Promoting Academic Success for All Students
with Accelerated Math and Accelerated Reader

Summarized from:
Research conducted from 2000 to 2002.

Introduction
In this independent, quasi-experimental study, researchers studied the long-term impact of Accelerated Math, Accelerated Reader, and the best classroom practices of the software. Results from Georgia's Criterion-Referenced Competency Test (CRCT) indicated that students in two treatment schools outperformed students in two comparison schools overall and in reading, language arts, and math (see Graph 1). Teachers in all participating schools expressed positive attitudes towards Accelerated Math and Accelerated Reader.

Main Findings
• Students in schools with high implementation of Accelerated Reader and Accelerated Math gained more on the CRCT than other students.
• Teachers in all participating schools expressed positive attitudes towards Accelerated Math and Accelerated Reader.

Demographics
Treatment/Comparison Group 1:
Urban, Title I, Pre-K–5
497–1,044 students
88–99% African American
92–96% Free or reduced-price lunch

Treatment/Comparison Group 2:
Rural, Title I, Pre-K– & K–5
343–403 students
1–3% African American
41–52% Free or reduced-price lunch

Researcher Background
Dr. Holmes and Dr. Brown are Professors in the Department of Educational Administration at the University of Georgia. Dr. Algozzine is a Professor in the College of Education at the University of North Carolina at Charlotte and Director of the Behavior and Reading Improvement Center.
Table 1: Professional Development and Consulting during the 2001–2002 Academic Year

<table>
<thead>
<tr>
<th>Did the school own or receive…</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment 1</td>
</tr>
<tr>
<td>Accelerated Reader software?</td>
<td>Yes</td>
</tr>
<tr>
<td>Accelerated Math software?</td>
<td>Yes</td>
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<tr>
<td>Accelerated Reader best practices seminar? (A one-day seminar for new teachers.)</td>
<td>Yes</td>
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<tr>
<td>Diagnosis and Intervention Training? (A one-day inservice seminar for all teachers.)</td>
<td>Yes</td>
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<tr>
<td>Advanced Accelerated Reader best practices inservice? (A two-day inservice seminar for new teachers.)</td>
<td>No</td>
</tr>
<tr>
<td>District Coordinator training? (A three-day offsite seminar for school leaders.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Distance Consulting in reading and math?</td>
<td>Yes</td>
</tr>
<tr>
<td>Onsite Consulting in reading and math?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: Current seminar names may have changed since the completion of this study.

Study Description

The researchers designed this three-year study to examine the long-term impact of schoolwide, high implementation of Renaissance Learning software and recommended best classroom practices on student achievement. Specifically, they examined student achievement data from four schools, two implementing Accelerated Math and Accelerated Reader according to Renaissance Learning's recommended best practices, and two implementing the software but only some of the best practices. They centered their research questions on the impact of the software and best practices on student reading and other academic areas, as well as how the two schools fully implementing best practices compared in achievement to those not fully implementing best practices.

A cohort of students from four Title I elementary schools, two in rural and two in urban Georgia, began the study in third grade. Two treatment schools, both certified by Renaissance Learning as Model Schools, were matched to two similar schools for comparison. Schools were matched on free or reduced-price lunch rates, racial composition, geographic location, and Title I status (see front page for details). Trained observers were sent to each school to measure the implementation of the software and best practices. Teachers at the two treatment schools implemented Accelerated Math and Accelerated Reader, and significantly more of Renaissance Learning's research-based best classroom practices (53% in reading, 62% in math) than teachers at the comparison schools, who only implemented Accelerated Reader and some best practices (39% in reading, 47% in math). Additionally, the schools were vastly different in the amount of participation in professional development (see Table 1).

Results

Researchers collected scores from the Iowa Test of Basic Skills (ITBS) in 2000 and Georgia's Criterion-Referenced Competency Test (CRCT) in 2001 and 2002, using the ITBS scores as covariates. Students in schools that fully implemented Accelerated Math, Accelerated Reader, and the best classroom practices outperformed students on the CRCT in schools that did not implement Accelerated Math and Accelerated Reader best practices. This was true for the overall score and scores in reading, language arts, and math (see Graph 1). Additionally, gains made during the first year (average = 328) by students in best practices schools were maintained in the second year (average = 346). During the data collection, the researchers also conducted teacher surveys and found that teachers in all four schools expressed positive attitudes toward Accelerated Math and Accelerated Reader as being effective tools that can help improve student math and reading skills.

Conclusion

Students in the two schools that fully implemented the recommended best practices outperformed students in the schools that did not fully implement the best practices over three years in reading, language arts, and math. Many of these students were the type of students typically at-risk for failure, but the educators at the schools fully implementing best practices were able to improve student achievement. Furthermore, teachers were able to use Accelerated Math and Accelerated Reader and continue teaching the content prescribed by their state's department of education. Overall, educators who used Accelerated Math, Accelerated Reader, and the recommended best classroom practices were able to significantly boost the academic achievement of at-risk students while maintaining flexibility.

For more information, or for additional copies of this report, contact:

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