

Carnegie Learning Publisher Response to IMRA Final Report

We extend our sincere gratitude to the Texas Education Agency, the review teams, and members of the public for their thorough evaluation of Carnegie Learning's supplemental instructional materials. We are honored to have participated in the State Board of Education's 2025 Instructional Materials Review and Approval (IMRA) process.

Research-Based Foundation and Proven Effectiveness

Our mathematics solutions are grounded in over 25 years of cognitive science research from Carnegie Mellon University. Our continuously enhanced flagship product, MATHia®, along with our innovative new solution, MATHstream™, represents the culmination of decades of research on how students learn mathematics most effectively.

In 2021, Student Achievement Partners released the EMERALDS (Exploring Math Education Relationships by Analyzing Large Data Sets) study, which demonstrated that MATHia usage in middle school led to significantly better performance in Algebra I, with particularly strong effects for underperforming students (Student Achievement Partners, 2021).

Our ongoing data reviews consistently show strong correlations between student performance in MATHia and state assessment scores, ranging from .40 to .80 depending on grade level and implementation fidelity (Fancsali et al., 2018; Ritter et al., 2013; Zheng et al., 2019).

Our effectiveness in Texas has also been particularly noteworthy. The Texas Education Agency partnered with us to provide the Texas Math Solution to districts across the state, recognizing our alignment with Texas Essential Knowledge and Skills (TEKS) standards. Districts implementing our solutions have achieved remarkable results on the State of Texas Assessments of Academic Readiness (STAAR). Muleshoe Independent School District experienced a 333% increase in students achieving "masters" level on the mathematics portion of the STAAR in just one year of implementation (Carnegie Learning, 2022). Similarly, Aldine ISD—one of Houston's largest districts where 91.6% of students face economic disadvantages—achieved a 100% pass rate on the Algebra 1 STAAR exam in their pilot program (Carnegie Learning, 2023).

For more information about our research and efficacy studies, please visit carnegielearning.com/research.

Product Strengths and Benefits

MATHia: Personalized AI-Powered Learning

MATHia leverages sophisticated artificial intelligence to provide truly individualized instruction. Unlike traditional adaptive software that adjusts problem-by-problem, MATHia analyzes learning at the skill level, examining each step students take to identify specific areas of struggle. This granular approach ensures students receive targeted support exactly where they need it, avoiding redundant practice on already-mastered skills while providing additional scaffolding for challenging concepts.

MATHia's detailed and predictive reports empower educators with actionable insights that connect daily learning to long-term growth. Grounded in years of classroom research and powered by artificial intelligence, MATHia® provides students with interactive problem types, such as graphing tools, drag-and-drop components, and dynamic number lines, that help them apply mathematical thinking in authentic, digital contexts. Teachers use MATHia data to identify where each student is on their learning path and tailor instruction to close gaps before they become barriers. Across Texas and beyond, students who demonstrate proficiency within MATHia consistently meet or exceed expectations on district and state assessments, underscoring the platform's proven ability to translate daily practice into measurable success (Carnegie Learning, 2024).

MATHstream: Engaging Video-Based Instruction

MATHstream represents a revolutionary approach to mathematics instruction through adaptive, interactive video lessons. Led by dynamic math influencers with millions of followers, including Robert Ahdoot (YayMath.org), Howie Hua, and Deidre Kelly, MATHstream transforms passive video watching into active learning experiences.

Recent implementation data from Spring Independent School District demonstrates MATHstream's impact: students improved from 20-30% passing rates on STAAR practice sessions to 70-80%, with individual students showing gains of nearly 90 points on state assessments (Carnegie Learning, 2024). The platform's immediate feedback system and game-based elements maintain student engagement while building deep conceptual understanding.

Supporting All Learners and Educators

Our solutions prioritize accessibility and differentiation to ensure every student can succeed. MATHia provides just-in-time hints, multiple representations, and linguistically appropriate supports for English language learners. MATHstream offers on-demand access to high-quality instruction, supporting students who need additional help and those ready to accelerate their learning.

For educators, our LiveLab facilitation tool—recognized as "Best Use of Artificial Intelligence in Education" in the 2019 EdTech Breakthrough Awards—provides real-time insights into student progress, enabling timely interventions and support. Comprehensive reporting systems, including Leadership Reports and formative assessment data, empower teachers and administrators to make data-driven instructional decisions.

Conclusion

We remain dedicated to leveraging cutting-edge research and technology to transform mathematics education. Our evidence-based approach, combined with engaging instructional design and comprehensive support systems, ensures that all students can develop into confident, capable mathematicians ready for success in college, career, and life.