



**Family Center on
Technology
and Disability**

FCTD Conference Series: AT Supports for Young Children

March 3 – March 31, 2005

AT Supports for Young Children

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EXPERT'S CORNER

Introduction

Play is how young children learn and grow, however, for many young children with disabilities, play is often limited. Use of assistive technology has been shown to promote play in young children with disabilities. In particular, "low tech" solutions are often the most successfully because they are readily available, inexpensive, and don't require extensive training to use, in other words, they are "family friendly." Therefore, it is important that families and professionals be aware of meaningful ways to incorporate technology into early childhood intervention strategies.

This month's discussion expert Sue Mistrett, with the University at Buffalo Let's Play Project, has many years of experience helping early childhood programs capitalize on "low tech" tools and strategies that support development and promote play in children's lives. In this discussion Sue will be sharing her ideas and strategies in the use of assistive technologies for young children with disabilities. The discussion also offers an unique parent perspective from Lisa Larson, who's young son Trey, has been successful with a wide range of assistive technology from low to high tech equipment.

Experts' Perspectives

Childhood is a time of participation and activity; it is a time when huge strides in development can be made simply by providing opportunities to participate in everyday activities. As we know, disabilities can prevent participation in typical childhood activities for a significant percentage of the nation's children. We also know that assistive technology tools and strategies are available to make it easier for young children with disabilities to not only participate, but to do so independently. These items, when combined with successful strategies, often provide a means to assist children to stay securely in a certain position, move, use materials and communicate – in other words, to participate- more successfully and independently in the naturally occurring activities of their day.

Although AT shows great promise in supporting the participation of young children in life activities, it is under-utilized due to a lack of awareness and agreement of what constitutes AT supports and

how to best select and use them, by parents and professional groups alike. There is a great need for information sharing on approaches that will address these barriers.

Experts' Bios



Susan Mistrett

Susan Mistrett

Susan Mistrett has directed the Let's Play! Projects since 1995. Supported by the U.S. Department of Education, these projects examine and promote the participation of young children with disabilities in all daily activities, including play. Sue and her colleagues have identified AT supports that are used by families to assist their child's ability to move, communicate and interact – in other words, to participate – in family routines. These successes have helped parents rediscover and support the role of active participation in their children's lives, adding to their joy of "familyhood!" The most recent Let's Play! Project activity was to develop an

AT Wheel for Young Children where AT supports are listed under sample routine activities. This was done with collaborative input of six AT experts across the country.

Outcomes of Sue's work include identification of best practices to integrate technology into existing programs for maximizing the independence and participation of children with disabilities in home, education, and community settings. She has authored articles, book chapters and training curricula that focus on Assistive Technology for young children, and has been a speaker at a number of state and national conferences on topics relating to early childhood technology.



Lisa Johnson

Lisa Johnson

Lisa Johnson has been married to her incredible husband Stephan for seventeen years and is a stay-at-home mom to nine year old Trey. Besides facing numerous health challenges, Trey has Down Syndrome and autism. He is non-verbal. After a speech therapist declared that three year old Trey would never talk, he received his first augmentative device - the Tech Speak 32. He quickly outgrew this and went to the Dynamyte 2100 which has been an amazingly empowering tool for him.

Before becoming Trey's Mom, Lisa was a secondary business educator for twelve years. She knew that computers could play an integral part of Trey's life so she started playing computer games with him when he was only two years old. This has enabled Trey to develop amazing computer skills. His computer capabilities have evolved so that even though he is nonverbal he is able to make presentations to his regular education class. Much of the software Trey now uses was introduced to us through the K.I.T.E. program at Pacer Center 's Simon Technology Lab.

CONFERENCE

Transcript: AT Supports for Young Children

- **Welcome by Jackie Hess** on Mar 03, 2005
Welcome to the Family Center's March online discussion. The discussion is now live; we encourage you to post your questions and comments. Sometimes we overlook the significant impact that assistive technology can have on very young children. And yet, an

increasing amount of research points to the critical importance of early diagnosis and intervention. When a child is 3 years old, "intervention" very often involves play. What types of AT support therapeutic play? Should therapists and parents use AT differently? I know that when my son was little, and his diagnosis was new, there was a time when I resented having to play with him very differently than I could play with other children. But it was extremely important that I "get it right." Then again, perhaps more important than "getting it right" was simply not getting too frustrated and not giving up. He's now thriving at 16 and I see those years as having laid the groundwork for all the successes that came after. I'm looking forward to this discussion and to hearing from many of you.

- o **Re: Welcome by Sue Mistrett** on Mar 03, 2005

What a wonderful opportunity to be able to share our experiences on the use of technology with young children. There are many similarities with older children in the ways technology is selected and in its common goals to support independent participation. But there are also many differences, due to the unique challenges of this age group. We know that between birth to five years of age, children grow more rapidly than in any other time of their lives. Our challenge is to identify technologies and systems that support this continual development – an ongoing dynamic process. Families, caregivers and service providers need to share a common vision as to what AT is and how it can be best used to meet the needs of children and families. We need to examine a wide range of AT options to choose from and how and when they are best used. I am looking forward to this opportunity to share our stories, resources and concerns.

- **Welcome by Lisa Johnson** on Mar 03, 2005

I am excited to be a part of such an important discussion. Even though my son is almost nine years old, I can still remember the feeling of failure when the clinical speech therapist stated he would never be able to talk or communicate. Thankfully, our school district has an augmentative specialist who introduced us to the Tech Speak. The transformation in Trey was incredible. He was so empowered that everything in our lives became easier. He was like a whole new child.

Currently, Trey uses a Dynamyte for his main communication device. I am questioning how best to get him to use it appropriately to demonstrate expressive language skills. For instance, when you ask a specific question such as the child's name or what color is the truck, should you allow the child to answer however they choose (i.e. I want crackers, please.) or should you do hand over hand instruction until the child understands what you are asking?

I look forward to this month long discussion.

- o **Re: Welcome by guest** on Mar 03, 2005

I am a speech therapist who has had the opportunity to work with a child on learning the Dynovox from inappropriate communicative attempts to now three years later when he puts together 8-10 word sentences to ask and answer questions. His mother says he particularly likes to talk to the old ladies in the Dr. office waiting room. I utilized the approach that I responded directly to what he said, "Your name is not I want crackers!!" followed by direct modeling- my selecting the correct sequence followed by responding to the correct answer. I would also limit question asking at first and set up situations where he needs to request objects or actions. Get crackers and eat them with exaggeration until he begins to show interest and

then prompt a request. Good luck--it's a long and laborious road but there is a pot of gold at the end for those who are persistent!

- **Re: Welcome by Lisa Johnson** on Mar 04, 2005
Wow! I was thrilled to read the responses to how best to generate appropriate expressive language. I am excited about the growth I will experience during this month and am confident that Trey will benefit.

Joy, I agree that deciding just the basic "where to start?" can sometimes be overwhelming. Trey's Tech Speak was a little easier to control - especially with the open ended phrases that Sue suggested. We had six different overlays so each one had a specific purpose: food/snack, home, speech, school, etc. As I stated, he took to this immediately.

To the guest speech therapist, I appreciate the suggestion of answering just as if I had asked a verbal child a question. Sometimes it is easy for me to forget that the Dynamyte is Trey's voice.

- **Re: Welcome by guest** on Mar 04, 2005
It was funny that you said you sometimes forget that the "Dynamyte is Trey's voice". We had a funny situation recently when this child's Dynovox was sent in for repairs and the company sent a loner device. The new device had a man's voice selected rather than "Kit the Kid" which he had been using for the past years. My student (12 years old) loved the new voice and wanted to keep the man--his mother had a fit-- that was not her son speaking. She has now become so used to associating "kit the Kid" with her child's voice that it made her insane to hear that strange man talking in her house. You will soon feel the same way and identify that voice with your child. It will become as much a part of him as his smile.
- **Re: Welcome by Sue Mistrett** on Mar 03, 2005
Hi Lisa- I think the answer may be the infamous "It depends". What does he want to communicate? Does he want to make a choice, answer a question, initiate a conversation, make a comment, join a game, etc.? We have found that phrases that are more open-ended (e.g. do it again, come and see, stop it!) really promote communication as the child is supported to initiate instead of responding to a single question. These same messages can be used across activities- over and over again- the way we naturally use language. Combining these "social messages" with pictures relevant to a specific activity seem to offer broadest options.

Any advice from speech therapists or parents who have "been there"?

- **Re: Welcome by Joy** on Mar 03, 2005
Oh, I DO like that "it depends" thing, Sue. Can you talk a little more about some of the things it might depend upon? If we are not sure where to start, how can "we" find out more about what he wants and needs to do? What should we look for to find out more about whether he wants to initiate, comment, etc.? And who are "we"?

So wonderful to have you, Sue and Lisa! I know it will be a terrifically thoughtful and inspiring month! I look forward to the conversation!

- **Perseveration in play** by **Jody** on Mar 04, 2005

My son has Asperger's Syndrome, and like most AS children, his play is marked by perseveration. We're still new to this and I'm wondering how "directive/corrective" I should try to be or if I should just allow him to do what he likes. For example, he has lots of small toy trains that he likes to line up. He doesn't want to play with them in the typical way that little boys would; he just wants to line them up. The line has to be just so, and if you try to engage in interactive play, say by picking up a train from the line (or even holding it so it's not available to be put in the line) he gets very distressed. He also likes to spin wheels and call out letters. At 3 he has the entire alphabet memorized and is starting to read, but he has little interest in playing with toys other than these two activities. Thanks for your advice.

- **Re: Perseveration in play** by **Sue Mistrett** on Mar 04, 2005

Hi Jody - as you know better than I, children with AS view the world as very concrete and literal and do not typically engage in imaginative play without guidance. Although there are several different approaches to encourage more creative and spontaneous play, the majority of parents we have worked with have found success in reducing perseveration by following the Floor Time Guidelines developed by Stanley Greenspan.

Johanna Lantz offers a comparison of play strategies for children with autism at <http://www.iidc.indiana.edu/irca/SocialLeisure/playtime.html>. I have included some information below directly from the website.

"Floor Time involves five steps:

1. The adult observes the child playing in order to determine how to approach him/her.
2. The adult approaches the child and joins the activity while trying to match the child's emotional tone.
3. The child directs the action and the adult follows the child's lead.
4. The adult expands on the child's chosen play theme without being intrusive.
5. When a child builds on the adult's input, the child "closes the circle of communication" and starts a new circle.

It is crucial that the adult does not use Floor Time as a time to teach a particular skill. It is also important to remember that the child is the leader of the activity.

Floor Time can be used to change perseverative behavior. For example, if a child is fixated on lining up blocks, the adult joins in and adds blocks to the child's line. Then the adult may place a block perpendicular and start the line going in a different direction. When the child continues the new line, he/she has "closed the circle of communication." Some suggestions for Floor Time include inserting obstacles into play and helping the child problem-solve. If a child has very limited play themes, it may be helpful to use sensory toys (e.g., sand tables, shaving cream, bubbles) or use popular characters that the child enjoys to gain attention".

Has anyone used this or other strategies to encourage more creative play?

- **Re: Perseveration in play** by **Phyllis** on Mar 04, 2005

Before responding, my first question would be, "How old is your son?" One of the most important things I have found is to start by making sure my children (I teach a

preschool inclusion class) are playing with toys that are not only developmentally appropriate, but age-appropriate as well (what are your child's same-age peers playing with- you want to create/ build upon similar interests).

Assuming your child is in the early childhood range (birth to five), I would begin by building on his interests (e.g. trains) and finding ways to incorporate it into other areas of the classroom or home. For example, putting books in the library about trains, train puzzles, maybe a transportation collage in the art area, train/ car songs at circle time, train cookie cutters with play dough, etc. Keeping in mind that the materials need to be rotated, so as not to create a dependency on particular items. Playing with the trains should not always be a choice, or it may become difficult for a child to find new interests and become "stuck" on a certain topic/ toy.

I have a young boy in my class (4yrs old with an IEP) who loves to get out the Duplo box, take out the trains, line them up, and later walk around with them (if he could...all day). Initially, he was not willing to put them down to engage in other activities (e.g. painting at the easel). This is what we have found to work at my site:

I begin the day by keeping the Duplo container out of site and encouraging him to start at one of the tables by handing him a visual cue to participate in the activity (e.g. a magazine cutout of a train for the transportation collage on the art table). This tends to get him interested enough to come check out the table for a few minutes (we are continuously working on "One more minute and you can be all done" or "Let's glue on one more picture" trying to extend the length of participation).

After engaging in the first activity with adult support and peer models, he tends to seek out the Duplo trains. Upon seeing that they are gone (which creates a need to communicate- "Trains?" or "My trains?"), I tell him that first I want him to try one more activity (e.g. train puzzles or book) and then we can get out the trains. We have been working on "First _____, then _____," while holding up 1, then 2 of my fingers (he's also strong in the area of numbers/ seriation). We have made some real progress over the past semester (has become part of the routine). This helps to provide him with a visual and auditory cue that the desired object/ activity is next (helps to provide structure). But you always have to follow through.

When we finally get out the Duplos, I intentionally give some of the trains to another child (that shares the same interest) that I have invited to play. This way the other child wants to engage in the same activity and can be a peer model (i.e. modeling social play, language, etc.). If the child with special needs wants one of the trains that the other child has, he then has to request the desired item (creating a need to communicate). We started with an adult modeling the words for him (e.g. "Red train please." or "Wanna trade?"). I have found that being a model or having a peer model is more effective than trying to direct a child's play. You want to build trust with your child, not create what can become a power struggle. Try to redirect his play into something more functional/ purposeful than lining up the train cars. Here's one idea: Try setting up small pieces of plastic rain gutter (set against a wall or chair) where you can model placing a train/ car at the top and letting it roll/ race to the floor. Chant, "Ready, set, go!!!" and make a game out of it. This is a great way to encourage turn taking. You can start with just you and your child at home and then can introduce a same-age peer (e.g. play date).

I also try to limit the amount of time he spends on a particular activity (his two favorites are the trains and riding a tricycle). I will give him time frames. "Ok _____, five more minutes and I want you to find something else to play" (if necessary you

can be more specific- "...and I want you to come to the play dough."). I then give 3 minute and 1 minute warnings before saying, "Ok _____, we are all done with the trains. It's time to go play with the play dough." Or offer two choices for the child to choose from. For example, upon completing the 5 or 7 minutes with an activity you can state, "Ok _____, we are all done with the trains. Would you like to play with the play dough or the puzzles?" Initially it may be helpful to provide object cues (e.g. a small ball of play dough/ or train cookie cutter and a piece of the train puzzle) to help spark an interest and give the child something to hold to as they transition to the next activity.

We use this strategy with a variety of materials and children in the classroom. This is just one example. Again, each child is unique and keeping this in mind, what works for some may not for others. It's important to try new things in new ways. What works one day, may not on another; as I am so often reminded. Like any new strategy, it takes time, consistency, and whole lot of patience. Reaffirm their frustration (e.g. "I know you are angry and still want to play with the trains, but we're all done with the trains today. You can play with them tomorrow. It's time to play with the play dough" (adjusting the length of your sentences based on your child's receptive language- what they understand has been said to them." Sometimes pairing key sign language with English (total communication) helps- signing and saying "All done" upon completion of an activity. I use this with ALL of my children (they love learning new signs).

Hope this gives you some new ideas...=)

- o **Re: Perseveration in play by Lisa Johnson** on Mar 07, 2005
Jody,

I remember when Trey was first diagnosed with autism. I felt as if every waking moment he had I had to make into a teaching situation. There are so many theories and opinions out there. I remember when someone in a support group first mentioned Greenspan's theory of Floor Time, I thought to myself, "Why would Alan Greenspan have a theory on autism? He's an economist." Obviously, I was overwhelmed with everything.

I then decided that Trey was first a little boy and then a child with autism. I read about Floor Time and realized that it empowered me to keep that motto. It allowed me to just play with Trey almost as if he was a typical child. Trey is similar to your son as he loves trains and cars (basically anything that moves). I got down on his level and did what Sue suggested. I would first line up the trains like he was. Then maybe I would crash one into the line. Trey, of course, did not appreciate this at first. He then started laughing when they would crash. There are so many things to do with trains and cars that broaden their routine.

Your son is obviously very intelligent that he already has his alphabet memorized and is starting to read at the age of 3. Following with the car and train fixation of Trey's, I made an alphabet railway/roadway with card stock and markers. Once summer came, I tied the letters to our fence and we would have races to see who could get to different letters first. This also works with simple words in our continuing quest to build his reading skills.

We have also had much success in using the "First_____, then_____." approach that Phyllis suggested. We usually use this in conjunction with a picture schedule.

I hope some of this has helped. Please feel free to continue asking me anything.

- **Re: Perseveration in play** by **Sue Mistrett** on Mar 08, 2005
Hi Lisa- what a wonderful example of a successful strategy (or intervention) for Trey! By starting with what Trey was interested in + becoming his play partner, you were able to take your "turn" to gently guide/change the purpose of car play. In determining "what will work", it is so important to start where the child is - what he is interested in - not where you eventually want him to be. Trey is still motivated by cars and trains, but now they have become a means to an end, not the end itself.

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- **Where to Start** by **Sue Mistrett** on Mar 04, 2005
When families and service providers work together as a team, openly discussing and prioritizing goals for a child, they arrive at decisions as a group. Understanding the child's preferences, needs & abilities, as well as family attitudes and desired outcomes is a critical first step in determining what types of interventions will "work" best. We know that all children develop through active participation in daily activities.
As a team...
Ask: What are the activities within the routines of the day? What is the child expected to do? These can be activities at home, in school or in the community- from bath time to eating lunch at MacDonald's to participating in story time at school.
Determine: Select a single activity. What's happening now? How is the child currently participating? What supports are in place? What's stopping her from doing more?
- What would you like to see happen? Could the child be more independent during part of the activity? Break down the activity into parts. For example bath time consists of several activities:
 - getting in and out of the tub
 - sitting safely
 - washing body parts
 - playing with water, bath toys
 - communicating needs, wants, social interactionIdentify what desired changes do you hope to observe with increased supports
Brainstorm: AT solutions that may address specific activities. Consider a wide range of options- from off the shelf items to specialized devices; identify strategies to best use the AT.
Try it out: prioritize the solutions and plan for their use. Observe what happens.
Work together: to modify and replace the AT solutions as needed- The more specific you can be as to defining the activity for participation, the easier it is to identify the AT intervention strategies. Knowing, for example, what communication symbols to use will be determined by what the child needs to do to participate in a specific activity.

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- **Assistive Technology in Early Childhood** by **Phyllis** on Mar 04, 2005
I have been working on a literature review for my master's thesis project on assistive technology in early childhood (birth to 5 years). I have had quite a difficult time finding the appropriate resources/ articles. I am focusing on the benefits of and barriers to AT. I am looking for research articles (peer-reviewed/ scholarly) that provide some hard data. Much of what I have found is not research-based. I would ultimately like to put together a parent handbook for navigating the AT maze, as well as a PowerPoint presentation to use with both parents and staff. Regarding the barriers, my focus is on the lack of training (coming into the field and after the device has been provided) both families and staff have. The staff at my site have all had intro. to AT classes (at Cal State Northridge), but not as in-depth as we

feel is necessary. All of the training I have been able to come across in California is more for school-age and secondary education children. My children with special needs are not going to be using word processing programs, etc. I have attended the Technology and Persons with Disability Conference at the LAX Marriott and Hilton the past two years and it has yet to target the early childhood population (although it is an amazing conference...I'll go again this year for sure).

Any ideas for trainings in Southern California? Any ideas for research articles?

- o **Re: Assistive Technology in Early Childhood** by **Sue Mistrett** on Mar 07, 2005
Hi Phyllis - you are absolutely right! There is a lack of controlled research studies on young children - however, some do exist and the numbers are growing. I would like to make the point however, that there is a range of research designs that can be used to achieve "evidence-based outcomes" for this group in particular - see the latest version of Exceptional Children for a place to start.
As far as resources for young children, the Tots N Tech Project which is our EI/AT Research Institute funded by the feds has a list of current research projects on exactly this topic! You can find them at http://www.asu.edu/clas/tnt/home_files/r_briefs.html - their survey data is particularly interesting as it confirms that parent and service provider perspectives are very different when it comes to AT definition and use. Contact them for a list of relevant articles In addition, a synthesis on AT for Young Children, Birth to 2 was published in 2001 - it offers a fairly extensive bibliography of that time. I will add it to the resource section on this site, along with a more current bibliography of AT and Young Children from our projects. Hope that helps!
We certainly agree that AT for young children looks very different than AT for older children. What information are parents and service providers most interested in? What is included in "Introductory" information vs. more advanced topics? Does anyone know of good training programs on the use of AT with young children? Perhaps we can use this discussion to identify what's needed and what exists - ideas???
- o **Re: Assistive Technology in Early Childhood** by **Sonia K. Aller** on Mar 08, 2005
Hi Phyllis:

You're right (unfortunately), that there is still very little good information re:AT and the Early Childhood population. Thanks to Sue Mistrett's work of well over a decade, this topic is being focused on more. The review article (2001) she referred to is very telling -- in that the core of the training that's needed is helping EI providers (and parents) see AT as SUPPORTING the child's development, and not as the 'final solution', or primarily for skill acquisition. In our OSEP supported grant, 'Tech for Tots: Assistive Technology for Infants and Young Children', (USC UAP at Children's Hospital Los Angeles) we address this issue in depth, and provide an interdisciplinary, family-centered perspective to early childhood development and AT. In fact, in 2002, we piloted Level 2 of this curriculum as a semester-long course at CSUN; currently I am working on completing it. Also, our grant has, since 2000, published a training packet (trainer's coursebook, PP CD, a 16-minute video, and resource guide) that is still available, aimed at 'awareness raising' for providers, parents, etc., and has been disseminated nationally. In my experience in presenting the topic from the 'Tech for Tots' perspective, I find that people come to realize and appreciate the notion that it's all about development, and not necessarily the 'gadget'; or come to see the 'gadget' differently than they did before the training. Also when two years ago, we applied the Tech for Tots model of interdisciplinary, family-centered approach to AT in EI using a consultation model (with 4 providers, a parent, an AT specialist, and family support personnel), we discovered that the

providers found the INTERDISCIPLINARY experience almost more revealing than the AT training (of which we included a broad range of hardware and software applications)! The parents were delighted that they could actually discuss their child (current performance, their goals, etc.) with a team who became familiar with their child AS A TEAM. Unfortunately, since we could not have the individual (outside) providers of services to these children as part of our pilot, we could not communicate with them directly about our observations and suggestions for the children we consulted on. We are working on figuring out a way to do this with the Regional Center with whom we did this consultation pilot, especially targeting the initial developmental assessors.

If you would like a copy of our 'Tech for Tots'-Level 1, awareness level training packet, please give me a call at 323-671-3828.

Sonia K. Aller

- **Re: Assistive Technology in Early Childhood** by Sue Mistrett on Mar 14, 2005
Thanks Sonia- for such a great project and for reminding me that federal projects are often a great resource when looking for guidelines on AT use and other information. After all- these are "our tax dollars at work". A place to begin to find out about these projects for young children is through the National Early Childhood Technical Assistance center - NEC*TAC at <http://www.nectac.org/search/proj/earlyidproj.asp>. Scroll through to look for AT projects - there are many others that look to address current issues.

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- **Trying to help out the field** by Joan on Mar 08, 2005

Sue and Lisa-

How wonderful to see this topic. Thanks for sharing your expertise. I am talking with some folks associated with ECSE here in my state. I know how many IFSPs include AT services, but not how many plans include AT devices. What would you estimate would be the percentage of little ones who need AT devices?

And- what barriers would you expect exist that keep little ones from having access to appropriate AT?

- **Re: Trying to help out the field** by Lisa Johnson on Mar 09, 2005
Joan,

From a parental point of view, I think the biggest barrier for little ones to have access to AT is the parent. I know that sounds strange but I believe it is true.

The first barrier that must be broken down is the feeling that you are giving up on your child. For my husband and I, we were convinced that one day Trey would be verbal. When the clinical speech therapist said that would never happen, we did not want to believe it. We were afraid that by giving him access to AT are we going to take away his desire to learn to speak. It was explained to us that in many cases once a communication device is incorporated into a child's life they may become more verbal. In a way, Trey has proven this theory. He is still nonverbal; but, he seems to understand the importance of communication more.

Secondly, the cost barrier is huge. Many insurance companies refuse to pay for augmentative communication. Trey's Tech Speak was around \$700 and his

Dynamyte was around \$7,000 (once you add in a warranty). Like all parents we were willing to do whatever it took to provide these tools for Trey; but, it took some planning. Our school district AT specialists is currently joining forces with other professionals to lobby the insurance companies to realize that to a nonverbal child augmentative communication devices are as important as wheelchairs and braces are to a child who is unable to walk. Something to think about.

- **Re: Trying to help out the field by Joan** on Mar 09, 2005

Lisa-

Thanks for some interesting perspective. I appreciate your honesty!

I am glad to hear Trey is making progress on communication, and I am also glad to hear your school's AT folks are being proactive (you know I am always happy to hear good things about school employees!) I agree it is important to change the funding streams to recognize the importance of communication. Unfortunately, this is something private insurers do not do a good job on across the board. I wonder what strategies will work to make a systems change?

- **Re: Trying to help out the field by Sue Mistrett** on Mar 10, 2005

Hi Joan- the official numbers appear to be stuck at 4%, but our records (of AT provided to school and EI programs) show that approximately 11% of children are using AT device + services when they are readily available to them. These numbers do not take into account the low-tech items that may support a child during daily activities - items such as slant boards, pencil grips, non-slip materials, etc. As they materials become more widely known and used, they become part of "commonly used" materials.

Lisa mentioned two of the largest barriers to AT use - parent fears that AT may interfere with development and cost - these are both huge issues. Another barrier is a lack of knowledge and a shared perspective of what AT is and an understanding of how it can be used to promote participation and growth. Yet another is the lack of readily available AT supports- to use when the child needs them. Loan centers are an obvious, cost effective answer - but how should they be funded, staffed and maintained?

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- **Floor play by jo corder** on Mar 08, 2005

I am considered a "veteran" parent because my disabled child is over 16 now. However, I was able to utilize, and still do at times, the Hanen program or technique of Observe, Wait, and Listen (OWL), which seems similar to the previous described floor play. I also was instructed by every therapist how important play time was for developing and growing. It being especially crucial for the disabled child. Make sure he leans to the side, stretch that arm!, achieve midline, label everything, lay on the tummy, stretch those hamstrings! to the point I resented thinking of my child as body parts and not my child with whom I wanted to have fun. When I voiced this concern to the therapists, they certainly concurred with me. I find even now, that I must remind both parents and professionals to relax and allow a loving relationship to develop between parent and child and beware of success-driven overload.

I felt such relief from learning the OWL technique-my son was in the driver's seat, not me. He was teaching ME how to teach him. He could direct the play while I picked up on his clues. Later I modified them to expand communication (close the communication circle). It

reduced the stress on both of us. I could also incorporate the developing communication alternatives (signing, communication books, and augmentative communication devices) into these play times. This format allowed me to write down vocabulary ideas for the developing communication system and introduce them immediately when the next opportunity arose. Now, puberty is a whole 'nother issue when addressing AT! Will there be discussions on that subject?
Jo

- **AT Assistance in Child Expressing Feelings** by **Lisa Johnson** on Mar 08, 2005
One of the biggest challenges we have had with Trey from an early age is his ability to express how he is feeling-both mentally and physically. We have tried using his augmentative communication devices and the computer. Does anyone have any suggestions as to how to best incorporate AT in this area of our lives?
-

- **more trying to help the field** by **Joan** on Mar 08, 2005
So as I continue to think about what I want to tell the early childhood leaders in my state about AT, can folks help me think about the questions we should be asking?
I want to know, for example, how many students are using AT? Is the AT they are using effective for the child, including does it reduce the level of other services they may need? Is there a process to support the child's use of AT as they transition to their next setting? What else should we be asking?
-

- **what is AT and what is normal baby stuff?** by **joan** on Mar 09, 2005
Perhaps this is a hair splitting question. But- when is something AT and when is it a normal "baby" thing- for example, a stroller for an infant is a stroller. When does it become AT? For a 3 year old who cannot walk, it can be AT. What about adapted eating tools? Normally developing children need and use adaptive eating tools. Are these AT for the little ones who are not developing normally or are not expected to develop at the same pace as their non-disabled peers?
And- here's the 64 million dollar question- does it really even matter if we call it AT as long as the child gets access to what s/he needs?

Although I personally really don't care if we call it AT, good stuff or whatever, I want to know when/how/what to document on a child's plan so that we can guarantee the child has access to what they need for success.

- **Re: what is AT and what is normal baby stuff?** by **Lisa Johnson** on Mar 10, 2005
Joan,
I hope the parents you work with realize how lucky they are. It is obvious that you are concerned about their feelings.

My assumption is that you work in the birth to five range. Once again, from a parental standpoint, I always appreciated our therapists just offering any tools that may help. I did not need to know they were AT. All I needed was ideas to help make Trey's life easier. I remember once telling his birth-3 teacher that Trey was the first

Down Syndrome child I had ever been around and that she had a much better idea of the tools that could help us. So, your point of whether it has to be labeled AT or not, I would say not.

Of course, I would imagine that from a professional standpoint all tools used to insure the child's success would have to be documented in the adaptive area of the IFSP/IEP.

- **Re: what is AT and what is normal baby stuff?** by **Sue Mistrett** on Mar 10, 2005

Hi Joan- I think it's exactly this question that has limited the documented use of AT for young children! Since AT can be "any item", recent studies have confirmed that parents prefer to use off-the-shelf items selected for features that can support their child (e.g. scoop bowls, easy to use toys, booster seats for floor play, etc.) vs. "customized" options that are purchased from a specialty catalog. They receive help and recommendations from relatives and friends. But... service providers most often suggest "customized" AT as they don't perceive the off-the-shelf items as AT. I agree with your statements above in that AT is defined by how it is used. If it acts to "increase, maintain or improve" a child's capabilities, then it is AT! It doesn't have a cost or time limitation - just necessary supports for participation and development that change all the time.

By documenting not only the "devices" that are used, but the strategies that guide a child towards independence, we have an ongoing record of "what works" for a particular child.

- **Re: what is AT and what is normal baby stuff?** by **Sue Mistrett** on Mar 10, 2005

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By documenting not only the "devices" that are used, but the strategies that guide a child towards independence, we have an ongoing record of "what works" for a particular child.

- **Re: what is AT and what is normal baby stuff?** by **Enter name here** on Mar 16, 2005

Lisa and Sue- Thanks for the help on this. I was talking with some of the early childhood coordinators in our state about how to document AT services on a child's plan. I saw lots of statistics from around the state about kids receiving OT, PT or speech services, but very low numbers about AT services, yet, the kids were using services. I had a huge AHA! moment- that we need to remember that services are not either OT (PT, speech, etc) or AT BUT that services are both OT (PT, speech, etc) AND AT. This will help us in documenting the numbers of kids who are using AT and helping to make sure

that as they transition on to other settings, that the AT they need will go with them.

- **AT Training for Parents & Professionals** by **Wendy** on Mar 10, 2005
Hi Lisa and Sue,
Thank you much for sharing all your AT knowledge. I'm learning so much from reading over the discussion topics. My question is, what do you think is the best or most appropriate way to provide AT training for parents and professionals? Lisa, Do you think that parents/caregivers need to build trust with professionals before they can take on learning about AT issues?

- **Re: AT Training for Parents & Professionals** by **Sue Mistrett** on Mar 11, 2005
Hi Wendy -One of the workshops we do with service providers is about talking, LISTENING and sharing with families. The ability to openly communicate is absolutely critical in developing trusting partnerships. Videotaped conversations between parents and providers make it very clear that there is much work to be done!

AT trainings should certainly include all caregivers- identifying what the child wants/needs to do to participate will drive the selection of AT and guide how it will be used. If it's going to be used at home or in school, the caregivers in those environments must provide input as to how it will be used and how.

- **Re: AT Training for Parents & Professionals** by **Lisa Johnson** on Mar 11, 2005
Hi Wendy and Sue!

I think Sue's workshops sound fantastic as it teaches the importance of the simple art of listening. As in any relationship, listening as well as genuine respect is a key element.

I also agree with Sue that all caregivers should be included in AT training so that they can determine what it is the child needs/wants. I think that that is not always an easy task to get everyone involved with the child in the same room at one time. Personally, I know we had a hard time getting both school personnel and Trey's private therapists together. What we ended up doing was signing waivers so that they could communicate over the phone with each other. The private therapists then wrote up their perspective, sent it to me and then the school and I sat down for the meeting. It seemed to work well. We also agreed to be willing to tweak whatever we set up as needed.

With regard to Wendy's question regarding the building of trust prior to addressing AT issues, I do not know if it is necessary. I think the respect issue is more important. Parents get tired of hearing what their child cannot do. To repeat an analogy I once heard, professionals see a snap shot of the child where the parent has the complete photo album. If I respect the fact the professional is offering tools that assumes Trey's competence vs. assuming his inability, I will jump at whatever they have to offer.

- **Re: AT Training for Parents & Professionals** by **Sue Mistrett** on Mar 14, 2005
Starting discussions with what he can do, wants to do, has to do :) (yes, that too!) gets us actively thinking about DOING! When my

grandson was still not walking by 2 his PT who came to the house 1 time each week was so helpful in 1)asking weekly what changes were seen and what daily activities needed supports; she always noticed some small "gain" even if we hadn't, 2) making sure that whomever was home at the time participated in the sessions where she talked about the how's and the why's of what she was doing, and 3) she suggested local parks and playgrounds with specific equipment and areas that he could be successful and enjoy moving in ways that he could - we found out about the crawling playground at the mall as well as several new outdoor neighborhood playgrounds where he could move in his way with other kids. She helped us to see what he could do now and eventually!

Lisa makes a great point that communication doesn't always have to be face to face; telephones, written notes and emails also help to share perspectives. Any other communication suggestions?

-
- **AT Concepts in Literacy** by **Lisa Johnson** on Mar 14, 2005
Hi guys! I hope everyone had a nice weekend.

As with any parent, we are constantly in search of ways to enable Trey to become literate and to display that knowledge. Are there any suggestions?

I attended a great workshop on Clicker 4 software last week. It looks like a great product and I am anxious to try it out (30-day free trial period) with Trey. Does anyone else know of software that works well?

One thing I have tried with Trey is making flashcards for him. I took pictures of him doing actions (walking, hugging, eating, etc.) I then placed the pictures on the large note card and wrote the word next to it. As Trey is very literal, he took to learning the words quickly.

I have also used this same concept in making booklets for him. A couple I have done are "Trey Loves..." and "Trey Sees...". On each page, I placed a head shot of Trey, either a heart or pair of eyes (PECS symbols) and a picture of whatever object pertained. I used a digital camera to take the pictures. As I said, Trey is very literal and like a lot of our kids has a hard time thinking in the abstract. For instance, when learning the word friends, he needed an actual picture of his friends. The PECS symbol meant nothing to him.

After the pictures were done, I then typed the words (using a large font) on card stock. I placed a strip of Velcro at the bottom of the page and behind each word. Trey then was able to choose the correct word and place it under the appropriate picture.

Any other suggestions?

- **Re: AT Concepts in Literacy** by **Sue Mistrett** on Mar 14, 2005
Computers can be used to create terrific play and learning tools for children. Making your own activities ensures that the pictures, photos and words are familiar and relevant to your child. We use PowerPoint frequently as it creates "flash cards" or stories that can be printed and used as Lisa describes or "as is" on the computer- turning the page with a mouse click or key press. There are many websites that offer computer games from simple cause and effect "keybangers" where every key press results in sound, color, animation or a combination to storybooks - some you can download onto your computer and others you can play on the Internet. You can find

a list of these sites on the Let's Play! website (<http://letsplay.buffalo.edu>).

Many software programs are easy to use; and most can be adapted for simple switch use. We find many favorites at discount stores such as TJ Maxx, Big Lots, etc. Clicker 4 is great because it includes the ability to use pictures and words together - be sure to check out the many activities that come with it as well as the freebies on the Crick software website.

Try IntelliTools Activity Exchange for a wide range of interactive early childhood stories and activities - they include hundreds (?) of activities and along with the player software can be downloaded for free. Their server must be down right now- <http://www.intellitools.com/icsaex/home.php> - try going on and seeing what's there. 5 Monkeys Jumping on the bed is one of my favorites!

- **Re: AT Concepts in Literacy by Lisa Johnson** on Mar 15, 2005
Thank you so much Sue for your expertise and ideas. I had never thought about using PowerPoint as an AT tool. I also really appreciate the website information. I look forward to pursuing these avenues with Trey.
- **Re: AT Concepts in Literacy by Joan** on Mar 15, 2005
Lisa- one of the fun activities I have done with powerpoint involved using my digital camera. I took pictures of a child showing different emotions, then put one picture per slide with a descriptor "This is Tim. He looks... (happy, sad, scared, tired) We also recorded someone reading the slide, so it became a very interactive multimedia electronic book. You can also turn off the sound as the kids become familiar with the pattern. Kids REALLY love books that are about them, and for beginning literacy, the repetitive language in each slide helped the kids get into participating in the story.
- **Re: AT Concepts in Literacy by Sue Mistrett** on Mar 15, 2005
Joan- great idea- you can also get "fancy" and link specific slides and pictures to a main "I feel _____ when.." with a group of faces - click on the surprised face and connect to an animated jack in the box. Or create "flap books" to peek under. Recording sounds and voices really helps to motivate- especially when they are familiar sounds, songs, voices, etc.! Use a digital camera to record a field trip- some of them can even record sounds and short movies - all can be added to the show.
Remember with powerpoint, a child can turn the pages with any device that can "click" - from a mouse, to a switch to a highlighted right arrow key...
- **Re: AT Concepts in Literacy by Lisa Johnson** on Mar 16, 2005
Joan,

Thank you for another great idea! I can't wait to get started.
Lisa

- **Apraxic 2-year-old and AT** by **Beth Pickett** on Mar 15, 2005

Thanks to you all for having this discussion. I am the mother of a 28-month-old boy who appears to have verbal apraxia with no other compounding difficulties. The infant-toddler arm of our regional resources center sent three folks out to our house today to do an assessment and screening, and one of them mentioned the possible use of AT to help our son communicate. He's currently using sign language--about 80 at last count--but because he's a hearing child and we're not members of the deaf community, his signing is only understood by a few members of his immediate family. AT is one way we could perhaps encourage his speaking, reinforce his speech therapy, and help him communicate with those who don't know sign. He's a (relative) whiz on the computer (he can point, click, and drag and drop), so we'll be researching AT machines that are toddler-friendly and can help him communicate. Is there a list of devices posted somewhere that anyone knows of, or should I just ask our speech therapist?

- **Re: Apraxic 2-year-old and AT** by **Joan** on Mar 15, 2005

Beth-

Sounds like your son is wonderful! There is a list of AT devices on the QIAT website (qiat.org) listed under the resources. Scroll through the list of many resources, I think it is maybe the 7 or 10 on the list. This is a dated list, and new devices come out each year. You certainly should ask your speech therapist, but also make sure s/he is on top of AAC devices. Not all speech therapists are. Is there an AT resource center close to where you live? In MN we have (among other centers) the PACER and MATLN programs where folks can see a range of AAC devices to get an idea of what might fit a child's needs physically and cognitively. I would bet your state tech act program can help you, or you can check out the organizations listed here on the FCTD site. Good luck with your son!

- **Re: Apraxic 2-year-old and AT** by **Sue Mistrett** on Mar 15, 2005

Hi beth- it sounds like your little guy is communicating in all kinds of different ways - it's most important to let him use a range of options to communicate- from gestures, pointing, sounds, pictures, sign language and electronic recordable devices. The letsplay site <http://www.letsplay.buffalo.edu> has a booklet that includes communication devices and activities- Playing with Switches - Julie Maro and Caroline Musselwhite have many activity ideas on using objects and picture symbols to promote communication - go to <http://aacintervention.com/nursery.html>.

Can anyone suggest a good place to start for communication strategies?

- **Re: Apraxic 2-year-old and AT** by **Lisa Johnson** on Mar 16, 2005

Beth,

As Joan and Sue said, your little guy sounds great! He's lucky to have a Mom like you who is so proactive.

I agree with Joan and Sue regarding gathering as much information as you possibly can before making any decisions and that AT communication devices are constantly changing.

We were lucky as our school district has and augmentative communication specialist on staff. She first assessed my son, Trey, when he was about your son's age. She recommended the Tech Speak. Trey took to it immediately. He still also used the minimal signing he had mastered.

The only thing I wish we would have done differently is consider his computer skills more. Within a year, he became frustrated with the low-tech capabilities of the Tech Speak. (Our children were born in a wondrous time and their technology skills are amazing.) We then went on to purchase the Dynamyte. Because of the cost of these devices, I would make sure that whomever is assessing your little guy knows that he is a computer whiz.

- **Computers and Young Children** by **Sue Mistrett** on Mar 17, 2005
Examples of computer use have been mentioned several times in this discussion. What software programs are children using? and for what purpose: play, communication, literacy? Are they on computers alone or with others?

What type of information would you want to expand the use of computers- especially for young 'wiz kids'? Early Childhood experts warn against computer use - how can it be so good and bad at the same time!?!

- **Re: Computers and Young Children** by **Lisa Johnson** on Mar 17, 2005
Sue,

I know that the issue of Trey spending too much time on the computer has been a concern of mine. As you stated, Early Childhood experts warn against it.

For us, the Jump Start software has been a great educational tool. When we use it, I sit next to Trey and we work on learning new things together. I have found that Trey is more receptive to new concepts when I introduce them through the computer (i.e. time and money). We then move from the compute to everyday scenarios that have been demonstrated on the computer (Trey paying for his cheeseburger at McDonalds).

We have also found that the Living Books series is great. Trey loves Arthur. He has the computer software for different books and then we follow through by reading the actual hard copy book.

- **Re: Computers and Young Children** by **joan** on Mar 17, 2005
Sue- Can you provide more information on the statement that experts warn against computer use for little ones? Is this a blanket statement, or a measured statement, like not too much time...
I have always thought that since kids will be growing up using computers the way I grew up with crayons that supervised and supported work on a computer was a good thing. Like Lisa, I love the Living Books. I had loads of fun with Thinking Things, and some other more basic cause and effect software when I worked with little ones. I would not support just plugging a little one in front of a computer, just as I don't think you should plug them in front of a TV. But, I want to be sure we are providing support for best practice.
- **Re: Computers and Young Children** by **Sue Mistrett** on Mar 18, 2005
Many researchers (e.g. Hohman, 1998; Clements, 1994) do not recommend that children under 3 use computers; due to their inactive

learning style, they are not seen as "developmentally appropriate" for young children. There is also great concern that children are in front of "screens" for too many hours a day, limiting active play which is resulting in passivity and obesity. Did you know that the average American home has 5 television sets and that children interact with more than 6 different screens daily?

However, it is how we use computer activities that can make a difference. Papert (1998) stresses that computers have an impact on children when the computer provides concrete experiences, children have free access and control the learning experience. For many children that we see, computer activities can provide highly interactive opportunities for play and learning.

There are many ways of easily controlling the software with available mouse and keyboard alternatives. Many young children quickly understand they are controlling what is happening on the screen - from simple cause and effect animations to turning the pages of a storybook. Computer activities often provide opportunities to control materials and actions that may be more difficult in the real world - such as reading books, building blocks and exploring toys. Computers can become an environment where discovery learning happens- a very appropriate and fun childhood activity!

Common sense prevails as to how often and how long children should be in front of computer screens. Make these experiences more social by making room for 2 or more around the computer.

- **Re: Computers and Young Children** by **Lisa Johnson** on Mar 18, 2005
Sue,

We are so lucky to have you in this discussion. Your wealth of knowledge regarding AT is amazing.

Do you think there is an age range where parents, teachers and therapists should agree that a child will not or cannot use paper and pencil and should therefore rely on AT to facilitate the learning environment?

-
- **AT Resources for Early Intervention** by **Guest** on Mar 18, 2005

Hello Sue and Lisa,

As an Early Intervention teacher, I would like to find AT ideas and materials to use with the families I work with, but I would like a list of current resources. It's hard to find the extra time to search the internet. Are there any low-tech, low-cost, AT activities that I can make with families? Any fun activities for little ones with sensory and vision issues? Thanks for your help.

- **Re: AT Resources for Early Intervention** by **Lisa Johnson** on Mar 21, 2005
From a parental viewpoint, there are several things that I used with Trey. When trying to work on muscle tone by having him sit up, I used a breakfast in bed tray with thick mesh like shelf liner on it. This allowed him to do activities on the tray while sitting on the floor without them slipping off.

At the Dollar Store, I found silly straws that made facial muscle toning exercises more fun. I also buy different kinds of horns to help build his lung capacity.

- **Re: AT Resources for Early Intervention** by **Sue Mistrett** on Mar 21, 2005
There are several resources you may want to check out. On the Let's Play! website <http://www.letsplay.buffalo.edu> there are many suggestions for AT supports to promote play opportunities. In the Resource section, look at the Play Sheets- these were developed with families on how to best use AT supports during play.

Another site you may want to look at is the ATA center which is listed in the Resource section on this list serve- they have wonderful information on useful adaptations for everyday play activities. Also the Tech for Tots site at Thomas Jefferson University has some great AT suggestions. We developed some specific information on AT and play supports for children with visual impairments- I'll send it in to be included on the Resource list! Any other favorites out there???

-
- **Help for a friend** by **Lisa Johnson** on Mar 22, 2005
I spoke with a friend yesterday regarding her daughter who has multiple issues but no firm diagnosis. They have tried using switches and touch screens with software to engage her. The teachers tell my friend that when using these adaptations her daughter loses interest before the computer responds. Does anyone have any suggestions?

- **Re: Help for a friend** by **Sue Mistrett** on Mar 22, 2005
Joan- those are all very important considerations. Lisa- check with you friend about: What is her favorite activity - either watching or doing? Observe to see when she is most engaged- that should provide some clues as to what motivates her. You may want to start with an activity that has a single response - either lights or music or movement. Because so many children like music, we often start with a switch activity to turn favorite songs on and off- using a timer will allow the music to stay on for a set length of time without having to use the switch again; this helps to give plenty of time to hear the result of the switch press - the music. If she's not into sound or visual movement, she may like vibration - you can place a vibrating tube, pad or pillow on her and have her give herself a "massage". Start slow- from what she likes, what she can do.

Why did they decide to use the computer? What software are they using? This info may provide more "clues".

- **Re: Help for a friend** by **Lisa Johnson** on Mar 23, 2005
Joan and Sue,

Thank you so much for your input into my friend's situation. You both posed some great questions to be considered as well as suggestions to see what may work. I will check with my friend to try and get more specific input.

As a parent, we value outside input so much. We sometimes are too close to the situation. When the specialist we are working with state something does not work, it is sometimes easier to just accept their opinion than question it. This usually happens to me when I am exhausted. I believe that is where my friend is now.

I truly appreciate your help.

- **Re: Help for a friend** by **Sue Mistrett** on Mar 23, 2005
Hi Lisa- don't you think it's always easier to solve someone else's problems? My sister and I always used to talk about exchanging children for a while, as her solutions were always so clear sighted! Brainstorming why behaviors occur and what to do about them is not an exact science. I have found group input to be very beneficial in giving me new ideas or confirming I'm "on track"!
 - **Re: Help for a friend** by **Joan** on Mar 22, 2005
Lisa-
One thing that comes to mind is the need to learn what does motivate the child. Could it be that there is nothing going on that makes the youngster want to attend? Does she need to use a computer? Is there anything else that is engaging (music, sensory activities, toys) that makes use of AT more exciting? Is there a reason the computer is not engaging (vision, hearing, over stimulation)?
Another consideration- Is the student losing interest or is she overwhelmed with too much going on and shuts down?
So many questions, and no answers without knowing a little more about the child- what is going on with her, what her need are, and what motivates her. What does she need to do, and what ways are there to do that? Are there things going on in her environment that contribute to her apparent disconnect? Are there other ways to engage her?

- **How soon is too soon to introduce the keyboard** by **Susan L** on Mar 23, 2005
Hi Sue,
I have heard conflicting information about the most appropriate age or developmental level to introduce keyboarding skills to young children - I am curious to hear what your thoughts are about when and how keyboarding skills should be introduced. I know so much of this depends on the individual child, but many times there is such a discrepancy about what is and isn't advisable, it becomes rather confusing.

Thanks for your feedback,

Susan L.

- **Re: How soon is too soon to introduce the keyboard** by **Sue Mistrett** on Mar 23, 2005
When I was growing up, the typical time of learning typewriting skills was sometime in the freshman or sophomore years of high school! Of course with computers now being used by even very young children- this issue has come up time and time again. The answer to "when to introduce keyboarding"" is somewhat based on development and somewhat on "it depends". Developmentally, keyboarding is most successfully learned when a child has well developed eye-finger/hand coordination; typically around 4th grade. Before this age, children do not have the required dexterity or hand size to reach all the keys on the keyboard. "It depends" refers to the coordination issue as well as to the purpose of using a computer keyboard at all.

If the purpose is to locate individual letters or control keys to type out words or interact with a computer game, then locating the desired keys by the most efficient

means possible may be the best answer. For this skill level, some argue that providing a keyboards with keys in ABC order supports a child to more quickly find the key she wants as it's layout is based on what she already knows (alphabet/song). Another approach is to highlight needed keys.

As a child's writing needs change to forming sentences and paragraphs, the emphasis shifts to efficiency in locating letters to quickly form words. The amount of written work increases significantly by the 4th grade when a child may have sufficient hand coordination to use all fingers. This combination may be why keyboarding as often taught in 4th grade. Some teachers introduce the qwerty keyboard and keyboarding at this same time. Keyboarding skills should be introduced somewhere between 4th and 6th grade as students may be expected to be fairly proficient by the time they attend Junior High School. In a recent review of technology standards and keyboarding- the majority of the states include keyboarding as expectations for 4th and 5th grade students.

There are some very good typing tutor programs available to help teach these skills.

- **Play** by **Amy Henningsen** on Mar 23, 2005

I am an early intervention provider and am interested in obtaining ideas for 1.) adapting play activities for young children with physical impairments (beyond switch operated toys) and 2.) expanding communication from joint attention and basic choice making to simple augmentative communication. I would also be interested in literature and resources in this area.

- **Re: Play** by **Sue Mistrett** on Mar 24, 2005

I am so happy you've asked this question! Play is so critical to overall development yet many children are limited in their participation in and number of play activities. This is due to several barriers including disability and an under-rating value of the impact of play - adults often focus on the skill building aspects of play instead of encouraging play for the sake of play! There must be room for both in every child's day.

Try looking at off-the-shelf toys (or toys in the home) for those with features that will appeal to the child. There are many toys available now with electronic "built-in" switches- easy to activate parts. Using these toys are more appealing to both children and families as they are less stigmatizing and promote use with other children. As long as children can participate to some level in toy play- they are benefiting from the rewards that play brings. For example, let's look at the Pop-Onz building pieces (http://www.fisher-price.com/us/poponz/default_flash.asp) - easy to use pieces come with a table base for building; also included is a "button" that makes the built pieces move. "Pretend play" is encouraged with various shapes, animal figures and other props which are included in the pieces. Try setting up some pretend scenarios with the toy. Ask: what else can it be? what are other ways we can play?

What other open-ended toys have you used that can be played with in a variety of ways?

- **Re: Play** by **Lisa Johnson** on Mar 24, 2005
Sue,

I am excited to learn about the Pop-Onz building pieces. They is a very cause

and effect kind of guy. :)

From a parental point of view, I think it is important to remember when we are engaging our child in "pretend play" we need to follow their lead. Trey had a therapist who used to get very upset because Trey would not place the farm animals in the correct place. I always thought, "who cares if the cow is in the window?". It would turn into a power struggle between Trey and the therapist, with Trey usually winning as he would just shut down. That was another reason I love Floor Tyme therapy.

- **Re: Play by Sue Mistrett** on Mar 25, 2005

Lisa- you are absolutely right! While children typically engage in "discovery learning", experimenting with what fits where; what can it be?, etc., so often we take the joy out of play and learning by insisting on the "right way" to play- to build "specific skills". By setting up play environments that children can successfully interact within, we encourage play for the sake of play. Play is the fundamental way all children learn about the world around them. Focusing on single skills to develop during play greatly restricts its true potential.

I worked with a wonderful special educator years ago. A mom had asked for suggestions for her son to "master" in/out. He was no longer interested in the small blocks and box she had been using. (Play was becoming work- and he knew it!) The educator looked around the room and spotted the Barn with animals and other farm-related pieces - a favorite play activity of his older sister. She explained that not only could animals and other pieces go in and out of the barn- through doors, windows, etc; the barn would encourage more complex play than simply putting objects in/out. Its very structure naturally guides the child to more versatile, pretend play. His sister was happy that he showed interest in one of her favorites and followed his lead in putting animals all over the barn- play had begun!

- **Re: Play by Joan** on Mar 25, 2005

Sue- I appreciate your insights about the importance of play and fun. What suggestions would you have to support both practitioners and families in remembering that play is not supposed to be work? I worry that we focus so much on the needs of children with disabilities that we forget that they are children first.

- **Re: Play by Lisa Johnson** on Mar 25, 2005

Joan,

I think you have hit on a key problem that I sometimes face - remembering that Trey is a kid first and foremost. As parents we are consumed with the latest therapies and strategies to get the most from our child. I used to think I was failing Trey if every waking moment was not a teachable moment. Maybe it was because of his health problems or maybe it was just exhaustion on my part, but it finally sunk in that I just needed to enjoy my child and realize those teachable moments would come.

Once this happened, I realized that Trey did not need to

be fixed - I just needed to help enhance the amazing qualities he had. Therapy sessions than became enjoyable as I became involved with the therapy instead of sitting in the corner taking notes. My relaxing seemed to help the therapist relax and Trey's personality started to bloom. Therapy sessions became enjoyable working sessions vs. power struggles.

I believe Sue's example also demonstrates the therapists ability to be flexible. Trey is an enigma and has never fit the textbook definition. Flexibility in therapy can allow the same goals and objectives to be accomplished without the tears.

- **Re: Play by Joan** on Mar 25, 2005
Lisa- what an important observation. Play should not have to be work. Do you have suggestions about how parents can help therapists see the child instead of the disability? Certainly if you follow the child's lead as you suggest, the play becomes engaging to the child. How can we help therapists/teachers see this?

- **Belated thank you by Jody** on Mar 25, 2005

I'm sorry I wasn't able to thank you and answer your questions earlier in the month when you kindly put so much effort into your answers to my question. I was suddenly called out of town to deal with an ill parent. I really appreciate the suggestions and will definitely try them out. I may have been too worried about upsetting my son. He doesn't like getting his hands "gooey," so he gets agitated if bubble solution, paint, play doh, etc. gets on his hands. I may just have to keep at it, and help him work through an initial bad reaction.

I don't want to say anything bad about Dr. Greenspan, but we did see him every 3 months for a year or so, and the sessions weren't very helpful. I think he's a strong diagnostician though.

Thanks again for your help. This is a really great resource.

- **Re: Belated thank you by Jackie** on Mar 25, 2005

Jody, my son, who is now 16, was the same way as a toddler. He perseverated about trains (at the time Thomas the Tank Engine was all the rage) and he hated getting his hands messy. The only thing I can offer from the vantage point of distance (he's now a high school sophomore getting straight A's in honors classes and performing regularly in plays and concerts) is:

1. Remember that you have to be the "general contractor" of whatever therapies and interventions you try. I saw too many people rely on the 2-3 hours per week of various therapies their child received. You really have to practice, throughout the week, whatever strategy has been introduced in therapy (if you think it's a good strategy.) Also I saw parents withdraw from the level of play they might otherwise have engaged in, partly because it was tough and frustrating, partly because they felt not up to the task. Go with your instincts over expert advice. That's probably controversial and not a good idea for some, but in my case it was very important. You really do know your child best.

2. All kids get a kick of myelination around puberty (kids on the autism spectrum sometimes hit puberty early). That helps many of them make enormous progress in social skills.

3. My son seemed to have absolutely no imagination at all until about 8-9 years old. I still wouldn't describe his imagination as his strongest trait, but he slowly developed an adequate level of imaginative play.
4. Having good, supportive teachers is critical, particularly when they're in early grades. Make sure you communicate regularly with the teacher; if they're not supportive do whatever you can to change his environment.
5. My son has spent a lot of time in front of screens - first educational t.v. and videos, then computer-based programs. I suppose the final verdict isn't in, but I don't see evidence that it's hurt him. I have to add that I didn't "park" him in front of screens. Most of the time I was watching with him or, in the case of the computer, working with him. I also spent hours every day reading to him. To be fair, I should also add that I worked full-time throughout, and he probably watched t.v. more passively with the babysitter. I tried to reduce those hours by telecommuting whenever possible.
6. I sometimes bought toys that I knew my son wouldn't play with, if I thought it would encourage neighborhood kids to play with him. Although he usually watched them rather than joining them, I felt the modeling behavior was important.

I think this is an important topic because we have such a definite way of thinking about how children should play (even more than how they should learn), so it's scary when they don't seem to be playing in a typical way. But, in the end, with boundless love and attention, they turn out so wonderfully. My son has and I'm sure yours will too.

- **Re: Belated thank you by Lisa Johnson** on Mar 28, 2005
Jackie,

Wow! You have brightened my day with your advice and encouragement based on how well your son is doing.

Jody, I hope life has calmed down for you with regards to the illness in your family. I hope Jackie's story encourages you as much as it did me. For me, I have to admit that I have also not had a lot of luck with developmental pediatricians. I usually leave their office exhausted and overwhelmed. So, when you spoke of Greenspan and your disappointment with his clinical setting, I understand. I think I latched on to his "theory" simply because it worked for us. When others were having success with a myriad of therapies, we just kept hitting a wall. The experts would say Trey was just an enigma and that he had not read the textbook on how he should be. Finally, floor time seemed to work for us. To be honest, though, maybe I just started relaxing more and things just clicked better for Trey and I as I was not forcing the issue but letting him lead.

Like Jackie, I purchased toys for the neighborhood kids to play with even though Trey was not interested. It amazes me how well kids can get him to try new stuff.

Hang in there!
Lisa

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- **Review all posts in one transcript by FCTD staff** on Mar 28, 2005
If you'd like to review all of the posts in one long transcript, go to

<http://www.fctd.info/reviews/reports/webboardTranscript.php?id=478>. That way, you don't have to open and close each post individually.

- **Social stories** by **Bobbie Schuss** on Mar 28, 2005
I'm trying to get information on social stories. I heard that they are useful for kids who have trouble relating to other kids. I'm trying to learn more about them so that I can decide whether to try them with my daughter. Is this something you can introduce as play? Any idea where I can get more information? Thanks.
Bobbie

- **Re: Social stories** by **Jackie** on Mar 28, 2005
I haven't used social stories myself, but I've known quite a few parents who used them and thought they were helpful. Here's a couple of URLs you might try:
The Grey Center for Social Learning and Understanding has a website with a lot of information about social stories at http://www.thegraycenter.org/Social_Stories.htm.
There's an article about social stories by Meredyth Goldberg Edelson at <http://www.autism.org/stories.html>.
Another good source: <http://www.polyxo.com/socialstories/>

Googling "social stories" will give you a raft of sites to try. Maybe Sue and Lisa can summarize and make suggestions about using them with young children.

- **Re: Social stories** by **Lisa Johnson** on Mar 29, 2005
Bobbie,

I have also heard great things about social stories. I am not for sure if what we did our officially social stories or not.

The example I had of social stories were very word intensive. Trey is not a child who enjoys long-winded books (and as you all are aware by now, can get long-winded:)). Anyway, I took digital photos of Trey in actual situations where appropriate play/interaction were going on. I then wrote a story based on those picture. He loves those. It is a little labor intensive; but, it has just taken over as my scrapbook of Trey's life.

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- **When interventions "work"** by **Sue Mistrett** on Mar 28, 2005
I think interventions that "work" for a particular family are those that best fit into a family's lifestyle and best reflect what is important to them - it may be because the family understands the approach, agrees with it, finds natural times during the day to use it and/or that it results in positive changes. For example, in trying to find practice activities for 2 year old Tyler just learning to walk and climb stairs, going up and down the same stairs was becoming way too "therapeutic". His parents spoke of their concerns about the slow progress that may be due to their lack of "carry-over". Theirs was an active family of 5 who enjoyed lots of activities. The therapist who was familiar with local inside and outside play areas, suggested several that incorporated stairs and ramps (she explained why these had areas that included the right dimensions) that would provide natural opportunities for one child to "practice" these new skills in the same playgrounds where siblings play and parents meet with other families.

Jody is right in that the more you become involved with the therapy activities and provide a

better understanding of your child- what she likes- her preferences and abilities- the more you help in planning successful activities.

- **Play vs work** by **Sue Mistrett** on Mar 29, 2005

I totally agree with Joan that we focus so much on the needs of children with disabilities that we forget that playing for the sake of play is a primary goal of childhood. Using the natural motivation that toys and play bring to activities for young children - we are excited about its potential to "learn through play". But very often we set our agenda of skill development or learning without giving recognition to the true Power of Play - that of self discovery and active exploration. I have often watched as adults use toys and other enticing strategies to try to get a child to do what she may not want to do, or that may be difficult - the child knows this is not play because it's too hard and looks more like work!

Play is often used in interventions of young children for three very different purposes. It is used to 1) distract a child so that therapy/ education can be applied, 2) build certain play skills or set of play skills (blocks to make a vertical tower), 3) and encourage "playfulness" (playing for the sake of play and the benefits it naturally brings). There is nothing wrong with using play as a motivator- but make sure you understand where the child is - what she likes and CAN do - as a place to start. Starting with where you want her to be will turn a playful situation into work. Make sure there is time for all 3 types of play in her day.

AT supports can help! Think about using whatever positioning, movement, communication and material supports a child may need to more freely play. Easy to use toys that other children will want to play with is one strategy as is selecting flexible toys that can be used in more than one way. Ask yourself - how many different ways can this toy be used? Encourage the child to be creative in her play. Or become the audience instead of the play leader - just being aware of this can make play more fun!

- **Re: Play vs work** by **Lisa Johnson** on Mar 30, 2005
Sue,

It is so nice to hear people acknowledging that our kids are kids first and kids with disabilities second.

I agree that AT devices can help make play time more enjoyable for everyone. When Trey was small we used those pillows that our horseshoe shaped (I can't remember the name of them) to help with the added support he needed both to keep his head up (when he was working on his tummy) and then to sit up. We also used hip huggers.

I also found that it was helpful to not repeat favorite toys at home that we used in therapies. This helped to keep them as a true motivational tool.

- **Re: Play vs work** by **Sue Mistrett** on Mar 30, 2005

We still use the boppy - in fact they have a website listing "hundreds of ways to use" it! By providing the support Trey needed to play you minimized the need to work on sitting up- saving his energy for play! Finding a toy he liked is the best place to start - then see how many different ways he can interact with it.

A type of play that is often missing or not understood, is pretend play - we sometimes focus on the play "skills" that develop when using somewhat "functional" toys, we forget about making play more playful. Play with a busy box- which clearly indicates what "should" be done to use it- can be extended by adding small people or props and "launching" them as the doors open!

Setting up pretend scenarios really helps to focus on more playful aspects. Even with switch toys - try to move beyond simply turning them on and off- this loses it's fun quality easily if play isn't set up. What else can happen to the moving toy? meet another character? have a race? run to a fire and put it out? Push a ball to the end of the table? Add puppets to the toy itself to create a new toy? anything can happen- have fun with toys!

- **Thank you Sue and Lisa!** by **Jackie Hess** on Mar 30, 2005
Thank you both for a very interesting and informative discussion. The transcript will now be archived so that others can benefit from it in the future and those who have participated can refer back to it. The transcript will also be made available on our next AT Resources CD-ROM.

Again, thanks for all your efforts. I know they were appreciated by both those who posted and by the many "quiet participants."

Jackie Hess

- **Re: Thank you Sue and Lisa!** by **Lisa Johnson** on Mar 31, 2005
Jackie,

It has been my pleasure to be a part of this chat. I have learned so much from my involvement.

To the professionals, thank you for your hard work in finding ways to enable our special kids to make the most of their environment.

To the parents, good luck on your quest to be the best advocate for your child. Remember to look for the daily simple joys that they give.
Lisa

Recommended Resources

Assistive Technology Devices for Young Children with VI

http://www.fctd.info/webboard/files/Early_Childhood_AT_Devices_for_Children_with_VI_1.php

AT and Young Children with Disabilities

[http://www.fctd.info/webboard/files/AT_references_\(2\)_1.doc](http://www.fctd.info/webboard/files/AT_references_(2)_1.doc)

AIR EI - AT Report 2001

http://www.fctd.info/webboard/files/AIR_EI-AT_Report_2001.php

Let's Play Projects

University at Buffalo Center for Assistive Technology

<http://letsplay.buffalo.edu/>

The Let's Play! Projects look to provide families with ways to play through the use of assistive technology. Look here for information on selecting toys for play, toys for children with disabilities, adapting toys to make them easier to use, locating specially designed toys as well as other resources to promote play.

Tots n'Tech

<http://www.asu.edu/clas/tnt/>

The Tots 'n Tech Research Institute (TnT) is an inter-university collaboration between Thomas Jefferson University (TJU), Philadelphia and Arizona State University (ASU), Tempe. TnT conducts a national research program about use of assistive technology (AT) to enhance the development of infants and toddlers with disabilities. A major component of the 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.

Technology & Young Children: National Technology and Young Children Interest Forum

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

This web-based resource offers a forum for exchanging information and ideas on best practices regarding technology so it can be used to benefit children aged birth through eight years.

NECTAC: National Early Childhood Technical Assistance Center

<http://www.nectas.unc.edu>

The National Early Childhood Technical Assistance Center supports the implementation of the early childhood provisions of the Individuals with Disabilities Education Act (IDEA). This large project funded by the Department of Education offers many projects, services, and resources on technology for young children with disabilities.