

Education and learning aids are cognitive software that focus on categorization, matching, association, reasoning, decision making, problem solving, memory skills, perceptual skills, talking word processing, word prediction/completion software, cognitive retraining or rehabilitation tools.



When a child is not learning it can be an extremely difficult challenge in figuring out the best way to help him or her. When that child has a disability, the task is even more frustrating. However, more and more products and services are finding their way into classrooms and homes, changing education for people with disabilities.

Karl Smith, for example, has a child with autism and chose to meet his son's significant learning needs by creating a unique software program. As a software developer and electrical and computer engineer with a background in counseling, tutoring, military, and research/development of artificial intelligence, Smith

learned there were research-based methods available to teach individuals with autism and other learning disabilities - that it may take a lot of intensive work, but these children can learn. The problem with the intensive methods was that they required a lot of costly adult staff time. Karl quickly determined that technology could fill the gap and help deliver part of the education inexpensively if the individual could use the programs independently. Unfortunately, this kind of software did not yet exist, so he created a program called the DT Trainer, initially for his son, but then founded Accelerations Educational Software (AES) to help other

individuals as well. He continues to incorporate feedback from a community of researchers, parents, educators, and therapists to help his program evolve.

Karl was a man with a mission to make an effective and affordable program that would help as many kids as possible. His first company office was a room over his garage and has since grown to an office in downtown Columbia, South Carolina, where AES is a part of the University of South Carolina Technology Incubator.

What to Look for in a Learning Aid

Karl employs a hardworking team of developers and support staff who ensure that they are creating a product that really works – a team that knows what’s important in a learning aid. The DT Trainer is a large software package of many learning content programs that target the needs of individuals who are developmentally two to nine years old. The program is based on behavioral psychology principles and allows even very low functioning individuals to become independent learners. Karl’s product, like many other learning aids available, fulfills key criteria in this area. When selecting a learning aid the AES team recommends that it:

- Controls the stimulation to insure that inappropriate behaviors or incorrect responses are not inadvertently reinforced.
- Provides complete control over the frequency of reinforcement.
- Contains a large variety of reinforcers and allows users to add reinforcers, such as personal photos and favorite websites.
- Allows the user to change the number of and the specific reinforcers at any time.
- Can start by giving the learner only the correct answer to select.
- Combines two methods of prompting and prompt fading.
- Can start the learner at any point in the training sequence.
- Is structured to keep the student from getting stuck.
- Is designed for independent use by even very low functioning individuals.
- Provides defaults for teaching options but allows user to change as required.
- Uses a clean teaching environment and photo icons.

Learning aids can teach essential learning skills by simply presenting a child with a verbal direction (stimulus) and answer choices. On the DT Trainer for example, correct responses are followed by a motivating reinforcement. Incorrect answers are never reinforced, but are always followed by the correct response and another opportunity to try again. Success comes when children, even our most struggling learners, are able to work independently without a hovering adult. Learning aids can take a child from a place where he cannot fail and move him ahead at an appropriate pace based on his responses. For some children, the time they spend working at the computer is one of the few independent tasks they are able to complete.



Education and Learning Aids

How Can Learning Aids Help My Child?

Many children with special needs also have specific learning issues and need more than a one-size-fits-all approach. The right software should be a virtual one-to-one tutor that is highly configurable and can be adjusted for your child's specific needs where you can then create your child's learning program by selecting appropriate content programs, choosing reinforcers that will interest your child, and setting the length of the work session.

Dr. Debbie Coggins, Assistant Director of Special Student Services for Cobb County Schools in suburban Atlanta, is a huge supporter learning aids, specifically the program created by Karl. "We have the DT Trainer on over 200 classroom computers in our district," Coggins explains. "It does an incredible job of teaching a wide range of students and is especially powerful because students learn

independently as a part of their total academic program. The National Research Council states that ABA-based programs have the best research-supported outcomes."

So many products in special education are either very expensive or are very limited. As a father, Karl wants other parents to know that there is affordable software available that can have a great impact on learning for children with disabilities. •

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