



Early Childhood Education & AT: A Tool, Not a Crutch

In this Issue...

Can children be too young for assistive technology? Some educators and parents fear that the introduction of AT into the life of a very young child with a mild to moderate disability may result in its use as a crutch by the child, causing innate abilities to atrophy further. Yet professionals are proving that AT, far from further weakening a child with disabilities, can in fact act as an equalizer tool by enabling the child to participate in activities and interact with materials in ways that would have previously been impossible. This discovery serves to reemphasize the role of early childhood education as a period in a child's life when missed learning opportunities may result in delays in cognition, communication or social development. This issue of the Family Center on Technology and Disability newsletter examines the role of assistive technology in early childhood education and the resources currently available to facilitate its use.

Linda Robinson Speaks

Currently the Assistant Director at the Center for Best Practices in Early Childhood, Western Illinois University, Linda Robinson has spent 26 years as an expert in early childhood education. But it wasn't until late in that time span that her ninth grade son was diagnosed with an anxiety disorder that would leave him house bound through his high school years. "Before that, I didn't have any direct experience as a parent in what had to be done to get a child's special needs met. When my son entered high school I realized

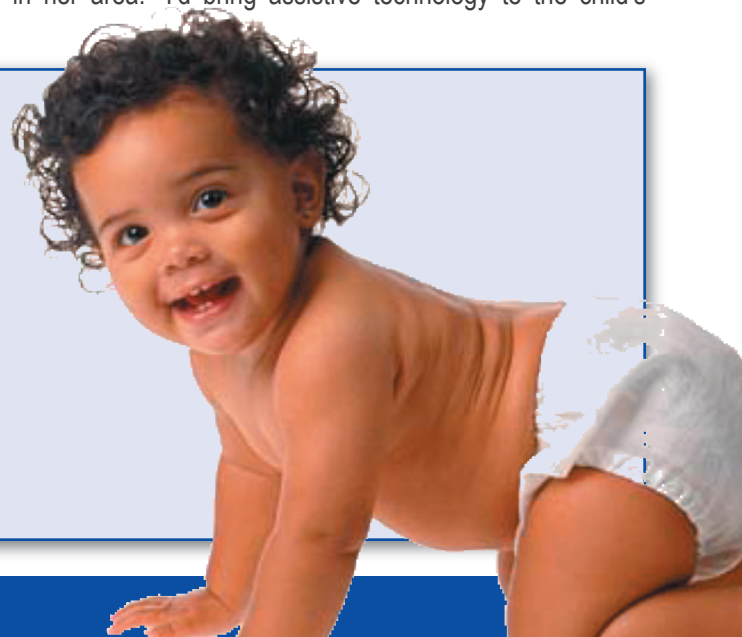
that I was suddenly the parent of a child with a disability. Since then I've gone through the entire process, including IEP hearings, from a parent's perspective."

Fortunately, she says, "my son's school was very supportive and provided everything he needed. He was even assigned a tutor because his disability prevented him from physically going into the school." He had the tutor throughout high school. During that period, she recalls, "like any parent of a child with disabilities, I was working constantly with the school on his behalf."

Her initial experience in early childhood education, she remembers, was as an evaluator for an outreach project at Western Illinois University aimed at children from birth through three years of age. In 1983, she helped write a grant for a project that examined how technology could be used with young children from birth through age six. WIU's Center for Best Practices in Early Childhood Education, she notes, was among the first projects nationwide to employ technology with that age group. "I learned how to use the technology," she says. "We had to teach ourselves since no technology training was then available, nor did degrees in educational technology yet exist."

She conducted home visits with children from birth through three years in her area. "I'd bring assistive technology to the child's

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home. It was a very compelling experience to work with kids to test out various technologies, of which there weren't too many back then, and to adapt materials for children in ways that had not been attempted before."

After earning an undergraduate degree in sociology and dietetics from WIU, she moved through a Masters program, also at WIU, in early childhood education. While studying for her Masters she was employed by the university's early childhood education center where she worked on several projects. "We had a model demo for technology assessment, which enabled me to collaborate closely with families and children as a team member to assess children's technology needs." She also worked on a project aimed at utilizing technology to enhance literacy.

Linda now co-directs the center's online training project, which has removed her from working directly with children. "Yet it's exciting because it's a new method of training. We're reaching many families and individuals via the online workshop whom we would not ordinarily reach." She gets phone calls inquiring about the online training program from as far away as Alaska and Hawaii as well emails from parents and educators who love the online concept, which enables online workshop participants to earn professional development credits.

She also serves as an adjunct faculty member in the center's instructional design and technology department. "I've taught an AT class for the past six years to undergraduate education students," she says. "That's a new audience for me and it's exciting for me to know that these students will be entering the field with a new awareness of how they can help children learn in ways that are unavailable through their other coursework."

Supporting our interview with Ms. Robinson are resources to assist parents, educators and others in further understanding the vital role played by AT in early childhood education. We also feature members of our Knowledge Network. The members spotlighted this month focus on various aspects of early childhood education aided by the use of assistive technology. We invite you to contact these members for further information.

Please share this newsletter with other organizations, families and professionals who may benefit from it. We invite you to contact us at <http://www.fctd.info>. We welcome feedback, new members and



AT & Early Childhood Education: Capturing the Teachable Moment

An Interview with Linda Robinson, Assistant Director, Center for Best Practices in Early Childhood, College of Education, Western Illinois University

Linda Robinson recalls a home visit to a visually impaired nine-month-old girl. "Her family didn't know how to provide her with the type of stimulus that she needed to make developmental gains. I brought a vibrating pillow, a battery interrupter and a homemade mercury switch on a headband. She was lying in her bed with her pillow at her feet. When she moved her head she was able to feel the vibration and she'd laugh. Her mother said that that was one of the few times she'd ever heard her daughter laugh. I knew then that the significant role AT could play in young child's life."



Linda Robinson

Is assistive technology a crutch for very young children with disabilities, or a tool? Parents and educators come down on both sides of the question. The anti-AT contingent believes that early use of technology can actually worsen the impact of a disability over the long term. AT adherents, on the other hand insist that the opposite is true, that the so-called crutch is in fact a versatile tool. At the heart of the disagreement are two additional questions: When is the optimal moment to introduce AT? Exactly what are the benefits of early use? What role does the nature of the child's disability play in making that decision?

AT: The Versatile Tool

Linda Robinson is pro-early AT use. "As a versatile tool AT can help a child participate in activities and interact with materials in ways that may otherwise not be possible." Early childhood, she declares, "is an especially important time in a person's life when missed learning opportunities may mean delays in cognition, communication or social development."

The Western Illinois University Center for Best Practices in Early Childhood, she explains, has used AT with children for the past 23 years. "Our philosophy is that children need to be able to interact with materials and people in their environment. They need to be able to play and if they need assistance with this through technology than that assistance ought to be provided."

Unfortunately, she adds, "some professionals think that children from birth to age six are too young to need AT. They think that children will have time to catch up during the school years." However, she

claims, research shows that children benefit from early intervention and may not need further assistance later in life if they're provided with AT when they're young.

For example, she points out, "our center's director, Dr. Patricia Hutter, had an age 0-3 years model demonstration project back in the late 1970s through which we provided home visits to toddlers with disabilities and their families. The children made significant gains when they were provided with appropriate materials and activities. Later, when technology became available, we helped families make simple adaptations for children."

Capturing the Teachable Moment

According to Linda, the optimal time to introduce AT is the first teachable moment. "In education we talk about the 'teachable moment' when the timing's right for the child to learn either due to the child's own curiosity or to some element in the environment that triggers the perfect timing. If the child has the opportunity to have AT then he or she will be ready to take advantage of those teachable moments. Otherwise the child will miss those opportunities."

Disability plays a role in determining that moment "in that the need for AT may be identified earlier with the child who can't communicate or use his/her hands to handle books or to hold other objects." That child, she explains, "is the one who obviously can benefit from the use of AT. However, our philosophy here at the center is that other children can benefit as well at a young age and AT can act as a scaffold to help them get to the next level of development."

AT or Not? It Depends on Perspective

How prevalent is the view among educators that AT lacks utility for children with disabilities prior to age six? According to Linda, the answer is dependent on an educator's perspective.

"There's a furor among childcare organizations about this issue as reflected in the Alliance for Childhood study entitled Fool's Gold: A Critical Look at Computers in Childhood, which addresses technology, if not AT per se." The study, she asserts, does not believe that there is a place for technology in general in a very young child's life. AT, however, is a different issue, she acknowledges. "There are probably not many individuals or organizations who would deny a child access to AT at a young age."

She adds, though, that there might be some reservations about using a higher tech form of AT. "The use of AT by very young children is not as controversial as technology in general. Perhaps doctors or other professionals might prefer that some very young children wait until later for AT in the hope that the child might grow out of his/her condition."

Remember, she cautions, "that AT does not connote high tech. AT

can consist, for example, of a relatively simple device that helps a child turn the page of a book. Almost no one would deny a child the use of a device like that. A more complex and expensive device, however, might attract some hesitation before age six.

Does the Absence of a Trained Teacher Limit the Effective Use of AT?

The majority of children in the 0-3 range spend most of their day either in home or childcare settings in which there may not be a trained teacher or therapist, does this limit the effective use of AT? Not necessarily, Linda says.

"Although training is needed by family members or professionals to ensure that AT is being used with optimum effectiveness by the child, simple adaptations can be made in the materials used and in the environment to benefit the child." This approach, she explains, "could include adaptation to a book so a child can turn its pages easier. Such a device does not require a lot of training but it does require an awareness of the adaptation and its potential use."

There are resources available for families, she points out. "Recently, I've been involved in the development of the TAM Technology Fan for young children that's distributed by Council on Exceptional Children's (CEC) TAM (Technology and Media) organization." The technology fan, she explains, is a set of cards that lists adaptation and technologies that can be used during a child's natural routine throughout the day, either at home or at school."

The TAM consists of simple ideas that can be used during playtime, bedtime, early reading, early writing and expressive arts. There are also suggestions for positioning, mobility and hearing. "These adaptations could be used by families in combinations with other suggestions from professionals."

There are other resources, too, that families can access if they don't have training available. "Our Center for Best Practices has written materials, online workshops, video tapes, DVDs and even a monthly webcast called Apples Magazine that can be accessed by families."

In February, she notes, Sandy Ginter, one of the center's family resource specialists, assembled a 30-minute show on AT as an inclusion tool. "Sandy provides the family perspective and discusses the law as it relates to AT. I provide suggestions for universally designed materials and strategies to use in



the early childhood centers. This show is available online as a webcast via the center's state funded project, StarNet."

Although the topics for the webcast address technology, she says, they also cover timely issues in which families would be interested that relate to young children with disabilities. The webcasts can be accessed 24/7 by families and educators at <http://www.wiu.edu/users/starnetv/mov/apples.html>. "These are just a few examples of the resources that families can access when training is not available and use in conjunction with professionals."

Assessing a Young Child with Limited Communication Skills

Young children with limited communication skills can be effectively assessed for AT, Linda notes. To achieve the best possible assessment, she advocates a team approach with family members as an integral part of that effort. "The team should investigate the child's strengths and build on those. The key is to start with the basics and make sure the child is successful."

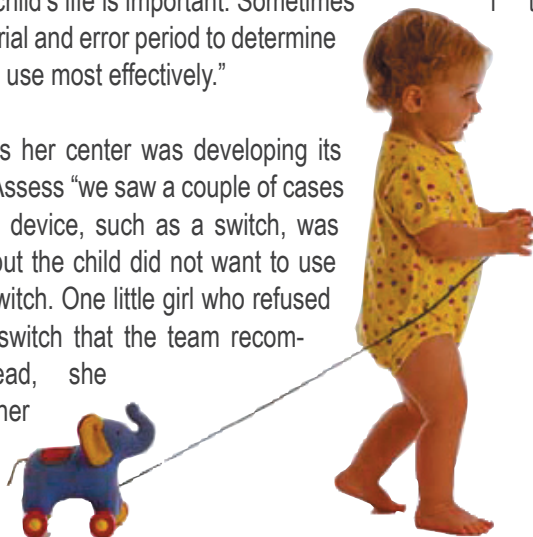
Consideration, she says, should be given to positioning and equipment placement. "Many communication options are available, from low tech to high tech. If a communication or other device is needed then the child's physical ability to activate that device needs to be assessed along with cognitive and perceptual skills, including visual discrimination and visual motor processing."

If a child needs scanning to communicate, another set of skills related to visual or auditory scanning must be assessed. "Our center has developed an observational instrument called Tech Access, which is used to assess the child's technology. We list motor, cognitive and perceptual skills that must be assessed in order for a child to use a communication device or an ultra net input message to the computer."

Children Can Participate in AT Choices

Young children have definite preferences about using specific equipment or materials, Linda explains. "To find the right match of equipment to a child's life is important. Sometimes it requires a long trial and error period to determine what a child can use most effectively."

During the years her center was developing its model for Tech Assess "we saw a couple of cases where a certain device, such as a switch, was recommended but the child did not want to use that particular switch. One little girl who refused to use a head switch that the team recommended. Instead, she wanted to use her hand to activate a big red



switch or wheelchair tray. Although her choice did not appear to work as effectively as the team's, the choice was hers and the team had to respect that. For her, using that switch even part of the time was better than not using it at all. Children definitely have a voice in the technology they want to use."

If the device or switch for which a child indicates a strong preference is available, "I'd let the child try it. I may then slowly introduce an alternative that I believe might be easier for the child to use. Nevertheless, the child deserves the chance to see if his/her way will work."

"The little girl in question could use her head, which seemed to be a more reliable movement. She could also use her hand since she preferred to use her hand. It worked out OK for her. Sometimes when the team is assessing the child it looks at him/her at one point in time and at that time the child may have developed some skills and the child is determined use a particular device. Maybe he/she will have developed sufficient skills to use the device they prefer."

The IFSP, IEP and AT: What Should Families Be Aware of in Transition?

An IFSP (Individualized Family Services Plan) focuses on a family's goals, desires and needs in relation to a child's needs. According to Linda, "when AT is written into the IFSP, it's usually included in the family's routine and used to meet the families goals for the child. For example, if one of the stated IFSP goals is that the child will be able to play independently, then it may be written that the child will use a switch with a toy at home and the family will be provided with the assistance to do that." An IFSP team member, she explains, "would need to provide the means for the child use a switch with a toy but the family would conduct the intervention. In other words, the team member might provide a switch and toy during the home visit."

The IEP, on the other hand, "may include AT as it fits into the child's individual goals, in particular how the child will use AT at school, perhaps as an instructional method or during therapy."

There are several ways that AT could be written into the IEP, she explains. The ways can include: present level of performance, if the child is currently using AT; an annual goal with a short term objective included; special education services or related services; supplemental aids or services; a program modification or support for school personnel; modification to assessment, or the transition service needs.

As a resource for learning how AT can be written into an IEP, she recommends a book authored by Sherry Purcell and Debbie Grant entitled *Assistive Technology Solutions for IEP Teams*. This book, she says, is available through Enabling Devices [www.enablingdevices.com] and includes national standards for reading and writing and provides ideas for AT solutions to meet certain access issues.

As a child transitions from age 0-3 and into pre-school, she notes, the family must be sure that any needed AT is included in the IEP. "At this point the family should request a re-evaluation of the child's AT needs as part of that transition process. Then, any AT that is needed will be included in the IEP."

Families, she advises, need to know their rights so that they can ensure that the child's needs are met as the IEP is developed.

The Role of Universal Design

"Toys and education materials should be universally designed so that children can use them without special adaptations," Linda declares. "More products are being made today that include multi-sensory features."

Her WIU staff recently purchased a musical drawing pad designed as an electronic toy for use by any child. "We used it with a little boy with autism in a pre-school classroom. For him it proved to be an AT device. His teacher said he had had no interest in drawing or even visiting the art center."

The boy's teacher thought he needed a stimulating device to make drawing more interesting to him. "When he used this musical pad and discovered that he could make music as he drew, he became engaged in the art activity. Starting on Monday he drew pictures each day using the pad. By the end of the week he was demonstrating a high level of artwork."

This universally designed art pad brought new excitement for drawing to many of the children in the classroom. "That's but one example of how we can look at things that are more universally designed and that meet many of the children's needs."

AT and Social Interaction: Does It Help or Hinder?

Ms. Robinson was asked if AT helps or hinders social interaction and growth in young children. At school age, does it set them apart from their peers? How important is that in the early grades, as opposed to middle school, in which the desire to fit in causes a certain amount of technology abandonment?



"Throughout our various research projects here at the center we've studied the effects of AT and technology on social interaction," Linda responded. "We've found that when technology is designed and used appropriately, it can promote social interaction among young children. Just having a way to communicate or an ability to move as needed can give the child with disabilities an opportunity to interact with others."

As the child gets older there may be an issue of more peer awareness and criticism, she notes. "Although young children don't want to be different from their peers, having AT to help them be a part of a group is usually a big advantage."

For young children, she says, "there's usually a curiosity and excitement about AT or anything that's different in the classroom. The peers also want to use the technology or device or adaptation, which brings us back to universal design: If things were more universally designed everyone could use them."

When it comes to software, she adds, research shows that technology can promote social interaction, she remarks. "Children tend to talk or communicate with each other and share thoughts and ideas at the computer. Our staff has done much research in this area and we've found that they tend to work more cooperatively toward a goal when they're at the computer than at other centers in the room."

In one of her research studies, families of children with moderate to severe disabilities reported that technology provided the greatest benefit in the development of social and emotional skills, followed by cognition. "That was an important finding for us. We've seen it in classrooms, but for families to also say the greatest benefit was in the area of social and emotional skills makes sense, since we think of technology as an equalizer providing a means for children to interact with others."

The Need for AT Training – and the Online Option

Families, educators and therapists need training on the various AT solutions available in early childhood education, Linda declares. Not only initial awareness training is needed but also ongoing training is essential to keep up with the latest technology and adaptation.

"It seems like each year more effective training materials and strategies are being developed. Yet it's difficult for families and educators to attend AT training sessions in their local areas. Therefore, online training can be an option."

Her center conducts a set of nine online workshops that provide a form of AT training for families and educators. The workshops were developed through a federally funded project, ECTIIS (Early Childhood Technology Integrated Instructional System) <http://www.wiu.edu/ectiis/>, which is currently in a research phase. "We're studying

the effects of using the online workshops on families and educators and the resulting effects on young children. Although hands-on training is the ideal, online training does serve a purpose.”

Online training, Ms. Robinson explains, has several advantages, especially accessibility. Online training can be accessed at any time, a clear advantage for busy families and educators.

The online workshops can be viewed at the participants’ own pace. Outside links can be accessed to obtain additional information as needed. These links can provide most up-to-date information on equipment and materials. “In the case of ECTIIS, another big advantage is that they are free.”

The online workshops provide a way for families to get initial information on AT and then to return for updated information as often as desired. “We encourage families and educators to use the workshops,” she says.

Reassessment: How Often?

Given how quickly children grow and change, physically and cognitively, how often should their AT needs be re-assessed?

Replies Linda, “In early childhood children’s AT needs should be assessed on an ongoing basis. Children grow and change so quickly during the early years that a small device recommended when a child is three, for example, may not be effective the next year.

To make sure a child is meeting his/her full potential, it’s important to reassess often. This does not have to be a formal reassessment, although input from the various team members is important when making AT changes.

Opening the Doors of Opportunity

“It’s difficult to conduct research study with comparison groups in special education,” Linda notes. “Because each child has such different needs and abilities, it’s hard to find another similar child for comparison. Over the years our center has worked for children starting in pre-school and progressing through high school. Although we don’t work directly with them on AT as they get older, we do get follow-up information on them.”

She adds, “One thing that we realized over the years is that those children who have families who advocate for their technology seem to do the best as they transition into different schools.”

“We have a few case studies we’ve followed. Children who have been provided with AT in pre-school would then progress well and have increased abilities during school years. We assessed one little boy twice, at ages three and four. He started using a switch and a simple software program when he was four. His family and his

school collaborated to provide continued AT support for him. When he was eight years old he was using the IntelliKeys at his school and at home. He won an award for being the student who used technology most effectively.”

This boy’s family played a critical role in his success with technology, she explains. “If it wasn’t for his family’s persistence in finding the right match for what equipment worked best for him, which meant several technology assessments and continued work with the teachers, he would not have been an award-winning tech user. More importantly, he would not be realizing his full potential today.”

On the other hand, she continues, there are also children who start out using AT. Then something happens, such as a change in schools or teachers, and the support system is altered. Through no fault of the family, the child may eventually abandon the technology.

There are children who reach elementary or secondary school without ever using AT. “These children have adapted to a life of learned helplessness. It’s difficult for them to learn that they could be independent through AT. Although once they realize the difference, doors of opportunity are open to them.”

Educators, she declares, need to be aware of how AT fits into a family’s culture or values. “There’s an excellent book, by Sharon Judge and Phil Parette, entitled *Assistive Technology for Young Children with Disabilities: A Guide to Family Centered Services*. The authors discuss how families from various cultures view AT. They emphasize how important it is to consider a family’s culture and view of AT before making recommendations for a child.”

At the end of the day, she concludes, “It all goes back to individual assessment of child and family needs, which is the essential element for success.”

The Role of Culture in AT Assessment

A family’s culture, Linda says, plays a key role in individual AT assessments. “Culture should be part of any assessment of a child. The family’s going to be a part of that assessment team for any educational assessment. Any other support members should be aware of cultural differences or views that the family has on using technology. We’ve done more than 80 AT assessments with young children. We always talked with families ahead of time to make sure that what they want is what would be recommended for the child. Culture has to be an essential part of assessment.”

The Judge-Parette book, she notes, features a chart of various cultures that shows how accepting each culture is of disabilities and of AT and how each views assistive technology. “Sharon Judge and Phil Parette have surveyed families across the US in various cultures to assemble this information. It’s fascinating. We think a child

needs to be independent and needs to use AT, but a family might not share our view. If a family does not want AT, a team is pretty much powerless.”

AT Best Practices in Early Childhood Education: the Research

Ms. Robinson’s center at WIU has conducted various research studies using AT with young children during the past 13 years. “We’ve used technology to promote emergent literacy, expressive arts, math, science and social studies. Overall, we have found that AT is an individual consideration that needs to be determined through an assessment of child and family needs. Whatever AT is recommended for the child must be integrated into the child’s daily life at home and at school.”

At home, she says, AT must be integrated into the child’s natural routines. At school, AT use has to be integrated into the child’s activities. “Ideally, materials and environment for young children should be designed in a universal manner so that equipment adaptation is not needed. We’ve also found that families should have opportunities to provide input into their child’s use of technology and that family input into that entire process is needed if the applications are going to succeed over time.”

“We’ve identified some essential components that are needed for AT implementation, including family involvement, training, administrative support at school, team collaboration in assessment, developmentally appropriate curriculum integration, ongoing financial and tech support and a plan for transition.

“In early childhood, for AT to be used as an effective tool, it needs to be developmentally appropriate and used in meaningful ways.”

Future Trends: Universal Design to Take Hold

“Universal design is definitely a concept that will continue to take hold,” Linda predicts. “Teachers and families are learning more about how to design the environment and materials for children in a more universal way so that we won’t see as much specialized equipment. We must always take care that universally designed equipment truly meets the needs of all children.”

“Assessment is a big issue in education today. We don’t believe in standardized assessment



for young children. We would rather see more authentic assessment of the technology needs of children. With growing awareness of technology, assessment will include technology in the future or more adaptations made to materials for children in the assessment process.”

Hopefully, she adds, “we will see more technology included into the curriculum, especially in an early childhood classroom. Most classrooms now have computers, but the use of computer and other technology has to be integrated into the curriculum and not be a reward for children or something separate. As teachers and families learn more about technology, technology, and AT, will become part of the materials they think of as useful in early childhood.”

April 2, 2007

**Join the
Family Center on
Technology & Disability**

**for a month-long discussion of
“Augmentative & Alternative
Communication
and Vocabulary Development”**

**We are proud to host Katya Hill of the
University of Pittsburgh and
Robin Hurd of the AAC Institute as they
explore the process of selecting
vocabulary for effective augmentative
communication.**

**Among the topics to be discussed are
high frequency vocabulary for language
development, strategies for expanding
vocabulary choices, use of social
stories, and methods for monitoring
vocabulary growth.**

**To participate, log on to
<http://www.fctd.info/webboard/index.php>**

RESOURCES

Articles

Assistive Technology Supports for Early Childhood Literacy

By Debbie Spring, OTR, AT Consultant

Michigan Department of Education

2004

This article discusses adaptations for children with motor, cognitive, communication, hearing, and vision impairments in order to help them achieve communication, movement, independence for self-care, and manipulation of books and toys. The article touches on ways to utilize low- and no-cost technology to aid reading, such as slant boards and book supports, and using props or photos to create stories that the children will want to read. Mid-tech options such as using single message communication devices or switches are described as ways to make reading accessible and fun for children. High tech options such as Power Point, IntelliTools software, and online stories are also described. There are also links to resources to strengthen literacy among early childhood students. Cost: no charge. <http://www.cenmi.org/uploaded/2004/MAR/1588529507/ECLiteracy.pdf>

Assistive Technology and Peer Socialization in Early Childhood Special Education

By Phyllis Dinse

California Foundation for Independent Living Centers

2006

This article discusses the importance of early access to assistive technology and how AT impacts socialization skills. According to the author, children who use AT are more independent and have an earlier understanding of cause and effect. They learn to communicate needs and wants, and are able to develop relationships at a younger age than peers with disabilities who lack access to AT. The article provides examples of modeling communication and ways for introducing the AT devices as tools rather than as toys. Cost: no charge. <http://www.atnet.org/journal/040601.htm>

Assistive Technology and Peer Socialization in Early Childhood Special Education: Part III

By Phyllis Dinse

Alliance for Technology Access – 2006

In this article, Ms. Dinse discusses the use of AT in educational settings to support the development of friendships. Along with a child's academic achievement, social and emotional development is of great importance and may be helped through the use of assistive technology. She writes, "In your child's classroom, there may be a variety of materials that can facilitate your child's ability to engage in independent play with classmates. Many people think of assistive technology as strictly electronic devices, when in fact there are a variety of "low-tech" and "no-tech" equipment readily available. The article moves through the activities of a child's typi-

cal school day and helps the reader identify strengths/weaknesses. Opportunities to support positive communication are identified in areas such as art, science, literacy and music. Cost: no charge. <http://www.atnet.org/journal/060607.htm>

Websites

Early Connections: Technology in Early Childhood Education

Northwest Educational Technology Consortium

2005

This website disseminates information for parents, teachers and caregivers on a variety of topics for teaching and supporting the developing child. The site is divided into categories by age from birth through the primary grades. Information is provided on many topics including before/after school care, technology and implementation, software/hardware and classroom management. <http://www.netc.org/earlyconnections/baschool/curriculum.html>

Technology and Young Children Interest Forum

National Association for the Education of Young Children

(NAEYC), Technology and Young Children Interest Forum

The mission of this organization is to lead discussions, share research and information and demonstrate best practices regarding technology. Their website contains links to articles and resources related to best practices, online learning, assistive technology, research, funding and more. The site is divided into three categories including: Tech with Children (which features AT and universal design resources), Tech Tools for Educators and Technology at Home. <http://www.techandyoungchildren.org/>

Using Assistive Technology with Infants and Toddlers: Evidence Based Practice

tots-n-TECH Research Institute

A major component of TnT's mission is to produce new knowledge and information about AT use and practices and, specifically, about the ways in which AT may optimize children's development and learning. This research brief provides information that may be helpful in the design of specific intervention plans for infants and toddlers using assistive technology. <http://www.asu.edu/clas/tnt/>

Simon Technology Center: Project KITE

PACER Center

Project KITE is a training curriculum for parents and teachers of young children with disabilities. The goal of Project KITE is to promote inclusion for children with disabilities through the use of technology. The Project KITE website provides a list of early childhood resources dealing with AT. Some of the articles that can be accessed through the website include Universal Tools for Learning, Communication, and Inclusion for Children with Disabilities by Simon Technology Center and Assistive Technology for Infants and Toddlers by Families and Advocates Partnership for Education. <http://www.pacer.org/kite/>

Technology and Media Division (TAM)

Council for Exceptional Children (CEC)

CEC's TAM promotes the effective use of technology for children, birth to 21 years with disabilities or who are gifted. Information on the TAM Fan: Technology Supports for Young Children, a guide for using AT at home or in the preschool classroom, can be found at the website. <http://www.tamcec.org/>

Through the Looking Glass (TLG)

Founded in Berkeley, CA in 1982 as an offshoot of the independent living movement, TLG conducts research and provides training and services for families of individuals with disabilities or medical issues. The TLG discusses early intervention, current research on disabilities and adaptive equipment. Links to disability sites are alphabetized by category.

www.lookingglass.org/index.php

WEBCASTS

AAC Intervention to Maximize Language Development in Young Children

By Janice Light, Ph.D.

AAC-RERC website - 2005

This webcast, hosted by Dr. Light, a Penn State University researcher can be found on the AAC-RERC website. The topic of the webcast is how to enhance language and communication for young children with augmentative communication tools. The presentation covers effective designs for AAC systems to better meet the needs and skills of young children, and effective techniques to implement AAC with young children (ages 0-3) who have significant communication disabilities. Implications for effective evidence-based practice are also discussed using case studies to illustrate the effects of these interventions on language and communication development. This presentation is the primary result of an ongoing research project with children ages 0-3 with communication impairments. It is presented in video format with an accompanying text outline as well as pdf's of the transcripts. Additional videos within the webcast demonstrate therapists' work with children ages 16-36 months.

http://www.aac-rerc.com/pages/news/Light_webcast.htm

BOOKS/SOFTWARE

Reviews of Educational Software

Children's Technology Review

The site features reviews by educators of commercial interactive media products for children ages 0-15. Besides the educational software reviews available to subscribers, this site contains articles and an evaluation instrument to help select the most appropriate software for children. A directory with links to the best on-line software stores is also located on the site.

Children's Software Review: Reviews of Educational Software

<http://www.childrensoftware.com/>

STUDIES

Fool's Gold: A Critical Look at Computers in Childhood

Edited by Colleen Cordes and Edward Miller

Alliance for Childhood - 2004

Edited by Ms. Cordes, former Chronicle of Higher Education science and technology policy reporter and Mr. Miller, former Harvard Education Letter editor, the study reached the following conclusion: "Those who place their faith in technology to solve the problems of education should look more deeply into the needs of children. The renewal of education requires personal attention to students from good teachers and active parents, strongly supported by their communities. It requires commitment to developmentally appropriate education and attention to the full range of children's real low-tech needs – physical, emotional and social, as well as cognitive." The study urges a nationwide moratorium on further introduction of computers in early childhood and elementary education, except for special cases students with disabilities.

http://www.allianceforchildhood.net/projects/computers/computers_reports_fools_gold_download.htm

Technology in Early Childhood Education: Finding the Balance

By Judy Van Scoter and Debbie Ellis

Northwest Regional Educational Laboratory - 2001.

This booklet reviews the important considerations for technology use in early childhood education. It presents an overview of the research, discusses strengths of technology use as well as potential problem areas, examines the philosophy behind a successful program, explores effective strategies, and profiles sites around the Northwest that are successfully using technology to support learning.

<http://www.nwrel.org/request/june01/child.html>

Assistive Technology for Infants and Toddlers

Families and Advocates Partnership in Education (FAPE), PACER Center - 2002

This four-page brief answers some common questions parents may have about assistive technology. It defines AT under IDEA and addresses how parents can get an AT evaluation and who pays for it.

<http://www.fape.org/pubs/FAPE-12.pdf>

Here at FCTD we always welcome your suggestions for newsletter and discussion topics.

If there is something you would like to see discussed, please contact us at

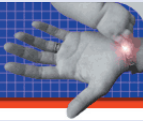
fctd@aed.org

KNOWLEDGE NETWORK MEMBERS

The Center for Best Practices in Early Childhood

The Center

For Best Practices In Early Childhood



The Center for Best Practices in Early Childhood is part of the College of Education and Human services at Western Illinois University. The Center was started in 1999 and replaced Macomb Projects, which began in 1975. The mission of the Center for Best Practices is to develop and promote practices designed to improve educational opportunities for all young children. They provide products, training materials, conferences and workshops on topics relating to technology, early childhood and children with disabilities.

The Center for Best Practices currently operates five federally funded projects and two state funded projects. Websites for all of it's active projects can be accessed through the Center's main website. Current projects include:

- ACTTT: Accessing Curriculum Through Technology Tools
- ITLC Online: Interactive Technology Literacy Curriculum Online
- LitTECH: Literacy and Technology Outreach
- EC-TIIS: Early Childhood Technology Integrated Instructional System
- Provider Connections: Early Intervention Credentialing & Enrollment
- STARnet: Support and Technical Assistance Regionally
- TechTools: Birth to Three TechTools

Staff from the various projects can provide in-service training, workshops or conference presentations to early childhood personnel and families upon request. The workshops are organized under the following categories: Technology Integration, Expressive Arts, Technology Assessment, Technology Literacy, and Technology as a Tool Workshops.

Two of the Center's projects offer free online training workshops. Interactive Technology Literacy Curriculum Online, or ITLC Online, provides six online workshops that focus on using technology to promote emergent literacy. The workshops are intended for early childhood staff and families interested in learning how technology can be used to help young children develop early literacy skills. The Early Childhood Technology Integrated Educational System, or EC-TIIS, provides nine online workshops, which focus on the use of technology as a tool to assist young children with disabilities in achieving developmental goals. Illinois CPDUs, and CEUs from Western Illinois University are available for these classes. The workshops are intended for early childhood staff, families, and pre-service

personnel interested in learning how technology can equalize opportunities for young children.

Many print publications and videos are also available on the Center for Best Practice website. To learn more about the Center for Best Practices in Early Childhood please contact them directly at:

Center for Best Practices in Early Childhood Education
Western Illinois University, Horrabin Hall 32
1 University Circle, Macomb, IL 61455
Phone: (309) 298-1634 / Fax: (309) 298-2305
<http://www.wiu.edu/thecenter/index.php>
E-mail: PL-Hutinger@wiu.edu - Patricia Hutinger,
Project Director

Rainbows United, Inc.

Rainbows United, Inc. is a statewide organization that specializes in early childhood



development and early intervention. Since 1972, Rainbows United has worked to improve the developmental outcomes of children of all abilities by providing a wide variety of individualized programs dedicated to the children and families of their community. Their mission is to enhance the lives of children with varied abilities and needs through customized services designed in partnership with the family.

Rainbows United provides a variety of comprehensive services for young children that reflect emerging knowledge of best practices and community needs. The following list represents only some of the services that the organization provides.

- Assessments and evaluations - Trained early interventionists conduct Brazelton Assessments on newborns as well as comprehensive evaluations for children birth to five to determine a child's eligibility for early intervention and special education services.
- Center-Based Preschool Sessions - Certified teachers and paraeducators provide active learning environments in classroom settings through implementation of High/Scope an evidence based curriculum.
- Therapeutic Child Care and Nurseries - Educational and child care needs for special needs are provided year round. Nurseries accommodate young medically fragile children, infants with special needs and typically developing infants who require full-day, out-of-home care.
- Therapies - Speech-language pathologists, physical therapists and occupational therapists provide therapy services within the context of the classroom, in individual sessions and through outpatient services
- Autism Services - Rainbows provides a full continuum of

services for children with autism spectrum disorder. An autism specialist and trained interdisciplinary autism resource teams offer consultation and guidance to direct service staff serving children in Rainbows classrooms, in community settings and in their homes. Structured classrooms are specifically designed for children with autism who require intensive intervention and highly individualized programming.

- Hearing Impaired Services - Home-based and center-based services are available for children ages birth to five with hearing impairments. Certified hearing impaired specialists work with teams serving children in toddler and preschool classrooms
- Parenting Programs - The Incredible Years is a Blueprint, evidence based parenting program offered to parents on a regular basis. This 12-week course is taught by trained staff and provided to community parents and children

To learn more about Rainbows United, Inc. please contact them directly at:

Rainbows United, Inc.

340 S. Broadway

Wichita, KS 67202

Phone: (316) 267-5437

Fax: (316) 267-5444

<http://www.rainbowsunited.org>

Contact: Gary Schmitt at mail@rui.org

Illinois Early Intervention Training

The Illinois Early Intervention Training Program provides training opportunities for early intervention professionals in Illinois. They have developed an Early Intervention Training Model based on 7 principles of early intervention (EI). Their goal is that participants in training will gain the skills necessary to effectively implement these principles into other early intervention programs.



The EI Training model is based upon the following principles:

1. support families in promoting their child's optimal development and to facilitate the child's participation in family and community activities.
2. encourage the active participation of families in the therapeutic process by imbedding intervention strategies into family routines.
3. a collaborative relationship between families and providers, with equal participation by all those involved in the process. An on-going parent-professional dialogue is needed to develop implement, monitor, and modify therapeutic activities.

4. Intervention must be linked to specific goals that are family-centered, functional, and measurable. Intervention strategies should focus on facilitating social interaction, exploration, and autonomy.
5. Intervention should be integrated into a comprehensive plan that encourages transdisciplinary activities and avoids unnecessary duplication of services. The plan should be built around family routines, with written home activity programs to encourage family participation in therapeutic activities on a daily basis.
6. Intervention should be monitored periodically to assure that the strategies implemented are successful in achieving outcomes.
7. High standards will be set for the training and credentialing of administrative and intervention staff. Training, supervision, and technology will be focused to achieve excellence.

To learn more about their training program, please contact Illinois Early Intervention Training

7550 W. 183rd Street

Tinley Park, IL 60477

Phone: (708) 444-8460 ext. 250 (866) 509-3867

Fax: (708) 444-8470

<http://www.illinoiseittraining.org/>

Contact Ted Burke, Director at tburke@ucpnet.org

Early On® Michigan

Early On is the system of early intervention services for infants and toddlers, birth to three years of age, with disabilities or delays, and their families in the state of Michigan. Early On ensures that eligible children and families receive comprehensive, collaborative, family-centered, strength-based services. Their goal supports families as families help their children to learn and grow.



The Early on process is guided by a family-directed assessment of their concerns, priorities, and resources, a multidisciplinary evaluation of the child's developmental status, and a multidisciplinary assessment of the unique strengths and needs of the child. Early On has a team of qualified professionals that evaluate child performance in physical (including vision and hearing, gross and fine motor), cognitive, communication, social-emotional, and adaptive development. These evaluations are provided at no cost to the family.

If a child meets the eligibility requirements of the program, the family is paired with a service coordinator to assist them receiving the rights, procedural safeguards, and services that are authorized to be provided under Part C as well as assistance in development of an IFSP. The family's IFSP is

only a part of the larger individualized family service planning process. Ongoing assessment is a key component in the bi-annual and annual reviews of the IFSP.

Early On offers learning opportunities for both parents and professionals via the Internet or through conferences, seminars and sessions. Visitors to the website have access to a number brochures and guidebooks on child development, family rights, IFSP's and more.

To learn more about their programs and services, please contact:

Early On Michigan
Phone: 1-800-Early-On (1-800-327-5966)
Fax: 517-668-2505
<http://www.1800earlyon.org/>
Email: ymeeder@edzone.net

Early Childhood Connections for Infants, Toddlers and Families

Early Childhood Connections (ECC) is Colorado's Infant and Toddler Initiative under the Individuals with Disabilities Education Act. ECC represents a broad array of supports, services, and resources available for infants and toddlers and their families. The Colorado Department of Human Services, with the guidance from the Colorado Interagency Coordinating Council, is responsible for implementing a coordinated statewide system of early intervention supports for infants and toddlers with special needs. The ECC provides funding, training and technical assistance to interagency groups across the state to help meet the needs of families. Their initiatives focus on public awareness, service coordination, cultural competence and parent leadership.



The ECC website serves as a central directory of information and resources. The website is divided into three categories: information and resources for families, information for service providers and a section for local and state interagency partners. It includes links to local contacts and resources, directories of service agencies, laws, regulations and policies, outcomes data, technical assistance documents, and links to other websites. Families visiting the website have access to a variety of documents and resources that can help guide them through the early intervention process. Families can sign up for newsletters and referral services and can find connections to their local service agency. Most of the ECC brochures, pamphlets and videos are available in both English and Spanish.

ECC offers training opportunities for service providers and interagency partners. Early Intervention program staff, providers and interested community partners can sign up for the Results Matter listserv, a listserv designed to identify and measure meaningful outcomes for young children and their families. The website also provides resources guidelines and requirements for service providers across the state.

To learn more about Early Childhood Connections for Infants and Toddlers and Families, please contact:

CDHS, Division for Developmental Disabilities
3824 West Princeton Circle
Denver, CO 80236
Phone: (303) 866-7657
<http://www.earlychildhoodconnections.org>
Ardith Ferguson, Program Coordinator -
Ardith.Ferguson@state.co.us

The Alliance for Infants and Toddlers, Inc.

The Alliance for Infants and Toddlers is the single point of contact for Early Intervention



service coordination in Allegheny County. The Alliance Provides service coordination for children, from birth to their third birthday, at no cost to families. They assist families in learning what supports are best for their child, locating and acquiring those supports, and teaching practical ways of supporting their child with a variety of daily activities.

Coordination services for families may include: developing individualized service coordination plans based on the child's needs; screening and monitoring a child's development; arranging further developmental assessments; coordinating and monitoring specialized early intervention services; providing parent education and support; partnering with public health nurses who provide consultation and direct services to families; and assisting eligible children in entering the Department of Education funded preschool services at age three.

The Alliance website provides information for families on the programs they offer. Information on developing IFSP's, locating parent support groups, parent and family rights, and the process of early intervention.

To learn more about the Alliance, please contact:
The Hough Building; 2801 Custer Avenue
Pittsburgh, PA 15227
Phone: (412) 885-6000
<http://www.afit.org/>
info@afit.org

The Early Childhood Outcomes Center: Demonstrating Results for Infants, Toddlers, and Preschoolers with Disabilities and Their Families

The Early Childhood Outcomes (ECO) Center seeks to promote the development and implementation of child and family outcome measures for infants, toddlers, and preschoolers with disabilities. These measures can be used in local, state, and national accountability systems. The ECO Center actively pursues their goals by collaborating with stakeholders and other groups concerned with outcomes measurement. They are also constantly researching issues related to the development and implementation of outcome measures. Finally, they provide technical assistance to support states in developing and implementing outcome measurement systems.



For more information on The Early Child Outcomes Center, please contact:

SRI International
333 Ravenswood Avenue
Menlo Park, CA 94025-3493
Phone: (530) 758-7483
Fax: (530) 753-0832

<http://www.the-eco-center.org>

For more information, contact Lauren Barton at kathleen.hebbeler@sri.com



Family Center on Technology and Disability

1825 Connecticut Avenue, NW
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Phone 202-884-8068
Fax (202) 884-8441
fctd@aed.org
www.fctd.info