

Digital Literacy Strengthens Academic Outcomes and Student Engagement

Why It Matters for Students and Schools Nationwide

As instruction, assessments, and learning materials increasingly move online, digital literacy has become foundational to academic success. Research consistently shows that when students are taught how to effectively navigate, evaluate, and create in digital environments, math and reading outcomes improve — and students are more likely to remain engaged and present for learning.

Math and Reading Achievement



National research findings:

+4↑

Months Gain
in Reading

+6↑

Months Gain
in Math

- ✓ **51 studies** found students gained ~ $\frac{1}{3}$ of a year in reading and nearly $\frac{1}{2}$ a year in math* when high-quality digital literacy was embedded in instruction.
- ✓ **42 randomized controlled trials** showed additional 6–10 months of learning in both math and reading **when digital literacy was integrated** into core instruction.
- ✓ **Strongest gains** found for **underserved students**, helping narrow opportunity gaps.

Digital literacy does not replace traditional instruction — *it **amplifies the skills required by academic standards.***

Attendance and Engagement



Attendance & Student Safety



National data show that students who experience bullying — including **cyberbullying** — are significantly more likely to miss school due to fear or safety concerns.

16-27%↓

Decline in **Math**
Scores

3X↑

More likely to miss
school vs peers



CDC YRBS*



More than 1 in 4 bullying and cyberbullying victims (26%) reported school avoidance due to feeling unsafe.



Digital Citizenship correlates to reduced cyberbullying → improved safety → better attendance.

Digital literacy is not an add-on or enrichment activity. It is a **foundational academic skill** that strengthens math and reading performance, supports student engagement, and helps address absenteeism.

*CDC YRBS statistics on bullying/cyberbullying (2019); Farrington & Ttofi

Chauhan, S. (2017). A meta-analysis of the impact of technology on learning effectiveness of elementary students. Computers & Education, 105, 14–30.

Fariña-Sánchez, M., & Gutiérrez-Santiuste, E. (2020). Digital rights, digital citizenship and digital literacy: What's the difference? International Journal of Educational Research.

Evidence from Multiple States Shows Digital Literacy Is Associated with Improved Academic Outcomes

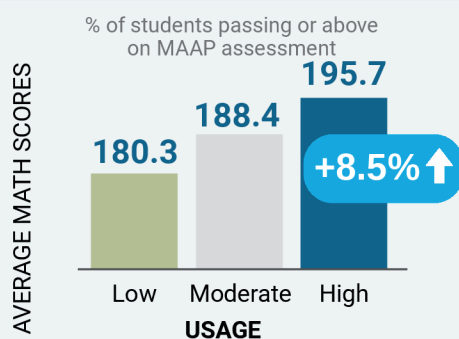
Summary of multi-state analyses using Learning.com program data and third-party evaluations (2018–2025)

Purpose

With increased prevalence of digital learning and online assessments, foundational digital skills are increasingly linked to student achievement. This summary synthesizes findings from multiple districts and state programs analyzing the impact of digital literacy instruction on key academic outcomes.

Key Findings

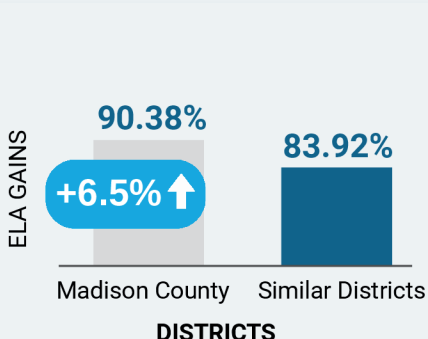
Consistent Learning.com Usage Linked to **Improved Math Scores**



Students with consistent digital curriculum scored higher on math tests.

District: Sault Ste. Marie SD (MI)
857 students; SY 2022–2025

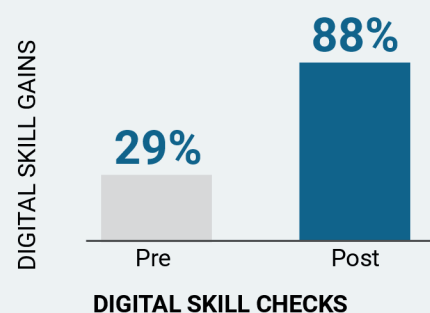
Consistent Learning.com Usage Linked to **Improved ELA Scores**



Madison County achieved literacy gains over time.

District: Madison County SD (MS)
SY 2018–2024

Consistent Learning.com Usage Shows Significant **Digital Skill Growth**



Students showed 59% average improvement in digital skills over the course of one year.

Palmetto Digital Literacy Program (SC)
3rd-party evaluation, SY 2024–2025

Why Digital Literacy Matters for Academic Outcomes

- Keyboarding and written response fluency
- Navigation of digital testing environments
- Interpretation of graphs, data, and multimedia texts
- Online research, evaluation, and synthesis

Foundational digital skills support success in online assessments and foster accelerated academic progress in both math and reading.

Data Sources

- District-level longitudinal analysis Sault Ste. Marie School District, MI
- Statewide program evaluation of Palmetto Digital Literacy Program, SC
- Longitudinal district analysis of Madison County School District, MS

Detailed citations available upon request.