



# KIT "Keeping In Touch" July 2010



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## Resource Article



In "Young Children with Physical Disabilities Caregiver Perspectives About Assistive Technology" authors Kling, Campbell, and Wilcox look at caregivers of children with physical disabilities perspectives about the use of assistive technology. To do this, they analyzed an existing database of caregiver responses to questions about their use of assistive technology in daily routines. The study looked at specific areas and the impact they have on self-reported competency. The areas included:

- The routines that are problematic
- The degree to which caregivers find solutions and how often assistive technology is part of those solutions
- The assistive technology training the caregivers have received and who gave them that training

The authors noted that the validity of this study is limited by its population sample, which were primarily white, college-educated females in two parent families. The researchers also acknowledged that survey research could be limited in its ability to collect data beyond survey items to include every day realities.

The study found that the most problematic routines were bath time, morning routines, mealtimes and physical activities. The types of problems most likely to inhibit participation in daily routines were motor inabilities and lack of independence or self-help skills. Solutions to the problems were found

60.4% of the time. Of that 60.4%, assistive technology was the solution 64.5% of the time. When asked where they got their information, 46% of the caregivers gave credit to early intervention providers. When asked how competent they felt, only 10.4% stated that they were not competent at all. In addition, caregivers who felt very competent received more training than those who did not feel at all competent. Of those who felt very competent, 68% had received their information from an early intervention provider.

Looking at the results of the study, the authors conclude that early intervention providers are important in teaching caregivers how to use assistive technology. Early intervention providers' work in the home allows them to understand the problems of caregivers, help them with solutions, and support them in using those solutions. Early intervention providers, in turn, need on-going training in order to keep up with the many changes that constantly take place in the field of assistive technology.

Kling, A., Campbell, P. H., Wilcox, J. (2010). Young children with physical disabilities caregiver perspectives about assistive technology. *Infants and Young Children*, 23(3), 169-183.

## On the WWW



Allyn McGrath contributed the web resource this month from the Heidelberg EDIS program.

<http://www.fctd.info/show/home>

As its name implies, The Family Center on Technology and Disability has a useful website full of information for families. It is relevant, especially for families about to transition from early intervention to school based services. A number of topics may be of interest to our families, including:

- General Resources (including a monthly newsletter, conference series, websites).
- A printable 'Family Guide to Assistive Technology' (available in English and Spanish).
- Success Stories and Resource Reviews (e.g., Hundreds of assistive and instructional technology resources have been identified, reviewed, and annotated for your reference), which may help a family narrow down their search when contemplating an AT device.
- A glossary of AT terms and a listing of public laws.

For families about to transition to school programs, the Family Information Guide to Assistive Technology and Transition Planning (printable) may be particularly useful. Chapter 2 is entitled 'How to Make a Successful Transition with Your Assistive Technology' and promotes the idea of 'Developing a Student Assistive Technology Portfolio'; a description of such a portfolio is provided. Under 'Fact Sheets' you will find a handout on Assistive Technology and the IEP, which may also help to facilitate the inclusion of AT on an IEP.

I hope you enjoy this family friendly website dedicated to assistive technology and special needs population.

## What Do the Data Say?

### *How is AT documented on IFSPs across the states?*



To answer this question we look to the research of Milbourne and Campbell (2008). In 2007 the researchers surveyed Part C Coordinators, in part, to determine how AT is documented on state IFSP forms. The online survey included examples of how

AT devices and services may be documented on IFSPs. Respondents were asked to identify the all of the examples that applied to their IFSP forms. Respondents included 29 (57%) of the 51 Part C Coordinators. The survey examples for documenting AT on IFSPs and percentage of responses per each example are included in the table below.

AT Documentation on IFSP Examples	Responses
AT is listed as a service option	79%
AT is linked to outcomes on the IFSP	45%
Check boxes are used to indicate the need for AT	31%
AT is included on a section for transition planning	31%
There is an AT Authorization page	24%
Check boxes are used under the family resources, concerns or priorities section	17%
A whole section of the IFSP is dedicated to AT services/devices	14%
At this time, there is no specific place on the IFSP where AT services/devices are listed.	3%

The majority of Part C Coordinators noted that AT is listed as a service option on the IFSP. This is the same for our EDIS IFSP. Nearly half of the respondents reported that AT is linked to individual IFSP outcomes with each outcome having a section for noting special accommodations or adaptations or equipment that can help with outcome achievement. The current EDIS IFSP requires linking AT to outcomes by crossreferencing the outcome number with AT. This is documented in the designated AT section of the IFSP, which 14% of Part C Coordinators also reported having on state IFSP forms. See page 65 of the EDIS IFSP Linking Early Intervention Processes Handbook for information about crossreferencing outcomes in the AT section of the EDIS IFSP. AT may also be included under the strategies section of the EDIS IFSP outcome pages.

AT can be helpful for engaging young children in day to day activities and for helping families support their child's development. Furthermore, IDEA mandates that AT devices and services are included among the early intervention services that can be included in the IFSP. Accordingly, it is important that AT is explicitly documented on IFSP forms.

Milbourne, S., & Campbell, P. (2001). Report of assistive technology training for providers and families of children in early intervention, *Research Brief Volume 2, Number 1*. Tots n Tech Research Institute. Retrieved July 2010 from <http://tnt.asu.edu>

## Consultation Corner



From March through July 2010 the consultation corner topic is:

Assistive Technology in Early Intervention

### **What are some realistic guidelines for considering AT for children with mild delays who do not need high technology devices?**

Some people have a tendency to think of AT as high technology devices and services that are designed especially for people with severe disabilities in order to replace a natural function like mobility or communication. People with severe disorders, for example, may use a wide range of Augmentative and Alternative Communication (AAC) devices in order to communicate effectively. A first point to remember is that AT is encompassing and includes simple low technology adaptations such as an adapted spoon or a schedule board that used by children to support their participation in natural settings and their performance in any number of activities.

AT devices range from low-tech to high-tech. Most children with mild delays will benefit from using low-tech AT devices. These devices can help all children, regardless of their abilities, participate independently in daily activities and routines; and promote learning and functional skill development that may not have occurred without the use of AT. A second point to remember is that many children who use AT will use it only for a short time and not for the rest of their lives. A young child who has difficulty grasping or holding may use an adapted spoon to be independent in feeding but may later develop sufficient grasp to use any spoon effectively. When a child has developed skills that allow independent participation in a specific activity

or routine, then AT may no longer be needed for that activity.

### **Guidelines for Considering the Use of AT Devices & Services**

#### **Is a child's participation or skill performance improved?**

- AT devices are a type of adaptation – a type of intervention support that may help a child participate successfully in an activity/routine or accomplish a desired task. A child needs adaptations or AT devices any time participation or skill performance are improved with use of the AT. For children without significant physical disabilities, this may mean use of social stories, picture instruction boards, feeling charts, picture schedules, or other types of visual supports. It may also mean use of various types of communication aides for children who have difficulty fully expressing themselves.

#### **Does a child's family or teacher(s) see the usefulness of the adaptation/AT?**

- Most adaptations or AT devices, if well designed, fit into family, school, or community activities and routines – but some may be cumbersome to embed. For example, a communication board that has picture symbols that may be attached to various devices may be more useful than one “fixed” communication device that can only be used easily inside home or childcare settings.

#### **Can the adaptation/AT be used easily by others?**

- Adaptations or AT may be simple enough for everyone's use but, if not, adults who will use AT with children need to be taught how to embed the device use into activities & routines or how to use to teach the child a functional skill. For example, a child with autism may be more successful when communicating if also using a picture exchange system, but people communicating with the child may need to be taught how to use PECS.

### **How will the device be acquired?**

- Many of the AT devices used with children with mild disabilities are generally fabricated by someone. For communication supports/aides, this may mean using a program such as Boardmaker or other picture symbol programs to print out pictures for use on boards, exchange systems, or other types of communication aides. Or it may mean using these or other pictures as part of a social story or picture schedule. Someone needs to be designated to be the person who will fabricate the AT and then monitor its use by other adults who interact with the child – like parents, other caregivers, siblings, friends, child care providers, etc.

### **Figuring out When and How a Child's Participation or Skill Performance May Be Improved**

In a previous newsletter we discussed how to identify a child's need for an AT intervention. As you may recall, the first step in identifying the need for AT is to assess the child's daily activities and routines to find out what is going well and what is not going well. These assessments should answer the following questions:

- What can the child already do without adaptations/AT? (i.e., don't change something that works well.)
- Which activities and routines are and are not going well (as identified by the caregiver or the day care provider)?
- How does the child behave in his/her natural environments?
- What barriers prevent the child from performing a developmentally appropriate skill required for participation?
- What are the child's/family's needs and in what activities/routines do the caregivers want the child to participate?
- What does the child like or dislike? What motivates him/her?
- What are the adult's perceptions of how well the child performs functional skills (e.g., communication, using arms and hands, socialization, getting around)?

- Have any adaptation/AT interventions ever been used with the child? If so, how are they working (or not)?

In addition to these questions about the child, other factors are considered when assessing children's environments. Some children who appear to have mild delays may be in an environment that is not conducive to their developmental competence and skills. Ensuring that the child's environment is set up in a way that supports development is important. When observing the child's environment, ensure that:

- The child is able to interact with toys and engage in activities:
- The environment is stimulating, but not too stimulating.
- Adults attend to children when they are distressed.
- The child has opportunities to interact with other children/adults.
- The environment and people in the environment are predictable and not chaotic

Intervention strategies that support communication, arm and hand use, positioning and mobility and socialization are commonly used with children who have mild delays. These strategies help children interact independently with their environment and peers. They can also help children build friendships, explore their environment and reduce frustration that may bring about or be associated with challenging behaviors.

- Communication – many children with communication delays can use simple pictures and symbols to express themselves. Switches can also be used to help children communicate while playing a game, reading a book, eating a meal, etc.
- Arm and hand use – wrapping items with small handles or crayons with foam hair curlers and washcloths can help children who have trouble picking up small objects by making the grips larger. Adding shower curtain rings or knobs to toys also helps children pick up small objects.
- Positioning and mobility –children who need a little extra help sitting up may benefit from



bolsters, wrapped towels, or cushions placed around them to prop them into a seated position. Push-toys can be used for children who are not able to support themselves while walking.

- Socialization - these types of AT devices are most often labeled as visual supports or social supports. While they may not be labeled as AT, they *are* included in the IDEA definition of AT devices and supports. Social stories and picture schedules can be used to help children transition. Feelings books, posters and charts can be used to help children express their emotions.

### **Is a child ever too young to consider AT?**

No! Parents and providers of children who have a disability or children with developmental delays should consider AT for their children, regardless of age. Skill development and social interaction start at birth. As such, early introduction of AT allows children to participate more actively in their environments and with the people in their environments and provides the child with opportunities to work on skill development and learning. Early intervention providers play an important role in the introduction of AT to this age group. A recent study about AT use indicated that families used AT with children more frequently and at earlier ages when early intervention providers provided information and training about AT (Kling, Campbell, Wilcox, 2010).

Unfortunately, many providers report that they do not consider AT until after children's second birthdays (Dugan, Campbell, and Wilcox, 2006). Over 400 early intervention providers who were surveyed about their beliefs regarding AT reported that they generally did not select AT as an intervention for children under the age of two and were more likely to use skill development strategies for children with delays than to suggest AT, especially in play, mealtimes, and communication. Lack of training and knowledge about AT and adaptations may hinder use by providers and families.

Children who are not introduced to AT at an early age, may learn less desirable or appropriate ways to meet their needs. For example, a child who cannot tell her parents "all done," through signs, pictures or speech, learns that throwing her food off the table means her parents take her food away. She has learned that throwing food means, "All done" and may continue to communicate this way unless taught otherwise. Early introduction of a communication strategy can resolve this behavior or prevent it from occurring.

Some parents or providers may be concerned about introducing AT too early because of the common myth that children who use AT will become dependent upon it and not develop functional skills. Or they may think that AT will make things easier for the child and discourage skill development. Neither of these myths are true. In fact, AT can help children develop functional skills and support age appropriate growth and development. Some of the common myths surrounding augmentative and alternative communication (AAC) were reviewed and children's speech skills actually improved after using AAC (Ronski and Sevcik, 2005). One study in this article also reported that AAC strategies were no longer used after the AAC was not needed. Although this article focused on communication, the findings can be generalized to other functional skills. Parents and providers should always remember that the purpose of AT is not to hinder a child's development but to support it.

Mistrett (2001) provides an excellent case study about a 7-month old child with multiple disabilities. Without the proper AT devices, the child was irritable and had a difficult time participating in daily activities/routines. Once the 'right' device was found the child's irritability decreased and his independence increased. The strategies used in this example could easily be applied to children even younger than 7 months old.

José, the youngest in a family of four children, is a non-verbal 7-month old boy with cerebral palsy and spastic quadriplegia. José's disabilities were causing him to exhibit symptoms of irritability that were preventing him from interacting with his environment. His parents were considering a strong

sedative for José in order to reduce his crying and the stress on the rest of the family. With the help of their therapists, his parents had tried several calming techniques, including body weights and heated pads, but nothing seemed to help José. Finally, a semi-reclined infant seat with a vibration feature was found. When José was placed into the seat and the low vibration feature was turned on, he immediately stopped crying and began to look around. With this support, José was able to enjoy, interact with, and respond to the people and objects around him!

Because José had not interacted with toys until this time, an overhead gym was placed over the chair with visually interesting toys hanging from it. The toys were lowered with links until they touched his hands. In this way, he could see them, feel them, and watch his hands move them. He began to move his hands against them, watching what was happening. As José interacted more with the toys in this setup, other toys and household items were used and hung at various heights for him to reach and kick.

Now, with the help of the vibration feature on his infant seat, José's irritability has decreased and he is much calmer and more comfortable interacting with his environment. As a result, José is a more engaged and active participant in the daily activities of his family, and he shows increased independence during playtime. (Mistrett, 2001, p. I-1)

Decision-making about what types of AT to use with a child is an ongoing process. AT that is used with a very young child may look quite different from AT that is used with an older child. A device that helped a child participate in daily activities/routines as an infant may no longer be successful for a toddler. José, in the example above, may need different devices to promote his participation as he ages, or he may no longer need a device because he is able to participate without the use of AT. Whatever the case may be, a child's age should never prohibit him/her from using AT.

Dugan, L. M., Campbell, P.H., & Wilcox, M.J. (2006). Making decisions about assistive technology with

infants and toddlers. *Topics in Early Childhood Special Education*, 26(1), 25-32.

Kling, A., Campbell, P.H., Wilcox, M. J. (2010). Young children with physical disabilities: Caregiver perspectives about assistive technology. *Infants and Young Children*, 23(3), 169-183.

Mistrett, S. (2001). Synthesis on the use of assistive technology with infants and toddlers with disabilities (birth-two). Washington, D.C: American Institutes of Research.

Romski, M.A. & Sevcik, R.A. (2005). Augmentative communication and early intervention: Myths and realities. *Infants and Young Children*, 18(3). 174-185.

### Continuing Education for KIT Readers

The Comprehensive System of Personnel Development (CSPD) is offering a continuing education opportunity for EDIS KIT readers.



In line with the focus on AT in EI, readers are invited to receive continuing education contact hours for reading the monthly KIT publications (March 2010 through July 2010) and completing a multiple-choice exam about the content covered in these KITs.

If you are interested, take the exam online at [www.edis.army.mil](http://www.edis.army.mil) and upon successful completion, you will receive a certificate of non-discipline specific continuing education contact hours.

**Please send your Consultation Corner questions and KIT ideas via email to [ediscspd@amedd.army.mil](mailto:ediscspd@amedd.army.mil)**

