MORE ON THE IPAD!!

INTEGRATING iPad USE INTO EXISTING ACTIVITIES AND ROUTINES

The portability and ease allows children to use the iPad at any time, no matter where they are spending time. Last April we wrote about how the iPad's apps can be used as tools for young children with developmental disabilities. In this issue we provide ways in which apps can be used to promote children's participation in activities and routines. The iPad brings children an interactive experience with multi-sensory feedback that can teach cause and effect, fine motor skills, communication, and socialization. All of this can occur easily in the context of a routine in which the child engages. The bright colors and music in some of these apps will keep children interested once they begin using them, and it won't be long before they're learning new skills and sharpening old ones!

Selecting Routines

When selecting routines where learning opportunities might be embedded, one should consider what is presently happening in that routine, what they would like to happen in the future (the goal), and how to work towards that goal. If a child has trouble with a routine, adding adaptations may make that routine go better. The adaptations within the routine should be evaluated periodically to see if they are actually working to help the child move from the starting point to the goal. If not, the provider and the caregiver may collaborate to come up with a way to fix the routine. Once a routine is successful for the child, new learning opportunities may be embedded within the routine so that even more progress can be made in different but related areas.

For example, if a child is fidgeting at mealtime, the child's caregiver may put a box under his or her feet to make the child more stable and decrease this behavior. If this adaptation does not work, the caregiver may consult with an interventionist to figure out a different solution. If this adaptation does work and mealtime becomes an easy routine for the child, the caregiver may begin integrating other learning opportunities such as communication into the routine. They no

Creating Routines (continued)

longer have to focus on the fidgeting behavior, which has been extinguished, so they can teach the child to say please and thank you or communicate what they would like to do next. Once communication is easier for the child, another skill may become the caregiver's teaching focus. By integrating new learning opportunities into already established routines, the child is able to learn within a familiar context.

How to Integrate the iPad into an Existing Routine

The sheer variety of iPad apps makes this integration a much less daunting task. There are apps that teach children how to engage in routines step by step, give a visual schedule, develop fine motor skills and language, and model for children how to socialize with their peers. There is truly an app for every situation. Additionally, the iPad itself is extremely lightweight and portable, so anywhere you go, it can come along with you.

Morning Routine

There are many steps that children may have difficulty remember when getting ready to start the day. Luckily, the app *iTouchiLearn Life Skills: Morning Routine* (iPad and iPhone, $1.99/free trial) presents children with these steps in sequential order in the form of a song to the tune of "Here We Go Round the Mulberry Bush." The children interact with the app by helping the characters in the story complete their morning routine through washing hands, brushing teeth, and getting dressed. As is true in real life, the app does not allow children to move on to the next step until the previous steps have been completed. In addition to the songs and games that follow, children can keep track of the rewards they have received by successfully completing each step.

Kyle's mother had trouble getting him to brush his teeth every morning. It seemed like no matter what she did, the three year old just cried. Kyle's mother began using the app as she and Kyle moved through their morning routine. Before attempting each step they watched the character in the app accomplish his goals and move smoothly through his morning routine. Kyle would sing along and complete the interactive games following each song. Now, Kyle moves through his morning routine with no trouble. Brushing his teeth is no longer an issue. He sings the songs from the app from when he wakes up until he leaves the house for preschool.

Bedtime

Bedtime can be a particularly difficult transition for both children who are typically developing and those that have a disability. However, once the routine is established and the child has no trouble completing the steps to get ready for bed, a opportunity for new learning opens. One suggested app to help with communication in preverbal children or children who have yet to master the facial movements necessary to speak clearly is *Smart Oral Motor* (iPad and iPhone, $5.99). In this app, Clever the cartoon duck asks children to mimic the funny faces that he makes. These faces range from puckering lips to puffing out cheeks to moving the tongue from side to side. The app is very simple and will not over-stimulate the child before falling asleep. There are 15 different movements that Clever uses to so that the child imitates mouth, jaw and cheek muscles.

Two and a half year old Susie was unable to speak. She had been seeing a speech pathologist for months and was making progress. At the suggestion of her speech pathologist, her parents purchased *Smart Oral Motor* and began to implement it at night just before bed. They set up a mirror in front of Susie's bed so she could see the shapes her mouth and cheeks were making while using the app. The completion of each exercise and earning 15 stars from Clever became her signal that it was time to go to sleep. She slowly gained further control of her jaw, tongue, lips, and cheeks.

Mealtimes

Meals can be an opportune time to work with children on many different skills. One of these skills that can easily be integrated into mealtime is language development. Children can be taught how to ask for the food or drink they desire, how to tell caregivers they are finished eating, and how to express what they want to do next. My Choice Board (iPad and iPhone, $9.99) allows caregivers to create customizable choice boards for children unable to communicate verbally. The app saves many different types of choice boards that can be used in most any situation. Caregivers can upload their own photos and record their voices to reflect the child's options. To the right, an example of a breakfast choice board is presented. As can be seen in the photo, the child has completed the sentence that begins, "I want…" with pancakes. There is a red slash through the cereal option

Mealtime (continued)

because the caregiver has selected that option as unavailable. The best part of this app is that My Choice Board can be used to teach communication skills in any number of routines or activities!

Chris was a very fussy eater. His parents never knew what he would like and what he would turn down. Fortunately, Chris' speech pathologist recommended using choice boards to allow him to communicate his wants and needs more effectively to his parents. Rather than printing photos of every type of food and gluing them to a traditional choice board, Chris' parents downloaded My Choice Board. They took photos of foods and drinks that Chris had shown an interest in and recorded themselves saying their names. After he had pointed to which food he wanted, Chris' parents always made sure to repeat the names again and try to get Chris to sound them out along with them. Mealtimes began going more smoothly for the family once Chris was able to request specific foods before his mother had made them.

Playtime

Play is an activity that occurs every day for children and is one of the easiest routines in which to integrate learning opportunities. One app for preschoolers and children is *Dexteria* (iPad and iPhone, $4.99). This app helps children to develop fine motor skills by tracing letters and numbers as well as pinching and tapping objects. The pinching game indirectly teaches children how to hold a pencil while the tapping game aids in dexterity and independent finger movement. The games involved are fun and keep children motivated to learn by becoming progressively

more difficult with each level. The targets get smaller and move faster in both the pinching and tapping games. Both uppercase and lowercase letters can be traced along with numbers. This app keeps a report of high scores and daily times that can be emailed to providers and caregivers so that everyone involved in a child's care can be aware of the progress being made.

Mary was having difficulty with grasping objects like markers, crayons and utensils. Her mother decided to integrate Dexteria into their normal playtime routine. She concentrated on the pinching game contained in the app to address Mary's grasping issues, but also worked with Mary on the other games within the app. Mary initially had trouble with the tapping game, which required her to keep her thumb in place while tapping her other fingers on targets, but soon improved. She was able to trace the numbers and letters, which showed her mother that she would be able to write if only she were able to grasp pencils and crayons. After emailing the results of each play session back and forth, Mary's mother and provider collaborated on possible adaptations that could be made in conjunction with this app and were able to teach Mary how to grip writing instruments and utensils.

Outdoor Play

Outdoor play can be troublesome to some disabled children because there can be many different types of people around. If a disabled child is unfamiliar with other children they may be unsure of how to act in a particular situation. To teach a child how to socialize with other children, the *iTouchiLearn Feelings* app (iPad and iPhone, $1.99) may be quite useful. The app teaches children how to read social cues to identify, interpret, and effectively communicate their emotions. Animation and activities demonstrate the cause and effect relationship between actions and emotions. To integrate this app into children's outdoor play routines, a caregiver may have the child use it while on the way to the park. They can review together why the person on the app feels a certain way and how they can communicate that to the people around them.

For example, Terry was a child with autism who was unable to read people's emotions. He seemed to smile at inappropriate times and could not communicate his own emotions effectively. Before taking Terry out to play with other children, his father used the app to review the different types of emotions and how to recognize them in others. The app allowed Terry to create depictions of different emotions in one of its activities. He was also able to look at a character in the app and successfully identify which emotion she was feeling. Terry began to socialize with other children on the playground more successfully after his father introduced the app into his outdoor play routine.

At Home Chores/Leaving the House

Some children might prefer to have a visual schedule to see what comes after an event they don't particularly enjoy doing. One app that allows for personalized visual schedules is *Choiceworks* (iPad and iPod, $14.99). Children can see what rewards await them after doing something and check off the steps as they are accomplished. This app can be customized by a caregiver as a visual schedule, a "waiting board" which gives the child a timer while they wait and presents them with alternative activities, and a "feelings board" which shows the child ways to cope with being upset. The visual schedule is the most likely board to embed during chores or leaving the house because it allows children to check off the completed steps and gives them a reminder of what comes next. If you're not interested in buying the app, Choiceworks is also offered as a kit with boards, an easel, magnets, and much more.

Carla's mother used the visual schedule in this app so that Carla could participate in taking the dog for a walk. She customized the steps using the preloaded pictures in the app

At Home Chores/Leaving the House (continued)

showed them to Carla before they were going to walk the dog. They worked together to get the dog on a leash, put on Carla's coat, walk around the block back home, fill the dog's water bowl, take off her jacket, remove the dog's leash, and give the dog a treat. Carla didn't particularly enjoy walking the dog with her mother but the visual schedule included the reward of watching television after returning. Carla became motivated to participate in this activity and actually learned to do a few of the steps by herself!!

Travel Time

Travel time allows for many different learning opportunities to be embedded into this routine because it does not involve much more for a child than sitting and waiting to arrive somewhere. One great app that addresses this is _Wheels on the Bus_ (iPad and iPhone, $0.99). The bright colors, music, and interactive screens on this app will keep children entertained while traveling. Children must slide their fingers across the screen to make the bus move and hear the song. They can interact with all of the different characters on the bus as they move through the song.

Dionne's father had trouble getting her to sit still when taking the train from daycare home at the end of each day. After trying different adaptations, at the suggestion of Dionne's provider, he gave her Wheels on the Bus. The app kept her occupied while riding the train and helped to develop her motor skills by tapping the characters and dragging her finger along the screen to make the bus go. Dionne and her father even recorded themselves singing along to the song so that she could hear her own voice.

Running Errands

Some children have difficulty remembering what is and is not appropriate in certain settings. For this reason, the app _Model Me Going Places_ (iPad and iPod, free) can be an extremely helpful tool in reminding a child how to react to different situations. A slideshow of photos is presented to the child with a narrative of what occurs day-to-day in each setting. The child in the story is shown with his or her parent either visiting a hairdresser, mall, doctor, playground, grocery store, or restaurant. The app aims to help children navigate challenging locations in the community.

Running Errands (continued)

To integrate this app into a daily routine, Michael's mother brought her iPad along when they went to the hairdresser. Michael sat in the hairdresser's waiting area and watched the slideshow in which a little boy happily gets his hair cut. The boy in the slideshow served as a model for how Michael should behave at the hairdresser's. The app helped to remind Michael what proper behavior at the hairdresser's would look like and helped him to prepare for the sequence of events in which the hairdresser would engage.

Outings

When taking children out of the house and into the real world, it is important they know how to communicate with others. The *Language Builder* app (iPad and iPhone, $7.99) teaches children sentence ideation, sentence formation, and how to use expressive language. The app presents children with a photo of other children engaged in some activity, then prompts them to create and record a sentence describing what is being shown. In the first level, the picture is shown with a sentence that has two words missing from it. Children are instructed to fill in the blanks. As the child progresses through the app, the hints get less directive. For example, in the second level only the first two words of the sentence are shown. In the third level, the app instructs children to use two key words in the sentence they create. The playback of their recordings provide the child with auditory reinforcement that they can create meaningful sentences.

Jamal's parents integrated Language Builder into his daily outings after they noticed he was able to form basic sentences with some family members. They decided it was time for him to form longer, more meaningful sentences. Before going on outings each weekend, his father held the iPad in front of him and waited for Jamal to record his sentence after each photo's presentation. Jamal would get very excited hearing his own voice played back from the iPad. His sentences slowly progressed from simply filling in the blanks on level one of the app, to creating elaborate scenarios in level two. His parents were extremely happy with his progress and noticed a big change in his sentence formation.

Routines at School

There are some routines that a child will engage in as part of a group at childcare. Two examples of this are story time and music time. These routines are used regularly in childcare programs. There are many apps that can be embedded into these as well as other childcare activities or routines. Because few childcare programs have the resources to buy an iPad for each child, suggestions are provided for how the entire class can be involved even if there is only one iPad in the room.

Story Time

The iPad offers many storybooks in its app store. Most are fully interactive, brightly colored, and feature music and characters to keep children interested. One such app is *Itsy Bitsy Spider* (iPad and iPhone, $1.99), based on the classic children's song and rhyme. A fly that travels through the story gives facts about animals, weather, and more. Children can tap or slide their fingers across the screen to make different things happen such as making flowers sprout or splashing in a puddle. This story book app will keep children entertained with its bright colors, music, and familiar tune.

In a classroom setting, a teacher might have the chidren take turns with each line of the song to come up front and tap the characters on the screen. At the end of the song, the app will repeat itself with even more characters to interact with, so don't worry if the class is large! The students can learn about nature by tapping on the fly on each screen, count peanuts along with a squirrel on the roof of a house, or help a caterpillar become a butterfly. Taking turns will keep the all the children engaged and the bright colors will keep them entertained the whole way through. They can even sing along to participate when they are not the student designated to tap the screen.

Music Time

Most classrooms have a designated time for children to play with instruments or listen to music. The iPad can be integrated into music no matter what the age or development level of the participants. *Fun Play Piano HD* (iPad only, free) fills the iPad screen with a color spectrum that plays piano notes when tapped. Children who have yet to develop fine motor coordination can make sounds simply by touching anywhere on the screen. The keys are wide enough that the placement of the child's fingers do not have to be exact to make music.
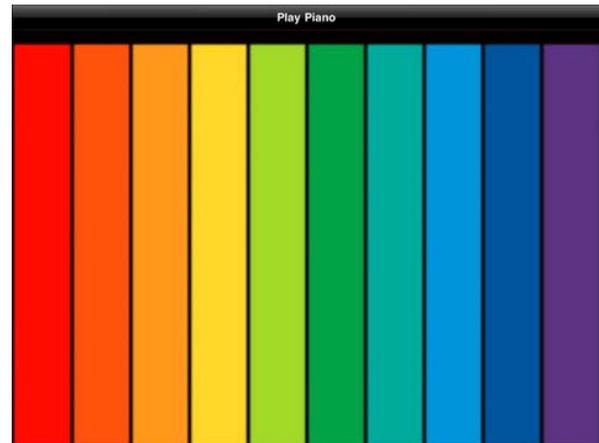
In the classroom, this app can be used for children who do not have refined motor skills when children with more refined motor skills are playing physical instruments. The children who have mastered grasping can use an instrument with mallets or children who have not mastered grasping can play bongos. Madera was learning how to use her index finger as a "pointing finger" to access her communication board. During music, Ms. Marsha had Madera had Madera use the iPad and the Fun Play Piano HD so that she could participate with her classmates.

Helpful Websites

There are many websites where you may find reviews of more apps that can be integrated into a child's routines. In addition to those mentioned in our last iPad newsletter, here are some more!

Apps for Children with Special Needs: http://a4cwsn.com/

- Reviews apps for children with different types of disabilities
- Includes video of many of the apps

Bridging Apps: http://bridgingapps.org/

- Formerly http://www.snapps4kids.com/
- Includes reviews, an active community, and success stories
- Apps for language development, reasoning, counting

Autism Speaks: http://www.autismspeaks.org/family-services/autism-apps

- Constantly adding apps to its already expansive list
- Links to other websites with lists of top apps for disabilities of all types

T H E   T n T   H E L P   D E S K :

You can find a resource for identifying ways to embed different devices into activities and routines by using the TnT Help Desk. Go to http://tnt.asu.edu and click on HELP. Next, think about what functional skill category best matches what a child needs to learn to do. Select from communication, getting around, use of arms and hands, socialization, or problem solving (cognitive). Scroll down and click on the activity or routine in which an adaptation or device is going to be embedded.   The screen below shows ideas for devices that can be embedded into Storytime.
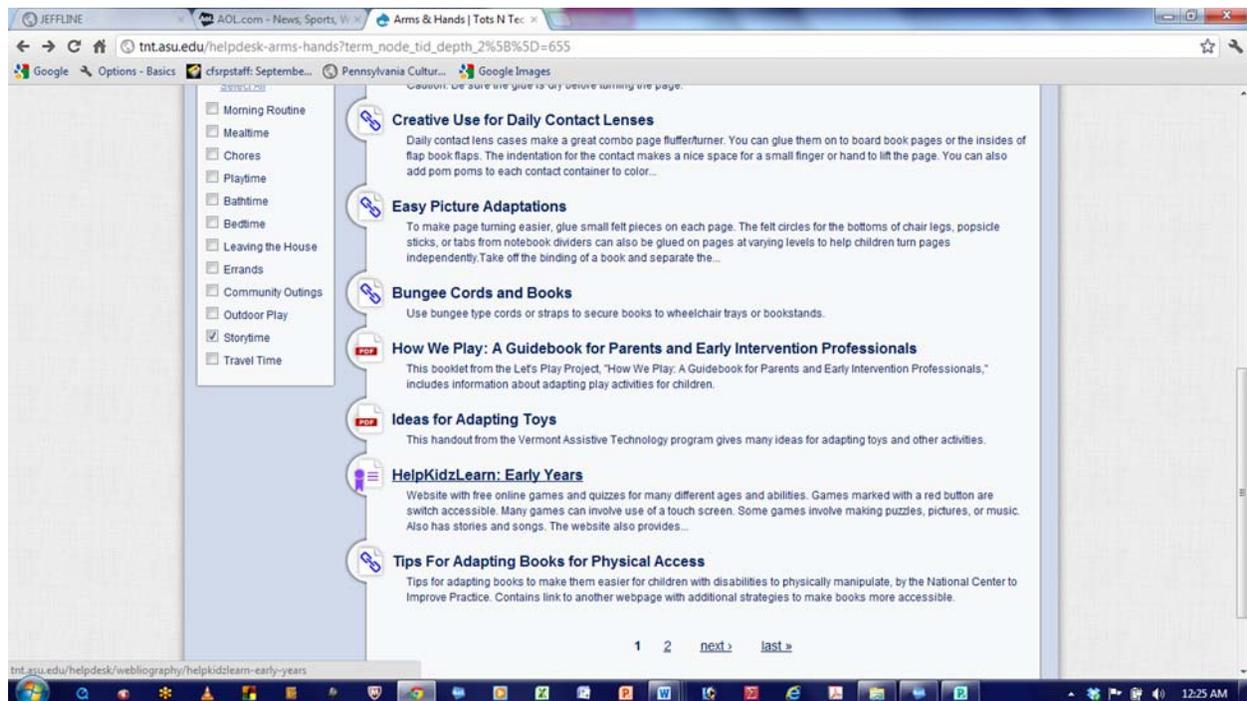
iPad and iPhone Free App: i.Am Search

This App allows you to search for apps by profiles of a person who will use the app, aged preschool through high school. A profile is created that describes the person's needs and technology competence which is used to search for/identify possible apps to try.

Do you have an adaptation, AT, or app idea that you'd like to share with others? Submit your idea with a picture and description, we'll put it on our website as a part of the Help Desk and our Ideas to Share. To submit your idea, or if you have any questions, send an email to livia.fortunato@jefferson.edu

---

Please feel free to forward this newsletter to any individuals or agencies that may benefit from information on assistive technology.
Questions? Comments? Want to have the newsletter sent directly to your inbox?
Email Livia at livia.fortunato@jefferson.edu