RESEARCH PROFESSIONAL PAPER

Striving Readers: a Summary of an IES Report
THE HMH RESEARCH MISSION STATEMENT

Houghton Mifflin Harcourt (HMH) is committed to developing innovative educational programs that are grounded in evidence and efficacy. We collaborate with school districts and third-party research organizations to conduct research that provides information to help improve educational outcomes for students, teachers, and leaders at the classroom, school, and district levels. We believe strongly in a mixed-methods approach to our research, an approach that provides meaningful and contextualized information and results.
Too many struggling readers are at risk for poor academic outcomes, such as dropping out of school before graduating or graduating without the skills needed for college and/or careers (Carnegie Council, 2010). In response, educators, policymakers, and researchers have been working to find ways to intervene with challenged readers. In recognition that reading comprehension troubles are a leading cause of reading problems among struggling adolescent readers (Kamil, Borman, Dole, Kral, Salinger, and Torgesen, 2008), the Striving Readers program was established by the United States Department of Education in order to provide grants to selected districts that shared the goal of raising middle and high school students’ literacy levels.

Funded by the Institute of Education Sciences (IES) during project years spanning from 2006 through 2011, the Striving Readers grants were allocated toward evaluating supplemental literacy intervention for students reading significantly below grade level, using a strong experimental design. As the Striving Readers evaluations demonstrate, READ 180 instruction resulted in statistically significant positive effects on reading achievement for READ 180 students above and beyond the control group.

The following Professional Paper highlights results from a comprehensive technical “Summary of research generated by Striving Readers on the effectiveness of interventions for struggling adolescent readers” (Boulay, Goodson, Frye, Blocklin, and Price, 2015). For the purposes of this paper, findings focus on READ 180. For the complete set of Striving Readers results, please see the IES website: http://ies.ed.gov/ncee/pubs/20164001.
ABOUT READ 180: AN EVIDENCE-BASED BLENDED LEARNING PROGRAM

Successfully reading a text for deep comprehension entails extracting and constructing meaning through an interaction between the text, task, and reader (Snow, 2002). Reading comprehension is an extremely complex task that encompasses several constructs, including language development, word recognition, text fluency, knowledge building, vocabulary, affective skills, and writing. It requires mastery and automaticity of these cognitive processes. As such, struggling readers typically benefit from identification of their individual strengths and weaknesses in order to receive effective intervention in one or more of these areas. The goal of an effective literacy program is to allow every student to master and automatize each of the processes required for fluent reading comprehension in order to reach the goal of comprehending and appreciating complex texts.

READ 180 was designed to provide an exceptional educational experience for students by focusing on the importance of teachers, families, and the learning community in providing educational opportunities that meet the needs of each individual student. As such READ 180 seeks to do the following:

• Provide rigorous instructional resources that meet the diverse language, cognitive, social, and emotional needs of students, as well as provide learning opportunities that are motivating for students
• Encourage growth mindset and self-efficacy, such that teachers and students view learning as a fluid process, where knowledge continually grows with effort, and that this learning can be optimized by planning and organizing, setting and meeting goals, problem solving, regulating emotions, and monitoring behavior
• Use student data effectively to drive and differentiate instruction, resulting in learning experiences that are tailored to individual students’ needs
• Personalize and individualize instruction by using adaptive technology that empowers students to work independently at their own levels and pace

Over 1.5 million students are impacted by READ 180 every day, and it is in use in over 40,000 classrooms across the country. Developed by the Cognition and Technology Group at Vanderbilt University, the Orange County Literacy Project in Florida, and the development staff at Houghton Mifflin Harcourt, READ 180 offers differentiated levels of support through small-group, teacher-led instruction and customized, technology-based instruction.

MAXIMIZE INSTRUCTIONAL TIME TO ACCELERATE STUDENT ACHIEVEMENT.
STRIVING READERS EVALUATION

Results from 17 rigorous randomized controlled trial (RCT) studies that evaluated 10 separate interventions for struggling adolescent readers in Grades 6 through 10 as part of the Striving Readers program are summarized in this report. All evaluations were assessed by independent evaluators against the What Works Clearinghouse (WWC) evidence standards to measure effects on students’ reading achievement within the WWC domains of general literacy and reading comprehension. Results from all of the Striving Readers evaluations showed that READ 180 was the only reading intervention of ten evaluated programs to provide evidence of positive effects on reading achievement (Boulay et al., 2015). The other interventions evaluated as part of the Striving Readers program had potentially positive effects, mixed effects, or no discernible effects on reading achievement. See Table 1.

### Table 1: Summary of Evidence From Striving Readers Studies That Met WWC Evidence Standards With or Without Reservations

<table>
<thead>
<tr>
<th>Overall Effectiveness Rating*</th>
<th>Intervention</th>
<th>Summary of the Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive Effects</strong></td>
<td>READ 180</td>
<td>Three studies found statistically significant positive effects on reading achievement; zero studies found no effects</td>
</tr>
<tr>
<td><strong>Potentially Positive Effects</strong></td>
<td>Xtreme Reading</td>
<td>One study found statistically significant positive effects on reading achievement; one study found no effects</td>
</tr>
<tr>
<td></td>
<td>Learning Strategies Curriculum</td>
<td>One study found statistically significant positive effects on reading achievement; zero studies found no effects</td>
</tr>
<tr>
<td><strong>Mixed Effects</strong></td>
<td>Voyager Passport Reading Journeys</td>
<td>One study found statistically significant positive effects on reading achievement; two studies found no effects</td>
</tr>
<tr>
<td><strong>No Discernible Effects</strong></td>
<td>Chicago Striving Readers</td>
<td>One study found no effects</td>
</tr>
<tr>
<td></td>
<td>Fusion Reading Program</td>
<td>One study found no effects</td>
</tr>
<tr>
<td></td>
<td>Kentucky Cognitive Literacy Model</td>
<td>One study found no effects</td>
</tr>
<tr>
<td></td>
<td>Read to Achieve</td>
<td>One study found no effects</td>
</tr>
<tr>
<td></td>
<td>REWARDS</td>
<td>One study found no effects</td>
</tr>
<tr>
<td></td>
<td>Strategies for Literacy Independence Curriculum (SLIC)</td>
<td>One study found no effects</td>
</tr>
</tbody>
</table>

*See Appendix A for definitions of Overall Effectiveness Ratings.
As Figure 1 displays, three Striving Readers-funded studies of READ 180 found statistically significant positive effects on students’ reading achievement. These studies took place in the Milwaukee Public Schools (MPS), Ohio Department of Youth Services (ODYS), and Springfield-Chicopee School District. Across the three READ 180 studies, results demonstrated a significant positive impact on struggling readers in Grades 6 through 12 from their exposure to READ 180, with an average effect size of .17 and improvement index of +7. The Milwaukee and Springfield-Chicopee evaluations met WWC evidence standards without reservations and the Ohio evaluation met WWC evidence standards with reservations. Each site’s individual results are summarized on the following page.

*The improvement index is the percentile rank difference between the intervention group mean and the comparison group mean. It can be interpreted as the expected change in percentile points that the average comparison group student would experience if receiving the treatment.

†Research studies that are assessed using WWC evidence standards receive a rating of Meets Evidence Standards Without Reservations, Meets Evidence Standards With Reservations, or Does Not Meet Evidence Standards. The study rating indicates the level of confidence with which the study provides causal evidence of the effectiveness of an intervention. It is based on study elements including design, attrition, baseline equivalence, confounds, and outcomes.
Milwaukee Public Schools (MPS)
Swanlund et al. (2012) conducted a randomized controlled trial that examined the effects of READ 180 on students in Grades 6 through 9 in five schools in Milwaukee Public Schools of Wisconsin. The study met WWC evidence standards without reservations.† Students who performed below proficiency levels on state standardized reading tests and those who were assessed by teachers as performing at least two grade levels below expectations were eligible for the study. Participating students that were not selected to receive READ 180 received business-as-usual instruction, which consisted of their standard English Language Arts (ELA) class and no supplemental literacy instruction. Findings indicated a statistically significant positive effect of READ 180 on students’ reading achievement as measured by the district-administered MAP Reading test (effect size = 0.14). As Figure 1 displays, students who participated in READ 180 demonstrated an improvement index of +5.

Ohio Department of Youth Services
Loadman et al. (2011) conducted a randomized controlled trial that examined the effects of READ 180 on incarcerated youth ages 15 through 25 in seven Ohio Department of Youth Services (ODYS) high schools within facilities run by the Ohio Department of Youth Services. The ODYS study met WWC evidence standards with reservations. Youths who performed below proficiency levels on reading tests were eligible for the study. Participating students that were not selected to receive READ 180 received business-as-usual instruction, which consisted of standard ELA instruction within correctional facilities in either a traditional English classroom or resource room from a certified teacher. Findings indicated a statistically significant positive effect of READ 180 on students’ reading achievement as measured by the state-administered ReadCAT (effect size = 0.19) (Seton Testing Services, n.d.). As Figure 1 displays, students who participated in READ 180 demonstrated an improvement index of +8.

Springfield and Chicopee Public Schools
Sprague et al. (2012) conducted a randomized controlled trial that examined the effects of READ 180 on five cohorts of Grade 9 students in five schools in the Springfield and Chicopee Public School Districts (SCPSD) in Massachusetts. The SCPSD study met WWC evidence standards without reservations. Students who performed below the 50th normal curve equivalency on their spring Grade 8 district reading screening tool were eligible for the study. Participating students that were not selected to receive READ 180 received business-as-usual literacy instruction, including the standard ELA courses for all students inclusive of any normally provided reading instruction and the supplemental services ordinarily available to students in need of additional reading support. Findings indicated a statistically significant positive effect of READ 180 on students’ reading achievement as measured by the district-administered SDRT-4 (ES = 0.18) (Karlsen and Gardner, 1995). Results revealed a significant positive impact on struggling readers in Grade 9 over the course of their five participations in the READ 180 program (effect size of 0.18). As Figure 1 displays, students who participated in READ 180 demonstrated an improvement index of +7.

“OF THE [TEN] EVALUATED PROGRAMS, READ 180 WAS THE ONLY READING INTERVENTION PROGRAM TO PRODUCE POSITIVE EFFECTS PER THE WWC EVALUATION CRITERIA.”
CONCLUSION

After 20 years of proven success, READ 180 remains committed to accelerating struggling readers, elevating teachers, and transforming partner schools. As summarized in this Professional Paper, three important READ 180 program evaluations were made possible by the federally-funded Striving Readers program. When taken with all 10 different interventions evaluated by 17 different randomized controlled trial design evaluations, the three READ 180 studies standout as not only meeting WWC evidence criteria but also producing positive effects. As the authors of the technical summary state: “The body of evidence substantially increases the amount of credible information available to district administrators trying to decide how to best meet the needs of struggling adolescent readers” (Boulay et al., 2015). Based on this comprehensive summary of intervention programs, we are confident that READ 180 is the right choice to support older, struggling readers.

“THE BODY OF EVIDENCE SUBSTANTIALLY INCREASES THE AMOUNT OF CREDIBLE INFORMATION AVAILABLE TO DISTRICT ADMINISTRATORS TRYING TO DECIDE HOW TO BEST MEET THE NEEDS OF STRUGGLING ADOLESCENT READERS.”
APPENDIX A. REVIEW PROCESS

Research studies that are assessed using WWC evidence standards receive a rating of Meets Evidence Standards Without Reservations, Meets Evidence Standards With Reservations, or Does Not Meet Evidence Standards. The study rating indicates the level of confidence with which the study provides causal evidence of the effectiveness of an intervention. It is based on study elements including design, attrition, baseline equivalence, confounds, and outcomes.

After identifying studies of an intervention that receive ratings of Meets Evidence Standards or Meets Evidence Standards With Reservations, the WWC will combine findings across these studies to summarize the effectiveness of an intervention. The effectiveness rating for each outcome domain incorporates statistical significance, the direction of the effect, the size of the effect, the quality of the research on the intervention, and the consistency in findings across studies. The four effectiveness ratings received by interventions in this Striving Readers Professional Paper are defined below, in Table A.1.

<table>
<thead>
<tr>
<th>TABLE A.1. EFFECTIVENESS RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDY EFFECTS</td>
</tr>
<tr>
<td>POSITIVE EFFECTS</td>
</tr>
<tr>
<td>POTENTIALLY POSITIVE EFFECTS</td>
</tr>
<tr>
<td>MIXED EFFECTS</td>
</tr>
<tr>
<td>NO DISCERNIBLE EFFECTS</td>
</tr>
</tbody>
</table>
REFERENCES


HMH Research Publications
Research Into Practice Into Results

Research Foundations
Research Foundations papers, which include the Evidence and Efficacy papers, provide an in-depth account of the theoretical underpinnings, evidence base, and expert opinions that guide the design and development of new and revised programs. Research Foundations map known research and design principles to practical applications of the program.

Research Results including Efficacy Compendiums
Research Results papers document the efficacy of a program in terms of Gold level studies (strong evidence), Silver level studies (moderate evidence) and Bronze level studies (promising evidence). At HMH®, program efficacy is monitored closely and continuously in a variety of settings, including varying geographical locations, implementation models, and student populations.

Research on Assessments
Research Assessments such as the Technical Guide accompany the release of a stand-alone assessment to demonstrate its reliability and validity. Technical Guides and supporting papers are periodically updated as additional reliability, and validity evidence is collected in support of an assessment’s use and functionality.

Research Professional Papers
Research Professional Papers are typically authored by an expert in the field and highlight an important theoretical construct, practical application, program component, or other topic related to learning in the context of HMH programs.

Research Case Studies
Research Case Study papers showcase research that is primarily qualitative and/or anecdotal. Research Case Study papers may profile a particular educator, student, implementation, or special population of students. Research Case Study papers strive to provide more context for understanding programs in practice.
RESEARCH PROFESSIONAL PAPER

EVIDENCE & EFFICACY

Hmhco.com • 800.225.5425