

Behavior Training

An SwRI-developed training program for dealing with behavioral problems is available for home computers or as an iPhone application

Every day, in homes and at schools and daycare facilities, parents and professionals are faced with how to effectively supervise children with disorders that impact behavior, such as autism, attention-deficit/hyperactivity disorder (ADHD), as well as typically developing children who engage in disruptive behavior.

To build skills in dealing with such activity in the real world without risk of real-world consequences for errors, they can now use a learning tool that employs trial and error to teach some advanced behavioral techniques.

Behavior Breakthroughs™, an interactive program developed by software engineers and training and simulation experts at 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 as an iPhone application, and the entire six-level program is available for use with both PCs and Macs.

The program, which leverages interactive game-based learning technology, provides direct, practical help for parents and caregivers based on science and the input of leading psychologists. The goal of Level 1 is to provide an opportunity to learn and practice 'positive reinforcement' and 'extinction' techniques to encourage desired behaviors and reduce the frequency of undesired behaviors.

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



A simulated boy named "Asa" exhibits behaviors to which users must choose a response.



Behavior Breakthroughs uses sophisticated simulation software to model and display a child's behavior based on interventions selectively applied by the user. This simulated environment immerses users in a variety of scenarios that enable them to experience and learn from the consequences of their actions.

Caregivers learn to effectively implement proven behavioral strategies and techniques. As users progress through the program, which features a simulated boy named "Asa," they will master different skills derived from the science of ABA at each level, including the use of behavioral techniques such as shaping, chaining, correction, discrete trial, prompt fading and errorless teaching. Behavior Breakthroughs also provides an introduction to psychologist B.F. Skinner's analysis of verbal behavior and techniques associated with teaching requesting (mand training), labeling (tacting), imitation (mimetic) and back-and-forth conversational skills (intraverbals).

The simulation displays realistic 3-D images of a virtual child engaging in challenging behaviors. The user is required to choose the best options from a list of possible choices. The child's behavior will become more or less agitated, depending on the user's timing and choices. As users progress through the training, they are engaged in more challenging scenarios to further develop their skills and intuition.

The goal is to provide parents and caregivers with an opportunity to learn and practice reinforcing skills for behaviors they want to see increase and to use extinction to reduce rates of behaviors they would like to see decrease. To progress, the user has to master different skills at each level.

By interactively applying interventions in simulated scenarios and immediately experiencing the consequences, users can quickly learn the recommended techniques and timing necessary to potentially reduce the rates of behavior such as tantrums or self-injury, in a variety of real-world, everyday situations.

For more information on Behavior Breakthroughs, see the following: <http://www.swri.org/press/2011/behavior.htm#ixzz1CnjQeey> or www.behaviorbreakthroughs.com or send an email to behaviorbreakthroughs@swri.org

The full version can be purchased from Amazon at <http://www.amazon.com/gp/product/B004X6UGBK>. An abbreviated version of the app is available from iTunes as a free download at <http://itunes.apple.com/app/id418987677>. Facebook and Twitter links are, respectively, <http://www.facebook.com/behaviorbreakthroughs> and <http://twitter.com/bbthroughs>.