

Functional Communication: An in Depth Look at Reducing and Replacing Challenging Behaviors

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Learning objectives

- Identify multiple functions of communication
- List steps to implementing functional communication training
- Gain ideas of how to incorporate visual language supports to aid in the development of functional communication
- Gain knowledge of proactive strategies for staff to implement across disciplines in order to promote communication and reduce/replace challenging behaviors

“There needs to be a lot more emphasis
On what a child can do instead of
what he cannot do.”

-Dr. Temple Grandin



Prompt Reminder

- What style of prompt benefits your student the most?
 - Verbal
 - Visual
 - Gestural
 - Partial physical
 - Physical



Functional Communication Training

- a differential reinforcement procedure that teaches student to replace problem behavior with recognized form of communication

Step 1

- Identify a problem behavior
 - Repetitive and disruptive
 - Aggression, self-injurious behaviors, property destruction, elopement, verbal threats
 - How are these behaviors affecting others?

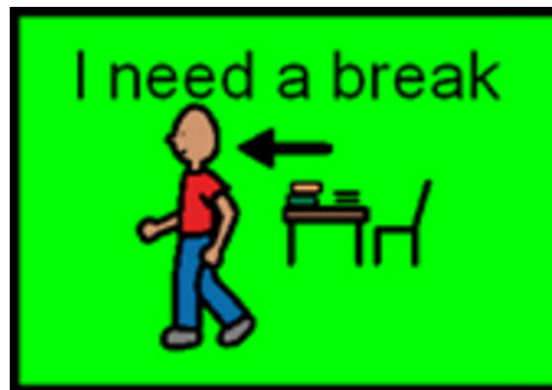


Step 2

- Complete a Functional Behavior Assessment
 - Completed by behavior specialist/ practitioner
 - Identifies behavior
 - Collecting baseline data
 - Developing hypothesis statement
 - Testing hypothesis
 - Develop interventions

Step 3

- Develop replacement behavior
 - Once you have identified the behavior (e.g. elopement to task avoid), what would you like them to do instead?
 - Would they be expected to perform replacement behavior in all environments with all staff?



Step 4

- Design and develop data collection system
 - How will you track the success/failure of your replacement behavior?
 - When will the team decide whether the replacement behavior is successful?

Monarch School ABC Analysis

+ Student:

Date	Time	Staff	Antecedent (what was occurring just before the behavior)include setting	Behavior (include frequency/duration)	Consequence (what occurred immediately after the behavior)

Self-Injurious Behaviors (SIB): *(hitting her head with wrist, fist, hand, forearm; hitting her head on the wall, table, floor, desk/table)*

PA:

Please record the date next to the day of the week

Time:	Monday	Tuesday	Wednesday	Thursday	Friday
8:30-9:00	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
9:00-9:30	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
9:30-10:00	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
10:00-10:30	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
10:30-11:00	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
11:00-11:30	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
11:30-12:00	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
12:00-12:30	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
12:30-1:00	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
1:00-1:30	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
1:30-2:00	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
2:00-2:30	SIB:	SIB:	SIB:	SIB:	SIB:
	PA:	PA:	PA:	PA:	PA:
Total:	Total SIB:	Total SIB:	Total SIB:	Total SIB:	Total SIB:
	Total PA:	Total PA:	Total PA:	Total PA:	Total PA:

Step 5

- Manipulate environment to evoke interfering behavior
 - Are you giving your student enough opportunities to practice replacement behaviors in a controlled environment?



Step 6

- Let's Generalize!



Step 7

- Teach staff how to prompt student to use replacement behavior
 - Think back to the prompting hierarchy
 - What type of prompt does your student respond to best?
 - What is the least restrictive prompt for your student?
 - Make sure staff is using a consistent prompting method!

Step 8

- Do not reinforce interfering behavior
 - Educators/parents should attempt to avoid giving attention/reinforcement when interfering behavior is occurring
 - Safety is key, but intervene as minimally as possible



Step 9

- Reinforce replacement behaviors
 - All team members must consistently provide immediate reinforcement for replacement behaviors

– Keep in mind:

- Density
- Satiation
- Immediacy
- Deprivation



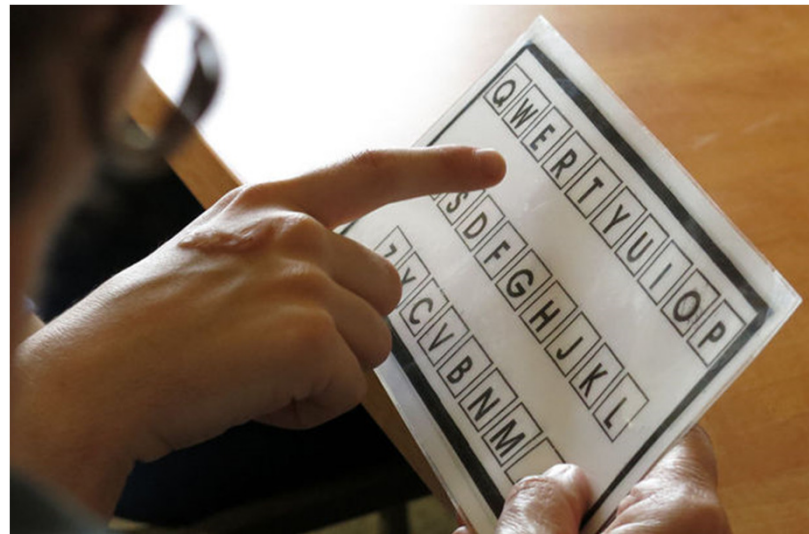
** if necessary complete a preference assessment

Step 10

- Shape response
 - educators initially accept any approximation of the replacement behavior
 - Slowly reinforce closer approximations of the replacement behavior until it more closely resembles the desired production

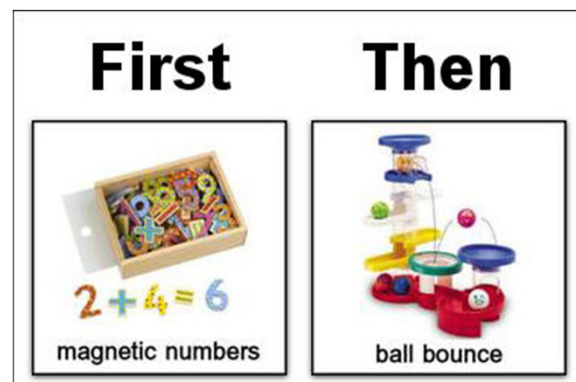
Step 11

- Fade prompts
 - fade the use of prompts so student can increase independence using preplacement behaviors



Step 12

- Increase time between replacement behavior and reinforcement
 - Discuss as a team when to start increasing time between replacement behavior and reinforcement
 - What is the end goal for the replacement behavior?



Step 13

- **Maintain this skill!**

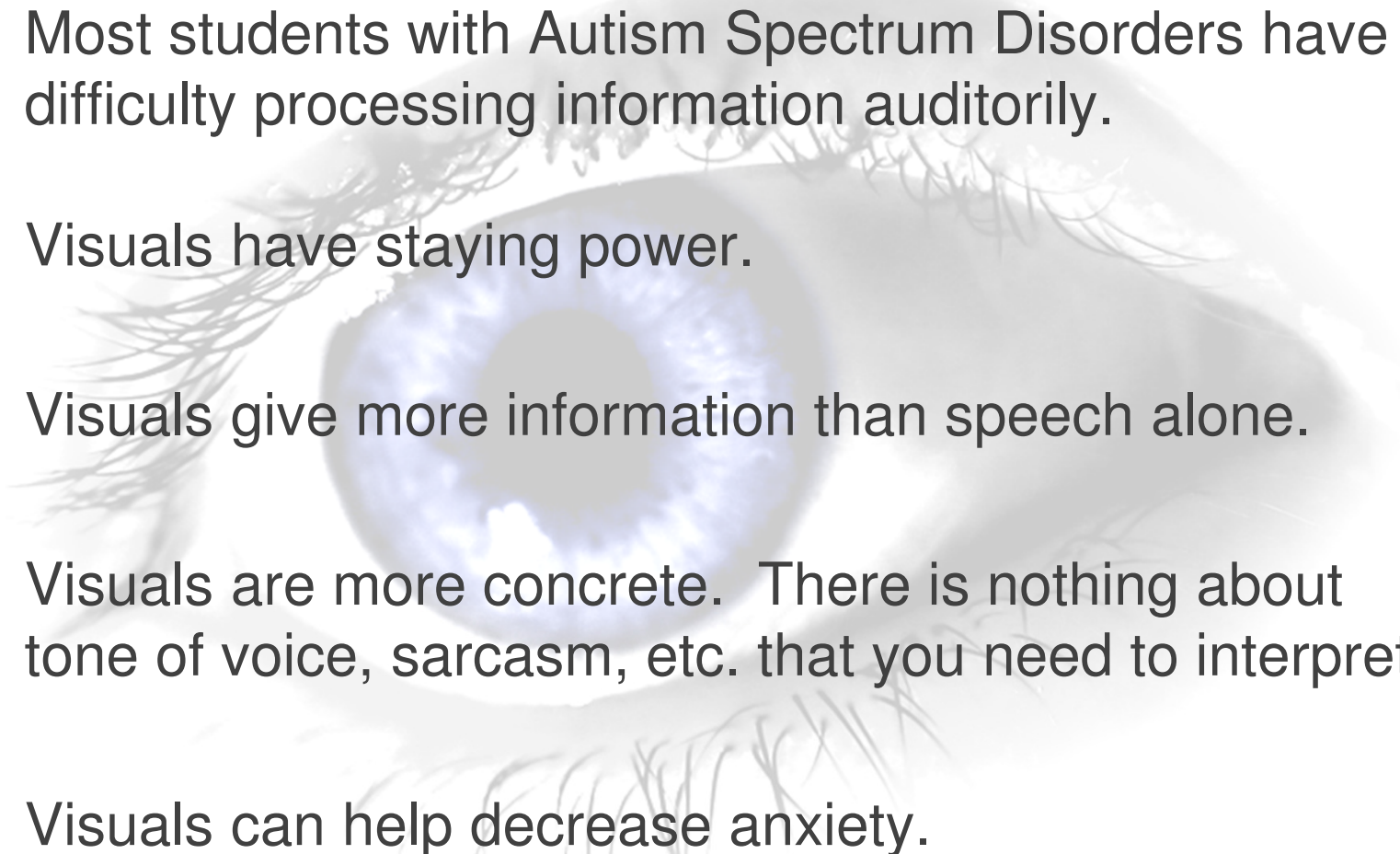


Visual Processing Strengths

....people with autism concentrate more brain resources in the areas associated with visual detection and identification..... might explain outstanding capacities in visual tasks.

Mottron, L., (April, 2011). *Visual Processing Strengths in Autism, Human Brain Mapping.*

Why are visuals important?

- 
- Most students with Autism Spectrum Disorders have difficulty processing information auditorily.
 - Visuals have staying power.
 - Visuals give more information than speech alone.
 - Visuals are more concrete. There is nothing about tone of voice, sarcasm, etc. that you need to interpret.
 - Visuals can help decrease anxiety.

Environment

- What parts of the environment can affect your student
 - Light sensitivity
 - Noise level
 - Visual noise

*Keep in mind setting events



Key Advantages of Visual Immersion Programming

- Visual Symbols are the foundation of speech and language acquisition
- Uses all types of visual symbols (drawings, photos, objects, text, moving images)
- Makes **optimal use of electronic screen displays**
- Emphasizes comprehension as the foundation for communication while also providing an avenue for expression.
- Promotes the use of a range of parts of speech (**not just nouns!**)
- Allows the learner to move between broad dynamic and static scenes to single and multi-element cues.

Prompt Reminder

- What style of prompt benefits your student the most?
 - Verbal
 - Visual
 - Gestural
 - Partial physical
 - Physical



Find the symbol system that works best for your student



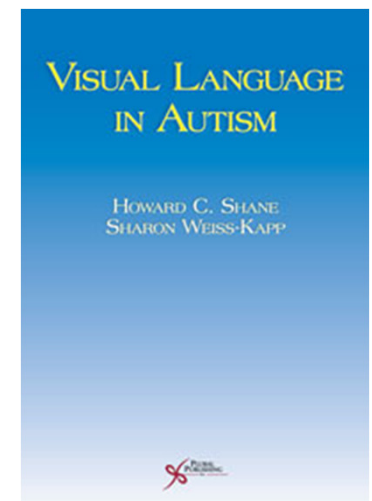
put jacket in locker

A stick figure holding a red book and placing it on a grey surface.A brown jacket.A red arrow pointing downwards into a black U-shaped symbol.A row of purple lockers, with one open showing a red book inside.

What is Visual Language Programming?

Through collaboration with Howard Shane and colleagues at Boston Children's Hospital, Monarch School has developed visual language programming that includes the following components:

-  Visual Instruction Mode **(VIM)**
-  Visual Organization Mode **(VOM)**
-  Visual Expression Mode **(VEM)**

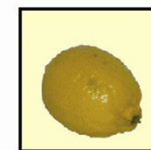
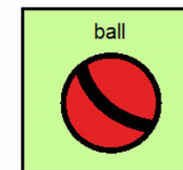


Visual Instructional Mode (VIM):

Visual cues used for the purpose of comprehension which are imposed as an alternative to, or in conjunction with, speech.

Ex.: word wheels, flashcards, written directions, visual stories, any visual to aid in comprehension of concept or content.

Find a _____



Visual Organizational Mode (VOM):

Visual cues used to represent the organization of an activity, routine, script, or schedule. These should not be thought of as a “crutch” from which they should be weaned.

















Ex.: Schedule, timer, token board, first-then board, lists



Visual Expressive Mode (VEM):

Visual cues used for the purpose of expressive communication.

Ex.: Topic boards, AAC devices, PECS, scene displays.

Visual Expression				
	Agent	Action	Adjective	Object
Tom	 I want	 pop	 big	 bubbles
Mom	 my turn	 blow	 little	 wand
Dad	 Do it again!	 spill	 sticky	 bubbles
Grammy	 all done	 wash hands	 yucky	 get paper towel

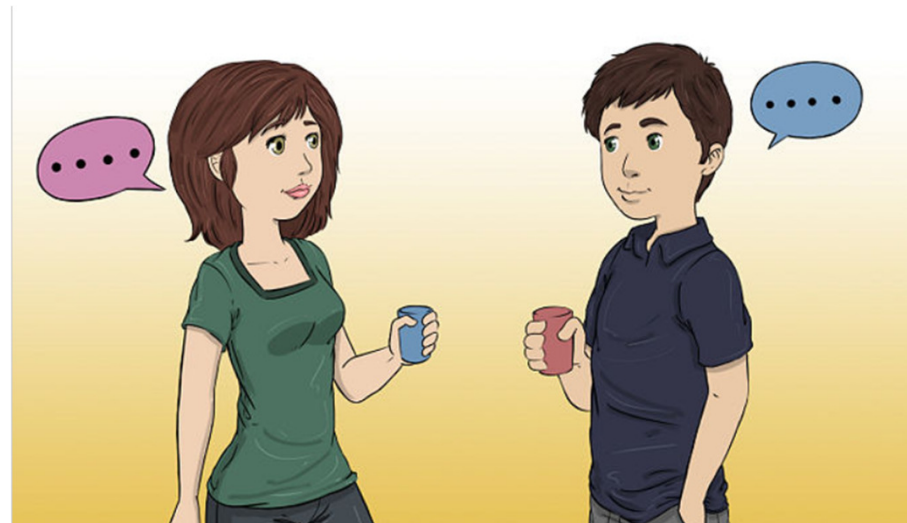
Keep in mind...

- What is your student trying to communicate by eliciting a specific behavior?



7 Functions of Communication

- Protesting and Refusal
- Organization and Transitions
- Requests
- Directives
- Comments
- Questions
- Social Pragmatics



1. Protesting

- Definition:
 - Protest: behavior that expresses objection or disapproval of an activity, event, or person.
 - Refusal: behavior that expresses rejection of an object, activity, or event suggested or initiated by another person.



Protesting continued

- Focus is on environmental control. Goal is to influence the behavior of another person, rather than to initiate a conversational exchange.
- Important to teach as protesting can be destructive, inappropriate, or dangerous in students with moderate-severe ASD.



Clinical Expression and Observations

- Most common protestations are associated with the following:
 - Transitions
 - Demands or directives to perform a task/activity
 - Removal or cessation of an enjoyable task/activity
 - Expecting participation in a distasteful task or activity when introduced.
 - Lack of ability to request goods and services
 - Desire to escape
 - Desire for attention

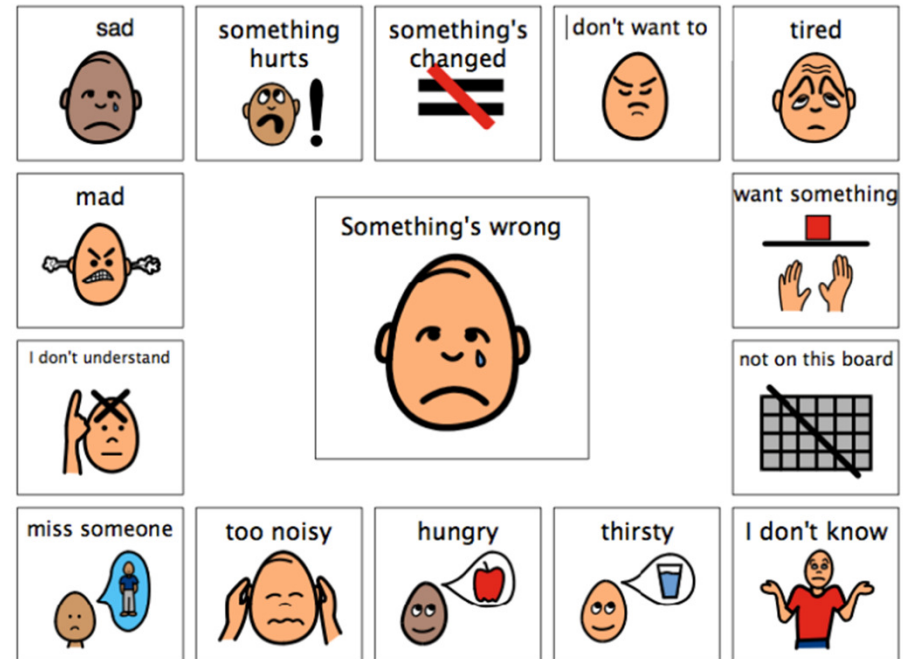
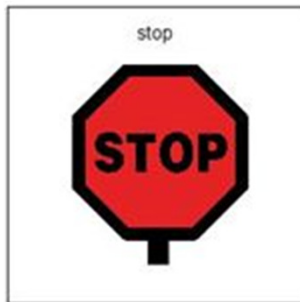
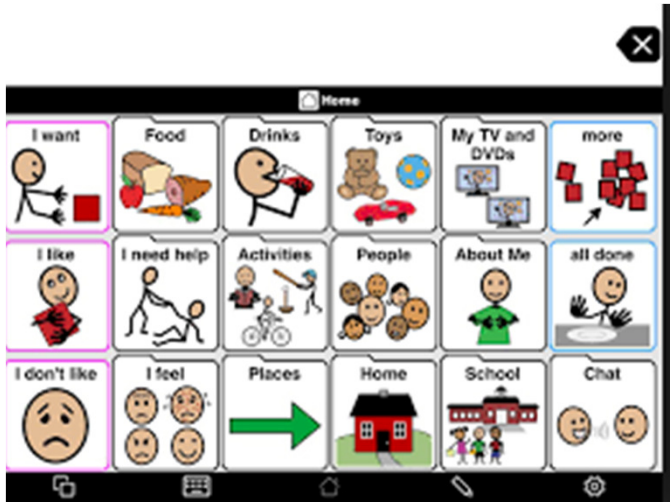


Nature of Visual Supports

- Allows the learner a safe, socially acceptable, and universally understood means of control over their environment.
- Must appreciate that a symbol can be a substitute for challenging behaviors
- 5 core symbols: “No”, “finished”, “stop”, “more”, “help”.
- Address at the time that they occur, rather than in a simulated environment.

May choose to teach gestures/sign



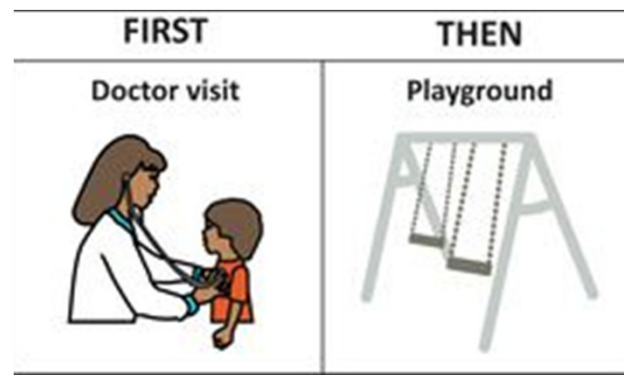


Leading Questions

- Is your student able to appropriately protest when they are not escalated?
- Has your student generalized the ability to protest?
- What does their protest look like (verbal, visual, gestural)?

2. Organization and Transitions

- Definition:
 - Organization: arranging elements (e.g., tasks, events) into an orderly, functional, structured whole
 - Transition: the process of changing from one state, stage, or activity/environment to another.



Leading Questions

- Is the student able to sustain participation?
- Are they able to participate in a variety of settings?
- How tolerant of change is your student?

Xai's Schedule

8:45	Morning Meeting
9:00	[Photo]
9:30	[Photo]
10:00	[Photo]
10:30	[Photo]
11:00	[Photo]
11:30	[Photo]
12:00	Lunch
12:30	[Photo]
1:00	Speech group
1:30	[Photo]
2:00	Current Events
2:30	[Photo]

Courtney's Schedule

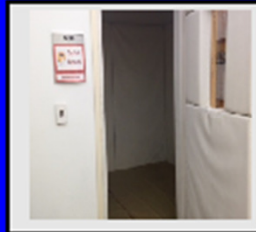
8:45	Mon. Mtg.
9:00	Lauren
9:30	Ronnell
10:00	Alyssa
10:30	J. B.
11:00	Jackie
11:30	Art
12:00	Lunch
12:30	Ronnell
1:00	Speech group
1:30	Leisure Skill
2:00	Current Events
2:40	Class Store

1. FIRST



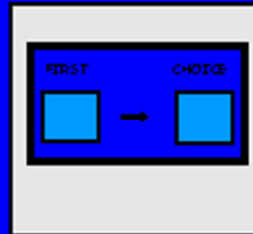
Calm Body
1 Minute

2. NEXT



Break
5 Minutes

THEN



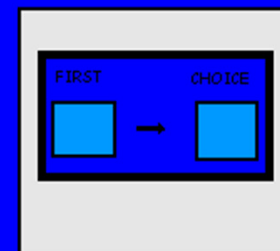
Schedule

1. FIRST



Calm Body
1 Minute

2. THEN



Schedule

3. Requesting

- Definition:
 - Request: expressing a desire for preferred objects (e.g., toys, food) and activities.

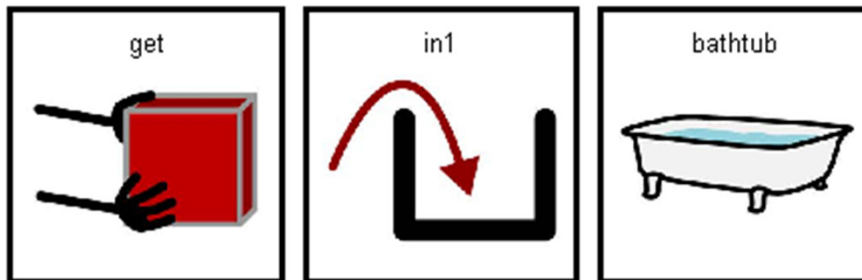


What are the implications if this skill isn't established?

- How established are your students' leisure skills?
 - Think back to:
 - Density
 - Satiation
 - Immediacy
 - Deprivation

4. Directives

- Definition:
 - Directive: language used to control the behavior of another.



Directives continued...

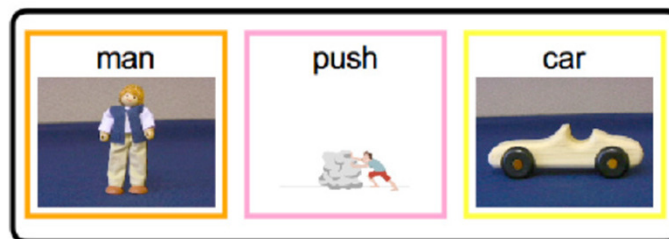
- Transmitted in 2 essential ways:

1. Scene cues

- Dynamic scene cues
- Static scene cues



2. Element cues: each of the individual linguistic components that comprise a sentence (e.g. subject, verb, preposition, adjective, object)



Clinical expression and observations

- Difficult because learners don't understand the language associated with directives.
- **4 categories:**
 - Instructional: (e.g. cut, point, circle)
 - Control: regulate learner's behavior (e.g. sit down, quiet, etc)
 - Routine-based: actions pertaining to participation in routines (e.g. get, open)
 - Play-based: (e.g. roll, throw, blow)

Ask yourself...

- *What type of direction are you presenting?*
- *What part of the directive is your student cueing into?*
- *Do you have students who can follow familiar directions, but struggle with novel directions?*

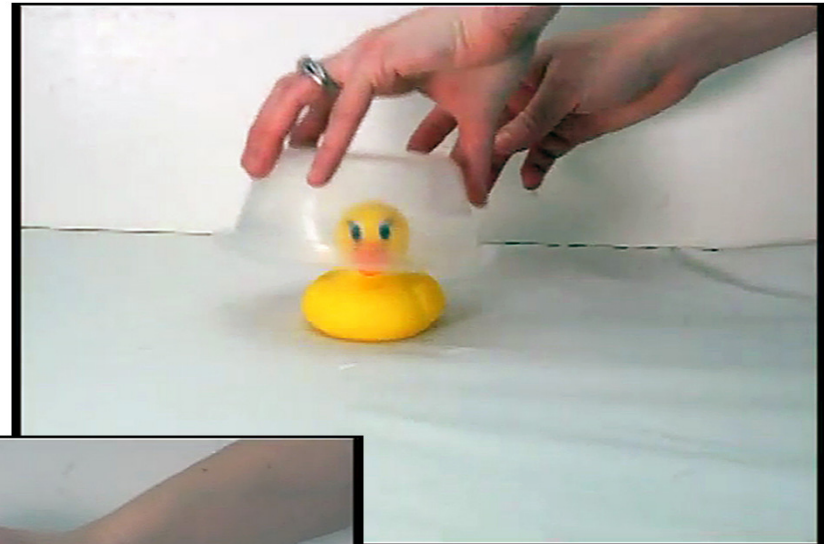
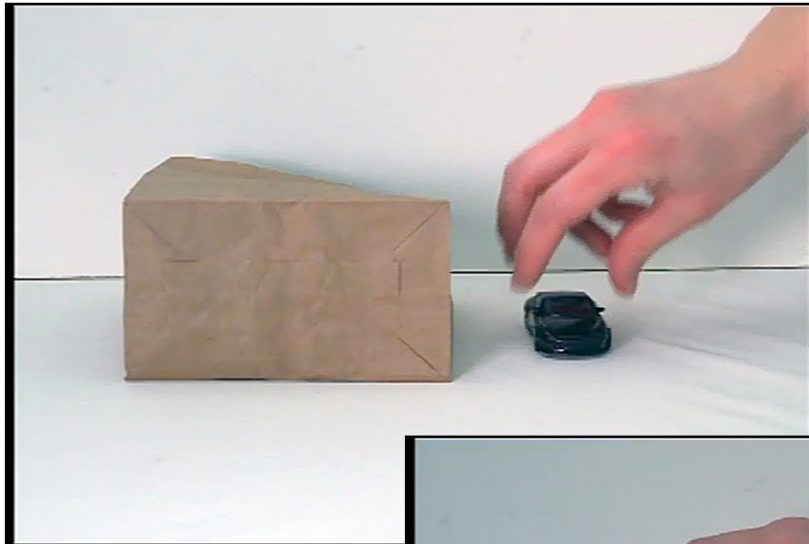
Preposition Action Concept Evaluation (PACE):

- PACE evaluates which modality students most effectively understand directives that contain a preposition (e.g. “put the block under the box”); verbal directions, static scene cues, or dynamic scene cues (video models).

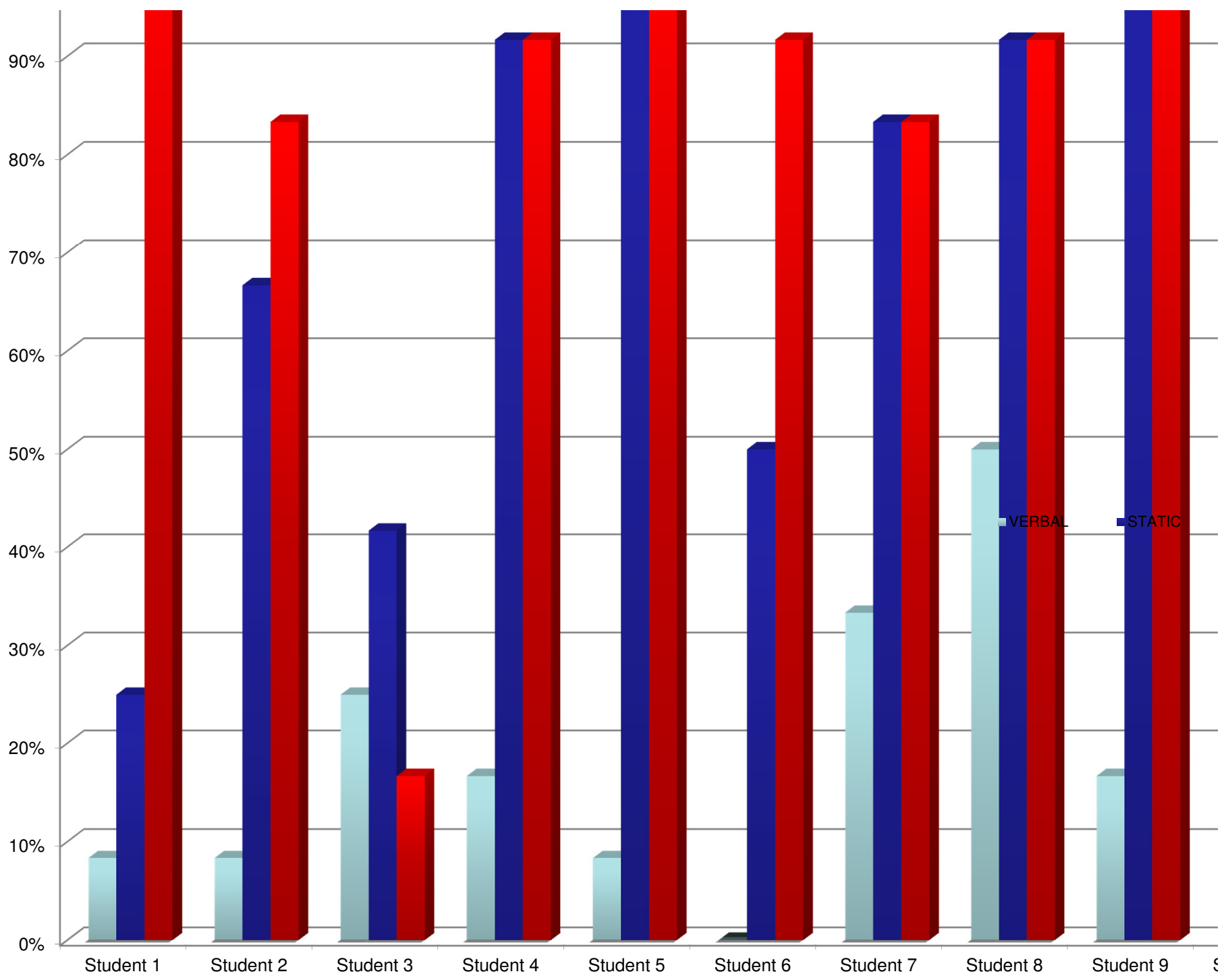
PACE assessment: Preposition Action Concept Evaluation

- Began with 10 students
- Screened for:
 - Identification of the objects used in the assessment
 - Ability to follow directions from a video model (e.g. touch nose, clap hands)
 - Executive skills to sit and attend to the presented material.

Samples of the scene and static cues:



Student Participating in PACE



Implications for classroom behaviors?

Students...

- Respond to nouns
- Respond to gestures and/or eye gaze
- Recognize intonation
- Recognize routines/patterns
- What types of behaviors are occurring during directives?

What are the implications if this skill isn't established?

- Students being corrected causing escalation?
- Over prompting verbally to aid student in following directives?
- Student is unable to control their environment beyond requesting for tangible items

5. Commenting

- Definition:
 - Objective Comment: exchanging information that describes someone or something by including some or all of its relevant characteristics or qualities that are also perceivable by others (e.g., who, what, where, when, etc.)
 - Subjective Comment: a remark intended to share one's internal state (e.g., thoughts, feelings, opinions, or reactions to an event, activity, object, or person)



A Closer Look at Commenting

- Expressive in nature-intended to entice a 2-way conversational exchange
- Some degree of *motivation* is required to make a comment
- Comments: a **behavior, gesture, vocalization, or other modality** that conveys information about observations, experiences, knowledge, opinions, emotions, and reactions.



A Closer Look at Commenting

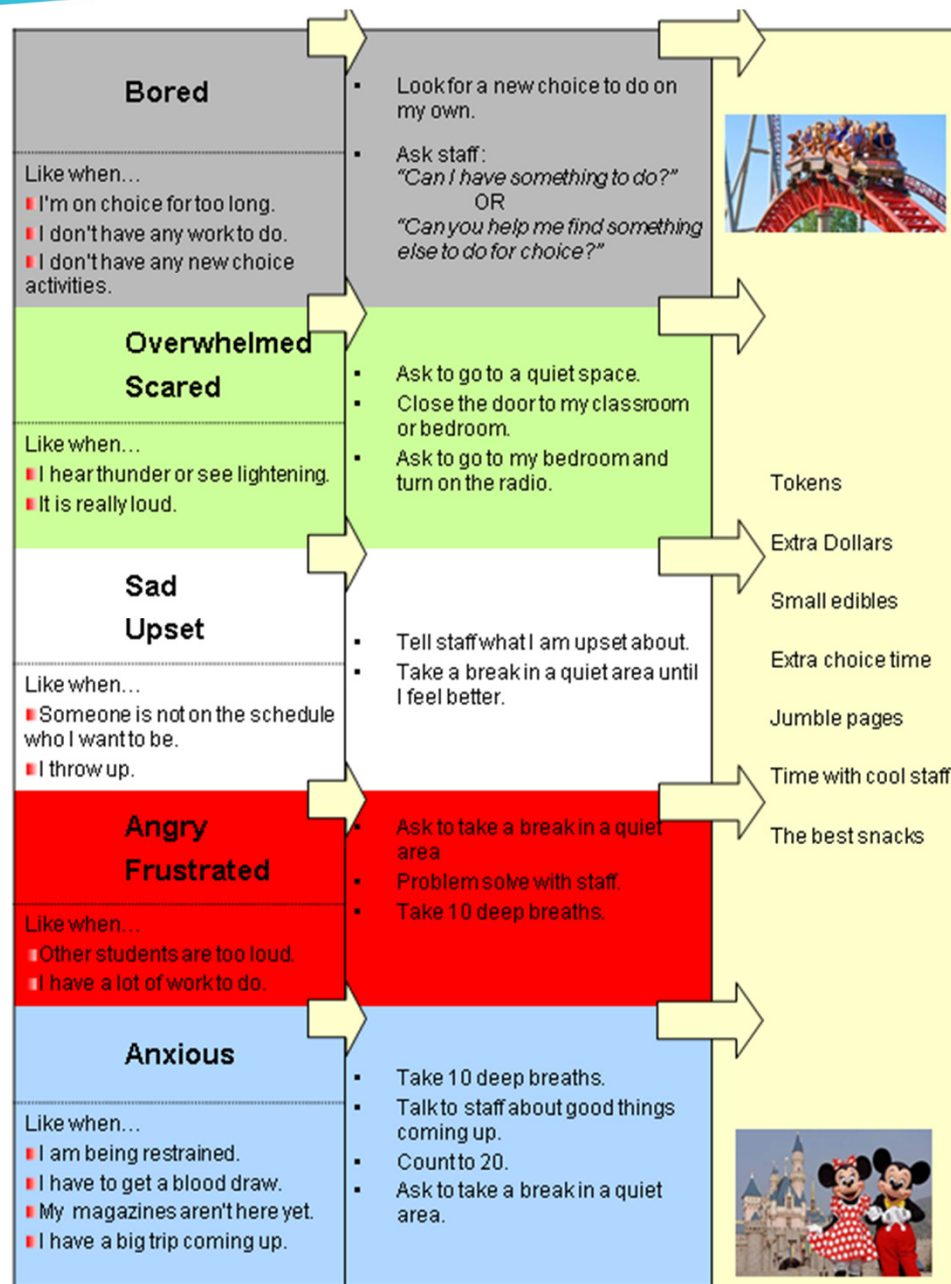
- Comments are NOT necessarily verbal
- Earliest form of commenting is object labels
- Comments vary in complexity (i.e. “Doggy!” to “Look at that big hairy slobbery dog drooling on that boy!”)



Clinical observation and expression

- 1. Provide the learner with enough language instruction to describe a person, place, thing, or event.
- 2. Provide enough teaching opportunities that elicit joint attention and motivate learners to share thoughts and interact with others.





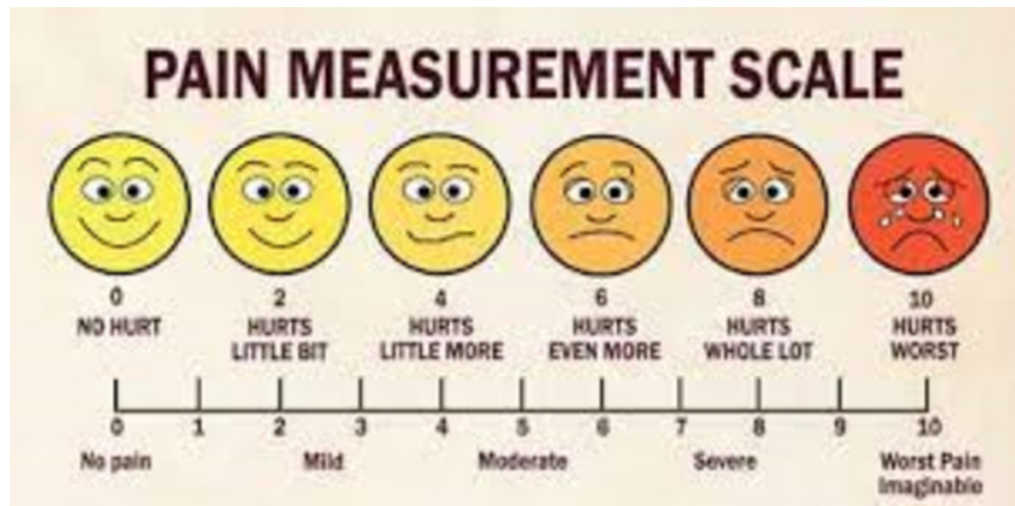
Observational vs. Internal Comments

- This first comments develop from **observing** the world around us and mapping language to it
 - “Look, I see a doggy!”
- **Internal** commenting is a later developing skills, but just as important
 - “I feel sick today.”
 - “I feel so worn out.”



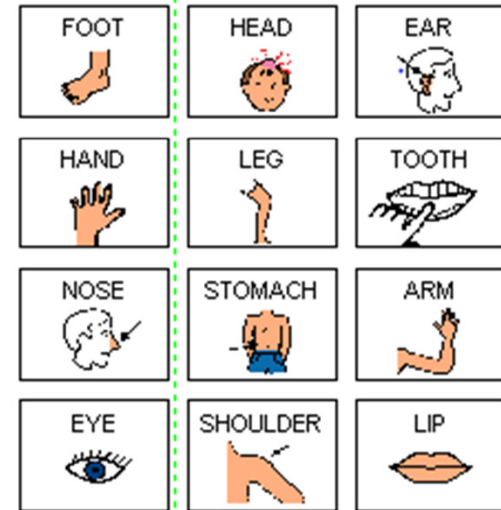
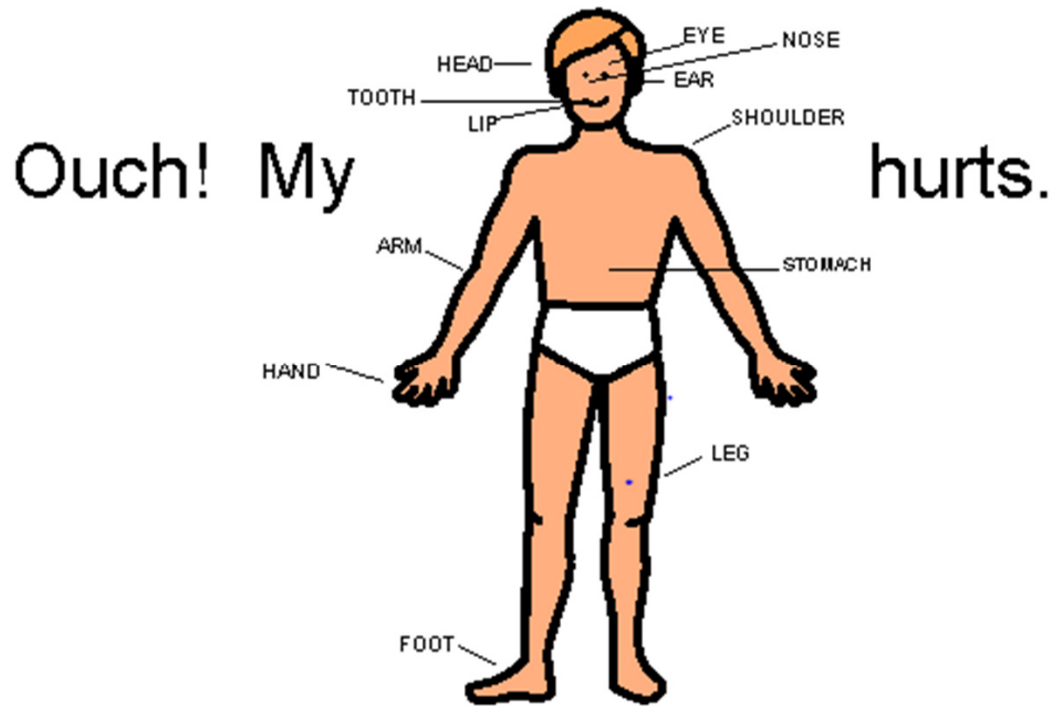
Commenting for Pain or Discomfort

- How does your student communicate pain or discomfort?





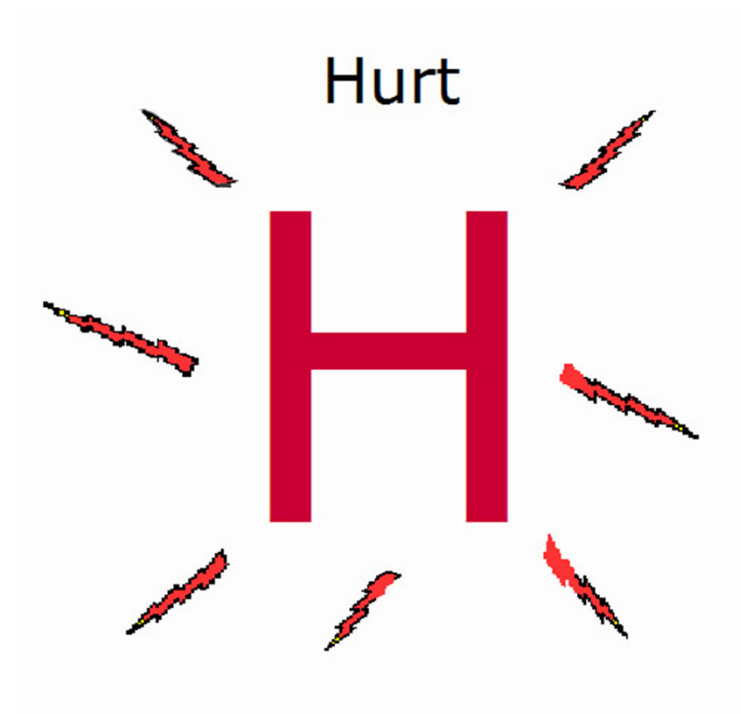
Pain and illness displays



I need _____.



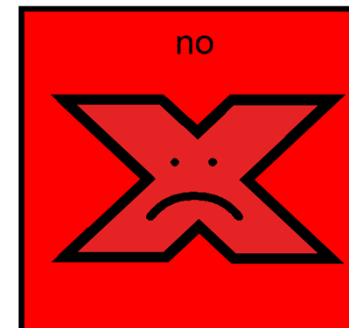
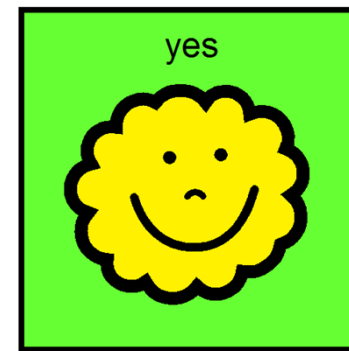
Pain curriculum visual



Video

6. Questions

- Two types:
 - 1. Wh-questions (e.g. Which (choice making), When, Who, What, Where)
 - 2. Yes-No questions
 - -Is this a _____?
 - -Do you want a _____?



What is the most common
question we ask?

“What do you want to work for?”

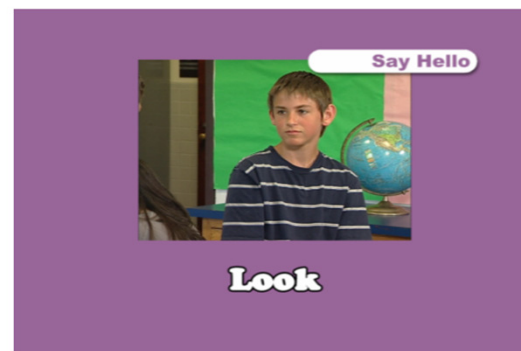
- Is our student answering accurately?
- Do they understand all of their options?
- Can they discriminate questions? (e.g. “Where do you want to go?” vs. “What do you want?”)

What are the implications if this skill isn't established?

- Is your student understanding their options?
- Do they understand their role in question/ answer?
- Is there the potential for an increase in communication break downs?

7. Social Pragmatics

- Definition:
 - Social Pragmatics: Use of verbal and nonverbal language as a means of engaging communication partners in an exchange to initiate, maintain, and terminate interactions.







What are the implications if this skill isn't established?

- What does your student's behavior look like as means to engage in/ end an interaction?

Casie's Requests

When Casie is  or , she can ask for:

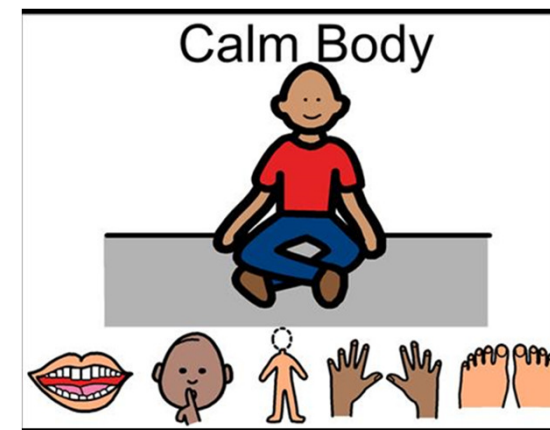
wet washcloth 	water 	squeeze balls 
hug 	backrub 	hand squeezes 
arm rubs 	head massage 	arm tickles 
hold hands 	sit with staff 	lay down 

Collaboration Across Disciplines

- What can each discipline contribute to the generalization of replacement behavior?
 - OT
 - BX
 - SLP
 - Supervisor/ Administration
 - Parent/Guardian
 - Physicians/ specialists

Proactive Strategies

- Trial several types of visual aids until you find one that is right for your student
- Provide each service provider/parent copies of the visual to support generalization
- Be aware of setting events (not feeling well, no sleep, hungry etc.)
- Identify co-morbid disorders
- Is it a teachable moment?
- Be aware of what baseline looks like!





Is This a Big Problem?

A Really Really Big Deal

5



A Volcano Problem

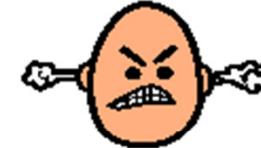


Oh man, I'm getting kinda mad!

4



A Big Problem



Oh, I'm a little annoyed

3



Medium



It's O.K.

2



A Small Problem



No big deal!

1



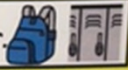


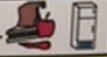



A Small Problem



Jacob

Jacob's Arrival Routine

1. Say "hi" to teachers. 
2. Open locker. 
3. Hang backpack in locker. 
4. Take lunch out of backpack. 
5. Close locker. 
6. Put lunch in refrigerator. 
7. Walk to classroom. 

Highlighting the 7 functions in Individualized Education Plans

- Detail this information in the Profile as a guide for goals/objectives.
- Use it as a yearly guide to help determine next steps.



Sample IEP Profile

- **7 Functions of Communication:**

Assessing the 7 Communicative Functions through observation, teacher reports, data collection and informal assessments, the following is reported:

- 1. Protesting and refusal – Student will answer questions to show his disapproval by saying "no" or "I don't want." At times, his yes and no verbalizations appear combined; however, he is able to quickly clarify his answer given a choice through visual supports. Visual supports are also provided in order to pair "no" with "I don't want" in order to give him the opportunity to vary his language when protesting.
- 2. Organizing and Transitions – Student is provided with macro and micro visual schedules, token boards, and timers during transitions. He has little difficulty transitioning from preferred activities back to work activities, only occasionally needing additional verbal directives in order to gain his attention fully before requesting a transition. Student greatly benefits from schedules in order for him to visually see his expectations during each scheduled session. Additionally, he responds well to "first, then" boards to help him understand ordinal concepts in regard to upcoming activities. Time concepts are more abstract and difficult for him including vocabulary such as before, after, next, later.

Sample IEP Profile continued..

- **3. Requests** – Student is able to verbalize requests for highly reinforcing items (i.e. raisins) independently using verbalizations although his intelligibility sometimes inhibits him from gaining access to requests immediately. During routine requesting activities, (i.e. when asked what he is working for) he is able to use full sentences independently or with a visual support to say, “I want _____” when his visual is present. When student’s preferred choice (raisins) are not presented on a choice board, he will look around the room or on the velcro board in order to find the icon. When directed to his AAC device, he will navigate or express “I want raisins.” At lunch, student is provided with a visual support to assist with requesting help (i.e. to open item etc.) and will ask for help throughout the day given moderate verbal or gestural cues.
- **4. Directives** – Student is able to follow 1-2 step directions during highly structured or routine based activities involving basic concepts and familiar routines (i.e. wipe table and put lunch away). He is able to follow directions that regulate behavior within the classroom such as sit down, open, close, and stand up. He is able to follow instructional directions such as cut, glue, color, write, circle, touch, and point to. Additionally, he is able to participate in games or back and forth play by following directions such as your turn, push, pull, pass to, roll, find, and throw. Student needs assistance when following novel 1 or multi-step novel directions at this time. During group activities where student may need to stand up and walk to the front of the room to take a turn on the Smartboard, he responds to directives such as “Student, it’s your turn” with a gesture from the communication partner in order for him to follow the directive.

Sample IEP Profile continued..

- 5. Comments – Student has been observed to make comments such as “I don’t want” or “This is fun” during structured activities given moderate visual or verbal cues where commenting is a focus of the activity. When asking him, “How are you?” he will often comment that he feels “good” or may use his AAC device to state, “I’m happy.” At times, when student appears unhappy and when directed to his AAC device to express his feelings, he needs moderate visual or verbal cues in order to state a feeling other than happy to identify his own emotions. When given a picture or a facial expression of a child or adult, student is able to identify the feelings of happy, mad, and sad and is able to imitate those emotions on himself.

Sample IEP Profile continued..

- 6. Questions – Student uses verbalizations, AAC, and visual supports to answer questions. He has greatly improved the ability to answer yes and no questions with minimum cues or independently. Student will answer routine questions with little difficulty given visual supports. For example, when asking him during lunch, "What are you eating?" student will use verbalizations or visual supports provided in order to state (i.e. "carrots, hummus") and or may use visual supports to answer the question in a complete sentence. Student needs maximum assistance and visual supports when answering novel questions at this time.
- 7. Social Pragmatics – Student will greet and take leave with his communication partner with appropriate eye contact once his full attention is gained. He is able to participate in greeting-routine conversations with staff by verbalizing "hello + staff" or with his AAC device. He also greets peers during group activities. He will answer the question "How are you?" by saying, "Good" but does not reciprocate the question to his communication partner at this time. This will be informally worked on during the school year to increase his social pragmatic skills. Student is able to respond to partings by saying "bye +staff." During group settings, student attends and participates with his peers in turn taking activities needing visual supports and occasional verbal cues to wait his turn. During preferred group activities, he may answer questions for his peers or make selections out of turn. A "My turn" visual support is provided to help him determine whose turn it is and to wait for his own turn.

Summary/Conclusions

- Provide visual supports and technology that will expand language functions and help reduce problem behaviors
- Finding the function of the behavior is the first step in reducing it

Resources/Materials

Visual Language in Autism by Howard C. Shane and Sharon Weiss-Kapp (Nov 1, 2007)

- **Enhancing Communication for Individuals with Autism: A Guide to the Visual Immersion System** Oct 20, 2014 by Howard C. Shane Ph.D. and Emily Laubscher M.S. CCC-SLP

Use Of Augmented Input To Improve Understanding Of Spoken Directives

- By Children With Moderate To Severe Autism Spectrum Disorder
-
- Invited Paper to Appear in:
- *eHEARSAY*
- *Journal of the*
- Ohio Speech Language Hearing Association
-
-
- By
- Rebecca Remner M.S. CCC-SLP
- Melissa Baker M.S. CCC-SLP
- Christian Karter M.A.
- Kevin Kearns, Ph.D.
- Howard Shane, Ph.D

More resources

Preference assessment:

http://ttac.odu.edu/_public/file/ReinfAssessIndSevereDisab.pdf

- **Monarch friends and family:** Monthly newsletter that contains printable visual supports, upcoming webinars and trainings, app ideas, etc.

– <http://www.monarchcenterforautism.org/contact-us/join-our-email-list>

ViZZle: <http://www.monarchteachtech.com/try-vizzle-free/>. **ViZZle** is an all-in-one digital resource center for special educators. Played on any device or computer from any location, **ViZZle's** multipurpose software allows educators to: Search a peer-reviewed library of almost 15,000 interactive, visual PreK-12 lessons on any subject using state standards or keywords.

Resources/Materials

- **Functional Communication Training: Steps for Implementation** National Professional Development Center on ASD November, 2010
- http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/FCT_Steps_0.pdf

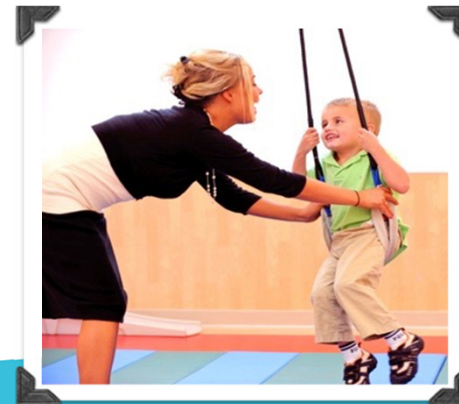
Contact us

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Monarch Center for Autism Services

- ❖ **Preschool**
- ❖ **Day School**
- ❖ **Transition Education Program**
- ❖ **Extended School Year Program**
- ❖ **Summer Social Language Leadership Program**
- ❖ **Boarding Academy**
- ❖ **Adult Autism Program**
- ❖ **Adult Autism Residence & Support Living Settings**
- ❖ **Free Webinar & e-newsletter Series**
- ❖ **Online Resource Center**

- ✦ **Web:** www.monarchcenterforautism.org
- ✦ **Telephone:** 216.320.8945 or 1-800-879-2522
- ✦ **Address:** 22001 Fairmount Boulevard,
Shaker Heights, Ohio 44118
- ✦ **Join our e-newsletter mailing list:**
[http://www.monarchcenterforautism.org/
contact-us/join-our-email-list](http://www.monarchcenterforautism.org/contact-us/join-our-email-list)
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Don't forget...

- Certificate of attendance
- Turn in your participation evaluation