Curriculum Associates® RESEARCH

Magnetic Reading Has a Positive Impact on Elementary Students' Reading Achievement

Reading
Research Summary, June 2023

i-Ready Learning Magnetic Reading™

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Summary

During the 2021–2022 school year, Curriculum Associates conducted a research study to examine the impact of *Magnetic Reading* on reading achievement for students in Grades 3–5 from seven elementary schools in Iowa. The purpose of the study was to learn more about the effectiveness of *Magnetic Reading* on students' reading achievement. The study found that *Magnetic Reading* had a positive and significant impact on students' reading achievement and growth. This emerging evidence suggests that *Magnetic Reading*, when used as a supplemental reading program, may help more students move toward or achieve grade-level proficiency. This study meets the criteria for the Every Student Succeeds Act (ESSA) Level 2, or Moderate, evidence requirements.

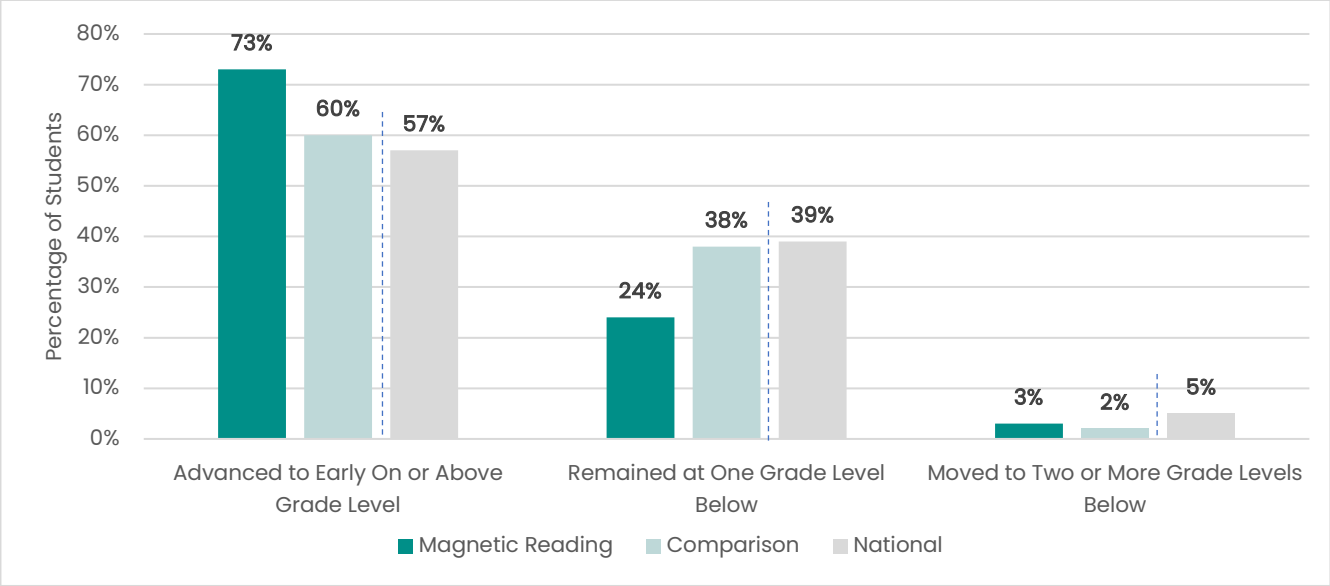
i-Ready Learning Magnetic Reading™

Key Findings

Students Using Magnetic Reading *Outperform Comparison Group Students*

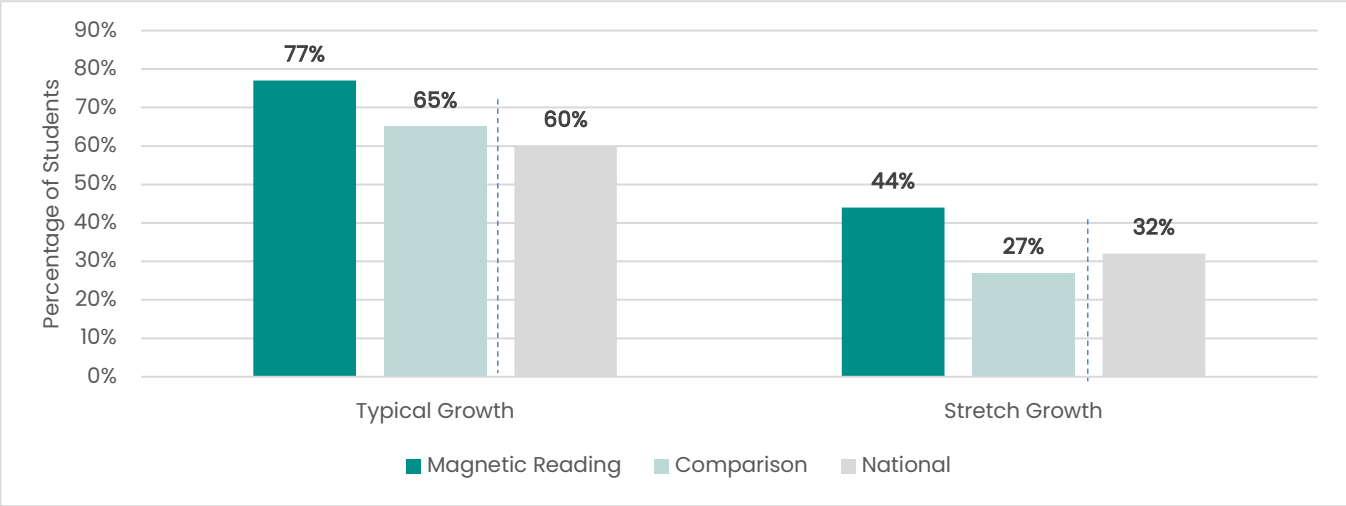
- 8 points higher—Students who used *Magnetic Reading* scored more than 8 points higher on their spring Diagnostic, on average, than similar peers who did not use *Magnetic Reading*, with an effect size of .18, which is considered a moderate and practically meaningful effect of an educational intervention.
- 73% of *Magnetic Reading* students who placed One Grade Level Below on the fall Diagnostic placed Early On or Above Grade Level on the spring Diagnostic, compared to 60% of comparison students and 57% of a national sample of students.
- 51% of the *Magnetic Reading* students who placed Two or More Grade Levels Below in the fall improved to One Grade Level Below by spring, compared to only one-third of comparison students and a national sample of students.
- 1.2 times more likely to meet growth targets—Significantly more *Magnetic Reading* learners met their Typical Growth and Stretch Growth® targets than their comparison peers. Students using *Magnetic Reading* were nearly 1.2 times more likely to meet their Typical Growth targets than their similar peers who did not use *Magnetic Reading* and 1.6 times more likely to meet their Stretch Growth targets than similar peers who did not use *Magnetic Reading*.

Graph 1: Students Who Started Below Grade Level in the Fall Were More Likely to Place On Grade Level by Spring If They Used *Magnetic Reading*



Note. See Table 1 for the full spring grade-level placement distribution by starting placement level. The national sample of students took the Diagnostic at two time points and were enrolled in Grades 3–5.

Graph 2: More Students Who Used *Magnetic Reading* Met Typical Growth and Stretch Growth Targets Than Students Who Did Not Use *Magnetic Reading*



Note. The national sample of students took the Diagnostic at two time points and were enrolled in Grades 3–5.

Table 1: Spring Diagnostic Grade-Level Placement Distribution by Group and Starting Placement

Fall Placement			Spring Placement		
Student Sample		**# of Students**	**Two or More Grade Levels Below**	**One Grade Level Below**	**Early On or Above Grade Level**
Magnetic Reading Group	Two or More Grade Levels Below	55	29%	51%	20%
	One Grade Level Below	71	3%	24%	73%
	Early On or Above Grade Level	53	0%	6%	94%
Comparison Group	Two or More Grade Levels Below	78	49%	33%	18%
	One Grade Level Below	52	2%	38%	60%
	Early On or Above Grade Level	49	0%	8%	92%
National Sample	Two or More Grade Levels Below	796,585	56%	33%	11%
	One Grade Level Below	641,676	5%	39%	57%
	Early On or Above Grade Level	719,147	<1%	4%	96%

Note. Percentages are rounded to the nearest whole number. The national sample of students took the Diagnostic at two time points and were enrolled in Grades 3–5. The Diagnostic reports five relative grade-level placements: Three Grade Levels Below, Two Grade Levels Below, One Grade Level Below, Early On Grade Level, and Mid On Grade Level.

Study Overview

This study was conducted to examine the effectiveness of *Magnetic Reading* on students' reading achievement, including whether more students using *Magnetic Reading* met their Typical Growth and Stretch Growth targets from fall to spring than their peers who did not use *Magnetic Reading*. The study took place in seven small, rural, Title I-eligible schools in Iowa with a majority (i.e., 90%) White student population. Three schools were identified as treatment schools and reported using *Magnetic Reading* as their primary comprehension program for 30-45 minutes daily in their reading block for the duration of the 2021-2022 school year. Data from the National Center for Education Statistics were used to identify similar comparison group schools who did not use *Magnetic Reading* or *Ready® Reading*. All the treatment and comparison schools used *i-Ready® Personalized Instruction,* although usage varied by school.

Magnetic Reading is a print-based, teacher-led reading program based on the Science of Reading that is designed to support the development of students' grade-level comprehension skills in Grades K–5 through rich, engaging, and culturally relevant texts. The program's purposes are to support students' comprehension skills, build knowledge that fosters deeper learning and connections with texts, and nurture a love for reading. For educators, *Magnetic Reading* offers a digital library of resources for whole class grade-level instruction and differentiated learning as well as scaffolds and protocols with which all students can relate and participate. *Magnetic Reading* is designed for students to use the program each day for 30-45 minutes as one component of a longer and more robust reading block.

This research provides evidence that *Magnetic Reading* can accelerate student learning. More specifically, this study's results indicate that for students in small, rural, Title I-eligible schools, *Magnetic Reading* had a positive influence on their reading achievement and growth toward meeting grade-level expectations.

Research Methodology

Because schools who implemented *Magnetic Reading* also used *i-Ready Personalized Instruction*, to be eligible for inclusion in the study, comparison schools were required to use *i-Ready Personalized Instruction* with at least 85% of students in Grades 3–5. Additionally, students in Grades 3–5 who attended the schools included in the final sample had to use *i-Ready* for an average of at least 10 weeks. Comparison schools were also required to be demographically similar to the treatment schools. The final school sample consisted of three treatment schools and four comparison schools.

Within these schools, to be eligible for inclusion in the student sample, students were required to: 1) complete a fall and spring *i-Ready Diagnostic* for Reading in school and 2) have used *i-Ready Personalized Instruction* for Reading. Students with extreme *i-Ready* usage (i.e., students who were among the top 10% of *i-Ready* usage) were removed from the sample. Propensity score matching was used to identify a sample of Grades 3–5 treatment and comparison students who were similar to one another within their grade level on fall achievement, *i-Ready* usage, and characteristics believed to influence end-of-year reading achievement (i.e., the outcome). Accounting for these characteristics ensured a less biased estimate of *Magnetic Reading*'s effect on student reading

achievement and allowed researchers to evaluate the effect of *Magnetic Reading* alone, rather than the effect of *Magnetic Reading* when used with *i-Ready*. The final matched sample included 358 students who attended predominantly White Title I-eligible schools in rural communities in Iowa.

Two research questions guided this study:

1. What is the effect of *Magnetic Reading* on students' reading achievement?
2. Do more students meet their Typical Growth and Stretch Growth targets when using *Magnetic Reading*?

To answer the first question, researchers used a linear regression on the matched Grades 3–5 student sample to evaluate the impact of *Magnetic Reading*. Using a series of models, researchers determined the best combinations of *i-Ready* metrics to evaluate the impact of *Magnetic Reading* on spring Diagnostic scores. The final impact model predicted students' spring Diagnostic scores from their fall Diagnostic scores, total time spent using *i-Ready*, their grade level, an interaction of their grade level and fall Diagnostic score, and their *Magnetic Reading* usage. Finally, to determine the impact of *Magnetic Reading*, Cohen's *d* was calculated as a standardized effect size.

To answer the second question, researchers calculated the percentage of students who met or exceeded their Typical Growth or Stretch Growth targets for the *Magnetic Reading* and comparison groups as well as a national sample of *i-Ready* students. To evaluate the association between *Magnetic Reading* usage and meeting Typical Growth or Stretch Growth targets, researchers conducted a chi-square test of independence. Finally, the relative benefit of *Magnetic Reading* usage on meeting Typical Growth or Stretch Growth targets was calculated to determine the extent to which *Magnetic Reading* supports students in meeting their Typical Growth or Stretch Growth targets.

Read the full research report to learn more.

Full Report Reference

Holzman, M. A., & Duncan, M. K. (2023). *Impact of* Magnetic Reading *in grades 3–5: Evidence in Iowa schools in the 2021-2022 school year*. Curriculum Associates. https://www.curriculumassociates.com/-/media/mainsite/files/magnetic-reading/magnetic-reading-impact-study-iowa-2023.pdf