

# Teaching Children with Autism How to Communicate Their Wants and Needs: Functional Communication Training

Presented for the Autism Research Institute (ARI)  
and the World Autism Organisation

Wednesday, May 25, 2022

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## Communication in Children with Autism Spectrum Disorder (ASD)

- **At least 30% of children with ASD are nonverbal or minimally verbal** (Tager-Flusberg & Kasari, 2013)
- **Even if children with ASD are verbal, they may still have communication difficulties *such as*:**
  - **Difficulty with conversational skills** (e.g., sharing interests in back-and-forth manner, responding to questions & comments, offering new info)
  - **Difficulty understanding nonverbal cues** (e.g., facial expressions, tone of voice) & communicating nonverbally
  - **Repetitive or rigid language** (e.g., echolalia, talking about one topic excessively)
  - **Reduced sharing of interests and emotions**

## What Is “Challenging Behavior”?

- Aggression
- Self-injury
- Property destruction
- Tantrum behavior
- Disruptive Behavior
- Noncompliance
- Repetitive behavior/stereotypy



## Does Communication Impairment “Cause” Challenging Behavior?

- If a child has difficulty communicating what he wants or needs, this can increase the likelihood that he will use challenging behavior in order to communicate, *provided that the challenging behavior is reinforced*
- Even if a child has *capacity* to communicate, does not mean he can always *use* it (especially when distressed)
- A child may be using tantrums instead of words to communicate not because he/she *can't* communicate or use speech at all, but because tantrums are **easier** than using words to communicate

Durand & Moskowitz (2019)

<https://link.springer.com/article/10.1007/s40474-019-00172-y>

## Why Does Challenging Behavior *Really* Occur?

- ❑ Children engage in challenging behavior because it **pays off** – it serves a **FUNCTION** or **PURPOSE**

➤ Problem behavior persists because it meets an **immediate need**

- ❑ Behaviors persist because people want/need to...

Get something	Escape something
<ul style="list-style-type: none"> <li>• Gain parent/peer/staff attention</li> <li>• Obtain preferred items or activities                             <ul style="list-style-type: none"> <li>• Obtain sensory stimulation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Escape or avoid demands</li> <li>• Escape/avoid social interaction                             <ul style="list-style-type: none"> <li>• Escape/avoid anxiety</li> </ul> </li> <li>• Escape/avoid sensory stimulation or pain/discomfort</li> </ul>
(Positive Reinforcement)	(Negative Reinforcement)

## Challenging Behavior = Communication

- Functions of Communication:

- Request object, activity, person (e.g., “I want the book”)
- Request help or assistance (e.g., “I need help”)
- Obtain attention (e.g., “Look at this!” or “Talk to me!”)
- Request social interaction (e.g., “Can I play with you?”)
- Request information (e.g., “How much longer do we have?”)
- Request sensory stimulation (e.g., “This motion makes me feel calm”)
- Escape demands (e.g., “I don’t want to do this work”)
- Escape activity (e.g., “I don’t like this; I need a break”)
- Escape a person (e.g., “I don’t want you to talk to me”)
- Escape anxiety (e.g., “This makes me anxious; I need to get out of here!”)
- Escape sensory stimulation (e.g., “This noise is too loud”)
- Comment (e.g., “I like you” or “Look at that airplane”)
- Protest (e.g., “No, I don’t want to do that”)
- Reassurance/predictability (e.g., “I’m afraid, I need consistency”)

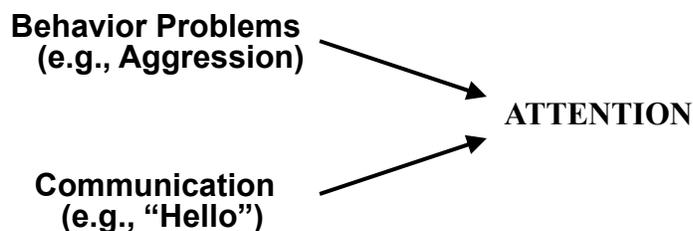


## How Do We Teach Children with ASD to Communicate their Wants & Needs? **Functional Communication Training (FCT)!**

- Teaching the child an appropriate communicative behavior that serves the same function or purpose as the challenging behavior!
- This communicative behavior could be verbal/vocal or nonverbal (e.g., sign language, PECS, AAC device)

## Functional Communication Training

### The Principle of Functional Equivalence



If both hitting and saying “Hello” lead to the same consequence (attention), they are equivalent responses for the purpose (function) of gaining attention.

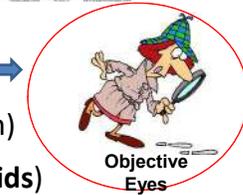
## How Do We Identify The Function?

### Conduct a Functional Behavior Assessment (FBA)

- **Interviews & Questionnaires** (Indirect Assessment)
  - Interviewing teachers, parents, staff, etc. to describe the nature of the problem behavior, the **circumstances** in which the problem is most likely to occur, and the **reaction** it evokes from others when it does occur
- **Direct Observation of ABC's** (*most important*)
  - **Observe situations** in which
    - Child behaves well
    - Child has difficulty
  - Identify **Antecedents** (who, what, where, when)
  - Identify **Consequences** (what child **gets** or **avoids**)



Look for patterns!



## Identify the Function: Identify the CONSEQUENCE!

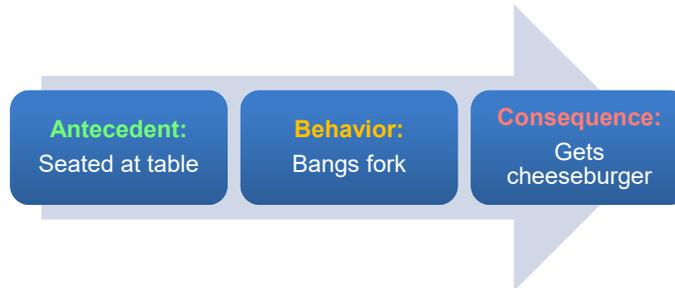
**Antecedent:**  
what happens  
before

**Behavior**

**Consequence:**  
what happens  
after  
(what child gets or  
avoids)

## Example #1

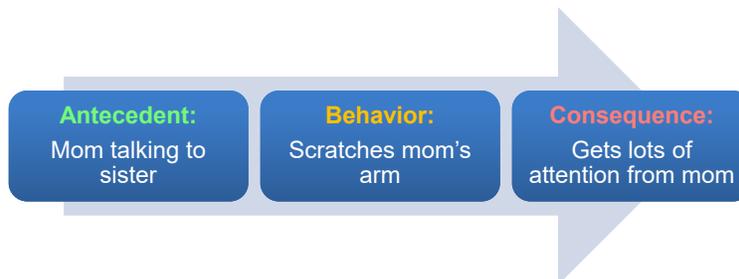
- Albert's mother puts him in his seat at the kitchen table. Albert bangs his fork on the table; he is then given a cheeseburger.



- Next time he's at the table, what will Albert probably do?
- What is the function of Albert's behavior?

## Example #2

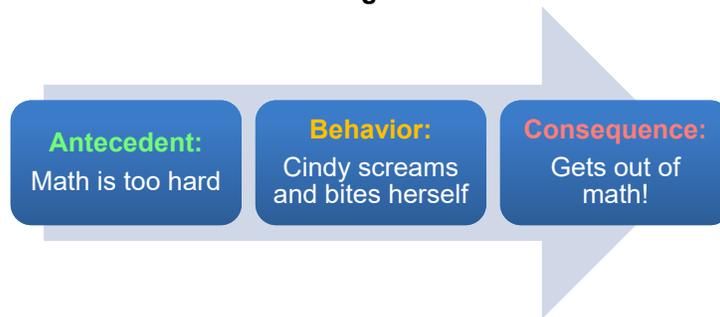
- Ben's mother starts talking to his sister. Ben scratches his mother's arm. His mother says, "Ouch! Don't do that!" and puts Ben on his lap while she finishes talking to his sister.



- Next time Ben's mom starts talking to his sister, what will Ben probably do?
- What is the function of Ben's behavior?

## ABCs of Behavior Management: Example #3

- Cindy's mom tells her to do her math homework; Cindy screams and bites herself. Her mother sighs and leaves the room.



- Next time her math is too hard, what will Cindy probably do?
- What is the function of Cindy's behavior?

## Creating a Function-Based Behavior Intervention Plan (BIP)

- Once you figure out the ANTECEDENTS that trigger challenging behavior & the CONSEQUENCES that maintain the behavior....
- Design intervention plan to:
  - **PREVENT** challenging behavior by changing circumstances that trigger it (i.e., remove or minimize the antecedents)
  - **TEACH** appropriate ways to help kids get what they need
    - Teach skills to replace problem behavior with more desirable behavior that *serves the same function/purpose* ← **FCT!**
  - **RESPOND** to challenging behavior by changing consequences
    - Change how you respond to challenging behavior so that the challenging behavior NO LONGER WORKS
    - Reinforce replacement behaviors & positive behaviors instead!

## Reducing Challenging Behaviors Requires Increasing Alternatives

(Building replacement skills)

- ❑ **Challenging behaviors are functional** (meets some need)
  - ❑ We can't simply *remove something that is serving a purpose without replacing it with a more appropriate alternative*
- ❑ First step is understanding the function it serves (what need it meets)
- ❑ Next step is to offer the child a better way to meet that need
- ❑ Types of skills that serve as Alternative Behavior:
  - **Self-regulation (e.g., relaxation skills)**
  - **Communication skills (e.g., request for help)**
  - **Social skills (e.g., conversational skills)**
  - **Academic skills (e.g., analytic ability)**

## Functional Communication Training (FCT)

Child engages in challenging behavior because it helps him get what he wants

Function: Is challenging behavior...	Teach child to ask for...
getting child <b>something</b> he wants?	preferred food or item or activity
getting child <b>attention</b> ?	attention, praise, affection, or social interaction
letting child <b>escape</b> or avoid something he doesn't want?	break, help, or change in activity
giving child <b>sensory</b> reinforcement?	item that provides sensory stimulation, or privacy



## Examples of Replacement Skills to Teach when Function is Attention

- Teach child appropriate way request proximity, interaction, or physical contact
  - e.g., “Watch what I’m doing!” “Look at that!”
  - e.g., “Can I play?”, “Do you want to play Uno?”
  - e.g., “Can I have a hug?”
  - e.g., “Hi, what’s up?”
  - e.g., “Can you read to me?”
  - e.g., “I don’t feel well.”
  - e.g., tap on arm
- Teach child to wait for attention and/or engage in other activities



Adapted from Hieneman (2015)

## Examples of Replacement Skills to Teach when Function is Escape/Avoid Disliked or Difficult Activity

- Escape by requesting assistance (e.g., “I need help”)
- Escape by requesting break (e.g., “I need a break”)
  - Set timer (e.g., 5 minutes); alert child that, when timer beeps, he will return and continue task
  - Over time, teach child to wait for longer and longer periods of time before his break (e.g., “Do this first, then you can take a break”; “Do these two first, then you can take a break”); use visuals & timer
- Escape by terminating an activity (e.g., “I’m finished” or “I’ve had enough” or “No more, thank you”)
- Escape by rejecting, when able (e.g., “No, thank you”)
- Escape by delaying (e.g., “Later,” “One more minute”)



I want a break.  
That's what I'll say.



## Examples of Replacement Skills to Teach when Function is Obtaining Tangible Item/Activity

- Teach child to appropriately **request item/activity**
  - e.g., “I want book please” (or “want book” or point to book)
  - e.g., “Can I play with that?”
  - e.g., “Can I take a turn with that?” (or “My turn please” or just “turn”)



- Teach child to ask for a **brief delay in transition** from preferred activity (e.g., by asking for 1 more minute, by putting his hand up to indicate he’s not done yet)



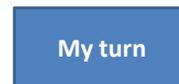
- Teach independent obtaining of materials (so child does not perceive his access as denied)



- Teach child to wait for his preferred item or activity (e.g., “Wait 1 min, then you can play with X,”

“Wait 2 min, then you can play with X”)

- Provide interim activity (e.g., “Do this first, then you can play with X,” “Do these two first, then you can play with X”)
- Pair waiting with something positive
- Use visuals & timer



## Examples of Replacement Skills to Teach when Function is to obtain Sensory Stimulation

- Identify source of stimulation
- Find something to provide similar sensory input
- Teach child a socially acceptable means of requesting items or activities that provide that sensory input



- e.g., “Music please” or “Sound please”
- e.g., “Bounce” or “Swing”



- Teach child to ask for privacy to engage in certain sensory activities



## FCT Example #1: Tangible Item/Activity

- Teach kids a better way to get what they want
- Make sure that the better way is EASY to learn and always gets them what they want! If not, they'll just go back to the old way!



My turn



## FCT Example #2: Attention

- Teach kids a better way to get what they want
- Make sure that the better way is EASY to learn and always gets them what they want! If not, they'll just go back to the old way!



## FCT Example #3: Escape

- Teach kids a better way to get what they want
- Make sure that the better way is **EASY** to learn and always gets them what they want! If not, they'll just go back to the old way!



**Disliked task:** Teach “I want a break”  
**Difficult task:** Teach “I need help”

## WHAT Communication Skill will be taught?

(What can the child do *instead*?)

- Something that serves the **same function** as the challenging behavior
- Something that works **as well as (or better than)** the challenging behavior
- Something the child is **capable of learning & executing**
  - Consider the child's current repertoire & see if adaptations can be made
  - Its easier to shape a skill child can already perform rather than teaching a completely new skill

## HOW will the Communication Skill be taught?

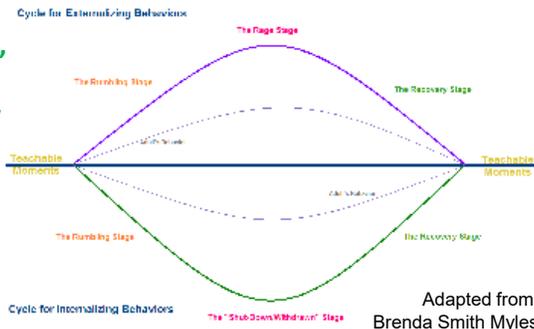
- Teach in the same situation that provokes the challenging behavior
- Teach in conjunction with prevention interventions
- Teach & practice in contrived situations (in early stages)
- After practicing it in contrived situations, then prompt the skill in the real-life situation (naturally occurring situations)

## How can we ensure the Communication Skill will be used?

- **Effort** of new behavior
  - Replacement behavior must be as easy or **easier** to perform than challenging behavior
- **Quality** of outcome
  - Consequence for replacement skill should be **more reinforcing** than consequence for challenging behavior
- **Immediacy** of outcome
  - Replacement behavior should be **immediately** responded to
- **Consistency** of outcome
  - Replacement behavior should be **consistently** responded to (*you don't want to respond to replacement skill only some of the time, but respond to challenging behavior 100% of the time*)

## When to Teach Communication Skills

- Can only teach replacement skills during Teachable Moments
  - This is the **only** time child is receptive to learning skills
- Once the child has mastered skill, can prompt to use during Rumbling stage (to prevent escalation) & Recovery stage
  - **CAUTION:** make sure child can reliably & consistently perform skill (easily) before prompting him to use it during Rumbling or Recovery stage
  - Before child has mastered skill, during Rumbling Stage, just use PREVENTION (e.g., prompt to visual aid, modify task, provide additional attention or assistance, distraction, remove child from difficult situation in a non-punitive way)



## Case Example of FCT #1: Eli

- **Step 1: Assess Function of Behavior**
  - Eli's challenging behavior primarily functioned to escape situations that were anxiety-provoking, particularly transitions and/or classmates crying
- **Step 2: Select Mode of Communication (visual Break Card)**
- **Step 3: Arrange Environment to Create Teaching Opportunities for Eli to use his communication skill**
  - Gradual Exposure to CRYING
- **Step 4: Prompt Communication**
  - Physically prompt Eli to hand me a Break Card
- **Step 5: Fade the Prompts**
- **Step 6: Teach new forms of communication & expand the settings in which the requests are made**
- **Step 7: Modify the Environment** (visual schedule, warnings of upcoming transitions, video priming)



Moskowitz, L. J. & Durand, V. M. (2021). Reducing challenging behavior with a better way to communicate: A fourth grader with ASD. In P. A. Prelock & R. McCauley (Eds.), *Case Studies for the Treatment of ASD*. Baltimore, MD: Paul Brookes Publishing.

## Competing with Challenging Behavior

- **Old habits die hard**
  - Might initially resist & feel frustrated that behaviors that have worked previously are no longer working
- For communication behavior to replace the challenging behavior, the **new behavior has to be**
  - **Easy** for the child to use
  - Efficient & **effective**: Produce the **same** or **similar outcomes**
- Communication skill has to **compete effectively** with the challenging behavior
  - Child learns it's easier to get what he wants using new behavior than old challenging behavior
  - **Payoff is as good, or better, for the new behavior**



Durand & Hieneman (2008)

## Over Time: Learning to Tolerate Delay

- When child first learning to use her communication skills, **honor it immediately!**
- Once communication skill is well-established, **teach the child to learn to tolerate some “delay of reinforcement”**
- **EXAMPLE:**
  - **At first:** Val taps Joan (to get her attention) --> Joan responds *immediately*
  - **Later:** Val taps Joan → Joan says, “Val, I’d love to talk with you but **first put away these 3 pieces of laundry** and then let me know when you’re finished.”
  - When she finished, Joan rewarded Val by engaging her in conversation
  - After a while, repeated this process with 4 pieces of laundry, 5 pieces of laundry, and so on

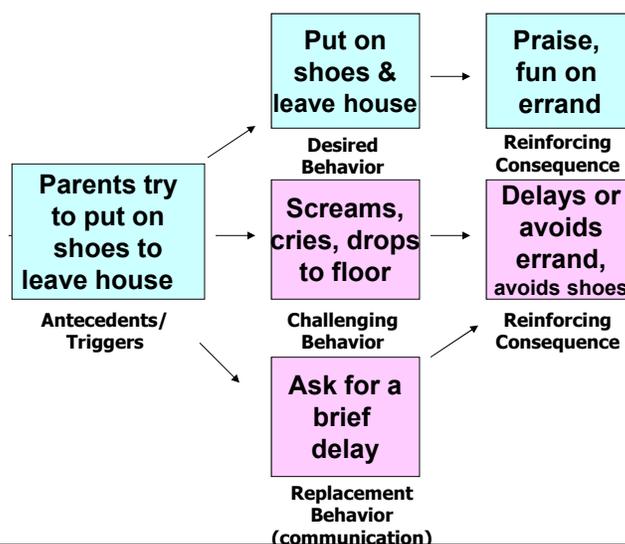
Carr et al., (1994)

## Case Example of FCT #2: Ben

- Ben's Hypothesis (Transitions):  
*When Ben's parents try to put his shoes on to leave the house, he screams, cries, and drops to the floor. It is especially bad when he is tired. The tantrum delays the transition, forces his mother to take him out without shoes, or results in her canceling the errand or getting someone else to do it.*

Durand & Hieneman (2008)

## Competing Behavior Model for Ben (Transitions)



## Case Example: Replacing Ben's Challenging Behavior

- Encourage Ben to **ask for a brief delay** in transitions by putting his hand up or pointing to a puzzle piece
  - To **prompt** him, say, ***“What do you want?”*** and physically guide him through the movement
- Practice stopping activities to do something else. Encourage Ben to ask to continue activities: say, ***“what do you want?”*** Help him point towards activity and say, ***“Oh, you want to play with the puzzle?”***

Durand & Hieneman (2008)

## Responding to Communicative Behavior

**When child uses his communication skills or does something appropriate, REWARD him or her!**

- **Give child specific praise about what he did**
- **Give child the thing they're asking for** (attention, toy/item/activity, help, or break)
- For completing difficult or disliked tasks, may also give child **stickers or points that count towards favorite activities**

**When child engages in challenging behavior, DO NOT reward him or her!**

- **Do not pay attention to the behavior**
- **Do not give them what they're asking for**
- **Do not allow them to escape/avoid** (or at least minimize escape/avoidance, if possible)
- **Prompt them how to ask appropriately, and *then* give them the thing they're asking for**

# Putting it All Together



*Note: The following slides go beyond the scope of today's presentation, which just focuses on teaching replacement skills (specifically, communication skills). But often your intervention plan will need to include Prevention strategies and Response/Consequence strategies in addition to teaching communication skills, so I am including the remainder of these slides just for your reference. I will not have time to review these slides today.*

## Example Interventions if Function is to Gain Attention

### • Prevention Strategies

- **Schedule adult attention** (give undivided attention for periods of time)
- When adult occupied, assign highly preferred or easier task, and **let child know when your attention will be available**
- **Schedule peer or sibling attention** (e.g., peer buddy, peer tutoring)
- **Prompt** child to request attention appropriately

Look at me!



### • Teach Replacement/Coping Skills

- Teach child to ask for your proximity, interaction, or physical contact
  - e.g., "Watch this!" "Look what I did!" "Can you read to me?," tap
- Teach child to engage in activities while waiting for your attention



### • Managing Consequences

- When child engages in inappropriate behaviors, **ignore** these behaviors
- When child engages in appropriate behaviors, respond immediately with attention!

Adapted from Bambara & Kern (2005); Hieneman (2015)

## Example Interventions if Function is to Gain a Preferred Item/Activity

### Prevention Strategies

- Give advanced warning that activity will end soon (e.g., timer &/or countdown)
- Schedule Transition Activity (moderately preferred activity; e.g., clean-up song)
- Provide access to preferred item/activity on a schedule
- Remove “off-limit” items from the surroundings
- Offer alternatives to items/activities that were denied to child



### Teach Replacement/Coping Skills

- Teach child communication skills to ask for object/activity
  - e.g., “I want book please” or just “book”
  - e.g., “Can I take a turn with that?” or “My turn please” or “turn”
- Teach child to get object or access activity on his own
- Teach child to accept alternatives, to wait, and to accept “no”



### Managing Consequences

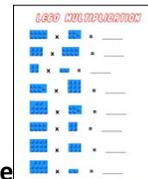
- When child requests item/activity appropriately, give it to him
  - Over time, have child wait for longer periods of time to obtain the item/activity
- If child engages in problem behavior, do NOT give him item/activity

Adapted from Bambara & Kern (2005)

## Example Interventions if Function is to Escape Demand

### Prevention Strategies

- Modify mode of task completion
- Embed easier tasks within more difficult tasks
- Incorporate child’s preferences & interests into the task
- Offer choices between tasks or how to complete tasks
- Prompt child to request break or help



### Teach Replacement/Coping Skills

- Teach child communication skills to....
  - Escape by requesting assistance (e.g., “help”)
  - Escape by requesting a break or rejecting (e.g., “No thank you”)
  - Escape by ending (e.g., “finished!”) or delaying activity (“later”)
- Teach child to engage in non-preferred task for longer periods of time



### Managing Consequences

- As soon as child asks appropriately, give help, short break, or simplify
- Do not do this if child engages in problem behavior
- Give reward, or stickers to count towards reward, for doing disliked task

Adapted from Bambara & Kern (2005)

## Example Interventions if Function is to Escape Anxiety



### • Prevention Strategies

- Increase predictability (e.g., visual schedule, Social Story, video modeling)
- Offer choices ahead of time and during anxiety-provoking situation
- Pair anxiety-provoking situation (e.g., doctor's office) with highly positive item or activity that child can only get in that situation

### • Teach Replacement/Coping Skills



- Teach person to gradually "face his fears" or expose himself to increasing amounts or proximity or intensity of the feared situation
- Teach to ask for a break from stressful or anxiety-inducing activities (e.g., teach to say, "I want a break") or ask, "What is happening next?"
- Teach Relaxation skills (e.g., belly breathing, PMR)
- Teach child to request a calming object/activity



### • Managing Consequences

- Acknowledge anxiety & provide positive reinforcement (e.g., labeled praise, reward) for "brave behavior" (e.g., facing his fears)

Lauren Moskowitz

## Example Interventions if Function is to obtain Sensory Reinforcement

### • Prevention Strategies

- Provide alternative appropriate sensory stimulation
  - e.g., offer radio to a child seeking auditory reinforcement
- Prompt appropriate forms of stimulation



### • Replacement Strategies

- Teach child to obtain sensory input through alternative appropriate actions
- Teach replacement behavior that is incompatible with problem behavior
  - e.g., if child bites his finger, teach to chew gum or licorice
  - e.g., if child pinches himself, teach to squeeze ball or play-doh
  - e.g., if child finger-flicking, teach to fiddle with jewelry or draw picture
- Teach child to tolerate periods of reduced/increased stimulation



### • Managing Consequences

- Allow access to items/activities that provide appropriate sensory stimulation
- Reward child for engaging in behaviors that are incompatible with problem
- Block child's access to inappropriate stimulation and/or allow the sensory activity during a specific time/place/situation

Adapted from Bambara & Kern (2005)

## Resources: Books on Positive Behavior Support

- Bambara, L.M., & Kern, L. (2005). *Individualized supports for students with problem behaviors: Designing positive behavior plans*. Guilford.
- Carr, E. G., Levin, L., McConnachie, G., Carlson, J. I., Kemp, D. C., & Smith, C. E. (1994). *Communication-based intervention for problem behavior*. Brookes.
- Dunlap, G. & Iovannone, R. (2018). *Prevent-Teach-Reinforce: The School Based Model of Individualized Positive Behavior Support*.
- Dunlap, G., Strain, P., Lee, J., Joseph, J., Vatland, C., & Fox, L. (2016). *Prevent-Teach-Reinforce: A Model of Individualized Positive Behavior Support for Home and Community*.
- Durand, V. M., & Hieneman, M. (2008). *Helping parents with challenging children: Positive Family Intervention parent workbook*.
- Hieneman, M., Childs, K., & Sergay, J. (2006). *Parenting with Positive Behavior Support: A practical guide to resolving your child's difficult behavior*. Paul H. Brookes
- Koegel, R.L. & Koegel, L.K. (2006). *Pivotal Response Treatments for autism: Communication, social, & academic development*. Paul H. Brookes.
- Koegel, L. K. (2014). *Overcoming autism: Finding the answers, strategies, and hope that can transform a child's life*.
- Luiselli, J.K., & Cameron, M.J. (1998). *Antecedent control*. Paul H. Brookes.
- Lucyshyn, J.M., Dunlap, G., & Albin, R.W. (2002). *Families and Positive Behavior Support: addressing problem behaviors in family contexts*. Paul H. Brookes.

## Resources: Websites on Positive Behavior Support (PBS)

- Routine-Based Interventions: Positive Behavior Support for Parents  
<https://practicedroutines.com/>
- Home & Community Positive Behavior Support website:  
<https://hcpbs.org/families-3/>
- The Association for Positive Behavior Support (APBS)  
[www.apbs.org](http://www.apbs.org)
- The Behavior Doctor – Positive Interventions & Effective Strategies  
[www.behaviordr.org](http://www.behaviordr.org)
- Positive Behavior Support – Beach Center on Disability  
<http://www.beachcenter.org/pbs/default.aspx>
- Technical Assistance Center on Social Emotional Intervention for Young Children  
[www.challengingbehavior.org](http://www.challengingbehavior.org)
- Center on the Social & Emotional Foundations for Early Learning  
[www.vanderbilt.edu/csefel](http://www.vanderbilt.edu/csefel)
- OSEP Center on Positive Behavioral Interventions & Supports  
[www.pbis.org](http://www.pbis.org)
- Kansas Institute for PBS  
[www.kipbs.org](http://www.kipbs.org)
- Florida's Positive Behavior Support Project  
<http://flpbs.fmhi.usf.edu>