With the passage of the American Rescue Plan (ARP), districts and schools have access to unprecedented resources to address the academic, social, emotional, and mental health needs of students affected by the pandemic.

The top priorities among all state ARP ESSER applications include:

- Learning Acceleration
- Educator Retention & Recruitment
- Social-Emotional Learning (SEL) & Mental Health Support
- Student Engagement

While each state may have unique educational needs, all states have witnessed significant consequences on student learning since the global pandemic began. Additionally, the need to empower educators through comprehensive, research-based professional learning across technology, pedagogy, content, and social and emotional learning has grown immensely due to the shifting education climate.

Extend Your ESSER Funds to Boost Achievement for Every Learner

HMH is committed to helping you reimagine learning, offset the learning gap, build educator capacity, and improve all students’ chances for long-term success.

- Help your students gain up to 2 years of growth in just 1 year* with our leading intervention solutions.
- Engage every learner with content that supports your core instruction.
- Partner with us to refresh and recharge your teachers and leaders.

*Based on independent studies and HMH-conducted research
HMH Solutions Align to ESSER Priorities

✓ Implementing evidence-based interventions
✓ Meeting the needs of special populations
  o Low-income students
  o Children with disabilities
  o Multilingual learners
  o Racial and ethnic minorities
  o Students experiencing homelessness
  o Foster care youth
✓ Tracking student engagement and attendance
✓ Purchasing educational technology
✓ Delivering professional learning for teachers and leaders
✓ Acquiring resources for summer learning and afterschool programs
✓ Addressing social-emotional learning
✓ Providing information and assistance to parents and families

ESSER QUICK FACTS

$ ESSER funds are based on Title I allocations

✔ Districts must spend a minimum of 20% on evidence-based interventions

 установлено

Fund available through September 30, 2024

Find your state's ARP-ESSER plan here
(https://oese.ed.gov/offices/education-stabilization-fund/elementary-secondary-school-emergency-relief-fund/stateplans/)

For quick access, click each page number to learn how HMH solutions match your ESSER priorities.
## Accelerate the Path to Proficiency

### LITERACY

<table>
<thead>
<tr>
<th>If You Are Interested in</th>
<th>Explore This HMH Solution</th>
<th>Student Populations Served</th>
<th>Flexible Learning Environment</th>
</tr>
</thead>
</table>
| Oral Reading Fluency Assessment               | **Amira Learning® (Grades K–6)** automates oral reading fluency, dyslexia risk screening, and running records to save teachers 90+ hours each year. An entire class can be screened in fewer than nine minutes in a 1:1 classroom and tutoring with Amira can happen anywhere with an internet connection. Teachers can rely on Amira’s automated differentiation to place students into powerful 1:1 reading tutoring powered by dozens of precise micro-interventions rooted in the science of reading. | • Emergent readers  
• Low-income students  
• Students with disabilities  
• Multilingual learners  
• Homeless or foster care students | • Online  
• Summer  
• Afterschool  
• Extended day/year  
• Push-in to core instruction |
| Dyslexia Screener                             |                                                                                          |                                                                  |                                                                  |
| 1:1 Reading Tutoring                          |                                                                                          |                                                                  |                                                                  |
| Page 8                                        |                                                                                          |                                                                  |                                                                  |
| Comprehensiven and Foundational Reading Intervention | **Read 180® (Grades 3–12)** is a research-proven reading intervention program that fills in gaps in foundational reading skills and boosts comprehension to accelerate students reading one or more years behind grade-level proficiency through a science of reading approach. The program delivers personalized instruction tailored to each student’s needs and interests. Smart technology assesses student knowledge and skills, responds to individual student differences, differentiates and scaffolds instruction, provides corrective feedback, monitors student progress, and offers teachers data to guide students to become proficient readers. | • Striving readers  
• Low-income students  
• Students with disabilities  
• Multilingual learners  
• Homeless or foster care students | • Online  
• Summer  
• Afterschool  
• Extended day/year  
• Push-in to core instruction |
| Page 11                                       |                                                                                          |                                                                  |                                                                  |
| Grade-level Literacy Practice                 | **Waggle® (Grades K–8)** for English language arts and math is a digital learning solution that provides personalized practice and instruction. With skills-based practice that assesses knowledge in real-time, teachers can support the needs of all learners. Waggle fits into any core curricula and is ideal for targeted student practice after ELA or math core instruction. Students and teachers thrive with the innovative ELD supports, social-emotional learning framework, and embedded gaming. | • Striving readers  
• Low-income students  
• Students with disabilities  
• Multilingual learners  
• Homeless or foster care students | • Online  
• Summer  
• Afterschool  
• Extended day/year  
• Regular classroom |
| Page 16                                       |                                                                                          |                                                                  |                                                                  |
| Supplemental Writing Practice                  | **Writable® (Grades 3–12)** is a digital writing platform that helps teachers scaffold and motivate students to become purposeful, proficient writers. With over 1,000 easily customizable assignments, including essays, short responses, student models, state-level benchmark assessments, Writable helps schools assess and monitor writing growth. | • Striving readers  
• Low-income students  
• Students with disabilities  
• Multilingual learners  
• Homeless or foster care students | • Online  
• Summer  
• Afterschool  
• Extended day/year  
• Regular classroom |
| Page 18                                       |                                                                                          |                                                                  |                                                                  |

*Click the solution name in the chart above to learn more*
ENGLISH LANGUAGE DEVELOPMENT

<table>
<thead>
<tr>
<th>If You Are Interested in</th>
<th>Explore This HMH Solution</th>
<th>Student Populations Served</th>
<th>Flexible Learning Environment</th>
</tr>
</thead>
</table>
| Building Academic Language for Success for Multilingual Learners | **English 3D** (Grades 4–12) is an evidence-based English language development program for multilingual learners. Designed by nationally recognized ELD author, researcher, and teacher educator, Dr. Kate Kinsella, **English 3D** provides daily practice opportunities that enable students to become confident and competent participants in content-area classes, college, and beyond. | • Newcomers  
• Emergent, Intermediate, Proficient, and Long-term English learners  
• Migrant students | • English language development classes  
• Online  
• Summer  
• Afterschool  
• Extended day/year |

ESSA Moderate Rating

MATH

<table>
<thead>
<tr>
<th>If You Are Interested in</th>
<th>Explore This HMH Solution</th>
<th>Student Populations Served</th>
<th>Flexible Learning Environment</th>
</tr>
</thead>
</table>
| Personalized, Targeted Math Intervention | **Math 180** (Grades 5–12) is an intervention program designed to empower striving students to gain understanding of the essential skills and concepts necessary to unlock algebra and advanced mathematics. With personalized instruction and adaptive practice, each student moves at their own pace. The learning experience is a uniquely motivating and fun way to accelerate to grade-level ability. | • Striving students  
• Low-income students  
• Students with disabilities  
• Multilingual learners  
• Homeless or foster care students | • Online  
• Summer  
• Afterschool  
• Extended day/year  
• Push-in to core instruction |

ESSA Moderate Rating

| Grade-level Math Practice | **Waggle** (Grades K–8) for math and English language arts is a digital learning solution that provides personalized practice and instruction. With skills-based practice that assesses knowledge in real-time, teachers can support the needs of all learners. Waggle fits into any core curricula and is ideal for targeted student practice after math or ELA core instruction. Students and teachers thrive with Waggle’s innovative ELD supports, social-emotional learning framework, and embedded gaming. | • Striving readers  
• Low-income students  
• Students with disabilities  
• Multilingual learners  
• Homeless or foster care students | • Online  
• Summer  
• Afterschool  
• Extended day/year  
• Regular classroom |

ESSA Moderate Rating

Click the solution name in the chart above to learn more.

Need help with your grant application?

Download our Grants 101 Guide or contact your HMH Account Executive. We can provide sample descriptive language for HMH programs and services that can be used to prepare your funding applications and school-level plans.
Build and Expand Educator Capacity

HMH Professional Learning partners with teachers and school leaders to inspire innovation and improve outcomes through accessible, actionable, and relevant professional development.

**Guided Implementation Support**

On-demand program training via Teacher’s Success Pathway and Teacher’s Corner® plus district-specific training sessions (Getting Started)

**Ongoing Professional Learning**

Annual subscription that supports teachers with ongoing professional development plus live online and blended courses

**Leadership Support**

Support for leaders at every level to achieve transformational change as every child deserves to be in a model school

---

**Support for Teachers, Leaders, and Families**

**Teacher’s Corner** puts real-world classroom videos and best practices at your fingertips, on your schedule.

- On-demand, solution-specific teaching resources
- Live events with your colleagues
- Printable parent and caregiver letters in English and Spanish to help with at-home support!

At **Leader’s Corner**, leaders will experience:

- The same professional learning resources as teachers.
- On-demand resources like classroom videos, live events, and more.

**Family Room** is an ever-growing library of on-demand resources that makes it easy for families to be part of their child’s learning. Families and caregivers benefit from:

- Access to assignments via their child’s HMH Ed® login.
- Simple and equitable at-home learning support.
- Personalized tips and videos.

*Included with our curriculum solutions on HMH Ed®, the learning platform.

To learn more, visit [hmhco.com/ProfessionalServices](http://hmhco.com/ProfessionalServices)
HMH Programs & ESSA Evidence

On the following pages, you will find program information and ESSA evidence overviews showcasing HMH’s proven solutions designed to deliver great outcomes for your students, teachers, and learning communities.

**LITERACY**
- Amira ........................................... 8
- Read 180 ........................................ 11
- Waggle .......................................... 16
- Writable .......................................... 18

**ELD**
- English 3D ....................................... 20

**MATH**
- Math 180 ........................................... 23
- Waggle ........................................... 26

For quick access, click an HMH solution above to learn more.
Amira Learning® provides ESSA–strong, 1:1 reading tutoring for K–6 students in English and Spanish that doubles student reading growth. Rooted in the science of reading, Amira makes it possible to screen, assess, and tutor an entire class of students simultaneously—from anywhere with an internet connection. Powerful 1:1 reading tutoring, reading fluency assessment, and dyslexia screening at teachers’ fingertips with granular skills reporting dashboards—only from HMH®.

STRONG EVIDENCE-BASED RESEARCH
Amira’s approach to reading success is built on decades of research and continues to be studied and enhanced upon. The program meets the strong evidence level as defined by the Every Student Succeeds Act (ESSA). To read the program’s research, visit hmhco.com/research/amira-learning-research-evidence-base.

EFFECTIVE 1:1 READING TUTORING
Amira is the first program of its kind to support all five pillars of reading. Amira listens while a student reads out loud to assess and report on students’ skills across the key pillars of reading and enables oral reading practice. The program delivers micro-interventions in phonological awareness; decoding; sight recognition; logic, literacy knowledge, and language structures; and knowledge building.

Each micro-intervention is a “scaffold” that supports the early reader in mastering foundational reading skills. These micro-interventions are aligned to the reading rope. The reading rope illustrates that reading is a multi-faceted skill, gradually acquired over years and years of practice.

DYSLEXIA RISK SCREENER
In less than nine minutes, Amira’s dyslexia screener delivers a reliable and valid assessment of students’ dyslexia risk. Amira’s dyslexia screener utilizes rapid automatized naming (RAN). Backed by more than a decade of research, Amira has shown consistent reliability and predictive validity.

SPANISH ASSESSMENT & TUTORING
Amira provides equitable oral reading fluency assessment and tutoring for Spanish–speaking students and is included with all Amira subscriptions. The program provides dual language support in English and Spanish for students:

- Acquiring and mastering English
- Acquiring and mastering Spanish
- In bilingual instruction

ACTIONABLE TEACHER AND LEADER INSIGHTS
Amira provides the first assessment that offers teachers two universal screeners in one place: a dyslexia risk screener and an oral reading fluency assessment. With a few clicks, teachers are supported with benchmarking against national, state, and local norms. School and district leaders receive real-time data across schools, grades, and classes. Leaders can monitor reading fluency growth over time and correlate it with Amira program usage to measure efficacy.

Amira Learning is available in several licensing options for students and teachers. The program requires an internet connection and a compatible browser. It is optimized for use with iPad® and Chromebook™ devices, laptops, and tablets.

Amira is available on HMH Ed®, the Learning Platform!

Subscription benefits include:
- Single Sign-On
- On-Demand Professional Learning
- Video Chat from Your Teacher Dashboard

Available in Spanish

EVIDENCE LEVEL**
Strong

APPROVED FUNDING SOURCES
- State & Local Funds
- Title I, III, IV
- ESSER
- School Improvement
- Foundation & Private Grants

** HMH’s evidence ratings are based on the U.S. Department of Education’s non-regulatory guidance for ESSA. Evidence ratings issued by clearinghouses and independent research agencies (e.g., Evidence for ESSA) may differ due to varying criteria used to judge evidence.

Houghton Mifflin Harcourt | hmhco.com/Amira
Meets ESSA “STRONG” Evidence Criteria

The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study. HMH’s evidence ratings are based on the U.S. Department of Education’s nonregulatory guidance for ESSA. Evidence ratings issued by clearinghouses and independent research agencies (e.g., Evidence for ESSA) may differ due to the varying criteria used to judge evidence.

PROGRAM OVERVIEW

Powered by artificial intelligence (AI) and evidence-based best practices, Amira (Grades K–5) is a reliable classroom assistant that assesses oral reading fluency (ORF), screens for dyslexia, and provides individualized reading practice. Developed in conjunction with leading psychometricians, neuroscientists, reading scientists, and AI researchers, Amira generates actionable instructional recommendations with every interaction, maximizing the time teachers spend with students.

Amira originated from 20 years of rigorous research conducted at Carnegie Mellon University. Led by Dr. Jack Mostow, dozens of data scientists, AI engineers, and computer scientists worked to create an Intelligent Reading Tutor capable of helping kids learn to read. After more than 100 published studies and many field trials at Carnegie Mellon’s Project LISTEN, Amira emerged.

Per US DOE guidelines, multiple studies can cumulatively meet the large sample requirement and the multi-site sample requirement, as long as each study meets the other requirements corresponding with the specific level of evidence.

### STRONG ESSA EVIDENCE RATING

#### DISTRICT: Two Blue Ribbon Schools of Excellence (PA)

**STUDY YEAR:** 2000–2001  
**STUDY CONDUCTED BY:** Mostow, J., Burkhead, P., Corbette, A., Cuneo, A., Rossbach, S., & Tobin, B.

<table>
<thead>
<tr>
<th>EVIDENCE CRITERIA</th>
<th>STUDY EVIDENCE &amp; HIGHLIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well-designed &amp; well-implemented experimental study or Randomized Control Trial (RCT)</td>
<td>An experimental RCT study conducted for a seven-month period where students within classrooms were randomly assigned to the treatment group using the Project LISTEN’s Intelligent Reading Tutor or to the comparison group who performed Sustained Silent Reading (SSR). All students completed their reading tasks for 20 minutes a day.</td>
</tr>
<tr>
<td>Large &amp; multi-site sample</td>
<td>The efficacy of the Intelligent Reading Tutor has been examined in multiple diverse school districts. The combination of the studies highlighted in this document represents large, multi-site samples.</td>
</tr>
<tr>
<td>Shows statistically significant &amp; positive effects</td>
<td>Researchers conducted an analysis of variance that took treatment and gender as fixed effects, class as a random effect, and significant pretests as covariates. Results showed that students in the treatment group significantly outgained their statistically matched SSR classmates in word identification, word comprehension, passage comprehension, fluency, phonemic awareness, rapid letter naming, and spelling as measured by the Woodcock Reading Mastery Test. The Intelligent Reading Tutor made the greatest difference in Grade 1, where effect sizes for these skills ranged from 0.20 to 0.72.</td>
</tr>
</tbody>
</table>

**ANALYTIC SAMPLE:**

- Two Blue Ribbon Schools of Excellence Schools in a large, urban district  
- Grades 1–4  
- 178 participating students  
- 90 students in treatment group  
- 88 students in comparison group

**District:** Urban Elementary School in a small city near Pittsburgh, PA  
**Study Year:** 1999-2000  
**Study Conducted by:** Mostow, J., Aist, G., Burkhead, P., Corbett, A., Cuneo, A., Eitelman, S., Huang, C., Junker, B., Sklar, M.B., & Tobin, B.

### Evidence Criteria

**Well-designed & well-implemented experimental study or Randomized Control Trial (RCT)**

An experimental RCT study conducted over one academic year with students randomly assigned to one of three conditions: treatment group (Project LISTEN's Intelligent Reading Tutor, a computer program that uses automated speech recognition to listen to a child read aloud and gives spoken and graphical assistance); comparison group (where students were pulled out daily for one-on-one tutoring by certified teachers); and control group receiving regular instruction without any tutoring. Students in all three conditions received daily 20-minute instruction in their respective conditions. To control for materials, the human tutors used the same set of stories as the Automated Reading Tutor.

### Study Evidence & Highlights

**Large & multi-site sample**

The efficacy of the Intelligent Reading Tutor has been examined in multiple diverse school districts. The combination of the studies highlighted in this document represents large, multi-site samples.

**Analytic Sample:**
- Diverse urban school district
- Grades 2-3
- 65% White
- 35% African American
- 75% Free/reduced-price meals

**Large & multi-site sample**

Researchers used an analysis of variance of gains by treatment and grade, with an interaction term for grade and treatment, and pretest scores as covariates. Results showed that third graders in both the computer- and human-tutored treatment and comparison conditions outperformed the control group significantly in word comprehension ($p < .02$, respective effect sizes .56 and .72) and approaching significance in passage comprehension ($p = .14$, respective effect sizes .48 and .34) as measured by the Woodcock Reading Mastery Test.

**Shows statistically significant and positive effects**

Although the study lasted only four months and actual usage was a fraction of the planned daily 20 minutes, students in the treatment group who used the Intelligent Reading Tutor significantly outgained their matched classmates in the control group in passage comprehension (effect size .60, $p = .002$) as measured by the Woodcock Reading Mastery Test. Furthermore, results showed students in the treatment group progressed faster than their national cohort.

---

**District:** Fort Pitt Elementary School, Pittsburg, PA  
**Study Year:** Spring 1998  
**Study Conducted by:** Mostow, J., Aist, G., Huang, C., Junker, B., Kennedy, R., Lan, H., Latimar, D., O’Connor, R., Tassone, R., Tobin, B. and Wierman, A.

### Evidence Criteria

**Well-designed & well-implemented experimental study or Randomized Control Trial (RCT)**

An experimental RCT study conducted over a four-month period where students were randomly assigned into one of three conditions: treatment group using the Intelligent Reading Tutor, a comparison group using a commercial reading software, or a control group using other reading activities. All students received reading instruction through their respective conditions for 20 minutes a day.

### Study Evidence & Highlights

**Large & multi-site sample**

The efficacy of the Intelligent Reading Tutor has been examined in multiple diverse school districts. The combination of the studies highlighted in this document represents large, multi-site samples.

**Analytic Sample:**
- Small urban school
- Grades 2, 4, 5
- 72 participating students

**Shows statistically significant and positive effects**


To learn more about the research, visit [https://www.amiralearning.com/research](https://www.amiralearning.com/research)
From Phonics to Fluency to Proficiency!

**Read 180** has been rebuilt to meet the needs of striving readers in grades 3–12 that are reading one year or more below grade level, including students with gaps in foundational reading, comprehension, as well as newcomers to the United States. Building on over 20 years of proven results and established in the science of reading research, **Read 180** is the most effective reading intervention on the market. Now with key enhancements to support even more students, it’s accessible from one HMH® learning platform with integral data and reporting.

Built with developmentally-appropriate content, the program is available in three Stages of instruction: Stage A (Grades 3–5), Stage B (Grades 6–8), and Stage C (Grades 9–12).

**STRONG EVIDENCE-BASED RESEARCH**

Groundbreaking innovation and efficacy studies ensure that year after year, **Read 180** is the undisputed leader in reading intervention, engineered to unlock the science behind reading success. **Read 180** incorporates the latest research on and principles of how the brain learns to read. With cognitive science, interactive content, and a reengineered teaching system, **Read 180** provides unparalleled support to accelerate student achievement. Research studies meet the strong evidence level as defined by the Every Student Succeeds Act (ESSA).

**SCIENCE OF READING**

**Read 180** incorporates the key components of the science of reading with explicit and systematic reading instruction. Teachers are provided clear, step-by-step instruction in the essential components of reading, and students are given ample opportunities to practice and apply these skills in a variety of contexts. **Read 180** follows this principle by providing explicit and systematic instruction in phonics, fluency, vocabulary, and comprehension, and giving students opportunities to practice these skills through a range of activities and texts.

**ASSESSMENT AND PROGRESS MONITORING**

NWEA® MAP® Growth™—now included in the **Read 180** subscription—provides the assessment solution that precisely measures student achievement and growth plus seamless integration with **Read 180** to ensure students are placed in the accurate Workshop/Segment of the student application.

**FLEXIBLE IMPLEMENTATION**

**Read 180** offers flexibility in scheduling and implementation with two primary models:

- **Dedicated intensive intervention classroom** model prioritizes direct teacher-led instruction and support. Teachers deliver explicit instruction and guided practice, while students engage in print workshops, personalized student application, and a comprehensive selection of print and digital independent reading choices. The intensive teacher support caters to students needing individualized attention.

- **Read 180 Flex** integrates intensive intervention into the core classroom using adaptive software for personalized instruction and practice. Students actively participate in tailored activities, assessments, and exercises, supported by digital reading libraries. They select books at their reading levels, engaging in independent reading to enhance fluency, comprehension, and strategy application. The software monitors progress and adjusts instruction accordingly. Teachers can implement **Read 180 Flex** across diverse school settings and grade levels.

In both models, **Read 180** includes personalized and adaptive student applications, comprehensive progress reports for individuals and the class, and robust assessments. These assessment tools provide insights for data-driven instruction and informed instructional decisions.

**PROGRAM COMPONENTS**

Each Stage includes the following:

**Student Materials**
- **Read 180** Student Application
- Map Growth Assessment
- Read. Book: Code Books
- Student Read. Books: Workshop
- Paperback Collection: 120 Books (30 Titles, 4 Copies Each)
- Audiobook Collection: 20 Audiobooks (5 Titles, 4 Copies Each)
- eBooks (66 Titles)
- Foundational Skills Independent Reading Books: 56 Titles
- Language Launch

**Teacher Materials**
- Digital HMH Ed Experience
- Teaching Guides for Real Workshops and Real Code
- Independent Reading Libraries
- Language Launch Interactive Teaching Guide
- Data & Reporting

**Professional Learning**
- Guided Implementation Support
- Ongoing Professional Learning
- Leadership Support

****Many components are available in both print and digital formats. Contact your HMH Account Executive for the most current list of available components. Program components are subject to change.

**EVIDENCE LEVEL**

**Strong**

**APPROVED FUNDING SOURCES**
- State & Local Funds
- Title I, III, IV
- ESSER
- IDEA
- School Improvement
- Foundation & Private Grants

**Houghton Mifflin Harcourt | hmhco.com/Read180**
Meets ESSA Strong Evidence Criteria

The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study.

PROGRAM OVERVIEW

Read 180 is a blended literacy solution for Grades 3 to 12 that builds students’ literacy from phonics to fluency to proficiency. It is a Tier II and Tier III intensive intervention solution that supports striving readers, special education students, and multilingual learners, including newcomers. Read 180 accelerates students to achieve grade-level proficiency by:

- Developing foundational literacy skills through explicit instruction on letter sounds, word parts, and syllables
- Deepening academic and content-area vocabulary words
- Providing multiple fluency practice with feedback on accuracy, pacing, and prosody
- Expanding the content knowledge that helps anchor students’ understanding of text
- Encouraging meaning making through critical thinking and the ability to view and articulate important issues from multiple perspectives
- Supporting effective expression and language development

INDEPENDENT REPORTS

The What Works Clearinghouse (WWC) examined nine Read 180 studies, and Read 180 was found to have positive effects on comprehension and general literacy achievement and potentially positive effects on reading fluency for adolescent readers.

Summary of 20 Years of Research on Adolescent Literacy Programs and Practices (2016)
Researchers from the Florida Center for Reading Research at Florida State University examined 33 studies of adolescent literacy programs and practices published over the last 20 years, and Read 180 was found to have potentially positive effects on students’ reading outcomes, one of the highest ratings measuring the effectiveness of research studies (Herrera, Truckenmiller, & Foorman, 2016).

Best Evidence Encyclopedia (BEE): Effective Reading Programs for Secondary Students (2016)
Researchers from Johns Hopkins University and the U.K. examined the evidence base for reading programs designed to improve the reading skills of middle and high school students and found that two studies about Read 180 demonstrated significant positive effects (Baye, Lake, Inns, & Slavin, 2016).

Results from 17 rigorous Randomized Controlled Trial studies that evaluated 10 separate interventions for struggling adolescent readers in Grades 6 through 10 as part of the Striving Readers program showed that Read 180 was the only reading intervention of 10 evaluated programs to provide evidence of positive effects on reading achievement (Boulay, Goodson, Frye, Blocklin, & Price, 2015).
# Read 180 Randomized Controlled Trial Studies

| STUDY 1 | Brockton PS, MA | RESULTS: Urban students improved their attendance and significantly increased their scores on vocabulary, comprehension, and total reading measures on the SAT-10™ after using Read 180 in an after-school program during the 2006–2007 school year (Kim, Capotosto, Hartry, & Fitzgerald, 2011; Herrera et al., 2016; WWC, 2016). |
| STUDY 2 | Milwaukee PS, WI | RESULTS: On the NWEA® MAP® Reading assessment, there was a statistically significant impact on the reading achievement of Read 180 students in Grades 6–9 during the 2010–2011 school year (Swandlund et al., 2012; Boulay et al., 2015; WWC, 2016). |
| STUDY 3 | Newark PS, NJ | RESULTS: In a study spanning the 2006–2011 school years, students who received two years of Read 180 instruction performed significantly better on the Reading Comprehension subtest of the SAT-10 than control group students (WWC, 2016; Baye et al., 2016). |
| STUDY 4 | Ohio Dept. of Youth Services | RESULTS: Results revealed a significant overall impact on Lexile® measures and on reading outcomes on the ReadCAT Grade Equivalent scores for Read 180 students during the 2006–2011 school years (Boulay et al., 2015). |
| STUDY 5 | Seminole County PS, FL | RESULTS: The FCAT® Developmental Scale Score gains evidenced by Read 180 students significantly exceeded both the state average and the state’s benchmark for expected growth during the 2005–2007 school years (Baye et al., 2016). |
| STUDY 6 | Springfield PS & Chicopee PS, MA | RESULTS: Read 180 students demonstrated statistically greater gains than control group students on the SDRT-4 throughout the 2006–2011 school years (Boulay et al., 2015; WWC, 2016). |

### STUDY 1
- Brockton PS, MA
- 1,203 Students in Grades 4–6
- Conducted by MPR® Associates

### STUDY 2
- Milwaukee PS, WI
- 619 Students in Grades 6–9
- Conducted by American Institutes for Research®

### STUDY 3
- Newark PS, NJ
- 5,098 Students in Grades 6–8
- Conducted by Westat®

### STUDY 4
- Ohio Dept. of Youth Services
- 1,245 Students in Grades 7–12
- Conducted by Ohio State University

### STUDY 5
- Seminole County PS, FL
- 1,483 Students in Grades 9–10
- Conducted by Florida Center for Reading Research at Florida State University

### STUDY 6
- Springfield PS & Chicopee PS, MA
- 679 Students in Grade 9
- Conducted by Education Alliance

---

### Reference


Read 180 Foundational Skills Research

Read 180 Foundational Skills integrates the System 44 program and, therefore, is supported by the System 44 research.

**DISTRICT:** Saginaw Public Schools, Michigan  
**STUDY YEAR:** 2011–2012  
**STUDY CONDUCTED BY:** RMC Research

---

**Evidence Criteria**  
Well-designed & well-implemented experimental study or Randomized Control Trial (RCT)

**Study Evidence & Highlights**

An experimental RCT study, where intervention teachers implemented System 44 for one school year. Results were analyzed using matched pretest and posttest scores.

Students in the System 44 classrooms were expected to receive approximately 20 to 25 minutes of computer-delivered instruction, complete 25 to 30 minutes of small-group and individual work, and receive 5 to 10 minutes of whole-class instruction daily. Control group students received various district interventions.

System 44 was studied in two large and diverse school districts. This System 44 RCT study, conducted in Saginaw Public Schools, MI, in combination with the System 44 RCT study conducted in Murrieta Valley USD, CA, represents a large and multi-site sample.

**Analytic Sample:**

- Large and diverse urban school district
- 16 schools
- Grades 4–8
- 317 participating students
- 79% African American; 10% Hispanic; 10% Caucasian
- 5% English learners
- 54% Students with disabilities
- 96% Free/reduced-price meals

---

**System 44 Students with and without disabilities in Grades 4–8 demonstrated statistically significant and positive percentile gains above the control group.**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Students with Disabilities</th>
<th>Students without Disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonemic Sensitivity (CTOPP Ellison)</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Sight Word Fluency (TOWRE sight word efficiency)</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Sight Word Fluency (PI sight word accuracy)</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Word Accuracy (RI vowel accuracy)</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Nonword Accuracy (RI nonvowel word accuracy)</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Comprehension (RI)</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: CTOPP: Comprehensive Test of Phonological Processing; TOWRE: Test of Word Reading Efficiency; PI: Phonics Inventory; RI: Reading Inventory
EVIDENCE CRITERIA
Well-designed & well-implemented experimental study or Randomized Control Trial (RCT)

STUDY EVIDENCE & HIGHLIGHTS
An experimental RCT study, where intervention teachers implemented System 44 for one school year. Results were analyzed using matched pretest and posttest scores.

Students enrolled into System 44 classrooms were expected to receive 60 minutes of instruction daily. The implementation guidelines included specified time for whole-group instruction (5–10 minutes), System 44 instructional software (20–25 minutes), and small-group/independent work (20–25 minutes). Students enrolled in control group classrooms were expected to receive the district’s regularly implemented instruction using a variety of grade-appropriate reading intervention programs.

System 44 was studied in two large and diverse school districts. This System 44 RCT study, conducted in Murrieta Valley USD, CA, in combination with the System 44 RCT study conducted in Saginaw Public Schools, MI, represents a large and multi-site sample.

ANALYTIC SAMPLE:
- Large and diverse urban school district
- 11 schools
- Grades 4–8
- 344 participating students
- 63% White; 10% African American; 16% Hispanic; 5% Asian; 5% Filipino
- 13% English Learners
- 30% Students with Disabilities
- 42% Free/reduced-price meals

System 44 students made significant improvements on multiple measures of word reading accuracy, decoding, fluency, and comprehension. Specifically, System 44 students significantly outperformed students receiving other district interventions on Phonics Inventory® and Reading Inventory®. Dosage analyses revealed that software usage was significantly related to reading outcomes, with greater topic completion resulting in stronger end-of-year gains.

<table>
<thead>
<tr>
<th></th>
<th>System 44 Students</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sight Word &amp; Nonword Fluency (PI)</td>
<td>9.5</td>
<td>4.9</td>
</tr>
<tr>
<td>Sight Word &amp; Nonword Accuracy (PI)</td>
<td>6.9</td>
<td>5.1</td>
</tr>
<tr>
<td>Phonics Inventory Points</td>
<td>180</td>
<td>139</td>
</tr>
<tr>
<td>Comprehension (RI)</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

To learn more about the research behind Read 180, visit hmhco.com/read180research
**Waggle** is a playful, smart, and engaging supplemental learning solution for ELA and Math that provides adaptive, targeted skill practice for students at all proficiency levels. It rewards both academic proficiency and positive learning behaviors to foster a growth mindset in all students. **Waggle** dynamically assesses both growth and proficiency by analyzing 13 data points for each item a student encounters to be truly adaptive, knowing exactly when a student is progressing, regressing, or even when they need a break. The data collected also identifies skill gaps that teachers can use for differentiation.

**FLEXIBLE IMPLEMENTATION**

Designed for flexible use—in and out of the classroom, **Waggle** fits into any core curricula and is ideal for intervention enrichment, small-group instruction, summer school, and more. It provides personalized support and ongoing dynamic assessment during time traditionally used for worksheets, stations, or homework.

Teachers and students thrive with **Waggle**’s innovative ELD supports, SEL framework, and embedded gaming that rewards both positive learning behaviors and proficiency.

**ACTIONABLE INSIGHTS IN REAL-TIME**

**Waggle** supports all teaching styles and teachers are always one click away from discovering personalized skills gaps for each student. **Waggle** measures students’ understanding during practice—eliminating the need for repeated testing. The intelligent adaptive engine analyzes multiple data points, including behavioral, to maximize students’ practice time and teachers’ instruction time!

**POWERFUL PRACTICE AND INSTRUCTION FOR ALL STUDENTS**

**Waggle** provides powerful practice and instruction for all students, including those below, at, and above grade-level proficiency. The program pinpoints precise skill gaps with embedded ongoing assessment and intelligently adapts the practice level to meet students’ needs. Teachers can immediately view the health of the class and see which students could benefit from skills-specific support. They can then manually assign content or have **Waggle** auto-assign content.

**Waggle** provides learning activities and transadapted text in instructional activities allowing Spanish speaking students to apply their current knowledge and increase academic skill acquisition (available for **Waggle** Math for Grades K-8 and Grades 3–8 for **Waggle** ELA).

**ENGAGE STUDENTS TO PROMOTE A GROWTH MINDSET**

**Waggle** celebrates more than just proficiency. With over 60 new motivational games, students can earn badges, points, and avatar customizations as they complete missions and demonstrate the attributes of a growth mindset from seeking challenges to persevering through challenges.

Houghton Mifflin Harcourt | hmhco.com/Waggle
Waggle ELA
Meets ESSA Moderate Evidence Criteria

The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study.

PROGRAM OVERVIEW
Waggle® ELA is a Grades K–8 supplemental digital learning solution that provides adaptive, personalized practice and instruction designed to support engagement, persistence, and achievement. Ongoing formative assessment is delivered through skills-based practice activities that assess knowledge in real time, providing teachers with data to differentiate instruction at the individual, small-group, and class levels.

MODERATE ESSA EVIDENCE RATING
DISTRICT: Blue Springs School District, MO
STUDY YEAR: 2020–2021
STUDY CONDUCTED BY: JEM & R, LLC

EVIDENCE CRITERIA

- Well-designed & well-implemented quasi-experimental design study (QED)

STUDY EVIDENCE & HIGHLIGHTS

To examine the impact of Waggle, a quasi-experimental design (QED) study was conducted by JEM & R, LLC. Students who used Waggle were compared to closely matched students who did not (control students). The final analytical control sample was selected based on propensity scoring and matching methods. Students were matched based on race/ethnicity, gender, free/reduced-price lunch eligibility, special education status, English learner status, and gifted status.

Large & multi-site sample

- ELA SAMPLE
  - 1,402 Grade 3–5 Students
  - 701 Matched Students

- ELA SUBGROUP SAMPLE
  - 67% White
  - 12% Black
  - 10% Hispanic
  - 2% Asian

- 1% Native American or Alaska Native
- 8% Multiracial
- 20% Free/reduced-price lunch eligibility
- 16% Students with disabilities

Shows statistically significant & positive effects

In order to determine the impact of Waggle, Reading Growth Measure scale scores were analyzed. Statistical analysis of program effects was conducted primarily via repeated measures ANOVA to examine differences in growth rates between students who used Waggle and those who did not.

Results showed that students using Waggle ELA demonstrated statistically significant learning gains over students who did not use Waggle as measured by the Reading Growth Measure, F(1, 1400)=4.644, p<.05. A 4.7-point increase was observed for Waggle ELA students from MOY to EOY in comparison to a 3.4-point increase for students who did not use this program.

Comparisons in students’ Reading Growth Measure Student Growth Index (SGI) showed that students who used Waggle ELA demonstrated significantly higher SGI values than students who did not, t(1400)=−2.261, p<.05.

STUDENT LEARNING GAINS: READING GROWTH MEASURE PERFORMANCE BY GROUP

* p< .05
Grow Great Writers

Writable® is a digital writing platform that helps teachers scaffold and motivate students to become purposeful, proficient writers. With over 1,000 customizable assignments, including essays, short responses, grammar skills practice, student models, state-level benchmark assessments, Writable helps schools assess and monitor writing growth. With hundreds of assignment templates, customizable rubrics, and shareable district-level assignments and state assessment practice, Writable helps teachers strengthen their writing instruction while saving time on prep and feedback.

Increase teacher impact with AI tools that engage students and motivate better writing in the moment. Writable’s approach to AI builds teacher agency and is teacher-intermediated, allowing for AI-suggested feedback and scores to be incorporated into their instruction to help drive purposeful revision and writing growth.

RESEARCH & EVIDENCE

With an instructional design derived from numerous research reports, academic articles, and professional books, Writable is based around research that shows better feedback drives better revision, which is the key to writing growth. Dr. Troy Hicks developed the program’s foundational research, which he documents in this White Paper.

PREPARE FOR HIGH-STAKES PERFORMANCE TESTS

- Practice aligned to state assessment rubrics, with real readings and prompts for students to practice with past versions of the exam.
- Students can prepare for their life ahead with SAT/ACT-aligned prompts and college- and career-readiness assignments such as writing college essays, resumes, and business letters.
- AP Literature, AP US History, and AP Composition practice features contemporary content to help advanced writers.

ASSESSMENT AND PROGRESS MONITORING

Writable helps teachers administer pre- and post-writing assessments to quickly gauge students’ growth in each genre of writing by category, skill or standard. Schools can organize and monitor writing goals, while Writable creates differentiated student groups to help teachers assign and adjust practice based on individual learning needs.

SUPPORT FOR MULTILINGUAL LEARNERS

Multilingual learners benefit from embedded tools such as texts and navigation menus in Spanish, sentence starters, scaffolded prompts, grammar skill lessons, and more to help them produce writing that shines.

FLEXIBLE IMPLEMENTATION

Writable adapts to fit core literacy curriculum, district-adapted rubrics, or state-specific writing priorities. Assignments and rubrics can be shared across a district—and across subject areas—for a more unified writing program tied to core skills.
Meets ESSA “DEMONSTRATES A RATIONALE”

Evidence Criteria

The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study. HMH’s evidence ratings are based on the U.S. Department of Education’s nonregulatory guidance for ESSA. Evidence ratings issued by clearinghouses and independent research agencies (e.g., Evidence for ESSA) may differ due to the varying criteria used to judge evidence.

PROGRAM OVERVIEW

Writable® is a digital writing platform for students in Grades 3–12 that helps teachers scaffold and motivates students to become purposeful, proficient writers. Writable was developed to scaffold writing practice that connects instruction to feedback—meaningful, timely feedback that drives revision and reflective revisions that drive growth.

EVIDENCE CRITERIA

<table>
<thead>
<tr>
<th>Evidence Criteria</th>
<th>Study Evidence &amp; Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides a well-specified logic model informed by research or evaluation</td>
<td>The Writable Research Foundations paper establishes the evidence base for the program’s instructional approach. With an instructional design derived from numerous research reports, academic articles, and professional books—as well as the empirical evidence based on pilot studies conducted over the 2016-2017 school year—Writable is built on three interwoven principles: 1. Practice connects instruction to feedback 2. Better feedback drives revisions, and 3. Better revision drives growth.</td>
</tr>
</tbody>
</table>

Relevant research or an evaluation that suggests that the intervention is likely to improve student outcomes or other relevant outcomes; an effort to study the effects is underway at the higher evidence levels

1. Writing practice is important to ELA and content area proficiency and is most effective when it extends directly from instruction. Writing growth happens when students get ongoing support that is personalized to their needs—and prepares them to develop their voices as writers, both inside and outside of the classroom.
2. Feedback should be targeted and aimed at meeting students where they are as writers, with the end goal of driving substantive revision. Feedback is most effective when it’s connected to instruction and put into context for students in a way that combines teacher-, peer-, and self-review.
3. Revision should be tied to both self-assessment and targeted feedback received from others. Revision is most effective when it’s viewed as holistic and incorporated into the earliest stages.

To learn more about the research behind Writable, visit hmhco.com/writable
Discuss, Describe, and Debate: Build Academic Language for Success

*English 3D* is an explicit and interactive English Language Development curriculum designed by Dr. Kate Kinsella. The only ELD program that has earned the WIDA Prime 2020 Seal of Alignment, *English 3D* enables multilingual learners in grades 4–12 to rapidly acquire the language skills necessary for academic success.

**COURSES FOR EARLY PROFICIENCY LEVELS**

Language Launch Volume 1 is designed to meet the unique needs of newcomer students who are at the early stages of English development. These teacher-guided digital lessons teach social, instructional, and content language. Relevant and engaging lessons focus on critical language functions, features, and vocabulary that are reinforced through the four domains: listening, speaking, reading, and writing.

Language Launch Volume 2 is an ELD curricular on-ramp for *English 3D* that addresses language and literacy needs of multilingual learners at late beginning levels of English proficiency to prepare them for ELP assessments. The units are centered around students’ identities as language learners and leverage the rich assets they bring to school. The lessons accelerate students’ language development through picture observations, audio listening tasks, and scaffolded writing practice.

**COURSES FOR LATER PROFICIENCY LEVELS**

Designed by Dr. Kate Kinsella, *English 3D* engages students at later proficiency levels with contemporary issue-based texts, creating a platform for daily spoken and written responses that advance students’ understandings of English vocabulary, sentence structure, and grammar. Students engage in close reading, academic interaction, presentation, and standards-aligned formal writing to prepare them for success on ELP assessments and in core content classes.

**MODERATE EVIDENCE-BASED RESEARCH**

*English 3D* was specifically developed for English learners by Dr. Kate Kinsella, leading expert and practitioner focused on meeting the specific language development needs of multilingual learners. Research studies for *English 3D* meet the moderate evidence level as defined by the Every Student Succeeds Act (ESSA).

**IMPLEMENTATION**

*English 3D* effectively supports students at all English proficiency levels, including newcomers and long-term English learners. The program is designed to be used daily (45–60 minutes) during strategic English support classes, advanced ELL/ELD classes, English language arts blocks, or elective periods. Student and teacher content is available on HMH Ed™, the learning platform.

Houghton Mifflin Harcourt | hmhco.com/English3D

**PROGRAM COMPONENTS**

| GRADES | 4–12 English Language Development |

**EVIDENCE LEVEL**

Moderate

**APPROVED FUNDING SOURCES**

- State & Local Funds
- Title I, III, IV
- ESSER
- School Improvement
- Foundation & Private Grants

**HMH’s evidence ratings are based on the U.S. Department of Education’s non-regulatory guidance for ESSA. Evidence ratings issued by clearinghouses and independent research agencies (e.g., Evidence for ESSA) may differ due to varying criteria used to judge evidence.**
The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study.

PROGRAM OVERVIEW

English 3D is an evidence-based English language development (ELD) program for multilingual learners in Grades 4–12 designed by nationally recognized ELD author, researcher, and teacher educator, Dr. Kate Kinsella. The program effectively accelerates academic language through high-interest content, consistent instructional routines, and daily practice opportunities that enable students to become confident and competent participants in content-area classes, college, and beyond.

EVIDENCE CRITERIA

Well-designed and well-implemented quasi-experimental design study (QED)

STUDY EVIDENCE & HIGHLIGHTS

English 3D students were matched with non-English 3D English learners (EL) in the Hemet Unified School District for a matched sample comparison analysis. All students comprising the matched sample did not participate in English 3D instruction in any year between 2014–2019. Matched students were an exact match on EL status and on baseline scores or expected growth, and then chosen using nearest neighbor propensity score matching based on the following covariates: grade, gender, SES, ethnicity, school, and teacher.

Large and multi-site sample, overlapping with populations or settings proposed to receive the intervention


ANALYTIC SAMPLE:

• Suburban area
• 28 schools (13 elementary schools, 3 K–8 schools, 7 middle schools, and 5 high schools)
• Grades 4–12
• 94%–96% Hispanic
• 47%–58% Male; 43%–52% Female
• 92%–99% Eligible for Free/Reduced-Price Lunch
• 16%–27% Eligible for Special Education Services

DISTRICT: Hemet Unified School District, CA
STUDY YEAR: 2014–2019
STUDY CONDUCTED BY: FORGE RESEARCH GROUP

Meets ESSA “MODERATE” Evidence Criteria

The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study.
English 3D students demonstrated larger statistically significant actual to expected MAP Reading RIT score gains in comparison to non-English 3D EL students. See Figure 1.

In addition, English 3D students demonstrated statistically significant larger gains on the California English Language Development Test (CELDT) during the 2016–2017 school year when compared to non-English 3D EL students. See Figure 2.

Furthermore, a significantly larger percentage of English 3D students were reclassified out of the EL program compared to non-English 3D EL students, with reclassification of 19.2% compared to 14.3% in the 2016–2017 school year, 29.4% compared to 13.5% in the 2017–2018 school year, and 6.1% compared to 5.3% in the 2018–2019 school year.

To learn more about the research behind English 3D, visit hmhco.com/programs/english-3d
Where Limits Don’t Exist

Math 180® is a blended-learning intervention program that builds students’ confidence and competence in mathematics while providing teachers with comprehensive support. The program provides engaging, differentiated math instruction through a combination of teacher-led instruction and adaptive math technology that effectively prepares middle- and high-school students for the transition to algebra.

Math 180 is organized around six block series of instruction and content. Designed for students who lack numerical understanding and reasoning skills, early blocks focus on key foundational concepts that enable students to make connections while learning to think algebraically. As students progress through the block series, the program transitions students to algebra with an emphasis on building proportional reasoning with rates, ratios, linear relationships, and functions.

MODERATE EVIDENCE-BASED RESEARCH

Math 180 is informed by an extensive body of literature about best practices for serving older struggling math students. The program’s Research Foundation Paper provides relevant information from the research bases, and expert opinion is presented alongside descriptions of how these research foundations have been translated into the program design and curriculum. Math 180 research studies meet the moderate evidence level as defined by ESSA.

ASSESSMENT AND PROGRESS MONITORING

Math 180 includes a comprehensive, robust suite of assessment tools and reports for monitoring progress and differentiating instruction. NWEA® MAP® Growth™—now included in the Math 180 subscription—provides the assessment solution that precisely measures student achievement and growth plus seamless integration with Math 180 to ensure students are placed in the accurate Block Series of the student application.

INDIVIDUALIZED, ADAPTIVE INSTRUCTION

Personalized learning in Math 180 helps students manage their acquisition of new information and then carefully synthesize this information as long-term memory in the brain. As students work independently on the computer, the software is automatically and continuously collecting student performance data, which feeds multiple reports that teachers use to inform small-group instruction.

FLEXIBLE IMPLEMENTATION AND INSTRUCTIONAL DESIGN

Math 180 offers flexibility in scheduling and implementation with two primary models:

- **Dedicated intensive intervention classroom** that prioritizes direct teacher-led instruction and support. Teachers deliver explicit instruction and guided practice, while students engage in their mSpace books and personalized student application. The intensive teacher support caters to students needing individualized attention.

- **Math 180 Flex** integrates intensive intervention into the core classroom using adaptive software for personalized instruction and practice. Students actively participate in tailored activities, assessments, and exercises. The software monitors progress and adjusts instruction accordingly. Teachers can implement Math 180 Flex across diverse school settings and grade levels.

In both models, Math 180 includes personalized and adaptive student applications, comprehensive progress reports for individuals and the class, and robust assessments. These assessment tools provide insights for data-driven instruction and informed instructional decisions.

Houghton Mifflin Harcourt | hmhco.com/Math180
Math 180®

Meets ESSA “MODERATE” Evidence Criteria

The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study.

PROGRAM OVERVIEW
Math 180® is a blended learning program designed to address the needs of struggling students in Grades 5 and up, and their teachers, equally—building students’ confidence with Mathematics and accelerating their progress to algebra.

DISTRICT: Clark County School District, Nevada
STUDY YEAR: 2013–2014
STUDY CONDUCTED BY: HMH Research

EVIDENCE CRITERIA STUDY EVIDENCE & HIGHLIGHTS

Well-designed & well-implemented quasi-experimental design study (QED)  The QED study took place in four representative middle schools in the district. Two were chosen as Math 180 implementation and two were chosen as comparisons. The Math 180 and comparison group students were compared at baseline and determined to be statistically equivalent with respect to their level of Math achievement. Results were analyzed using matched pretest/post-test scores.

Students in the Math 180 classrooms were provided print materials and access to the software. Math 180 teachers were also provided start-up training and periodic coaching visits to ensure on-model program implementation. Students in the comparison group received their school’s usual supplemental Math instruction.

Large & multi-site sample, overlapping with populations or settings proposed to receive the intervention  Math 180 was studied in Clark County School District, a large regional district in Nevada. This Math 180 study, in combination with the Math 180 QED study conducted in Hillsborough County Public Schools, Florida, represents a multi-site sample.

ANALYTIC SAMPLE:
- Large and diverse school district
- Large and diverse school district
- Grades 6–8
- 187 participating students

- 18% African American;
- 39% Hispanic; 28% Caucasian;
- 12% Multi-Racial; 4% Other

Students in the Math 180 treatment classrooms demonstrated significantly greater gains in Math achievement than students in the comparison classrooms. This differential growth was demonstrated using the Math Inventory® assessment with increasing levels of growth being associated with number of topics completed in the program.

![Graph showing Math Inventory scores for Math 180 and comparison groups](image1)

![Graph showing change in Math Inventory scores by software usage (engagement)](image2)
EVIDENCE CRITERIA | STUDY EVIDENCE & HIGHLIGHTS
---|---
Well-designed & well-implemented quasi-experimental design study (QED) | The QED study took place in six representative middle schools in the district. Three were chosen as Math 180 implementation and three were chosen as comparisons. The Math 180 and comparison group students were compared at baseline and determined to be statistically equivalent with respect to their level of Math achievement. Results were analyzed using matched pretest/post-test scores.

Students in the Math 180 classrooms were provided print materials and access to the software. Math 180 teachers were also provided start-up training and periodic coaching visits to ensure on-model program implementation. Students in the comparison group received their school’s usual supplemental Math instruction.

Large & multi-site sample, overlapping with populations or settings proposed to receive the intervention | Math 180 was studied in Hillsborough County Public Schools, Florida. This Math 180 study, in combination with the Math 180 QED study conducted in Clark County Public Schools, Nevada, represents a multi-site sample.

ANalytic sample: • Large and diverse school district • 6 schools • Grades 6–8 • 287 participating students

Students in the Math 180 treatment classrooms demonstrated significantly greater gains in Math achievement than students in the comparison classrooms. This differential growth was demonstrated using the Math Inventory and NWEA® MAP® assessments.

Analytic sample: • 22% African American; 58% Hispanic; 17% Caucasian • 41% English learners • 35% Students with disabilities • 79% Free/reduced-priced meals

Shows statistically significant & positive effects | Students in the Math 180 treatment classrooms demonstrated significantly greater gains in Math achievement than students in the comparison classrooms. This differential growth was demonstrated using the Math Inventory and NWEA® MAP® assessments.

To learn more about the research behind Math 180, visit hmhco.com/Math180
Spark Learning with Personalized Practice
 and Instruction for All Levels

Waggle® is a playful, smart, and engaging supplemental learning solution for ELA and Math that provides adaptive, targeted skill practice for students at all proficiency levels. It rewards both academic proficiency and positive learning behaviors to foster a growth mindset in all students. Waggle dynamically assesses both growth and proficiency by analyzing 13 data points for each item a student encounters to be truly adaptive, knowing exactly when a student is progressing, regressing, or even when they need a break. The data collected also identifies skill gaps that teachers can use for differentiation.

FLEXIBLE IMPLEMENTATION

Designed for flexible use—in and out of the classroom, Waggle fits into any core curricula and is ideal for intervention enrichment, small-group instruction, summer school, and more. It provides personalized support and ongoing dynamic assessment during time traditionally used for worksheets, stations, or homework.

Teachers and students thrive with Waggle’s innovative ELD supports, SEL framework, and embedded gaming that rewards both positive learning behaviors and proficiency.

ACTIONABLE INSIGHTS IN REAL-TIME

Waggle supports all teaching styles and teachers are always one click away from discovering personalized skills gaps for each student. Waggle measures students’ understanding during practice—eliminating the need for repeated testing. The intelligent adaptive engine analyzes multiple data points, including behavioral, to maximize students’ practice time and teachers’ instruction time!

POWERFUL PRACTICE AND INSTRUCTION FOR ALL STUDENTS

Waggle provides powerful practice and instruction for all students, including those below, at, and above grade-level proficiency. The program pinpoints precise skill gaps with embedded ongoing assessment and intelligently adapts the practice level to meet students’ needs. Teachers can immediately view the health of the class and see which students could benefit from skills-specific support. They can then manually assign content or have Waggle auto-assign content.

Waggle provides learning activities and transadapted text in instructional activities allowing Spanish speaking students to apply their current knowledge and increase academic skill acquisition (available for Waggle Math for Grades K–8 and Grades 3–8 for Waggle ELA).

ENGAGE STUDENTS TO PROMOTE A GROWTH MINDSET

Waggle celebrates more than just proficiency. With over 60 new motivational games, students can earn badges, points, and avatar customizations as they complete missions and demonstrate the attributes of a growth mindset from seeking challenges to persevering through challenges.

Houghton Mifflin Harcourt | hmhco.com/Waggle

---

**HMH's evidence ratings are based on the U.S. Department of Education’s non-regulatory guidance for ESSA. Evidence ratings issued by clearinghouses and independent research agencies (e.g., Evidence for ESSA) may differ due to varying criteria used to judge evidence.**
Waggle Math Meets ESSA Moderate Evidence Criteria

The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study.

PROGRAM OVERVIEW
Waggle® Math is a Grades K–8 supplemental digital learning solution that provides adaptive, personalized practice and instruction designed to support engagement, persistence, and achievement. Ongoing formative assessment is delivered through skills-based practice activities that assess knowledge in real time, providing teachers with data to differentiate instruction at the individual, small-group, and class levels.

EVIDENCE CRITERIA

<table>
<thead>
<tr>
<th>STUDY EVIDENCE &amp; HIGHLIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well-designed &amp; well-implemented quasi-experimental design study (QED)</td>
</tr>
<tr>
<td>To examine the impact of Waggle, a quasi-experimental design (QED) study was conducted by JEM &amp; R, LLC. Students who used Waggle were compared to closely matched students who did not (control students). The final analytical control sample was selected based on propensity scoring and matching methods. Students were matched based on race/ethnicity, gender, free/reduced-price lunch eligibility, special education status, English learner status, and gifted status.</td>
</tr>
</tbody>
</table>

**MATH SAMPLE**
- 1,172 Grade 3–5 Students (586 Matched Students)

**MATH SUBGROUP SAMPLE**
- 67% White
- 12% Black
- 9% Hispanic
- 3% Asian
- 1% Native American or Alaska Native
- 8% Multiracial
- 19% Free/reduced-price lunch eligibility
- 15% Students with disabilities

**EVIDENCE CRITERIA**

<table>
<thead>
<tr>
<th>STUDY EVIDENCE &amp; HIGHLIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large &amp; multi-site sample</td>
</tr>
<tr>
<td>Shows statistically significant &amp; positive effects</td>
</tr>
<tr>
<td>In order to determine the impact of Waggle Math Growth Measure scale scores were analyzed. Statistical analysis of program effects was conducted primarily via repeated measures ANOVA to examine differences in growth rates between students who used Waggle and those who did not.</td>
</tr>
</tbody>
</table>

Results indicated that students using Waggle Math with fidelity (attempted 10+ skills/completed 10+ goals) demonstrated statistically significantly learning gains over students who did not use Waggle as measured by the Math Growth Measure, F(1, 757)=4.26, p<.05.

A 8.1-point increase was seen for Waggle Math students from MOY to EOY in comparison to a 6.4-point increase for students who did not use the program.

Results highlight the importance of accounting for implementation fidelity when determining program efficacy.

<table>
<thead>
<tr>
<th>STUDENT LEARNING GAINS: MATH GROWTH MEASURE PERFORMANCE BY GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math Growth Measure Scale Score</td>
</tr>
<tr>
<td>Midyear</td>
</tr>
<tr>
<td>Waggle Math</td>
</tr>
<tr>
<td>55.3</td>
</tr>
<tr>
<td>56.9</td>
</tr>
<tr>
<td>*p&lt;.05</td>
</tr>
</tbody>
</table>