Resources and Connections:

Enhancing the Quality of Early Learning and Early Intervention for Infants, Toddlers, & Their Families

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A monthly compilation of useful resources to help keep you up-to-date on the latest information and opportunities supporting quality practices in early learning and early intervention. Read the details at the end of this issue to request a ***FREE*** monthly subscription. An online version of can be viewed at: http://www.cde.state.co.us/earlychildhoodconnections/Technical.htm

In This Issue

Special Focus Issue:

Assistive Technology for Infants and Toddlers

What is assistive technology (AT) for children?

Assistive technology is any item that helps increase the independence and functioning of a child. This item can be adapted or purchased off the shelf and includes thousands of items from simple adaptations such as thick-handle utensils to more sophisticated devices such as wheelchairs, standers, communication devices, and many others. Toys purchased at local stores are often adapted to help children with vision, hearing, communication, or motor difficulties play more independently. Assistive technology is also any service that assists children and their families to select, acquire, and implement appropriate adapted equipment. These services are available from a variety of sources discussed later. Services include the assessment process, selection of AT and the training after the technology is acquired. Children who benefit from AT are those with communication, motor (fine and gross), hearing, vision, and/or cognitive challenges. AT can facilitate the major areas of development that include cognitive, social-emotional, communication, and sensorimotor domains.

What are some resources to fund AT?

Funding assistive technology for a child depends on what organizations the child or family is involved with. Some typical funding sources are community organizations, insurance companies, Medicaid, Health Care Program for Children with Special Needs, Community Center Boards or a community's federal Part C payor of last resort funds. Typically an evaluation needs to take place and paperwork specific to the organization needs to be submitted. When it comes to funding assistive technology, it is important to examine the organizations the family is currently involved with, know what adaptations or equipment they will fund, and identify other organizations that the family is eligible to access. For more information regarding funding resources available in Colorado, contact Assistive Technology Partners at (303) 315-1280 or 800-255-3477 (in Colorado).

[Adapted with permission from *Assistive Technology for Early Childhood* by Assistive Technology Partners. To read this article go to: http://www.uchsc.edu/atp/library/fastfacts/AT_for_early_childhood.htm

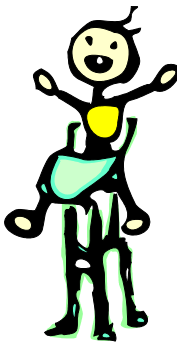
Why use AT with Infants and Toddlers?

Why choose assistive technology, especially "High Tech" for such tiny children as infants and toddlers? One reason is because it can give them a lifetime of capability, an early and lasting sense of competence, and tools for real inclusion in school, play, work, and recreation. We know that early learning supports not only skill and cognitive development, but also development of confidence and feelings of capability that lead to development of self-esteem. There is an old concept that children with disabilities learn a sense of helplessness when they are not able to engage in successful learning experiences, or productive relationships during the early years. Assistive technology can change all that if chosen early when learning really counts for promoting lifelong achievement. A young child who can make a toy train run, play pictures and music on computer with a friend, or call “mommy” to come to her begins life with a sense of capability that carries over to being a full participant in her preschool cooperative learning group, and neighborhood play group. A child who knows the power of full participation in life can begin to set her own goals for an IEP, or dream about a higher education experience, a satisfying job, and great relationships.

In summary, little children grow up, and take the skills and sense of self learned in early childhood with them. Early childhood and early intervention practitioners need to incorporate assistive technology into their practices as early as feasible. As children grow up, they will take the lead in promoting their own inclusion as competent, confident participants in a technology-based world of work, play, and everyday living.

AT Tips You Can Use

Assistive technology often means "low tech" adaptations, or equipment, especially for infants and toddlers. Low-tech adaptations assist children and their families to participate successfully in everyday routines and activities. Physical Therapists Heidi Eigsti and Lisa Swenson with ENRICH Outreach at JFK Partners offer a few low-tech examples below.



High Chairs: When choosing a high chair for a baby, be sure the seat depth matches the length of the baby's thigh from the back of the buttock to the knee. If the seat depth is greater than recommended, you can purchase a High Chair Helper or place a firm pad behind the child’s back. The High Chair Helper (about $17) helps reduce the depth of the seat, and provides support for the child's trunk. The high chair tray should be at the level of the baby's elbows when the elbows are bent and the shoulders relaxed. If the tray is too high, which is usually the case; simply place a firm pad under the baby’s bottom to raise the baby up to the appropriate level. While seated, the baby's feet need to be supported on the footrest. If the footrest cannot be adjusted enough it should be built up to reach the baby's feet. If you want to encourage independence with a toddler, look for a highchair in which the seat can be lowered so that the child can climb in and out independently, or with minimal assist. And remember the importance of a seat belt; not only for safety reasons, but also for good positioning. The belt should be attached firmly across the hips to hold the child's hips against the back of the chair. If the child’s hips slide forward easily, sitting on rubber maid shelf liner will help create friction and reduce slip.

Bath: For bath assist, look for a Safety First 4-in-1 bath seat (about $20) at Wal-Mart. It provides effective support with flexibility from infants to children needing minimal support.

Household items: Low tech adaptations can be constructed from ordinary household items foam rubber, contact paper, rolled up towels, small boxes, and hundreds more. Look around to find the treasures right within your reach. Other low-tech solutions, like the equipment described above are available for all children at your local children's or household store.

Research Brief

Glickman, L., Dietz, J., Anson, D., & Stewart, K., (1996). The effect of switch control site on computer skills of infants and toddlers. American Journal of Occupational Therapy, 50, 545-553.

The purpose of this study was to determine whether switch control site (hand vs. head) affects the age at which children can successfully activate a computer to play a cause-and-effect game. The sample for this study consisted of 72 participants randomly divided into two groups (head switch and hand switch), with stratification for gender and age (9-11 months, 12-14 months, 15-17 months). All participants were typically developing. After a maximum of 5 minutes of training, each participant was given five opportunities to activate a Jelly Bean switch to play an age-appropriate computer game. Competency was defined as four to five successful switch activations. Most participants in the 9-month to 11-month age group could successfully use a hand switch to activate a computer, and for the 15-month to 17-month age, 100% of the participants met with success. By contrast, in the head switch condition, approximately one third of the participants in each of the three age ranges were successful in activating the computer to play a cause-and-effect game. The findings from this study provide developmental guidelines for using switches (head vs. hand) to activate computers to play cause-and-effect games, and suggest that the teacher, or clinician consider introducing basic computer and switch skills to children as young as 9 months of age. However, educators and clinicians are cautioned that the head switch may be more difficult to master than the hand switch and that additional research involving young children with motor challenges is needed.

Editorial comment: This research supports use of computer technology through switch access by very young, typically developing children. Knowing that very young children can engage in cause-and-effect activities with computers, particularly with specific switch placement, can help families, teachers, and service providers develop effective means for teaching very young children with developmental and learning challenges to use computer technology effectively. In addition to using research to determine things like switch placement, providers need to use a family-centered approach to make decisions WITH families regarding the introduction of technology into their lives, and the ways in which their child will access the technology.

☞ *Spotlight on AT Resources*

Colorado's Assistive Technology Partners suggests several useful websites that discuss assistive technology and children, among them:

The Alliance for Technology Access http://www.ataccess.org/resources/wcp/endefault.html

Provides information on how to adapt toys for children with disabilities.

Assistive Technology Partners http://www.uchsc.edu/atp
Provides a wealth of information and resource regarding how and where to receive AT services.

Closing the Gap http://www.closingthegap.com
Has interactive forums and provides information on alternative communication products.

Let's Play Project http://cosmos.buffalo.edu/letsplay/AT/at.html

Offers ideas about enhancing play opportunities to children including assistance with positioning, mobility, communication and toys. See the review on the next page.

Simplified Technology http://www.lburkhart.com

This site provides useful information from hands on information to web and vendor resources.

On the Web

Let's Play Project

http://cosmos.ot.buffalo.edu/letsplay/

"Few will argue the critical nature of play in the lives of children. The literature is replete with reports documenting the importance of play, and playful interactions, in the development of cognitive, social-emotional, fine and gross motor, and language skills for typically developing children. In spite of this, play is often absent or minimal in the lives of young children with disabilities. The elements that make play playful are often missing. This apparent mismatch between the importance of play on development and the lack of play opportunities for children with disabilities is quite disturbing. *Let's Play!* was undertaken to re-instate play as a strong focus in the lives of young children with disabilities, and to do so with the support of assistive technology. The project has found that assistive technology (AT) is useful in bringing play back into the lives of very young children with disabilities, by providing them supportive access to toys and play materials. The model has identified the "how to's" in the application of low-tech assistive technology to support the play outcomes of the birth to three year old population of children with disabilities, in their natural environments."
(adapted from the *Let's Play* web site).

The Let's Play Project's web site is just about "one-stop shopping" for information about play and assistive technology for young children with disabilities. The web site is packed with useful resources for parents and professionals in early childhood and early intervention programs. The site contains products, guidelines, checklists, reference lists, case examples, links and many more resources that were developed through the Let's Play! Project. You'll find a wealth of strategies and supporting materials useful when considering play options for young children with disabilities. The products are in Adobe Acrobat (pdf) format (Note: If you have problems printing or viewing our the documents visit their useful PDF Help Page.)

Some highlights of what you'll find at the *Let's Play Project* web site:

Playing with Switches: A booklet on using battery-operated toys and games with single switches provides a wide range of play opportunities for children with disabilities. The booklet offers suggestions for selecting and using switches for play and communication purposes.

How We Play!: A Play "calendar" intended to assist parents with babies with disabilities and the individuals who provide them with Early Intervention services, by encouraging play in the child's life.

Creating Play Environments: This guidebook offers background information and specific "How To's" for promoting independent active exploration and play within daily family routines.

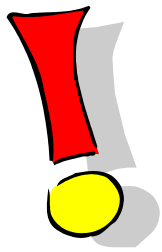
Look around the site for these resources:

- Guidelines for Professionals Using AT with Families
- Check Sheet for Family-Directed AT Assessments
- AT Devices and Services: Federal Definitions
- Child Positioning Low-Tech Supports
- Switches and Switch-Toy Vendors
- Early Communication Devices
- Toy Characteristics Sheet
- Adapting Toys Fact Sheet/Vendors
- Toy Catalogs for Children with Special Needs
- Links to other resources

The *Let's Play Project,* at the University at Buffalo, Center for Assistive Technology, is a model demonstration project funded by the US Department of Education.

SPECIAL NOTE: Let's Play Project Director Susan Mistrett will be a featured speaker at the 2002 Early Childhood Institute on October 17-18 in Vail!

Upcoming Events



Assistive Technology and Early Childhood Workshop
June 14th, 1:00 p.m. – 4:00 p.m. in Denver.
This workshop is designed to give participants ideas about simple assistive technology solutions to help young children be successful in walking, talking, playing and daily activities. Registration is $42. Sponsored by the Colorado Assistive Technology Project. For more information, contact (303) 315-1283.

Service Coordination Core Training
Four-day program: June 11-12 and July 9-10 in Denver. Call Melissa Garner at (303) 866-6710 0r email at garner_m@cde.state.co.us

The Culture of Childhood Early Childhood Care and Education Summer Symposium
July 17 and 18, 2002 at the Beaver Run Resort in Breckenridge. This year's general theme will be "Language and Literacy." Registration paperwork is now available - email Nan Vendegna at vendegna_n@cde.state.co.us or Juanita Kirkpatrick at kirkpatrick_j@cde.state.co.us

Colorado's 11th Annual Early Childhood Institute: Celebrating Quality Practices in Assessment and Service Delivery
October 17 &18, 2002
Vail, Colorado New this year!: Pre-Institute Workshops on October 16, 2002

Lastly, the **Early Childhood Activities Calendar** is a useful source of information on training opportunities and other events: www.cde.state.co.us/earlychildhoodconnections/calendar/Cal.htm

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Contact Us…

Resources and Connections is published by Early Childhood Connections at the Colorado Department of Education and JFK Partners, University of Colorado Health Sciences Center. We invite you to contact the editors with your questions and suggestions.

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