MIND Integrated Learning Solutions are Helping Students Succeed in Math

Since 2004, Cisco and MIND Research Institute have been working together to help improve student learning outcomes in math, especially in underserved communities. MIND develops innovative and engaging, research-based K-12 educational programs that teach students how to think, reason, and create mathematically.

Challenge

- Language barriers leading to poor performance in math
- Widening achievement gap in public schools
- Low levels of math proficiency in public schools
- Limited program delivery scalability

Solution

- Visual approach that enhances spatial-temporal reasoning abilities
- Programs targeted at students in lowest-performing school districts
- Engaging, self-directed programs that help students master key concepts
- Web-based delivery platform

Transforming Education Through Research and Innovation

Since 1998, MIND Research Institute has leveraged findings from neuroscience and cognitive learning research to design strategic and effective math education programs. Since studies have shown that students often master concepts visually before they can express them verbally, and language is often a barrier to mastering math concepts, MIND produces visual learning solutions that improve math proficiency and problem solving skills by activating students' innate, spatial-temporal reasoning abilities. Through this approach, MIND hopes to help all children, particularly those living in poverty, achieve their full potential.

Recognizing the value of MIND's highly visual, learner-centered, and interactive approach to learning, Cisco and the Cisco® Foundation have provided several cash and product grants since 2004 to help MIND expand their reach, increase the number of students who benefit from their programs, and support the professional development of teachers. As a strategic education partner, MIND recognizes the value of delivering scalable, research-based programs that incorporate technology into the learning process to improve student outcomes.

Award-Winning and Effective Learning Solutions

MIND's innovative math education process has been proven to dramatically improve math proficiency and overall problem-solving skills for all students. This process is delivered through self-paced, confidence-building computer software games such as the MIND ST (Spatial-Temporal) Math® program and the ST Math+Music®: K-5 program, which adds keyboard instruction to support the learning process.

MIND applies research and insights gained from their built-in performance tracking system to make their programs more effective, engaging and accessible These findings help guide the development of other learning solutions, such as Algebra Readiness, which combines textbook instruction and interactive computer games to help struggling students succeed, and ST Math: Fluency, a program that integrates animated learning tasks and descriptive feedback to help improve student recall of basic math facts.

In 2010, MIND launched an Integrated Instructional System that features more than 200 games from their award-winning ST Math program, embedded assessment capabilities, enhanced tracking and reporting of student learning patterns, and whiteboard compatibility. The system is designed to help educators integrate MIND's award-winning programs into their core lesson plans.

Impact and Future Plans

As of March 2010, MIND's programs reach more than 150,000 students and 10,000 teachers in 800+ schools in 22 states. Since 2004, they have grown 136 percent, and their annual growth average is 30 percent. Standardized test scores in 2009 showed that among more than 15,000 students participating in MIND's program at 64 low-performing schools, the percent of students who scored proficient or better in math increased by an average of 12.8 points in one year, compared to the state average of 4.5 points.

MIND received a grant from the Cisco Foundation to help them transition to an online delivery platform and scale their programs to more schools in the United States and beyond. MIND is also developing a web-based teacher training program that uses a game 'tree' technology to present content based on trainees' responses, and a volunteer program that will enable Cisco employees to facilitate the delivery of their integrated learning solutions.

For More Information

To learn more about MIND Research Institute, please visit www.mindresearch.net.