Pointers For Parents

Research Shows Web-Based Tutoring Means Better Math Scores

(NAPSA)—Ideally, all students would have access to one-on-one tutoring when they need it. In most cases, this ideal is neither feasible nor affordable, but advanced technology can give students a one-on-one experience through software- and Web-based learning tools.

"Technology has transformed the way students learn, especially when it comes to math. The emphasis has shifted from solving abstract problems to actively engaging in math through activities that increase understanding of concepts and apply math to the real world," explained Dr. Steve Ritter. Software like Carnegie Learning's Cognitive Tutor provides real-time feedback on how successful students are at solving problems targeted at particular mathematics topics and will not let students proceed to the next topic until they fully grasp each concept. Dr. Ritter notes that such "software programs recognize sticking points for students, the same as a personal tutor would, and provide problems and guidance until the student shows that he or she has mastered the skills being taught." This process provides students with benefits similar to those achieved in one-on-one experiences, which are known to drive improved learning outcomes.

The success of this approach to learning was demonstrated in a major experimental study conducted by the RAND Corporation. The two-year study was conducted with over 18,000 students across seven states, explained Dr. Ritter, who is the chief product architect for Carnegie Learning, Inc., a publisher of research-based mathematics software and textbooks for middle and high school students. Comparing students taught using Carnegie Learning's blended curriculum for Algebra I, which includes a combination of consumable textbooks and software, with those taught by traditional methods using only the textbooks that were already in use, students using the blended curriculum significantly outperformed students using traditional textbooks, nearly doubling the growth in knowledge of the textbook group.

Online tutorials can make math easier and more fun.

Individualized Web-based learning programs are continuing to evolve and provide more innovative learning opportunities. For example, Carnegie Learning's middle school software, MATHia, makes learning fun for children by letting them personalize their own math experience. Students can customize graphics and colors for their screen. They can add the names of friends and family to appear in math problems. They become more engaged because their math problems feature subjects that are most interesting to them, such as sports or music. More important, students receiving these personalized features learn more. Just like face-to-face interaction with a live tutor, online tutoring provides individualized instruction targeted to areas where students are struggling, as well as topics they are interested in, to keep children actively engaged with mathematics.

While current one-on-one tutoring is a complement to traditional textbook learning and in-class instruction, new developments in technology are making it possible to recognize noncognitive elements of learning, such as whether a user is bored or distracted, and how that impacts learning. Intelligent learning systems can then provide alternative ways to motivate students based on their attitude and feelings, just like a human, one-on-one tutor.

Learn More

For further facts, visit www.carnegielearning.com.