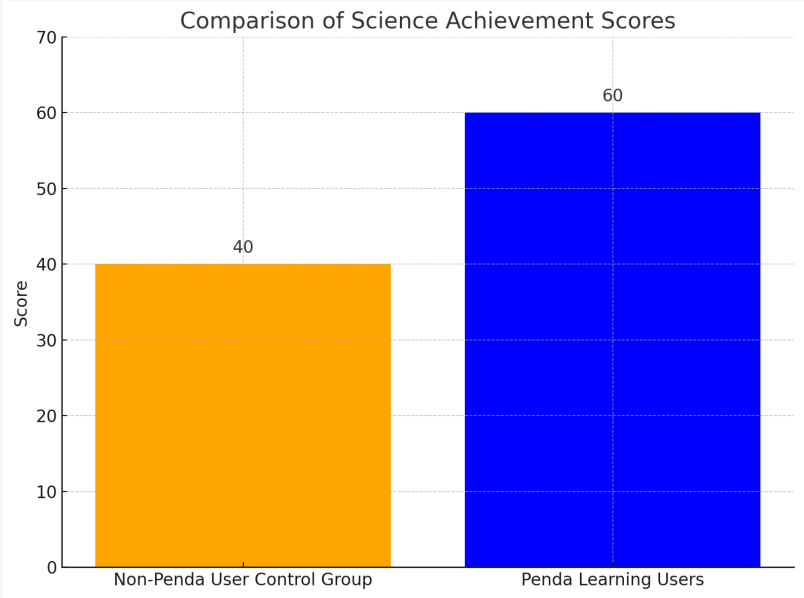
New Study Finds 20.7% Increase in Science Knowledge from Use of Penda Learning Platform

Research Presented at International STEM Education Conference Connects Science Mastery with Economic Growth

LOVELAND, CO, UNITED STATES, August 11, 2025 /EINPresswire.com/ -- A new “in press”, peer-reviewed study presented at the 10th Annual iSTEM-ED 2025 Conference in Thailand, sponsored by IEEE Education Society, reveals that students using the Penda Learning platform experienced a 20.7% increase in science knowledge compared to a control group, confirming the platform’s effectiveness in improving science outcomes across diverse student populations.



Penda Usage Comparison vs. Control Group

The study, titled “Science Achievement Gains from a Computer-Based Learning Platform: A Multi-Site Quasi-Experimental Study,” was conducted by Steve Miller, Ph.D., and evaluated science achievement across 46 schools using the NWEA Science MAP assessment. The research provides compelling evidence that integrating digital, standards-aligned, student-centered tools like Penda Learning can significantly enhance science education. The study not only confirms Penda Learning’s educational efficacy, but also explores how these gains translate into long-term economic impact for students and communities.

> These aren't just test score gains; this is about lifting communities through science education.”
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> *Brad Baird, President and CEO of Penda Learning*

"This research provides measurable proof that when students are given access to rigorous, engaging science instruction through platforms like Penda, they don’t just improve academically; they’re positioned for long-term economic opportunity," said Dr. Miller.

Science Gains Tied to Economic Outcomes

The study draws on research from the International Monetary Fund, which shows that a 10% increase in scientific knowledge correlates with a 0.2–0.3% increase in a local economy's GDP, due to enhanced productivity and innovation. It also highlights research on student lifetime outcomes, indicating that one classroom of thirty students performing one standard deviation above the average in science knowledge can generate over $1.6 million in additional lifetime earnings. With STEM occupations expected to grow by 10.8% over the next decade, the demand for science-literate graduates is accelerating.

"These aren't just test score gains; this is about lifting communities through science education," said Brad Baird, President and CEO of Penda Learning. "We're building a future-ready, STEM workforce, one classroom at a time. Educators tell us Penda is helping more students engage with science and achieve at higher levels."

Addressing the Science Time Gap

The study also sheds light on instructional time disparities: while students typically receive 2 hours of ELA and 1.3 hours of math per day, they receive just 0.5 hours of science instruction. Penda helps bridge that gap by delivering standards-aligned science content in an interactive, student-driven format that supports both classroom and independent learning. The research also proved that learning gaps between subgroups of students can be narrowed or closed with tools such as Penda Learning. The online tool combines high-quality science activities and assessments with cutting-edge gamification to help all students excel and demonstrate mastery of standards such as the Next Generation Science Standards or the Texas or Florida science standards.

Contact & Access

To receive a full copy of the published study or to explore how Penda Learning can support your district's science outcomes, please visit the Penda Learning website at www.PendaLearning.com.

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About Penda Learning

Penda Learning, a Learning 2020 company, is a leader in digital science intervention for grades 3-high school. Online activities and assessments have been hand-crafted to NGSS performance

expectations, as well as Texas TEKS and Florida SASS.

Built on three core pillars — proven pedagogies, gamified instruction, and automation to support teachers — Penda's mission is to make science learning engaging and accessible for all students. Our team of experienced educators, curriculum designers, and tech innovators work together to create solutions that are both pedagogically sound and technologically advanced so students can excel in science. At Penda, we believe every student deserves the opportunity to love science and to develop the skills needed to make a meaningful impact on the world.

For more information, visit www.PendaLearning.com

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