Training program for dealing with behavioral problems is available as iPhone application

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Behavior Breakthroughs is an interactive training simulation created for parents and caregivers of children and adults who display challenging behavior. Using game-based technology, users learn to effectively implement behavioral strategies and techniques. The simulation displays realistic images of a virtual child, Asa, engaging in challenging behaviors. The user chooses an intervention based on principles such as positive reinforcement and extinction. The child's behavior will become more or less agitated depending on the user's timing and choice. Credit: Southwest Research Institute

If you watch a child with autism, attention-deficit/hyperactivity disorder (ADHD), or even a typical child engaging in disruptive behavior, would you know how – and when – to intervene effectively?

Parents, teachers and professionals who care for children with these challenges and are seeking assistance will be glad to learn that now there's an app for that.

Behavior Breakthroughs, an interactive program developed by Southwest Research Institute (SwRI), uses game-based technology and 3-D imagery to help train people who work with children and adults with behavioral problems. Level 1 of the program is available now as an iPhone app, to be followed later this year by more extensive PC and Mac-based versions.

"This program takes game-based learning in a new direction, providing direct, practical help for parents and care-givers based on sound science and the advice of leading psychologists," said Roel Almendarez, a senior research engineer in SwRI's Training, Simulation and Performance Improvement Division. "It marks a key expansion of our extensive experience with developing training programs for military and industrial clients. It takes game-based training into a whole new arena," he said.

"The goal is to provide parents and caregivers with an opportunity to learn and practice the use of 'positive reinforcement' and 'extinction' techniques to encourage behavior they want to see increase and reduce behavior they want to see decrease," said Dr. Cheryl Fielding, a board certified behavior analyst and associate professor in The University of Texas-Pan American's (UTPA) Educational Psychology Department.

Behavioral interventions based on the principles of Applied Behavior Analysis (ABA) have been shown to be effective in addressing the needs of children with autism, attention deficit hyperactivity disorder (ADHD), and other related disorders. Credit: Southwest Research Institute

The program is based on the principles of Applied Behavior Analysis (ABA) and over 40 years of empirically validated research that support the outgrowth of behavior intervention strategies developed by professional psychologists and educators.

"It provides an environment in which caregivers learn to effectively implement proven behavioral strategies and techniques," Fielding said.

As users of the application progress through the program, which features a simulated boy named "Asa," they will master different ABA skills at

each level, including the use of behavioral techniques such as shaping, chaining, correction, discrete trial, prompt fading and errorless teaching.

Behavioral Breakthroughs also provides an introduction to psychologist B.F. Skinner's analysis of verbal behavior and techniques to teach the mand (request), tact (label), mimetic (imitation) and intraverbal.

Provided by Southwest Research Institute