

Digital Reader from Pioneer Valley Books

A 2021 product evaluation conducted by McREL found that Literacy Footprints Digital Reader demonstrated a small but positive impact on 1st-grade students' English Language Arts achievement.

This study meets ESSA's Tier 2 level of evidence standards (moderate evidence).

Background. The Literacy Footprints Digital Reader provides elementary grade students and teachers with online access to books and resources from the Literacy Footprints Complete System of Guided Reading. Teachers can create a bookshelf of appropriate books for students to read independently and can create assignments for individuals or groups of students. Additional features include prerecorded lessons and assessments for monitoring progress.

Prior to the COVID-19 pandemic, 1st-grade teachers from the Manatee County School District (MCSD) in Florida had received PD training on key components of the Digital Reader and its Literacy Footprints lessons: guided reading, phonics/word study, and guided writing. Teachers learned how to introduce new books to students and prompt for strategic processing as they read. Teachers became familiar with the phonics manipulatives and practiced the phonics/word study procedures associated with the accompanying lessons.

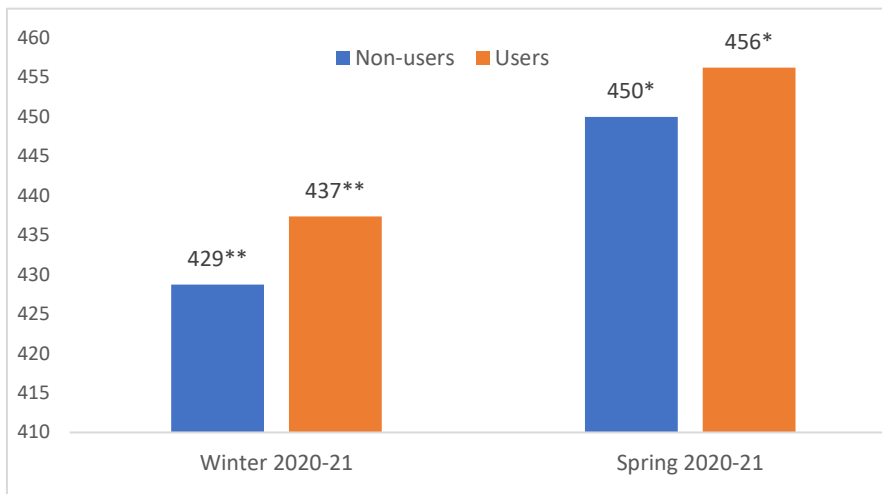
In the fall of 2020, MCSD shifted to operating in a remote-learning format in response to pandemic concerns. Students were given a Digital Reader for home use and teachers began using it for online instruction.

Product Evaluation & Findings. To examine the impact of the Digital Reader on student learning, McREL conducted a quasi-experimental analysis comparing outcomes for students who used the Digital Reader and those who did not across 31 elementary schools. This analysis found that Digital Reader had a small but positive impact on students' ELA achievement.

As seen in Figure 1, the adjusted difference in middle-of-year scaled scores is 9 points, with a 99% confidence interval that excludes 0; and the end-of-year adjusted difference in scaled scores is 6 points, with a 95% confidence interval that excludes zero. The effect sizes of these differences (0.19, and 0.13 respectfully) are generally considered small.

Figure 1

The 2020–21 i-Ready ELA Scale Score Regression Adjusted Average Achievement of Digital Reader Users Compared to Non-users.



** 99% confidence interval includes all positive effects.

* 95% confidence interval includes all positive effects.

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Methods

Data & Implementation. MCSD and Pioneer Valley Books provided administrative data for 2019–20 and 2020–21 for McREL’s analysis. In addition, implementation data were collected from the district regarding prior teacher training on literacy, guided reading, and use of Digital Reader to determine if the product was used as intended. McREL confirmed that 1st-grade teachers had received PD on Literacy Footprints prior to the pandemic.

Two groups of 1st-grade students were defined in the data: users (intervention, n = 301) and non-users (comparison, n = 919), where users are students who logged at least one session in the Digital Reader. All analyses were restricted to include only students with non-missing data for all outcomes and covariates of interest.

User & Non-User Baseline Equivalence. McREL reviewed student demographics, prior academic performance (2019–20), attendance, receipt of special education services, and English Learner status, and determined that the two groups met the baseline equivalence standard required to meet the What Works Clearinghouse group-design standards with reservations.

Regression models were used to account for the small differences in these measures between non-users and users. See Table 1 for further information.

For more information about this specific study or to request a copy of the full technical report, please contact:

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Table 1

Digital Reader Non-users (comparison) and Users (intervention) Groups by Characteristics and Prior Performance in 2019–20 Prior to Using Digital Reader.

Comparison Measures	Non-users	Users	Difference	Effect size difference
Student Characteristics				
Female (percent)	51.1	55.5	4.3	0.1
Race/ethnicity (percent)				
Asian	1.7	4.0	2.2	0.15
Black	35.0	39.2	4.2	0.09
Hispanic	11.0	16.9	6.0	0.18
White	46.9	33.6	-13.3	-0.27
IEP (percent)	15.6	11.6	-3.9	-0.11
English Learner (percent)	16.2	20.3	4.1	0.11
Exited English learner (percent)	1.0	1.0	0.0	0.0
Attendance in 2019–20				
Days attended, days	161.8	162.3	0.5	0.0
Days enrolled	174.0	174.1	0.1	0.0
Attendance rate	93.0	93.2	0.3	0.0
Academics in 2019–20				
ELA Fall, scaled score	343.0	337.1	-5.9	-0.2
ELA Winter, scaled score	379.0	377.9	-1.1	0.0
Sample size	919	301		

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