutoff scores set for common-core tests. *Education Weekly*. Retrieved from <http://www.edweek.org/ew/articles/2014/11/17/13sbac.h34.html?cmp=ENL-EU-NEWS1>

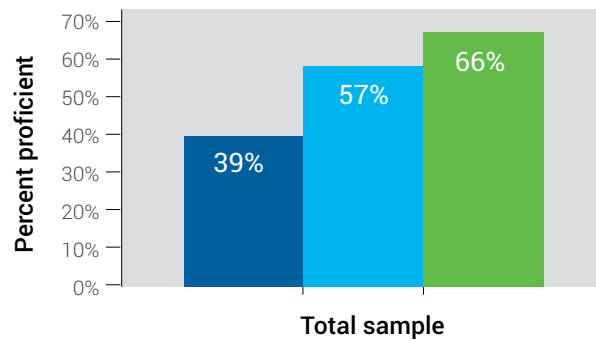
using Accelerated Reader were more likely to meet college- and career-readiness (CCR) benchmarks. Nationwide, about 40% of students in each grade are expected to meet these benchmarks—students not using Accelerated Reader came in just under this expectation at 39%; whereas for the groups who used the program, the better it was implemented (moderate versus best practice use), the more students were likely to be proficient.

Figure 1. Overall, students who used Accelerated Reader® experienced better than expected growth

Student growth relative to academic peers



College and career readiness



■ Non-Accelerated Reader student    ■ Moderate Accelerated Reader use    ■ Best Practice Accelerated Reader use

*Students using Accelerated Reader grew significantly more than kids not using the program. The better Accelerated Reader was implemented, the more kids grew.*

*Students who reached reading targets with Accelerated Reader were nearly twice as likely to be college and career ready as students not using the program, meaning they had a much higher likelihood of success on year-end summative tests.*

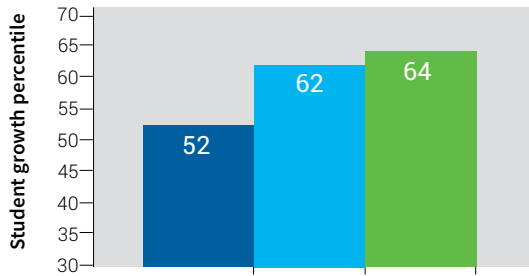


## High-interest populations

We observed similar trends for struggling readers (defined as students with a pretest PR of 25 or less), English learners, and students in free- or reduced-lunch programs (see figure 2 and box below). In all cases, quality of Accelerated Reader use was associated with more growth.

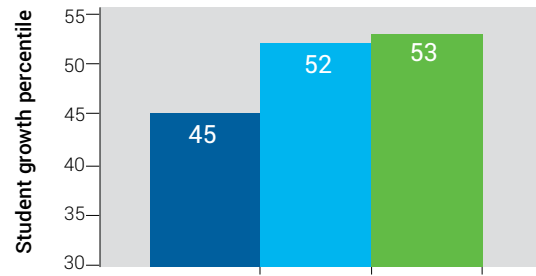
Figure 2. Students of varying demographics all grew more using Accelerated Reader®

Student growth relative to academic peers



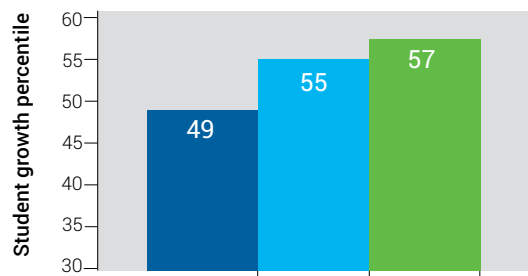
Struggling readers (grades 1–12)

Student growth relative to academic peers



English learners (grades 1–12)

Student growth relative to academic peers



Free and reduced lunch (grades 1–12)



### College and career readiness

In all grades, as compared to students who did not use Accelerated Reader,®

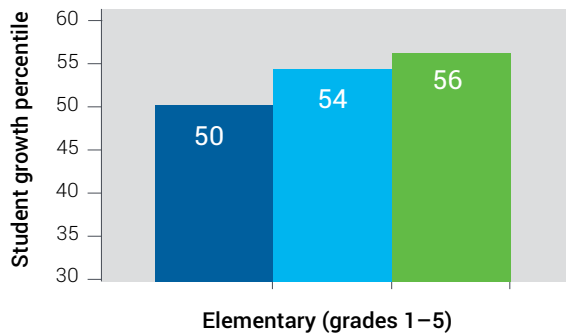
- **Struggling readers who had moderate Accelerated Reader use** were 2.4 times more likely to be college and career ready.
- **Struggling readers who had best practice Accelerated Reader use** were 2.8 times more likely to be college and career ready.
- **English learners who had moderate Accelerated Reader use** were 4.1 times more likely to be college and career ready.
- **English learners who had best practice Accelerated Reader use** were 4.8 times more likely to be college and career ready.
- **Free- and reduced-lunch populations who had moderate Accelerated Reader use** were 2.2 times more likely to be college and career ready.
- **Free- and reduced-lunch populations who had best practice Accelerated Reader use** were 2.5 times more likely to be college and career ready.

## Elementary grades

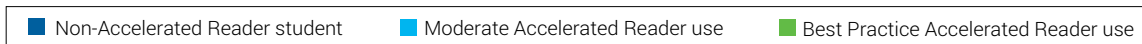
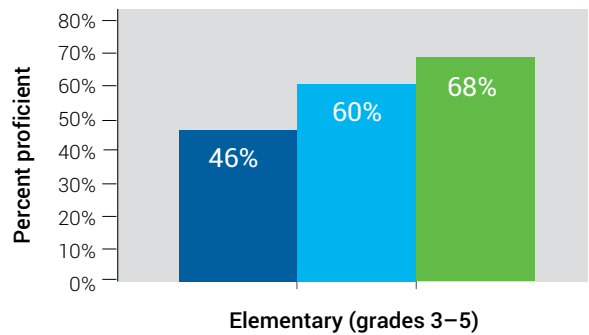
In the elementary grades, when we examined growth relative to students' peers, kids using Accelerated Reader had higher SGPs, and the better the program was implemented, the more likely students were to achieve accelerated rates of growth. For grades 3 through 5 (where college- and career-readiness benchmarks begin), Accelerated Reader users were more likely to be proficient, which rose with better use of the program (see figure 3).

Figure 3. Elementary students who used Accelerated Reader® grew more

### Student growth relative to academic peers



### College and career readiness

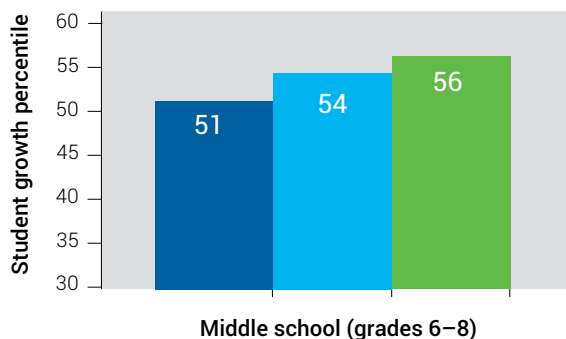


## Middle school grades

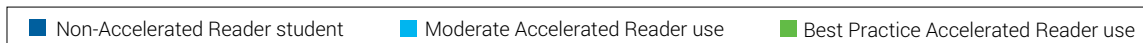
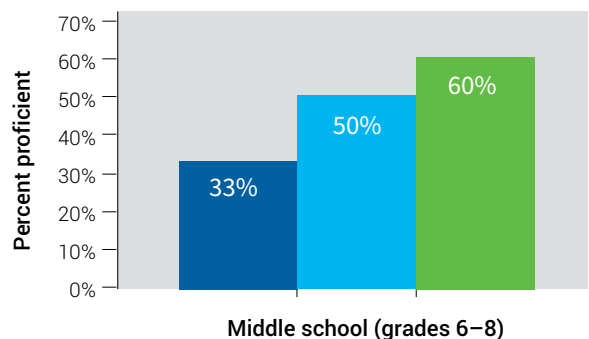
Figure 4 shows in the middle grades, students using Accelerated Reader likewise had higher SGPs, and better implementation of the program was associated with greater growth. Again, the greater the quality of the Accelerated Reader implementation, the more students achieved college- and career-readiness benchmarks.

Figure 4. Middle school students who used Accelerated Reader® achieved greater growth

### Student growth relative to academic peers



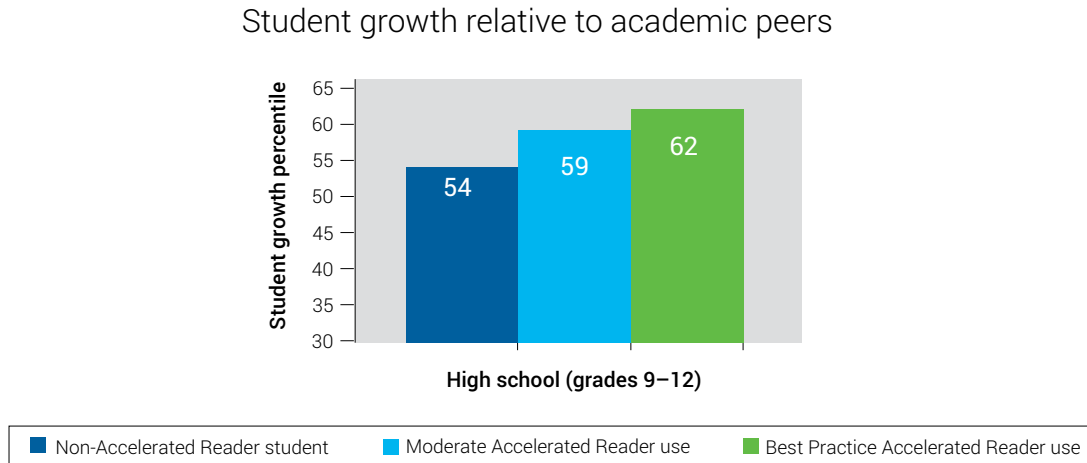
### College and career readiness



## High school

The effect of Accelerated Reader on students' independent reading continued into high school (see figure 5). In grades 9–12, kids using the program had higher SGPs, and the better AR was implemented, the more they grew.

Figure 5. Positive reading gains persisted in high school Accelerated Reader® users



## About Accelerated Reader®

Accelerated Reader software provides you with a comprehensive program to motivate, monitor, and manage student reading practice. Research-based guidelines, goal-setting features, and tools for matching students with appropriate texts promote individualized reading practice that is shown to optimize academic growth. AR quizzes are available for nearly 170,000 books, about half of which are nonfiction titles. Available books can be found using Renaissance Accelerated Reader BookFinder™ (<http://www.arbookfind.com>) or within the program using the Discovery Bookshelf, which displays titles for each student based on previous reading history, reading level, and popularity.

Accelerated Reader 360 offers students high-interest nonfiction articles, practice with close-reading skills, and experience with technology found on the new summative assessments. In addition to providing teachers an easy way to expose students to more informational text, each article includes built-in practice with the transferable skills necessary for success on summative assessments, as well as exposure to technology they will experience while being assessed.

## Research support and accolades

Accelerated Reader is one of the most heavily researched educational programs in the world. While the correlational trends we present in this report are helpful to understand patterns of growth, rely most heavily on causal evidence, which generally requires an experimental or quasi-experimental design. A wealth of causal studies, as well as peer-reviewed articles and independent evaluations, confirm the effectiveness of this program. The large evidence base supporting Accelerated Reader comprises 181 studies and reviews, including **31 experimental or quasi-experimental research studies** (considered the strongest study designs), **153 independent studies**, and **29 articles published in peer-reviewed journals**,<sup>3</sup> including these powerful studies:

- Shannon, Styers, Wilkerson, and Peery (2015) found that urban students in classes assigned to use Accelerated Reader experienced significantly higher gains compared to non-Accelerated Reader students.<sup>4</sup>
- Nunnery and Ross (2007) found higher test scores for students in Texas could be attributed to Accelerated Reader, and better Accelerated Reader implementation led to larger gains.<sup>5</sup>

<sup>3</sup> To learn more, see *Types of Education Research: Support for Accelerated Reader*: <http://doc.renlearn.com/KMNet/R0058266092E6F1A.pdf>.

<sup>4</sup> Shannon, L. C., Styers, M. K., Wilkerson, S. B., & Peery, E. (2015). Computer-assisted learning in elementary reading: A randomized control trial. *Computers in the Schools*, 32(1), 20–34.

<sup>5</sup> Nunnery, J. A., & Ross, S. M. (2007). The effects of the School Renaissance program on student achievement in reading and mathematics. *Research in the Schools*, 14(1), 40–59.

- Topping and Sanders (2000) found that for Tennessee teachers using Accelerated Reader, a higher volume of reading practice yielded higher test scores for students.<sup>6</sup>

The research support for Accelerated Reader continues to grow and has contributed to favorable reviews by external panels, including the Council of Administrators of Special Education (endorsed in 2016), the National Dropout Prevention Center/Network (designated a “model” program with “strong evidence” in 2010), and the Promising Practices Network (named a “proven program” that boost student reading achievement in 2013), among others.

**Accelerated Reader  
is one of the most  
heavily researched  
educational  
programs in the  
world.**

## **Conclusion**

As this study of over 2.8 million students in grades 1–12 demonstrates, students using Accelerated Reader grew significantly more than students not using the program and were nearly twice as likely to be college and career ready. These results held true for all grades and populations of interest (struggling readers, English learners, and students in free- or reduced-lunch programs) and rose with the integrity of program use.

Educators who use Accelerated Reader 360 and use it well can rest assured they are taking important steps towards readying their students for what is ahead, both in the classroom and beyond.

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<sup>6</sup> Topping, K. J., & Sanders, W. L. (2000). Teacher effectiveness and computer assessment of reading: Relating value-added and learning information systems data. *School Effectiveness and School Improvement, 11*(3), 305–337.



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