



CONNECTICUT
BIRTH TO THREE SYSTEM

PRESCHOOL SPECIAL
EDUCATION

WORKING TOGETHER FOR CHILDREN WITH DISABILITIES

BIRTH through 5 NEWS

INFORMATION FOR FAMILIES AND PROFESSIONALS • VOLUME 5, NUMBER 3

Tots and Tech: Making Children's Lives Fun and Productive

By Pip Campbell,
Technology for Tots Program



This article is translated into Spanish on page 2. Ver la versión española de este artículo en la página 2, y todos los artículos a www.birth23.org

Produced by the State
Department of Education and the
Connecticut Birth to Three
System in collaboration with the



University of
Connecticut

COOPERATIVE EXTENSION SYSTEM
College of Agriculture and Natural Resources

For all of us, technology makes things easier. But for people with disabilities— even infants and young children— technology often makes the seemingly impossible, possible. Remember what life was like before we used cell phones, sent email, or quickly found information on the Internet? We all depend on “assistants” – some which involve computers and high technology but others which are just simple aids that make life easier. For all of us, technology makes things easier – but for people with disabilities, even infants and young children, technology often makes the seemingly impossible – possible.

Think about a child who cannot hold onto a thin crayon or marker but who can enjoy drawing when the crayons are larger than normal or if the marker is held onto his hand with a simple strap device. Consider a child who is unable to walk, crawl, or roll but can get around independently in a walker or a motorized car bought off the shelf in a toy store. Often a child who does not communicate well with others can “talk” with a simple picture board or by pointing to objects, using a picture exchange system or gestures or sign language systems. Even the simplest of adaptations can help children participate in routines and activities in all the different places where they spend time during their early years.

What is Assistive Technology (AT) for Young Children?

Technology is a broad term that relates to the application of science to a situation. When paired with

“assistive,” the term generally means that the technology is being used to help a person in some way. The Individuals with Disabilities Education Act (IDEA) divides the term “AT” into two categories: devices and services. Devices are the things used by a child to perform a particular function or participate more independently in a routine or activity. Examples include:

- adaptations like adding a strap or thickening a handle
- switches on toys and materials
- wheelchairs, walkers
- special spoons, covered cups
- communication boards or talker toys

AT services are the strategies used to:

- help a child learn to use a device effectively, or
- determine the best device to try, or
- evaluate how well the device works in helping a child participate.

AT services may be provided by anyone who is knowledgeable about how to select devices that match a child's abilities and needs, help train the child to use them, and evaluate their effectiveness.

Is AT for ALL children?

Just as all adults can find technology helpful, all children can benefit from its use. The same devices that help typical children do something more easily or more safely may make it possible for a child with a disability to do things in different

ways. For example, a car seat safely positions all children in the back seat of a car. But for a child with a disability, a car seat may also be used to help a child sit independently to watch television or play with siblings. The device is considered to be AT when the device is needed for the child to perform independently.

At what age should technology be used with children?

Most parents use technology automatically to make their infants or preschoolers safe and easier to care for. Strollers, pads to gently hold infants' heads when they don't yet have head control, non-slip mats that hold bowls to prevent tipping, spout cups with lids, bath seats, plastic links to hold toys onto highchairs or car seats – all of these are examples of technology that parents often use with infants and young children. Children with disabilities may need to use these same off-the-shelf devices for longer than typically developing children or may use them in different ways in order to participate in routines and activities. A child with a disability may be able to participate in bath time with the same off-the-shelf bath

seat as any other infant or toddler, but may need a specialized seat as they grow older, or a shower chair as an adolescent, in order to bathe independently. An infant or toddler with a disability may learn how to use crayons at home or in child care with off-the-shelf, big crayons but this device may be replaced with a special big-key keyboard or with more complicated computer-interface devices to access a computer as the child grows up.

If an appropriate device has been selected, should the child be able to use it “automatically”?

Many infants and young children can use simple adaptations and off-the-shelf toys and materials easily if those devices have been well matched with their abilities. Just as with typically developing children, trial and error may be required to find just the right stroller, car seat, highchair or that just-right toy that engages, challenges and matches a child's interests. In these instances, devices are helping a

child do something more easily or safely. In other situations, the device that works best for helping a child participate in an activity or complete important tasks (such as eating independently or communicating) may not be automatically usable by the child and someone will need to teach the child to use the device. For example, while a typical four or five year old may be able to figure out how to drive the off-the-shelf Barbie Car around the local park, a child with a disability may have to be taught how to operate the car's switch and pedals or to steer the car. Just as typical children benefit from being taught how to use a computer, a child with a disability may need instruction in how to use the computer-access device. Devices that depend on high technology – for example electronic switches, communication aids, computers, powered wheelchairs or mobility aids – will require instruction for the device to be used most effectively.

Teaching a child to use a device is considered an AT service and is an important component when judging the effectiveness of AT. ♦



Los nenes y la tecnología: Cómo hacer divertida y productiva la vida de los niños Por Pip Campbell Programa Tecnología para párvulos

Por Pip Campbell
Programa Tecnología para párvulos

A todos nos aprovecha la tecnología. ¿Nos hemos olvidado de cuando no existían los

teléfonos celulares, la mensajería digital, un internet donde encontrar información con rapidez? Todos dependemos de “asistentes”, tanto de los que implican computadoras y alta tecnología como de los consistentes en objetos o instrumentos simples, para hacernos más fácil la vida. A todos nos aprovecha la tecnología. Pero a las personas con incapacidades, aún cuando se trate de infantes o párvulos, la tecnología a menudo hace posible lo aparentemente imposible. ¿No vemos que un niño incapaz de sostener un crayón o marcador puede hacerlo si el crayón es de tamaño mayor de lo normal o si el

marcador se inserta en un simple mango? Consideremos el caso de un niño incapaz de caminar, gatear o voltearse pero que puede desplazarse independientemente en un andador o en un carrito de motor comprado en una juguetería. Pensemos en un niño que no se comunica bien con otros pero que puede “hablar” utilizando una tabla de simples grabados, o apuntando a objetos, o utilizando un sistema de intercambio de dibujos, o por señas. Aún las adaptaciones más simples pueden ayudar a los niños a participar en rutinas y actividades en los diferentes lugares donde pasan tiempo durante sus primeros años.

¿Qué se entiende por ‘Tecnología asistencial’ (AT) para niños de corta edad?

Tecnología es un vocablo de significado amplio que se refiere a la aplicación de la ciencia a una situación, o sea al aprovechamiento práctico de un conocimiento científico. Es asistencial cuando la situación es la ayuda o asistencia a una persona. La Ley de educación de individuos con incapacidades (la ‘IDEA’) distingue dos categorías de AT: artefactos y servicios. Artefactos de AT son las cosas utilizadas por un niño para ejecutar una función específica o participar con mayor independencia en una rutina o actividad. Por ejemplo:

- Adaptaciones como la añadidura de una correa o el espesamiento de un mango
- Conmutadores en juguetes y materiales
- sillas de ruedas, andadores
- cucharas especiales, tazas cubiertas
- tablas de comunicación en juguetes parlantes.

Servicios de AT son las estrategias empleadas para:

- ayudar a un niño a utilizar un artefacto o dispositivo con eficacia, o
- determinar qué artefactos son los más adecuados para el caso, o
- evaluar cuán bien el artefacto está propiciando la participación del niño.

Los servicios AT pueden prestarse por cualquier disciplina o individuo capacitado para tomar decisiones sobre los artefactos, para ayudar a los niños a aprender a utilizarlos y para evaluar su eficacia.

¿Es la AT para TODOS los niños?

Así como todos los adultos pueden encontrar útil la tecnología, todos los niños pueden beneficiarse de su aplicación. Los mismos artefactos que le permiten al niño típico hacer algo con más facilidad o seguridad

pueden posibilitarle al niño con incapacidad la ejecución de otras actividades. Por ejemplo, un asiento infantil para auto, utilizado en el auto, les sirve igualmente a todos los niños tengan o no incapacidades. Pero para un niño con una incapacidad, el asiento puede además servirle fuera del auto para sentarse con independencia a mirar cintas de video o jugar con sus hermanos. El dispositivo se considera de AT cuando se necesita para que el niño se comporte independientemente.

¿A qué edad debe usarse la tecnología con los niños?

La mayoría de los padres utilizan la tecnología automáticamente para proporcionar seguridad a sus infantes y preescolares y facilitar su cuidado. Asientos para auto, cojines de espuma de goma para proteger la cabeza de los infantes, tapetes que no resbalan para estabilizar pozuelos, vasos con tapa, asientos para el baño, coches, conexiones plásticas para mantener juguetes en la silla de comer o en la del auto, tapas para tomacorrientes – todos estos son ejemplos de tecnología que los padres utilizan automáticamente con infantes y niños jóvenes. Los niños con incapacidades pueden necesitar estos mismos objetos por periodos de tiempo más largos que los niños típicos, o pueden utilizarlos de diferentes formas para participar en rutinas y actividades. A un niño de corta edad con una incapacidad puede servirle un asiento de baño normal pero puede necesitar uno especializado al hacerse mayor, o una silla de ducha como adolescente para bañarse con independencia. Un infante o párvulo con una incapacidad puede aprender a utilizar creyones en el hogar o en la guardería con creyones normales de mayor tamaño, al crecer puede necesitar un teclado de computadora de teclas grandes, y más adelante dispositivos electrónicos más com-

plicados.

Una vez identificado el dispositivo apropiado, ¿deberá del niño ser capaz de utilizarlo ‘automáticamente’?

Muchos infantes y niños menores pueden utilizar adaptaciones simples de juguetes y materiales normales propiamente escogidos. Al igual que para los niños en desarrollo típico, para los que tienen incapacidades puede necesitarse ensayar con varios objetos para identificar el más apropiado (sea un cochecito, un asiento de auto, una silla de comer, o el juguete que los atraiga, los rete y corresponde a sus intereses). Son ejemplos en que los artefactos ayudan al niño a hacer algo con más facilidad y seguridad. En otras situaciones, el dispositivo que pudiera responder mejor a la necesidad de ayudar al niño a participar o a realizar actos como comer solo o comunicarse, puede no ser utilizable automáticamente. Alguien tendrá que enseñar al niño a utilizar el artefacto. Por ejemplo, mientras un niño típico de cuatro o cinco años puede ser capaz de descubrir y explicarse cómo operar el auto de Barbie adquirido en la juguetería, a un niño con incapacidad puede tener que enseñársele a operar el mecanismo conmutador o a dirigir el carro. De la misma forma que un niño típico necesita que se le enseñe a operar una computadora, uno con incapacidad puede necesitar instrucciones para utilizar el dispositivo para acceder a la computadora. Los dispositivos que dependen de alta tecnología – por ejemplo conmutadores, aparatos para la comunicación, computadoras, sillas de ruedas con motor, artefactos para la locomoción – necesitarán instrucciones para que puedan utilizarse óptimamente. Enseñar a un niño a usar un dispositivo se considera un servicio AT y es componente importante al juzgar la eficacia de AT. ♦

Birth to Three Update

By Linda Goodman



Anyone with an interest in assistive technology should be sure to join us at the annual **Together We Will** conference sponsored by Birth to Three, Preschool Special Education and other state agency partners and agencies. The conference will be held on April 22nd at the Radisson in Cromwell." Call Ildiko Reno at 860-632-1485 ext. 343, or see the Birth to Three website, www.birth23.org, for registration

Preschool Special Education Update

By Maria Synodi

Call to Action ... That is what the State Department of Education has asked for after launching a multi-year goal to ensure that all children three and four years of age in the state will be afforded a preschool experience. The action was taken by the State Board of Education in recognition of the significant role that preschool plays in developing competent learners and closing the achievement gap among Connecticut's students. The State Board of Education articulated the vision for universal preschool by stating that "by the end of the decade, all children

information. The theme this year is "Embracing the Use of Technology to Meet the Needs of All Young Children." Registration is \$40, but registration fee waivers for families are available on a limited basis. And just for parents, there will be a workshop at the Special Education Resource Center in Middletown on Saturday May 15. This will give families an opportunity to learn about hardware and software issues as well as how to use the Internet to find assistive technology resources. Registration is \$15, although stipends are available to defray the cost of childcare and transportation. If you want an application, please call Jenn Sharpe at SERC, 860-632-1485 ext. 268, or see the Birth to Three website for registration information.

Assistive technology, under the federal law that governs early intervention, includes those devices that increase, maintain or improve the functional capabilities of children. Although there are devices that make daily living easier for families or safer for children such as bath

chairs, car seats or adapted strollers, they are not typically considered assistive technology under the law. Service coordinators should assist families to find other resources for these items.

For children under the age of three, decisions about assistive technology need to be especially family centered. Is the device going to make it easier for the family to further their child's development? Is the size appropriate to the family's home? Is it in conflict with the culture or values of the family? Is it too complicated for them to use easily? Is it durable enough considering all the other children in the family? Does it require frequent maintenance? These questions apply to the smallest, low-tech items (an adapted spoon, for example) to the largest, such as a communication board. Families and their service coordinators need to talk over these issues when considering an assistive technology device.



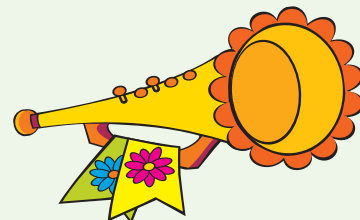
in the state of Connecticut will have high-quality preschool services available to them beginning at age three. These services will promote the educational, social, emotional, artistic/aesthetic and physical health needs of every child, with the goal that all children in Connecticut will enter school eager to build on their preschool success." (2003).

The State Department of Education released 'A Call to Action' publication entitled "Closing the Achievement Gap: Removing the Barriers to Preschool in Connecticut." The document provides some recommendations that include:

- Encouraging public schools to make available voluntary preschool programs to all children at age three. Programs would operate for a minimum of 2 1/2 hours

per day for a 180-day school year.

- Providing enough funding to ensure quality programs for young children including the provision of important services and activities.
- Assisting low-income families access a preschool opportunity for their child and providing support to connect families with the services that they need.
- Developing and maintaining a career development system that will increase the number of individuals with a certification in early childhood/early childhood special education.



This is an exciting time to envision a preschool learning opportunity for all young children through programs created in each and every community. Increasing such opportunities also increases opportunities for preschool-age children with disabilities. The Department envisions prioritizing participation and services to children who are eligible for special education as defined by the Individuals with Disabilities Education Act (IDEA).

The Department of Education is calling upon business leaders, elected officials, educators, funding partners, the community and parents to get involved. For more information on the Department's Preschool Initiative, go to the Connecticut State Department of Education web site at www.state.ct.us/sdel. Interested individuals can also join "Ready, Set, Grow ... CT Kids!" – a campaign of big people helping little

people get ready for kindergarten – at www.readysetgrowctkids.org. To obtain a copy of the Department's publication, "Closing the Achievement Gaps: Removing the Barriers to Preschool in Connecticut" visit the Department's web site or call 860-807-2050. ♦

Augmentative Technology

By Kimberly Raub

Just over six years ago I entered a new phase in my life. I gave birth to twin boys, one of whom is handicapped. Over the past six years, I have done many things to help my son overcome his handicaps. One of these things was using augmentative technology. Augment means to increase, to extend, to amplify and to change things. When he was a baby I put extra holes in the nipples of his bottles so he wouldn't have to work so hard to get food. As he got older he had trouble sitting up straight in his high chair so I augmented his high chair by putting foam behind him. He had trouble holding a spoon so I put a pencil grip on it so he could grasp it more easily. In school he had trouble coloring because the paper would slip around as he colored. They tried to have him hold it flat with his left hand, but that did not work. What did work was a gripping drawer liner – the same sort of thing you put in your vegetable drawer to keep the vegetables fresh. As my son has gotten older, the school and I have looked into other technology, such as a wrist talker so he can push a button and it can talk for him.

Sometimes these ideas came from

me, sometimes they came from the therapist, and sometimes from professionals in the field of augmentative technology who spoke about different ideas at lectures.

Professionals can be hired to do evaluations of your child to see if some sort of low-tech (pencil grips) or high-tech (touch screens) can help your child make better progress towards the goals you have for him. The main thing is to be creative! Brainstorm with the professionals and parents out there, and find a creative augmentative technology solution. ♦



consideration of assistive technology needs to start with the primary outcome(s) expected for the student with the use of this AT support. Lower-tech options should be considered

before higher-tech options. At the preschool level, educational teams might look for assistive technology supports to further

skill development in the areas of cause-effect, choice making, vocabulary development, or to develop skills in using a mouse or switch. There are many software programs available to support the development of these skills.

Closing the Gap is an excellent resource in this area (see: www.closingthegap.com). Teams may also look to provide access to computers using alternative keyboards (e.g. Intellikeys, Discover Board, etc.), touch screens or switches (see: www.ablenetinc.com). Additionally, adapted fine-motor equipment (eating utensils, paint brushes, pencils, etc.) and assistive mobility devices may need to be considered.

Physical and/or occupational therapists can provide information to teams in these areas. Speech and language pathologists can provide assistance when considering alternative augmentative communication devices (e.g. CheapTalk, GoTalk, Macaw, Dynavox, etc.). There are

Considerations for Preschool Assistive Technology

By Ann Leffert, Inclusive Education Facilitator, Fairfield Public Schools

At the preschool level, teachers, related services providers and families need to work together when considering whether assistive technology supports or services are needed to ensure the child's access to education in the least restrictive environment. Any

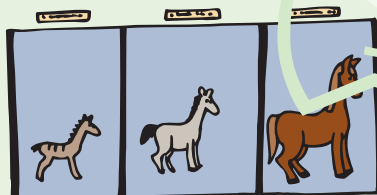
many local resources available to teams in the area of assistive technology. In Connecticut, each of the six regional education service centers has an assistive technology resource center (see: www.learn.k12.ct.us/resources/rescs). SERC in Middletown, the special

education branch of the State Department of Education, has many professional development offerings in the area of assistive technology for professionals and families (see: www.ctserc.org). The New England Assistive Technology Marketplace in Hartford offers pro-

fessional development opportunities to members (see: www.neatmarketplace.org). In addition, it is a great place for consignment and purchase of gently used and refurbished equipment for schools and families.



Save the Date



■ **State Interagency Coordinating Council (SICC) Meeting:**

Monday, April 12, 2004
 9:00 AM – 2:00 PM
 Infoline, 4th floor conference room
 1344 Silas Deane Highway
 Rocky Hill, CT

Save the Date

■ **Together We Will: Embrace the Use of Technology to Meet the Needs of All Young Children**

Thursday, April 22, 2004
 Radisson Inn, Cromwell
 Keynote Speaker: Caroline Musselwhite
 Registration Fee: \$40 per person (lunch included)
 Registration fee waivers are available for families, on a limited basis, if needed.
 Contact Ildiko Reno at 860-632-1485 ext. 343.

Save the Date

■ **Family Technology Day: An Introduction to Assistive Technology for Families of Young Children**

Saturday, May 15, 2004
 9:00 AM – 1:00 PM
 Special Education Resource Center
 Middletown, CT
 Presenter: Jennifer Berelson
 Registration Fee: \$15 per person
 Checks payable to Rensselaer at Hartford
 Stipends are available to defray the cost of childcare and transportation.
 Contact: Jenn Sharpe at 860-632-1485 ext. 268.

Selected Internet Resources

The websites listed here are not endorsed or warranted in any way by the University of Connecticut Cooperative Extension System, Birth to Three or the State Department of Education. As with all information obtained from any source, websites should be used with caution. There is no control over the posting of incorrect material on the Internet. Be aware that not all websites list their information sources. Do not accept information as fact just because it appears on a website.

■ Jeffline.tju.edu/cfsrp/
Click on "Child and Family Studies Research Program". Click on "Current Programs" for the "Tots n Tech" program. This site includes information about using assistive technology (AT) to enhance the development of infants and toddlers with disabilities.

■ www.closingthegap.com
Site focuses on computer technology for people with special needs and describes the latest products. It also includes forums that discuss assistive technology.

■ www.ablenetinc.com
Shows assistive technology products for preschool and above and highlights new products. It includes a month-by-month calendar of ideas for educators and parents.

■ www.neatmarketplace.org
The New England Assistive Technology Marketplace in Hartford, CT website. It includes information about purchasing new AT equipment and used AT equipment at discounted prices.

■ www.pacer.org
The Parent Advocacy Coalition for Educational Rights website. Click on the Early Childhood box and go to Project Kite – 'Kids Included through Technology' for AT information. ♦



Transition Stories Wanted ... Tell Us Your Transition Story

National Early Childhood Transition Center (NECTC), funded by the US Department of Education, Office of Special Education Programs, is seeking information from across the country. The Center's purpose is to develop and share information that will help make transitions for young children with disabilities and their families successful and positive. That is why your experience is so important.

The Center is interested in your transition experience in order to better understand the transition process that families and professionals encounter. The Center is inter-

ested in both the transition from Birth to Three to preschool and from preschool to Kindergarten. Personal stories will be collected from families, early intervention providers, preschool and kindergarten staff, therapists, administrators and others. These stories can be about your own experiences as a family, relate to a particular situation or reflect the observations of you or others. A story can be completed in just a few minutes by visiting the Center's web site to report your transition story. The web site is <http://www.ihdi.uky.edu>. Click on "Interdisciplinary Human Development Institute". Click on "Projects". Click on "National Early Childhood Transition Research and Training Center". Click on "Transition Stories". ♦

BIRTH through 5 news

Information for Families and Professionals

is published quarterly by the University of Connecticut Cooperative Extension System in collaboration with the Connecticut Birth to Three System, the Connecticut State Department of Education and the Newsletter Advisory Board. We welcome readers' comments and contributions related to the special needs of infants, toddlers, preschoolers and their families. Please mail correspondence to the editor at 67 Stony Hill Road, Bethel, CT 06801.

2004 ADVISORY BOARD

Cathy Malley, Editor
UConn Cooperative Extension System
Claudia Anderson, Danbury Public Schools
Jane Bisantz, Bisantz & Associates, LLC and Hartford Public Schools
Deborah Burke, Parent/CPAC
Marlene Cavagnuolo, Fairfield Public Schools
Kathleen Camp, New Haven Head Start
Carmina Cirioli, Parent, State ICC, PATH
Ann Gionet, Parent/State ICC/CT Department of Public Health
Linda Goodman, CT Birth to Three System
Eileen McMurrer, CT Birth to Three System
Maria Synodi, State Department of Education

You are encouraged to reproduce articles or excerpts from *Birth through 5 News*. Please give appropriate credit to this newsletter and authors.

Birth through 5 News is distributed free of charge to those interested in issues related to children, ages birth through five, with special needs. The mailing list includes families and providers active in the Birth to Three System, directors and providers of preschool special education services, special education directors, families in various preschool special education programs, local ICCs and others upon request. To add or delete your name from the mailing list, or to notify us of a change of address, please send your name, address and phone number to Birth through 5 News, CT Birth to Three System, 460 Capitol Ave., Hartford, CT 06106.

Produced in Communication and Information Technology, College of Agriculture and Natural Resources, University of Connecticut.

The University of Connecticut Cooperative Extension System is an equal opportunity program provider and employer. To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, Stop Code 9410; 1400 Independence Avenue, SW; Washington, DC 20250-9410, or call (202) 720-5964.

