

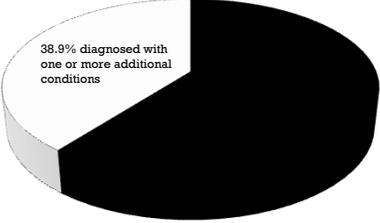
Starting Off on the Right Foot: Visual Support Strategies for DeafPlus Students
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Who Are DeafPlus Students

- Deaf and hard of hearing students who have one or more educationally significant disabilities, such as:
 - Developmental delay/disability
 - Intellectual impairment
 - Autism Spectrum Disorder



Prevalence



38.9% diagnosed with one or more additional conditions

Gallaudet Research Institute (April, 2011). *Regional and National Summary Report of Data from the 2009-10 Annual Survey of Deaf and Hard of Hearing Children and Youth*. Washington, DC: GRI, Gallaudet University

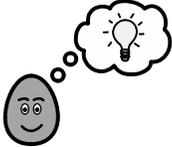
Impact of Additional Disabilities

- Effects of additional disabilities are multiplicative
 - Language
 - Mobility
 - Learning
 - Self-help
 - Independent living
- Increased likelihood of behavior problems



Visual Strategies

- The use of objects, photographs, symbols, and/or text to "augment input" from others
 - Supports understanding of language (receptive communication)
- Visual supports are often considered a strategy only for students with developmental disabilities (autism, Down syndrome, etc.) but think about this...



Visual Supports in Daily Life

- Enter/Don't Enter
- Washroom signs
- Where to line up
- What to do in an emergency
- Cautions
- Etc.



How Can Visual Strategies Support DeafPlus Students?

Aided Input (Receptive)

- Increase predictability
- Help them to make transitions
- Understand when they can have/do something
- Understand how long an activity will last
- Understand the steps of a task
- Understand social rules
- Organize the environment

Aided Output (Expressive)

- Make requests
- Make choices
- Communicate preferences
- Share information
- Demonstrate learning

Do Visuals Interfere with Language and Communication Development?

- NO!
- The research is very clear that the use of visual supports and augmentative communication does not interfere with the development of sign or spoken language development
- Visual supports and augmentative communication strategies have been shown to facilitate language development for many individuals



Selecting a Symbol Set

- A *symbol* is "something that stands for or represents something else" (Vanderhieden & Yoder, 1986). The "something else" is called the *referent*
- It is critical to identify the appropriate type of symbol for a given student
 - Three dimensional objects
 - Photographs (color vs black and white, size)
 - Picture Communication Symbols (color vs black and white, size)
 - Text

Symbol Assessment

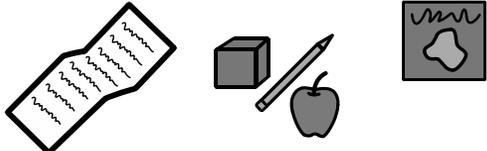
- **Interview**
 - "Does Jane recognize logos of favourite foods, places?" (e.g., Coke, the Golden Arches)
 - "Does Jane recognize pictures if you name them?"
 - "Does Jane like to look at books?" "Is Jane able to read?"
 - "What type(s) of symbols has Jane used successfully in the past?"
- **Observations**
 - Observe with books, print, reactions to pictures and logos
- **Direct assessment**
 - Trial with most likely symbol level OR
 - Do a formal symbol assessment, if needed

Symbol Assessment

- Important to ensure that the type(s) of symbol used to represent messages is within the student's *current* capability
 - Not too hard
 - Not too easy
 - Just right!
- May need more than one type of symbol to represent concrete vs. abstract concepts (nouns vs. action words vs. adjectives, etc.)

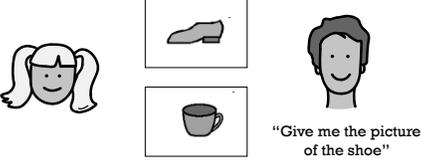
Prepare for Assessment

- Collect 10-15 objects with which the student is familiar; involve the family to make sure
- Assemble sets of symbols corresponding to the objects (e.g., identical and non-identical objects, color/black and white photos, PCSs, printed word cards)



Receptive Language Format

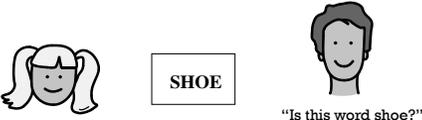
- Two or more objects or symbols are presented to the student
- Assessor asks "Give me/point to/look at X."
- Useful IF the student has good receptive sign/speech abilities



"Give me the picture of the shoe"

Yes/No Format

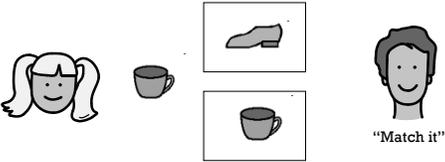
- One object or symbol at a time is presented to the student
- Assessor asks "Is this a/Is this a picture of a/Is this word ___?" (order of yes/no questions should be presented randomly)
- Useful IF the student has good receptive sign/speech abilities AND can indicate yes/no



"Is this word shoe?"

Visual Matching Format

- One object is presented to the student
- Assessor places two symbols, one of which corresponds to the object, on the table and asks the student to "find the same/match it/give me one like this"
- Useful for students who do not have reliable receptive communication skills



"Match it"

Symbol Assessment

- Best to repeat the assessment over more than one day, in different contexts (e.g., busy vs. calm, etc.)
- Usually, the highest order symbol that the person can associate with referents with 75-80% accuracy is safe to use for the AAC intervention
- See Beukelman & Mirenda (2005) for additional formats



Aided Input Strategies

- Aided input refers to the use of objects, photographs, symbols, etc. to support receptive communication
- Temporarily, until the child develops sufficient receptive language skills to support understanding through ASL, speech
- Permanently, due to intellectual and/or perceptual challenges that interfere with processing of 'through the air' communication
- Many individuals will use a combination of aided input strategies and 'through the air' communication throughout their life



Environmental Supports

- Used to provide specific information about how the environment is organized
- Location supports: help clarify where things belong and how to organize personal belongings



Visual Schedules

- Used to organize sequences of activities in the order they will occur
- Can use real objects, photographs, picture symbols (e.g., Picture Communication Symbols from the Boardmaker program), and/or written words to represent the activities or places
- VERY useful to prevent problem behavior during transitions between environments and/or activities



Object Cue Schedule



www.pisp.ca/in-service_training/in-service_nonverbal_m.pdf

Wall Schedule



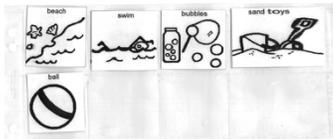
Photo Album Schedule



<http://csd.ufl.edu/content/supports/start.html>



Slide Pocket Schedule



Binder Schedule



The Portacom
www.portacom.bc.ca



A photograph showing a person's hands holding a dark-colored board with several small, square icons arranged in two rows. The icons appear to be pictographs representing different activities or objects.

Hints for Using Visual Schedules

- Schedule WITH the children
 - Begin the day by setting up the schedule with the children to ensure understanding
- Refer to the schedule at EVERY transition
 - Direct attention to the schedule and turn over or remove the symbol for the completed activity
 - Direct attention to the symbol for the next activity



An illustration of a woman and a young child sitting at a table. They are both looking at a visual schedule board on the table. The board has several icons on it, and the child appears to be pointing at one of them.

Teaching with Visual Schedules

- Receptive communication
 - Involve children in setting up the schedule by having them locate the symbol for each activity as you tell them the sequence of activities
- Expressive communication ("what's next?")
- Time-related vocabulary and concepts
 - First, second, third, next, last, etc.
- Choice making
 - Teach children to make and communicate choices by presenting them with symbols of options

Procedural Supports

- Used to clarify the steps (procedures) of an activity
- Like a visual "task analysis" depicting each step of the task
- Also known as "within-activity" schedules



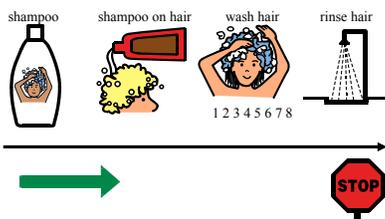
Kelti: Hair Washing

(Mirenda, MacGregor, & Kelly-Keough, 2002)

I had cut Kelti's hair off because I couldn't comb it or wash it properly, 'cause she has a really sensitive scalp and I thought, 'Well this is the way it's always gonna be, I guess.' But not only does she have a sensitive scalp, she didn't know what was expected of her.



Hair Washing Visual Support



Kelti: Hair Washing

When she didn't tantrum [that first night] it was like magic, just like magic! For me, it was such a big success, and it was really important to have success like that at the very beginning because it showed me, yes -- this is the right move, this is the way to go, this is gonna work! I just couldn't believe it!



Procedural Supports: Reminders

- Visual scripts can be used to assist children in remembering items to pack



Procedural Supports

- Procedural supports are especially useful for fostering independence
- Prompts are from the paper, rather than a person (and many of us use paper-based prompts, too!)



Rule Supports

- Used to assist children to understand and follow rules
 - Classroom rules
 - Social rules

Class Rules

- Listen when others are talking.
- Follow directions.
- Keep hands, feet, and objects to yourself.
- Work quietly and do not disturb others.
- Show respect for school and personal property.
- Work and play in a safe manner.

Hallway Rules



Walking in Line



Keep hands at your side.



Quiet.



Walk. Don't run.

The Universal No Symbol

- Use the Universal No symbol to show:
 - Which activities are not available
 - Which toys/items are not available
 - Change in schedule/activity cancellation
 - Objects that are 'off-limits'



Temporal and Waiting Supports

- Temporal and waiting supports provide information regarding:
 - WHEN an event will occur
 - HOW LONG an activity or event will last
 - WHEN an event or activity will be over
 - HOW LONG one needs to wait




Temporal Supports in a Visual Schedule

- Adding images of clock faces can support children who have difficulty transitioning at the 'right' time or who need to know when activities will begin and end
- They don't need to know how to tell time; they just need to see that the clock in the schedule and the actual clock look 'the same'

9:00 	circle time 
9:30 	math 
10:00 	gym 

Waiting Supports: Time Timer

- Set time up to 60 min and red disk appears
- Size of the red disk diminishes as time elapses until no red is visible on the timer face
- Battery-operated, silent or with sound, comes in many sizes
- Can be very useful for teaching students to "wait" because they can "see" how long they need to do this
- Also available as an iDevice app
- <http://www.time timer.com>



Time Tracker

- Auditory and Visual
- Lights flash to warn of upcoming stop or start times
- www.learningresources.com



Visual Strategies for Calendar Time

- Monthly calendars to provide information about upcoming events and/or changes regarding regularly occurring events
- Visual supports for daily classroom calendar activities



Calendar

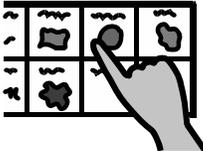


Calendar



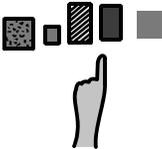
Aided Output Strategies

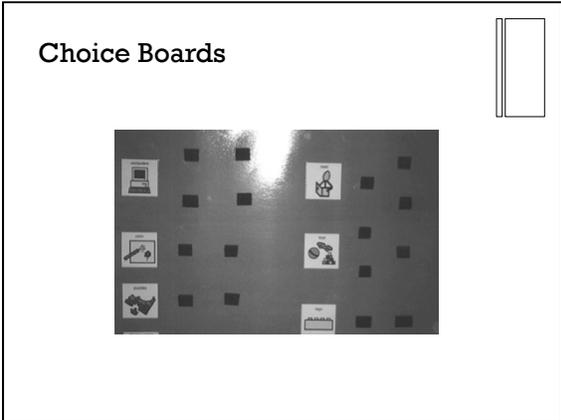
- Aided output refers to the use of objects, photographs, symbols, etc. to support expressive communication
- Temporarily, until the child acquires communication skills shared by his or her community (ASL, speech, etc.)
- Permanently, due to motor and/or intellectual impairments that interfere with the development of ASL or spoken language

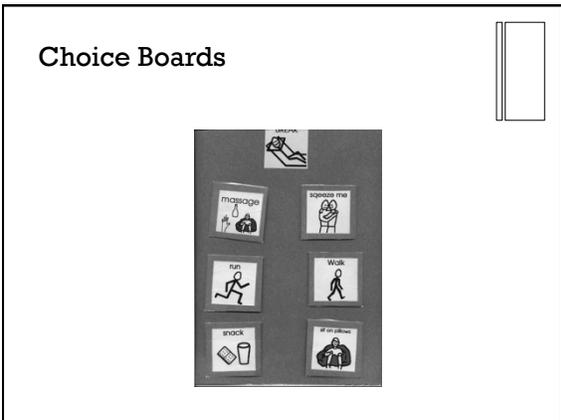


Choice Making

- Children can choose:
 - Order of activities
 - Which activity to do
 - Which reinforcer to access
 - What materials to use
 - Where to work/play
 - Who to work/play with
 - Etc.







Communication Boards

- Topic-specific
- Placed in key areas in the classroom
 - "Engineered Environments" by Carol Goossens, Sharon Sapp Crain, & Pamela S. Elder
- Can be used to support receptive and expressive communication



A grid of communication board icons. The icons are arranged in a 5x5 grid and include: play, eat, drink, sleep, read, write, draw, talk, listen, point, touch, smile, cry, laugh, sad, happy, angry, surprised, scared, excited, tired, hungry, thirsty, cold, hot, wet, dry, clean, dirty, open, close, up, down, left, right, stop, go, wait, help, no, yes, more, less, big, small, fast, slow, loud, quiet, bright, dark.

Legos

let me 	want 	more 	lego
no 	get 	finished 	on
don't not 	put 	done 	off
uh oh! 	push 	little 	hard
help 	push 	big 	hard

Food Preparation

let me 	need 	help 	more 	in 	bowl
no 	get 	put 	finished 	on 	spoon
don't not 	uh oh! 	open 	stir 	careful 	out
where 	turn 	forget 	all gone 	off 	big
how much 	look 	cut 	good 	yucky 	messy
cook 	spill 	smell 	taste 	pour 	measure

Communication Board to Share Information

Family 	Get up 	where 	bathroom
The front 	The happy 	The sad 	The mad
The thinking face 	The surprise 	The scared 	The love

The Picture Exchange Communication System (PECS)



- An instructional program developed initially for children with autism spectrum disorders
- Initial focus is on teaching self initiated communication
- PECS is an instructional package – you need training (www.pecs-canada.com)
- Most people develop the ability to communicate at least basic needs and wants

PECS Requires Training



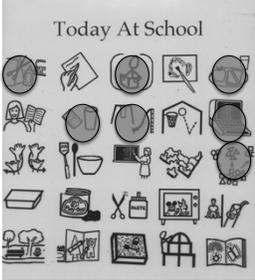
- PECS uses a specific instructional protocol that is based on applied behavior analysis (ABA)
- PECS can be very useful to facilitate communication between deaf children and non-signers (e.g., the school secretary, the librarian, etc.)
- Upcoming PECS training:
 - PECS Basic Training in Edmonton: Oct. 15/16, 2012
 - PECS Advanced Training in Edmonton: Oct. 17/18, 2012

Home-School Communication



- "Home-school papers" can support children in telling their parents what they did at school
- Similarly, parents can use the same strategy to support their children in sharing information with teachers and peers at school

Home-School Papers



Today At School

Home-School Papers

Today is	Monday
calendar	<input checked="" type="checkbox"/>
gym	<input checked="" type="checkbox"/>
printing	<input checked="" type="checkbox"/>
music	<input type="checkbox"/>
lunch	<input type="checkbox"/>

Home-School Papers

At Home



played with blocks

cleaned my room

ate dinner

went shopping

drew a picture

played with blocks

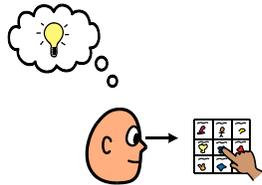
played catch

went to the park

went swimming

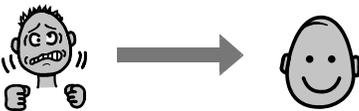
Visuals = Access to Language and Learning

- Visual supports and AAC strategies can enhance the educational experience for *all* children by ensuring access to activities and learning opportunities



Visuals = Less Frustration

- For many children who have delays in communication and language development, visual supports and AAC strategies can reduce their frustration
- When they are less frustrated, they are more able to learn



Arranging the Visual Environment

- It is important to structure the visual environment with care, so as not to make the environment visually overwhelming or distracting
 - Clearly delineate areas (e.g., visual schedule, etc.)
 - Set aside areas for displaying artwork, etc.
 - Refrain from using every inch of wall space as this tends to become distracting
 - We want to make sure children are able to see what we want them to see



The Big Picture



- For some children, visual supports and AAC strategies will be necessary for their development
 - Some may later acquire sign or spoken language skills such that visual supports and/or AAC are not necessary
 - Some may continue to require these supports
- Using visual strategies and AAC supports ensure that all children have an opportunity to access instructional content, social opportunities, etc.



References and Resources

Books and Articles

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- Savner, J.L., & Myles, B.S. (2000). *Making visual supports work in the home and community: Strategies for individuals with autism and Asperger syndrome*. Shawnee Mission, KS: Autism Asperger Publishing Co.

Websites and Online Resources

Augmentative Resources: www.augresources.com (Portable schedule materials and other products)

Mayer-Johnson Company: www.mayer-johnson.com (Boardmaker software and other products)

Tips and Ideas for Making Visuals:

<http://csefel.vanderbilt.edu/modules/module3b/handout2.pdf>

Use Visual Strategies: www.usevisualstrategies.com

Visual Environmental Supports (Texas Guide for Effective Teaching):

<http://www.txautism.net/docs/Guide/Interventions/VisualSupports.pdf>