Complex Child E-Magazine

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Introducing Switches and Augmentative Communication Devices to Very Young Children

by Susan Agrawal

Young children with significant physical impairments may require the use of specialized devices in order to communicate. While it is extremely important for all young children to communicate, in some ways it is even more important for children with medical issues to be able to indicate their wants and needs. For these children, early augmentative communication may help them either to develop speech or to transition to a sophisticated communication device as they get older.

Children who cannot communicate often get very frustrated. In some cases, they also begin to feel helpless. Frustration and helplessness may lead to negative behaviors such as acting out, self-injury, or shutting down. In addition, children who cannot communicate may have trouble socializing, acquiring knowledge, or progressing with development.

For children with impaired communication abilities, it is important to accept ANY form of communication as legitimate. Young children naturally use a combination of facial expressions, body postures, signs, pointing, vocalizations, and words to communicate their feelings or desires. A child with limited abilities to express himself may also use pictures, switches, or a communicator to help augment his natural forms of communication.

Starting Points: Switches, Switch Toys, and Adapted Toys

The first steps in learning to communicate are understanding cause and effect, participating in a meaningful exchange, and recognizing the ability to communicate. For babies and children with limited physical abilities, it may be more difficult to master these steps since certain children may lack motor, visual, hearing, or other abilities.

Switches and switch toys are a great way to begin teaching cause and effect. Switches are simple buttons or other devices that can be pressed or pulled with any body part to trigger an action. Switches are usually attached to switch toys that make sounds or light up when activated. Switches and switch toys may be purchased from special needs catalogs [see below] or may be borrowed from toy-lending programs.

Switches come in a wide variety of styles, from basic round circles to rollers or textured devices. Ablenet [http://www.ablenetinc.com] makes a wide variety of high-quality switches, including wireless switches and TASH switches. Enabling Devices [http://enablingdevices.com/catalog/capability_switches] and Flaghouse [http://www.flaghouse.com/search.asp?SKW=CAT1_VC&category=Special+Populations%2ESwitches] also carry a wide variety of switches, many designed with bright colors for young children.

Here are some examples of switches:

Basic Jelly Bean switch from Ablenet

Animal switches from Enabling Devices

Vibrating light-up Tail Light switch
from Enabling Devices

Flying Colors Koosh switch
from Flaghouse

With just a press of any of the above switches, a baby or young child can trigger a toy or other activity. Switches plug in to specially-adapted toys using a simple male-female connection. Switch toys can be purchased from Enabling Devices or Flaghouse, as well as a variety of Ebay stores. Off-the-shelf toys can also be adapted using a battery interrupter (available at any electronics store) for simple toys or by wiring in a switch jack, if you have the skills to solder and do basic wiring. Below are some examples of switch toys:

Switch-operated butterfly that vibrates and plays three songs

Switch-operated Dora

Switch-operated Rainforest Waterfall that moves and plays nature sounds or music

Switch-operated Police Car

Some companies make adapted toys with built-in switches. While these toys tend to be very pricey, they are also well-loved by many children. A few examples are provided below:

Visually Impaired Activity Center with radio, vibrating plate, and fan

Mini Dome that vibrates, plays music, and has spinning confetti

Finally, you may purchase units that allow any appliance with a plug to become switch-operated. You simply plug the switch and the appliance into the unit and it becomes switch-operated. These devices may allow your child to turn a light on and off, run the blender to help with cooking, use electronic scissors to cut, turn on a radio, turn a massager on and off, or turn the television on and off. Devices include Ablenet's Powerlink or Enabling Devices' Environmental Controls units.

Switches, switch toys, and adapted toys introduce your child to the concept of cause and effect, which is fundamental in learning to communicate. Children learn that their actions cause responses, and for many children, the more motivating the response, the harder they try to communicate and improve physically. Moreover, these toys are great

for alleviating the boredom that many children with limited physical abilities feel on a daily basis.

One Button Communicators

Once a child begins to understand cause and effect, a communication device may be introduced. A good place to start is a large, brightly colored switch that allows you to record a brief auditory message. The Albenet Big Mack switch is a perennial favorite, and Enabling Devices' Big Talk is similar. Both can be activated by pressing the switch directly or hooking another switch to the button, such as a head or foot-triggered switch.

Ablenet Big Mack, showing available color choices

A typical way to start using a single button communicator is to record the word "MORE" into the device. For children who are visual, a picture of the sign for "more" may also be placed on the top of the switch. Then select a favorite toy or a favorite food. Begin by playing or feeding as usual, but then stop and explain to your child that he or she needs to say "more" by pressing the switch. It is best to demonstrate the system by mirroring exactly what the child needs to do, whether that means pressing the switch with her hand or triggering it with his foot. Children learn best by imitating those around them, and demonstrating and using their system of communication will help them to learn. Siblings or peers may also have fun trying out the switches and helping to demonstrate them for your child.

The single button communicator may also be used for other simple messages, such as "I want another bite," "All done," "Help," or "It's my turn." The possibilities are endless, and it can be rerecorded as many times as necessary to meet your child's needs.

Sequencers and Randomizers

If a child has mastered using a single button communicator, he may enjoy using a sequencer or randomizer, such as the Ablenet Step-by-Step communicators or Enabling

Devices' Triple Play or Step Talking Sequencers. These devices allow you to record several different messages that will be played back in sequence or in random order, depending on the device. These can be useful for activities that involve a series of steps (Add the flour, add the milk, put it in the pan, bake it), reading books with a series (*Brown Bear, Brown What Do You See?* or *I Went Walking*) or choosing a body part to massage. Sequencers and Randomizers introduce your child to the idea that communication is a series of responses.

Two Button Communicators and Two Switch Choice Making

Once your child is able to use a single button communicator, she is ready to make choices. A simple two button communicator or switch will allow you to introduce the concept of choice to your child.

You may want to begin by using a two button switch (or use two separate switches) that allows you to operate two different toys. Sometimes it is best to use a favorite toy and a toy that is not really enjoyed to motivate your child to make a definitive choice.

Once choice-making is established, two auditory choices may be presented, using a two button communicator or two single button communicators. Some possible combinations can include more/all done, Mommy/Daddy, toy/book, yes/no, two recorded songs, or a choice of two particular toys. Children especially enjoy when the choices are recorded with different voices, such as Mommy and Daddy saying their names or Daddy and a sister singing songs. Pictures may be added to the buttons to increase the visual component of the choice-making.

Some two button communicators follow, all of which allow two messages to be recorded and will work as two switches, triggering two toys:

Ablenet iTalk2

Enabling Devices Talkable II

Enabling Devices Say It Play It

Using a Computer to Enhance Switch Skills and Choice-Making

Another way to improve switch skills and choice-making is to use a computer. A wide variety of programs, ranging from free internet-based ones to costly specialized ones, are available to reinforce switch skills in a fun multimedia way. Children even younger than two are easily able to access simple cause and effect games.

In order to hook up a switch to the computer, you need to buy a switch interface. If you expect your child to use a computer with switches longterm, purchase an adaptable device such as the Don Johnston Switch Interface Pro. This device can accept up to five switches and can be programmed to have the switch represent a mouse click, space bar, number, or arrow. For simple switch access, the RJ Cooper Mini SwitchPort may be adequate. The same company makes a variety of products to access the computer, including switches with a built in USB interface.

There are hundreds of available cause and effect programs. A good place to start is Teaching AccessAbility, a program that teaches use of a switch in a fun way. A free and colorful program loved by all children is the SenSwitcher, available at http://www.northerngrid.org/ngflwebsite/sen/Menu-L.htm Other software may be found using the search engine at Closing the Gap at http://www.closingthegap.com.

Choice-making software is also widely available. A good place to start is the Inclusive TLC Choose and Tell series, which allows two or three choices and is tailored to preschoolers. Once again, further resources may be found by searching Closing the Gap.

It's Never Too Early...or Too Late

These techniques and devices may be used in children as young as six months old and as old as teenagers, depending on their cognitive level. Give them a try...your child will thank you.