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# Enhancing Functional Communication Skills of Children with ASD Across Environments

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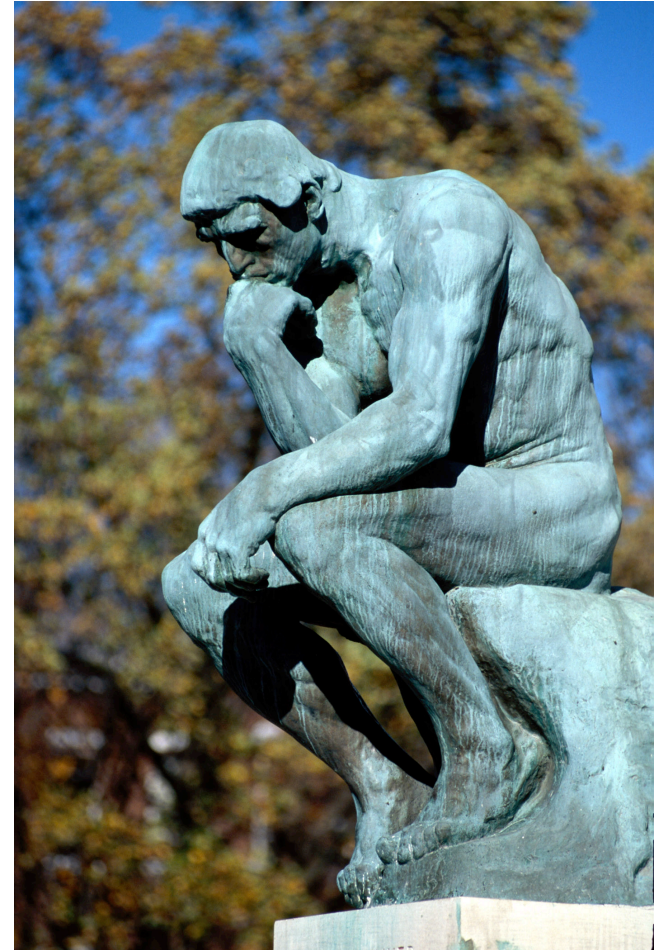
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Council for Children with Behavior Disorders

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- Background
- Determining Preferences
- Determining Behavioral Function
- Addressing Communication: Making a Plan
- Things to avoid



## **Two Philosophical/ Theoretical Statements you must bear in mind:**

- All behavior is communication.
  - Challenging behavior  $\neq$  Inappropriate/ aberrant behavior
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Behaviors can be viewed as a form of communication

Behaviors are the individuals best attempt to convey a message or communicate a need

Behaviors are not responses to be reduced or eliminated

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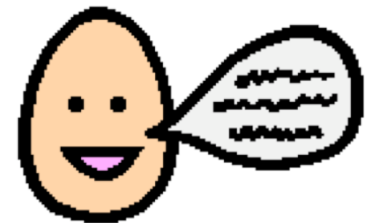
# Everyone Communicates...

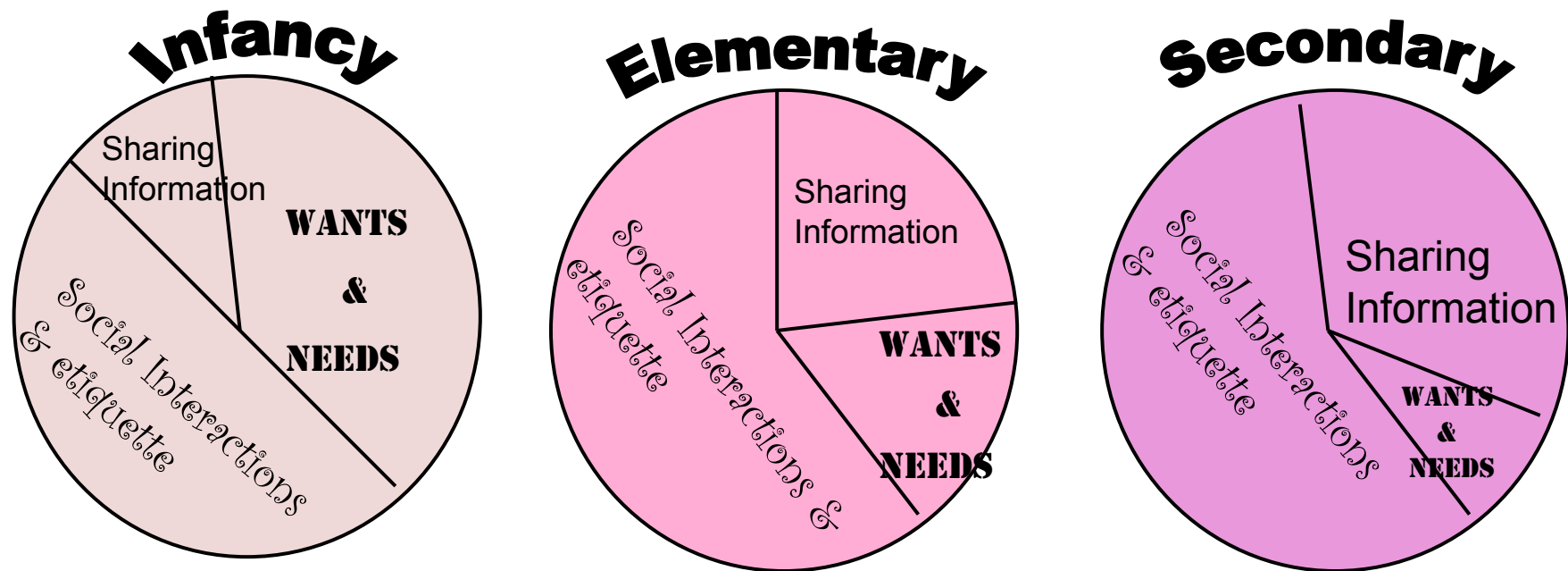
- Crying
- Eye contact
- Sounds
- Words
- Pointing
- Falling asleep
- Screaming
- Communication boards
- Picture exchange system
- Voice output systems
- Gestures/signing
- Hair-pulling



- **Expressing Wants and Needs**
  - \*Once desired action or object is achieved.
- **Social Interactions including Social Etiquette**
  - \*Social vocabulary is difficult to provide, but vital for social acceptance
  - \* Greetings, Conclusions, “manners”, etc
- \* **Exchanging Information**
  - \* Starts as “joint attention” then develops into more complex interchanges with content or topic specific vocabulary

Janice Light 1988, 1997, 2005





*The importance of different communication purposes changes over our lifetime*

J. Cumley, 2001

Based on J. Light, 1988, 1997, 2005

- This is an assessment to determine a child's preferences.
- **First**, interview parents, teachers, and other possible caregivers to determine about 5 items the child prefers. Also, ask for one or two items the child does not like.

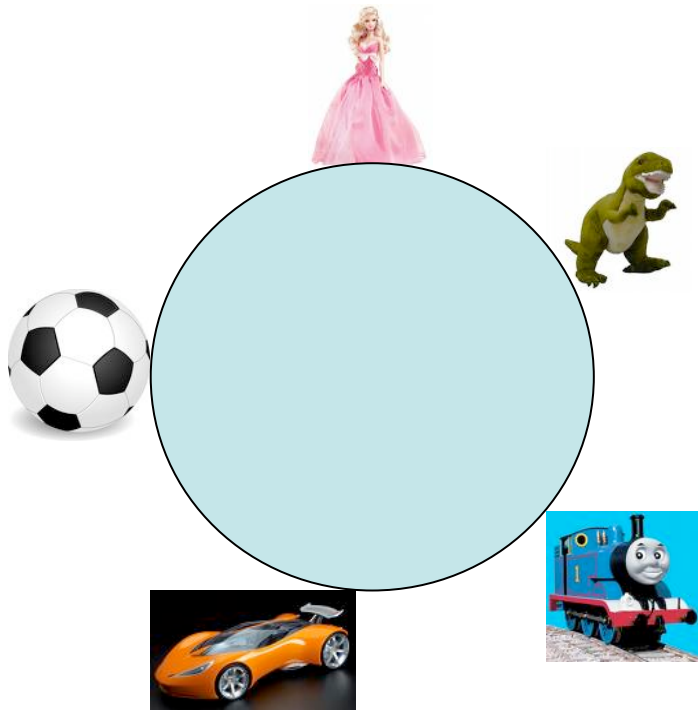




# PA (cont.)

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- **Second**, place the items in a circle on a blanket.
- **Third**, allow the child to pick any item he wants, but one at a time.



# PA (cont.)

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- **Fourth**, for a five minute period, record the duration the child interacts with each item choice



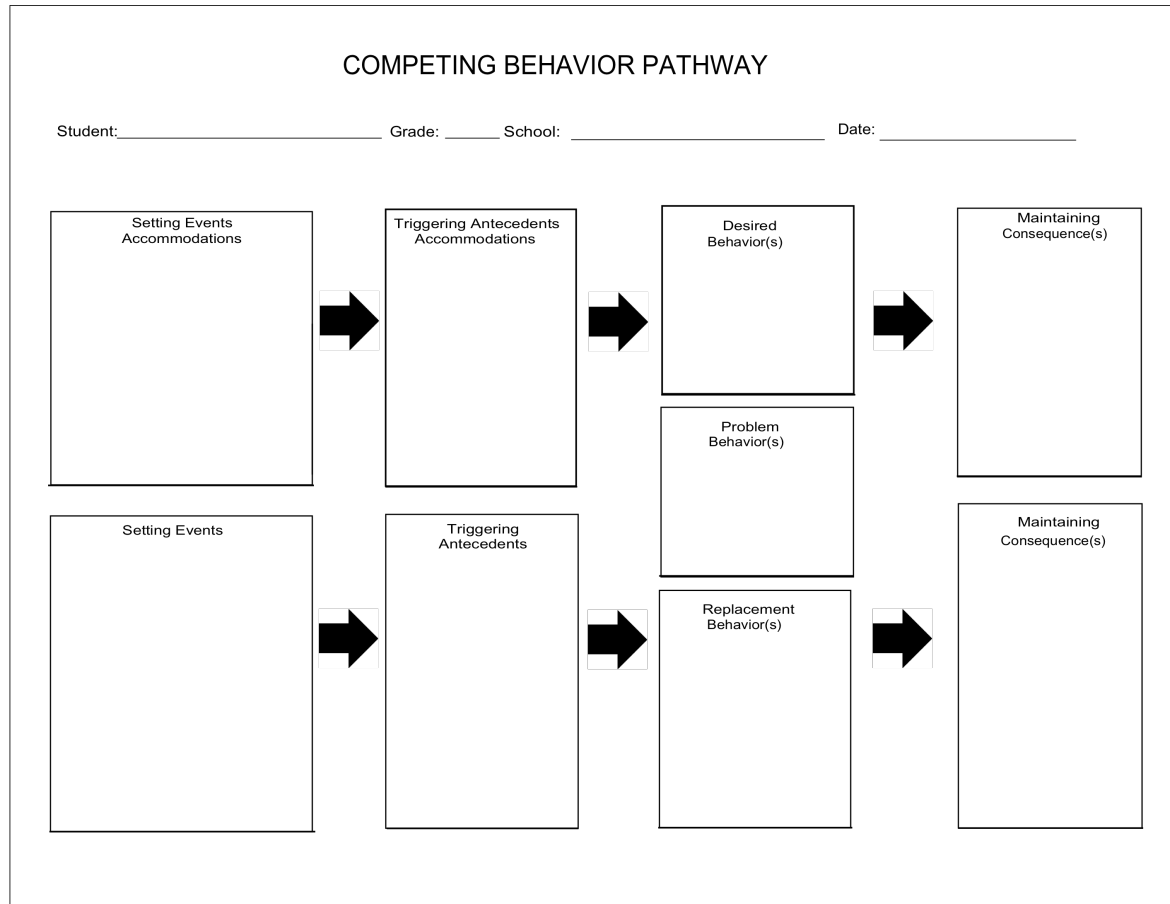
- **Finally**, use the item the child interacted with the most as the item to teach the first mand.
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- To determine the function of the behavior, a functional analysis is needed.
  - However, more indirect assessments may give insight for the classroom teacher.
  - Also, direct observations.
    - Functional assessment interview
    - Motivation assessment scale
    - A-B-C recording
-

- To gain access to desired items  
Food, drink, preferred activities  
“tangible-motivated behaviors”
  - To gain attention
  - To escape an aversive situation
  - Sensory? (gain or escape certain stimuli)
-



# Determining Function



Recognizing the significance of the  
communication underlying the behavior

Therapeutic significance

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## Replacement Behavior

- Functional communication as the new behavior is the goal (Durand, Berotti, & Weiner, 1993)
- For communication training to be successful, the response taught must be...

Equal to the challenging behavior  
(Durand et al, 1993; Mancil et al. 2009)

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- After examining the function of the behavior, develop a hypotheses on what the learner is trying to say.
  - Observe the learner in different settings.
  - Observe the learner with different people.
  - Determine the amount of time between an antecedent event and the behavior.
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1. Make a list of the functions
  2. Make a list of response equivalent messages
  3. Evaluate the messages
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There are many ways to communicate:

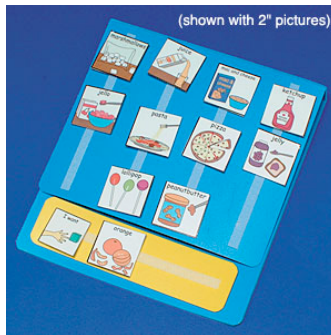
Verbal

Gestures

Manual Signs

VOCA

Pictures



Will this message be successful in all environments?

Response success is an important component in FCT  
(Bopp, et al., 2004)

Is it acceptable?

Response acceptability would follow the social rules in  
all environments (Durand, et al, 1993))

Is the message recognizable?

Response recognizability means that anyone can  
interpret the message (Durand, et al, 1993)

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The most important factor is response efficiency (Bopp, et al, 2004; Mirenda, 2003; Durand, et al, 1993; Horner & Day, 1991).

**Is saying it just as easy  
as(\_\_\_\_)?**

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- Consists of physically guiding a child's performance of a target skill or behavior and are the most supporting type.
  - Physical prompts range from hand-over-hand guidance (most supportive) to a simple physical touch to facilitate a specific movement (least supportive).
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- Consists of demonstrating or performing all (most supportive) or part (least supportive) of the desired skill or behavior to the child, who imitates the skill or behavior immediately. Both physical and modeling prompts can be used to teach new skills or behaviors.
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- Common prompting procedure.
  - Include specific verbal directives (most supportive) or instructions, or single words and phrases designed to trigger or jog a child's memory of how to perform a task (least supportive). This type of prompt can be used to teach new skills or behaviors and also to enhance performance of existing skills or behaviors.
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# Gestural Prompt

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- Consists of a gesture such as an open hand, palm up.
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- Pairing the verbal with the gestural prompt.
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# Time Delay

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Involves waiting 5 to 30 seconds for a student initiated response after a stimulus has occurred.

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# AAC DEVICES

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# AAC can be a vehicle for developing:

expressive language

receptive language

literacy

control over the environment

communication initiation



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# AAC is not....

**A last resort**

**“Giving up” on speech**

**Only for those of a certain IQ or Age**

**Only the job of the speech-language pathologist**

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# Using AAC effectively

- Communication partners must **model** AAC use
  - Use of a penlight or finger on paper displays (aided language stimulation)
  - Sit next to individual with device to facilitate modeling
  - Use it as both a receptive and expressive tool
  - Be natural-focus on **communication**, not the device/board
- AAC must be engineered into the environment
  - Displays mounted around the room/school/home
  - ACCESS to communication wherever student “is”
    - Pool
    - Playground
    - Home
    - Out shopping
    - Bathtub
    - School or instructional settings



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# Form vs. Functions of Language

- Form
    - Vocal
    - Sign
    - Gesture
    - AAC
    - Problem Behavior
  - Selecting a form
    - Response efficiency
    - Social acceptability
    - Interpretation across people
    - Usability across contexts
  - Function
    - Echoics
    - Mands  
(requests)
    - Tacts (labels)
    - Intraverbals  
(conversing)
-



# Verbal Behavior

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# Echoics

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- Hear- say responses
- Examples
  - Teacher says “cookie”
  - Students says “cookie”
- Maintained because a history of having echoed words has resulted in reinforcement
- Different than parroting



# Mands



- Requesting
- Can consist of many response topographies
- Example
  - Student says “I want milk”
  - Teacher gives milk
- Establishing operations are critical in teaching mands
  - Brief deprivation
  - Interrupted chain
  - Incidental or captured moment

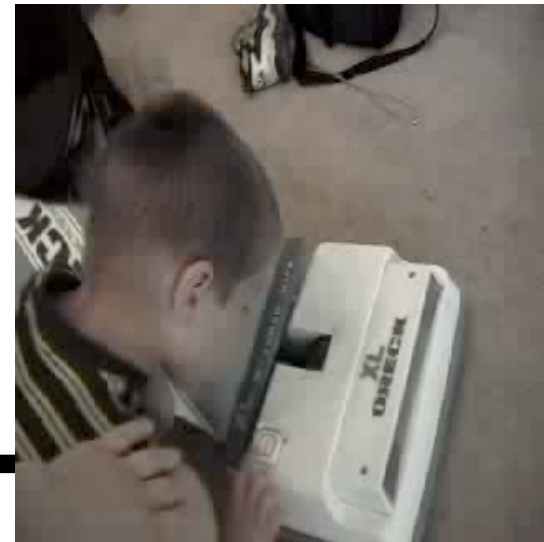
# Tacts

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- See-say response reinforced by generalized reinforcers
  - Examples
    - Child sees a car and says “car:
    - Teacher says right that is a car (teacher doesn’t hand child the car)
  - Critical for developing more complex responses
  - Teach tacts across senses
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# Intraverbals

- Hear-say responses
- Responses under the control of verbal stimuli
- No point to point correspondence
- Example
  - Teacher says “how are you?”
  - Students says “I’m fine”



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# Back to the basics!

- Antecedent
    - In the presence of what should the response happen?
  - Behavior
    - How should the student response?
  - Consequence
    - What does the student access for making the response?
-

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# Beginning instruction

- Pairing with reinforcement
    - Isn't this sounding redundant? Wink Wink
  - Communication instruction must involve powerful reinforcers
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# Procedure :1 Echoics to Mands

- Assess reinforcers
- Hold item near mouth and say name of item
- Wait 3 sec for student to emit echoic
- If the student emits echoic then deliver reinforcer, do not praise





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## Procedure 2: Mand instruction

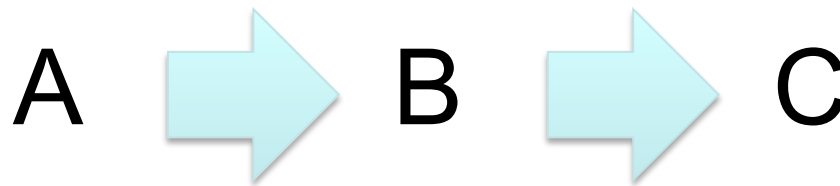
- Use reinforcers used during echoics-mand transfer
- Present two items
- If the student emits a mand then allow access. Let the student take the item



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# Procedure 3: Echoic-Tact

- Select familiar objects and different reinforcers
- Raise it to your lips or point to it or to your lips and say it's name
- Wait 3 s for student to respond
- If the student responds, praise the response and gesture towards the reinforcers
- Allow student to mand for reinforcers



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## Procedure 3 : Teaching the Tact

- Present item and wait for 5 s for the student to tact
  - If the student responds correctly, praise and signal opportunity to mand for reinforcers
  - If incorrect go back to echoic to tact procedures
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## What if the student does not emit echoics?

- Strategy 1:
    - Reinforce all vocal responses
  - Strategy 2: Pairing
    - Determine a sound not emitted in other environments
    - Using short one minute pairing sessions
    - Delivery sensory reinforcer and say sound simultaneously
    - When student emits sound consistently then stop pairing
    - Say sound and when the student emits echoic then deliver sensory reinforcer
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## Procedure 5: Incidental teaching

- A process where language skills are learned in naturally occurring interactions or interactions arranged in natural contexts.
  - It incorporates the other procedures and is applied during situations when students are verbally or nonverbally requesting.
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# Purpose of Incidental Teaching

- The purpose is to promote fluency and expand skills of children (Kaiser, 1993).
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**Incidental teaching leads us  
into talking about creating  
communication  
opportunities.**

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# Why create opportunities?

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- A communication opportunity refers to "situations in which the partner deliberately intervenes to require and ensure a communication response from the individual that is appropriate to a current environmental cue or motivational need" (Sigafoos, p.184, 1999).
  - Studies have revealed that individuals with severe/multiple disabilities (including autism) have considerable communication deficits.
  - This indicates a need for increasing the number of communication opportunities in order to improve a beginning communicator's skills
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- A technique to develop differentiated requesting skills in individuals with significant disabilities.
  - By delaying the presentation of a needed item the child is encouraged to independently request the item.
  - An item or toy of interest is withheld until a request for the item is made.
  - Prompting may be used initially with the communication partner decreasing the amount of prompting being provided over time.
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- Blocked response involves briefly blocking the individual's response during an activity.
  - As soon as a request for the desired item is given, the item or request is provided and the individual is allowed to complete the task.
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- When a child requests an item, an incomplete presentation is given
  - For example, a child may ask for a puzzle, you would give the puzzle but withhold some pieces.
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- Assistance is delayed to the individual.
  - For example, an individual may want a cookie, you/ communication partner, go to the cookie but do not get it. Thus, the individual must ask for the cookie.
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- The wrong-item format involves presentation of an un-chosen item to create a need for the child to indicate no and provide an opportunity to teach socially appropriate forms of rejecting.
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## Teaching the message

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Teach it in all environments

Systematically fade prompts

Take data!

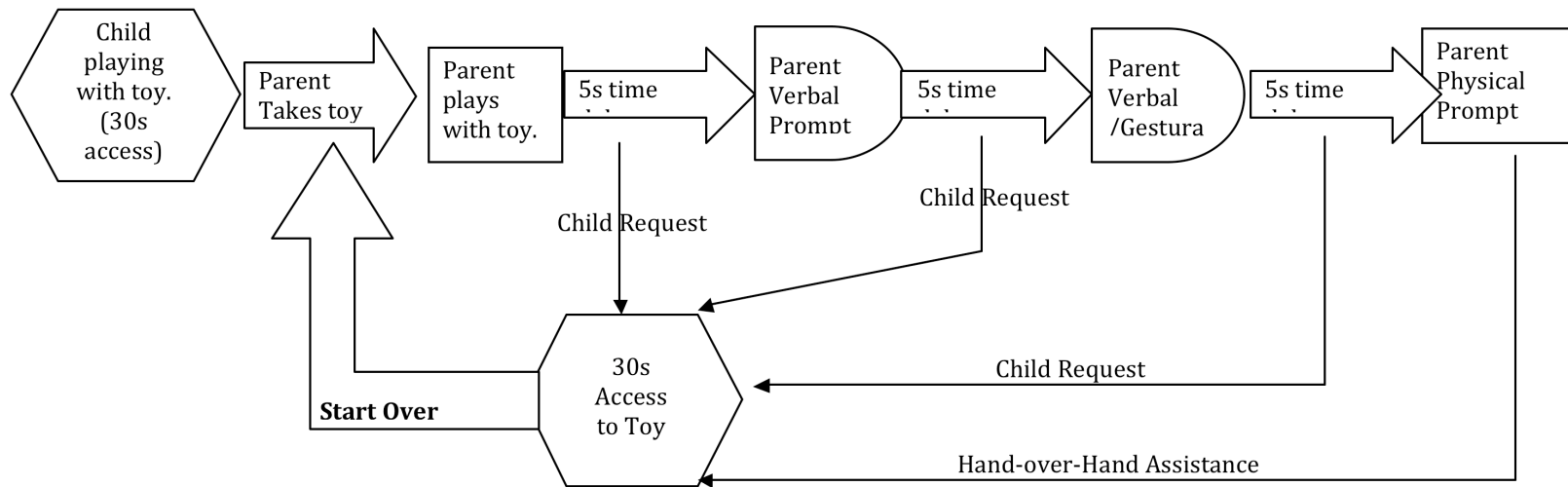
Use the data to make decisions....every  
day!

Communicate the “how” with all members  
of the team

Everyone should be doing the same thing  
Every where & Every time

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# Build into play routines.



# A few things to avoid!





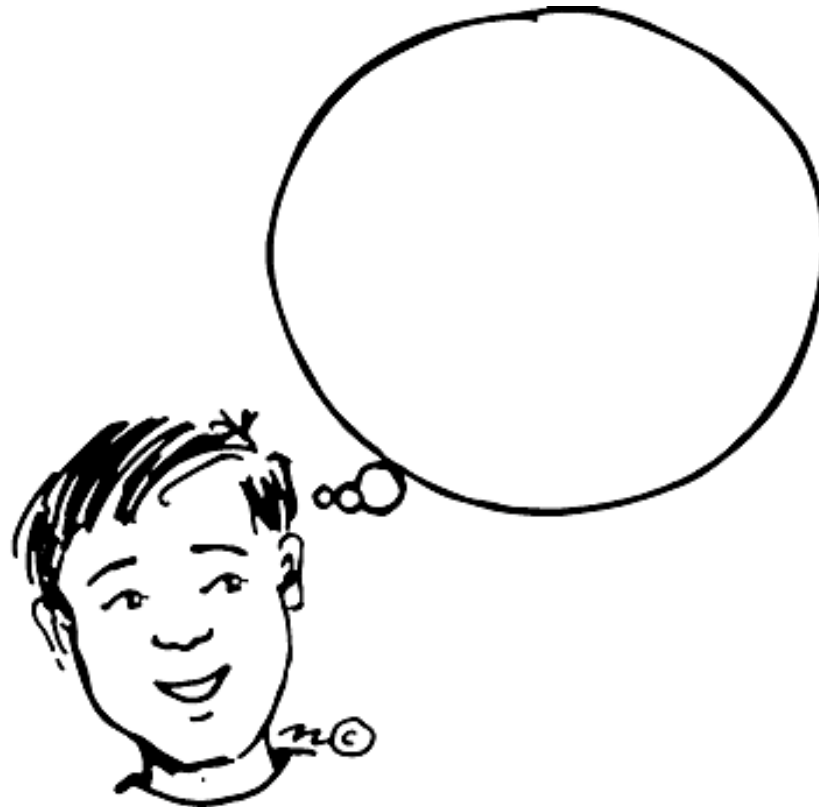
## What Can **DISCOURAGE** a student from communicating...

- test, bombard, or demand responses (e.g., “what is this called” “what do we use a knife for?” “what do we call this?”)
- use rhetorical questions (e.g., “you don’t want milk, do you?”)
- use YES/NO questions
- anticipate their needs so they don’t have to ask

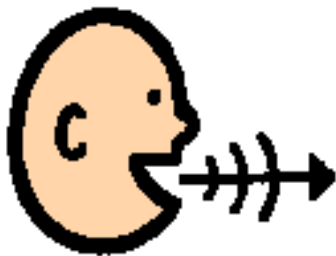
## What else Can **DISCOURAGE** a student from communicating...

- don't give them regular access to their communication system(s)
- when they make a choice, ask them again
- use only teacher-directed activities so the student doesn't **HAVE** to communicate
- "GOOD TALKING!" as a reinforcer
- use figurative language ("take your seat" vs. "sit")
- rush the student's communication

# Final Thoughts & Suggestions



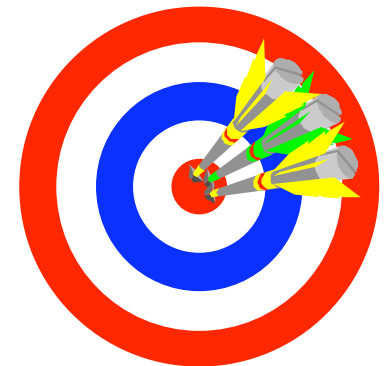
**“Incidental teaching episodes are brief,  
positive, and oriented toward  
communication rather than  
language teaching.”**



**Dr. George Karlan**

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- ∞ Should be brief in nature, but occur 3-4 times per week
  - ∞ Requires communication (initiations) by the student
  - ∞ Activity should be process - not product oriented
  - ∞ Activity represents a class of activities
    - Art activities, cooking, reading books, snack
    - Variation in content from episode to episode, but same “core” vocabulary
  - ∞ Choices are offered during the activity
- **COMMUNICATION**  
is the goal of the Target Activity!



- ◆ **Wait** for responses
  - ◆ Count to 5, 10 after a command/question
  - ◆ Stay engaged
- ◆ Increase opportunities for initiation
- ◆ Be consistent with labels (why?)
- ◆ Modify the environment to create active participation, communication
- ◆ Make sure the student has access to communication at **ALL TIMES!**



Adapted from Original ECT, Hodgdon, 1999

**The most language learning will occur when your response is related to the student's focus of interest or to what he/ she has communicated.**



# Descriptive Feedback

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- Use after the student has produced a communicative response (at any point within the hierarchy)
  - Descriptive feedback is specific to the student's communication
    - ❖ *“Oh, you asked for more juice, here's your juice.”*
    - ❖ *“You want paint. Here's some blue paint.”*
    - ❖ *“You asked to be all done. We need to do just one more, then we're all done.”*
    - ❖ *“You looked at the cheese, here's some cheese for your sandwich”.*
-



- Serves Three Functions

- **Acknowledges**

- Immediately acknowledges that the partner “heard” the student’s communication attempt

- **Confirms**

- Confirms that the message sent by the student is the same as the message understood by the partner.

- **Models**

- Can be used to model an expanded version of the communication message.



- From sole focus on the student's AAC device to ***communication***
- From focusing on the student's communication limitations to creating a communication environment
- From a single player to team ownership for communication opportunities
- From product-oriented activities to consciously designed communication-based activities





Thanks!

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This powerpoint and other material relevant to autism may be found at:

<https://louisville.edu/education/kyautismtraining>

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