

66TH CONFERENCE ON EXCEPTIONAL CHILDREN

Sensory Processing and Repetitive Behaviors: What's the Impact on Educational Performance?

Brian A. Boyd, Ph.D.
Associate Professor
Division of Occupational Science & Occupational Therapy
UNC-Chapel Hill

SELF-ASSESSMENT:
A Journey of Change

PUBLIC SCHOOLS OF NORTH CAROLINA
State Board of Education | Department of Public Instruction

November 8-10, 2016

Autism 101

SELF-ASSESSMENT:
A Journey of Change

66TH CONFERENCE ON EXCEPTIONAL CHILDREN

Autism Facts: My Top 10

- 1 in 68 children will be diagnosed with ASD this year
- Autism refers to a spectrum of related disorders
- Diagnosis is based on qualitative differences in social-communication and repetitive/sensory behaviors
- 580,000 children in the U.S., ages 3 – 21, receive educational services under the autism eligibility classification
- Autism remains one of the fastest growing developmental disabilities
- Boys are almost 5 times more likely than girls to be diagnosed with ASD
- Girls may be better at camouflaging their symptoms
- On average, it costs a family ~\$60,000 / year to care for their child with ASD
- Individuals with ASD have challenges but also strengths that must be recognized
- There is no cure or a one-size-fits-all treatment approach

<https://www.autismspeaks.org/what-autism/facts-about-autism>

SELF-ASSESSMENT:
A Journey of Change

66TH CONFERENCE ON EXCEPTIONAL CHILDREN

Evolution of Research in the Field of Autism

- Kanner credited with providing first accounts of “infantile autism”
- “Refrigerator mothers” (Bettelheim)
- Behavioral therapies to treat symptoms
- Phenomenological and diagnostic research
- Etiology and underlying mechanisms
- Autism across the lifespan
- No known single cause so field is prone to fads

SELF-ASSESSMENT:
A Journey of Change

66TH CONFERENCE ON EXCEPTIONAL CHILDREN

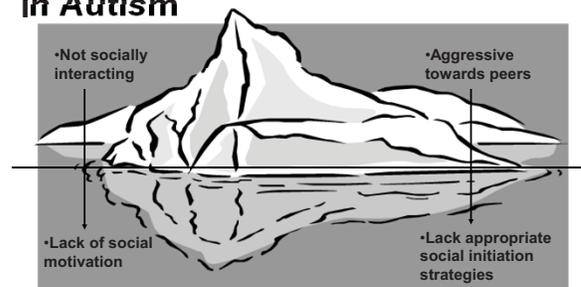
Why Focus on Sensory & Repetitive Behaviors?

Repetitive Behaviors

Repetitive Behaviors in ASD

Definition	Conceptualization	
<ul style="list-style-type: none"> Repetitive behavior (RB) is an umbrella term used to refer to a broad class of behaviors linked by their <i>repetition, rigidity, topographical similarity, and inappropriateness</i> 	<ul style="list-style-type: none"> dyskinesia tics body stereotypy object stereotypy compulsions rituals sameness restricted behavior 	↑ motor-behavioral ↓ cognitive-behavioral

Re-thinking Challenging Behavior in Autism



Re-thinking Challenging Behavior in Autism

The diagram shows an iceberg floating in water. The visible tip above the water line represents behaviors that are often labeled as 'challenging'. The much larger part of the iceberg is submerged below the water line, representing underlying needs and skills that are not immediately apparent.

- Repetitively rocks or hand flaps
- Repetitively dumps or pours objects
- Need sensory input
- Lack appropriate pretend play skills

SELF-ASSESSMENT: **A Journey of Change** 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

“If a child doesn’t know how to read, *we teach.*”
 “If a child doesn’t know how to swim, *we teach.*”
 “If a child doesn’t know how to multiply, *we teach.*”
 “If a child doesn’t know how to drive, *we teach.*”
 “If a child doesn’t know how to behave, *we...
 ... teach?... punish?*”
 “Why can’t we finish the last sentence as automatically as we do the others?”

—Tom Herner (NASDE President) Counterpoint 1998, p.2

SELF-ASSESSMENT: **A Journey of Change** 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Importance of Repetitive Behaviors

“ Any clinician who is told that a child repetitively flaps his hands, spends hours lining up Lego blocks, will not tolerate changes in his routine, and has a peculiar fascination with the many varieties of electric fans on the market will, before hearing anything about the social functioning or communicative abilities of that child, be deeply suspicious that the child is autistic.”

Michelle Turner (1996)
 J. Child Psychology & Psychiatry

SELF-ASSESSMENT: **A Journey of Change** 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Importance of Repetitive Behaviors

- Can be socially inappropriate/stigmatizing
- When interrupted, individuals can become anxious, agitated, or aggressive (Gordon, 2000)
- Can interfere with
 - Observational learning (Varni et al., 1979)
 - Teaching play skills (Koegel, 1974)
 - Exploration of the environment (Pierce & Courchesne, 2001)
- Present across the lifespan and may not decrease on their own
- Related to parent stress

SELF-ASSESSMENT: **A Journey of Change** 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Repetitive behavior in typically developing children (Evans et al., 1997)

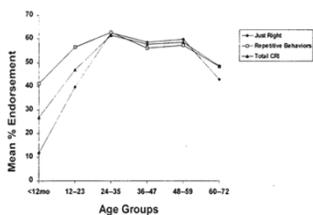
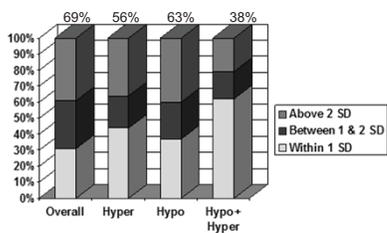


Figure 1. Percentage of participants engaging in compulsive-like behaviors across age groups

- age-of-onset 18-21 months
- RB < Just Right
- associated w/ certain contexts
- precedes more complex play & social interaction?

Sensory Features

Prevalence of Sensory Symptoms in Autism (Baranek et al 2007)



Sensory Patterns in Autism

- Hypo-responsive—refers to a lack of response by the child or insufficient intensity of a response to a sensory stimulus
 - This pattern appears to be more specific to and characteristic of children with autism

Sensory Patterns in Autism

- Hyper-responsiveness—refers to an exaggerated response to a sensory stimulus. This response is usually associated with negative affect.
 - This patterns appears to be more associated with developmental delay and cognitive maturation

Sensory Patterns in Autism

- Sensory Seeking—refers to a response that results in extending the child’s interaction with a sensory experience. This pattern is usually associated with positive affect.
 - This pattern appears to be associated with chronological age as well as developmental delay.

Impact of Sensory Behaviors on Educational Performance

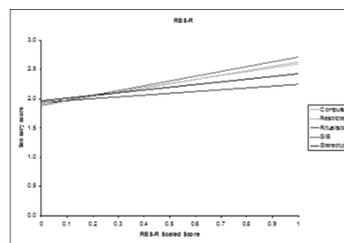
Table 3. Correlation Matrix (Pearson Correlation Coefficients) Between SSP Scores and ASEBA-TRF Scores in Children With ASD (N = 28)

SSP	Anxious/Depressed	Withdrawn/Depressed	Social Problems	Thought Problems	Rule Breaking	ASEBA-TRF Total	Academic Performance	Sum Adaptive Functioning
Tactile sensitivity	.06	.05	-.12	-.14	-.27	-.25	.21	.17
Tactile/visual sensitivity	-.04	-.03	-.13	-.06	-.17	-.16	-.05	-.05
Movement sensitivity	.02	-.07	-.21	-.23	-.37	-.42*	.02	.23
Underresponsive/weak sensation	.26	-.30	-.12	-.39*	-.02	-.17	.61**	.31
Auditory filtering	.58**	-.39	.13	-.05	.11	.01	.60**	.37*
Low energy/weak	.37	.07	.21	.04	.19	.21	.14	-.06
Visual/auditory sensitivity	-.07	-.14	-.11	-.01	-.06	-.14	.12	.10
Total score	.37	.20	.02	-.13	-.02	.11	.45*	.22

Note: ASD = autism spectrum disorder; SSP = Short Sensory Profile; ASEBA-TRF = Achenbach System of Empirically Based Assessment; Teacher Report Form.
 *Correlation is significant at the .05 level (two-tailed).
 **Correlation is significant at the .01 level (two-tailed).

Ashburner, J., Ziviani, J., & Rodger, S. (2008). Sensory processing and classroom emotional, behavioral, and educational outcomes in children with autism spectrum disorder. *The American Journal of Occupational Therapy*, 62(5), 564-73.

Relationship between Sensory Patterns and Repetitive Behaviors



Related Characteristics of ASD that Impact Educational Performance

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Characteristics of Autism

- **Excessive focus on details** – child may focus on irrelevant or unimportant details
- Example: You're trying to teach the child that this photo represents playground, and instead the child focuses on the vines growing on the building in the background.

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Characteristics of Autism

- **Distractibility** – child can be easily distracted by competing environmental stimuli
- Example: A child is sitting inside his classroom working on an art project (the windows are closed), and he gets distracted by the faint sound of a dump truck that is outside.

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Characteristics of Autism

- **Concrete thinking** – child has difficulty with abstract concepts and figurative language, and gravitates towards facts
- Example: Child may not understand idioms, such as, "She kicked the bucket."

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Characteristics of Autism

- **Disorganization** – child may have difficulty with organizing his/her own time or activities, or putting together a sequence of steps to accomplish a goal
- Example: Sequenced picture schedules, such as one for washing hands, often are used to help children independently perform the necessary steps in the correct order.

Characteristics of Autism

- **Difficulty with generalization** – child has difficulty transferring skills learned in the trained setting or situation to a non-trained situation
- Example: It is important to work on skills with different people, in different situations, and using different materials

Assessment - Formal and Informal

Assessment in Autism

- **Rationale for Assessment**
 - Can be used to screen for and diagnose individuals with ASD
 - Can provide an accurate description of an individual's current behavioral or developmental performance
 - Can help to plan intervention goals and objectives
 - Can help to monitor ongoing progress

Assessment in Autism

• Limitations of Assessment

- Lack of psychometric validation for diverse cultures and languages
- Difficult to measure the incremental progress sometimes found in individuals with intellectual disabilities
- Lack of valid outcome measures in autism that can be used to detect change over time
- The amount of heterogeneity and complexity in autism makes assessment difficult

Formal Assessments

• Norm-referenced tests

- Measures child's success or failure on statistically chosen test items
- Compares child's development to a population of same age peers
- Results in a standardized score

• Criterion-referenced tests

- Measures child's success or failure on a standardized curriculum or test objectives
- Compares child's development to self rather than to peers
- Provides a developmental level, but not always a standardized score

Advantages of Formal Assessments

- Quantifiable Scores
- Norm Referencing (Comparison to others)
- Valid and Reliable
- Uniformity in Test Administration

Disadvantages of Formal Assessments

- Limited item content, and thus may not measure the domain of interest (e.g., social development)
- Inaccuracy of norms, and perhaps not applicable to all groups (e.g., certain cultural groups or age groups)
- Difficult to administer to young children

Informal Assessments

- Purpose of informal assessments
 - To understand the individual's current behavior and development
 - To obtain more specific information about the individual's skills
 - To provide information relevant to intervention planning

Types of Informal Assessments

- *Formative*
 - Typically collected in a repeated or ongoing fashion to determine if the individual is making progress
- *Summative*
 - Typically collected at the end of the year or end of a learning activity to determine if the individual has mastered the skill

Advantages of Informal Assessments

- Measures progress and development over time
- Derived directly from the classroom curriculum
- Measures can be current and flexible
- Measures are more specifically linked to the individual's goals

Disadvantages of Informal Assessments

- Difficult to develop appropriate informal assessments
- Misuse of informal measures can lead to poor intervention planning and progress monitoring
- Reliability and validity concerns

“Formal” Repetitive Behavior and Sensory Measures

Repetitive Behavior Assessment

Tool	Age Range	Sensitivity to Change	Administration	Note
Aberrant Behavior Checklist (ABC)	6-54 years	Yes	Parent or teacher rated	1 stereotypic behavior subscale
Children's Yale-Brown Obsessive Compulsive Scale for PDD (CYBOCS-PDD)	4 – 18 years	Yes	Interview + clinician rated	
Repetitive Behavior Scale (RBS)	5 – 18 years	Yes (for some subscales)	Parent rated	
Repetitive Behavior Questionnaire (RBQ)	3 – 16 years	Not at this time	Parent rated	
Stereotyped Behavior Checklist	10 – 70 years	Not at this time	Parent rated	

Repetitive Behavior Scales (Dr. James Bodfish)

Repetitive Behavior Scales

Sensory Assessment

Tool	Age Range	Sensitivity to Change	Administration
Sensory Profile (SP)	Birth-14 years	Not at this time	Parent or teacher rated
Adolescent / Adult Sensory Profile (SP)	11 years and older	Not at this time	Self rated
Sensory Experiences Questionnaire (SEQ)	2 – 12 years	Not at this time	Parent or teacher rated

Sensory Experiences Questionnaire (Dr. Grace Baranek)

Methods for Collecting Data



Informal Assessments

Three Types

- Motivation Assessment Scale-II (MAS; Durand, 2002)
- Direct Observation
- Activity Analysis

Rating scales



Motivation Assessment Scale (MAS)

- **MAS**
 - A rating scale designed to assess the potential functions (or purpose) of challenging behaviors
 - Attention, Escape, Tangible, Sensory
 - 51 items
 - Likert scale from 0 - 6
- When to use a rating scale?
 1. Interview information is not enough
 2. Do not have opportunity (or time) to observe
 3. Difficult to determine purpose / function of behavior
- Who should complete it?
 1. Person familiar with the child **and** the targeted behavior

What's in a Name?: Introducing Relevant Behavioral Terminology

Setting Event

- Event that occurs at another time that increases the likelihood the child will engage in a behavior. Setting events serve to “set the child up” to be more likely to display the behavior.

Behavior Equation

Setting Event	Trigger	Behavior	Maintaining Consequence
	Quan approaches computer and sees child working on program	Quan moves his picture to indicate that he is next. Quan observes and waits for his turn	Child leaves computer and Quan sits down and begins working

Behavior Equation

Setting Event	Trigger	Behavior	Maintaining Consequence
Quan was up most the night with an asthma attack. He arrives at school looking sleepy and with dark circles under his eyes	Quan approaches computer and sees child working on program	Quan hits child and pushes his body on the child's chair	Child leaves computer and Quan sits down and begins working

Some Potential Setting Events

- Change in Medications
- Lack of Sleep
- Hunger
- Argument with Parent
- Unpredictable Environment
- Little Forewarning of Transitions
- Others??

Sample Setting Event Chart

		Mon	Tues	Wed	Thurs	Fri
How does he come to school?	Rides the bus		√	√	√	
	Mom brings	√				√
His behavior?	Tantrum at a.m. circle		√	√	√	
	Tantrum at snack	√	√		√	
	Tantrum at small group		√	√	√	

Another Sample Setting Event Chart

		MON	TUES	WED	THUR S	FRI	SAT	SUN
What happened the night before?	Slept Poorly	Yes No						
	Mom on Midnight Shift	Yes No						
How was his behavior ?	Tantrum in A.M.	Yes No						
	Tantrum in P.M.	Yes No						

Direct Observation



Direct Observation

- We're going to focus on 1 strategy
 1. Observation cards
- Observation Guidelines:
 1. Know whom and what behavior you're observing
 2. Observe long enough to get a "representative sample"
 - a. Across contexts
 - b. Multiple team members
 3. Try to remain unobtrusive
 4. Pay Attention!

Observation Card

Name:	Observer:	Date:
General Context:		Time:
What Happens Before the Behavior Occurs? (describe what the child & adults do):		
What Actually Occurs? (make sure to clearly describe the behavior):		
What Happens After the Behavior Occurs? (describe what the child & adults do):		
What Purpose Does the Behavior Serve? (describe if the child wants to obtain or escape something)		
Are There Any Known Setting Events?:		

Example of Observation Card

Name: <i>Karen</i>	Observer: <i>teacher</i>	Date: <i>1/22</i>
General Context: <i>Choice time/art</i>		Time: <i>10:00</i>
What Happens Before the Behavior Occurs? (describe what the child & adults do): <i>Playing alone in house. Teacher comes over to Karen and asks her to come to the art table for art. When she doesn't respond, the teacher tries to assist her by taking her arm to nudge her to stand.</i>		
What Actually Occurs? (make sure to clearly describe the behavior): <i>Karen pulls away and begins to protest by saying, "No! I not go to art," as she pulls away from the teacher.</i>		
What Happens After the Behavior Occurs? (describe what the child & adults do): <i>The teacher walks away and says, "I will be back in a few minutes to see if you are ready."</i>		
What Purpose Does the Behavior Serve? (describe if the child wants to obtain or escape something): <i>The teacher walks away and says, "I will be back in a few minutes to see if you are ready."</i>		
Are There Any Known Setting Events?: <i>Escape art.</i>		

Let's Look at An Activity Analysis

Activity Analysis

Child: *Rachel*
 Routine/Activity: *House Center*

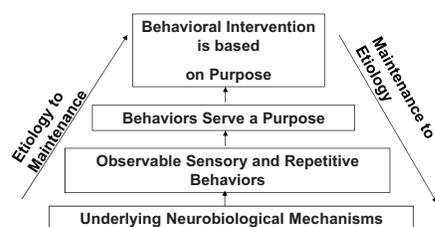
Activity Description	Behavior Expectations	Problems
Steps:		
1. <i>Select materials</i>	1. <i>Pick materials that no one is using</i>	
2. <i>Pretend in roles</i>	2. <i>Use materials appropriately</i>	
3. <i>Exchange materials with peers</i>	3. <i>Don't take from peer</i>	3. <i>Takes materials from others</i>
4. <i>Follow peers' lead or accept role assignment</i>	4. <i>Maintain engagement</i>	4. <i>Ignores peers, interferes in play</i>
5. <i>Clean-up</i>	5. <i>Put materials on shelf in correct area</i>	

Activity Analysis

Child: *Rachel* Routine/Activity: *Snack*

Activity Description	Behavior Expectations	Problems
Steps:		
1. <i>Sit in chair</i>	1. <i>Stay in seat</i>	
2. <i>Take food from plate when passed</i>	2. <i>Take one item, wait for turn</i>	2. <i>Takes multiple items, puts hand in bowl, grabs while plate is passed</i>
3. <i>Eat food on plate</i>	3. <i>Eat from own plate</i>	3. <i>Takes food from other children's plates</i>
4. <i>Drink juice from own cup</i>	4. <i>Drink and put cup on table</i>	
5. <i>Ask for more food</i>	5. <i>Ask using please</i>	4. <i>Grabs food when she wants more</i>
6. <i>Wipe face with napkin</i>	6. <i>Use napkin, not clothing</i>	
7. <i>Throw plate/cup/napkin away when finished</i>	7. <i>Clear place, throw in trash</i>	

How Does All of This Content Relate?



SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Evidence-based practices for repetitive and sensory behaviors

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Generic but Important Intervention Approaches

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Changing Our View

- Take the problem ***away from the child*** and ask:
 - ***Why*** is this behavior occurring?
- What ***changes can I make to prevent*** the problem from occurring and teach the child new skills?

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

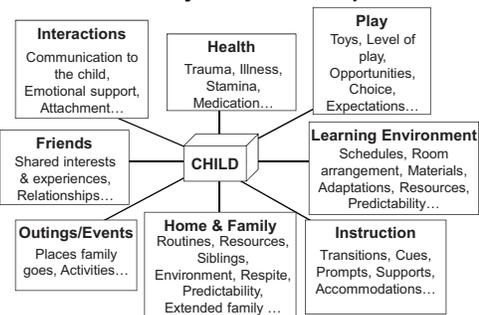
Think Outside the Box:



CHILD

SELF-ASSESSMENT:  *A Journey of Change* 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

There are Many Variables to Explore



Interactions
Communication to the child, Emotional support, Attachment...

Health
Trauma, Illness, Stamina, Medication...

Play
Toys, Level of play, Opportunities, Choice, Expectations...

Learning Environment
Schedules, Room arrangement, Materials, Adaptations, Resources, Predictability...

Instruction
Transitions, Cues, Prompts, Supports, Accommodations...

Home & Family
Routines, Resources, Siblings, Environment, Respite, Predictability, Extended family ...

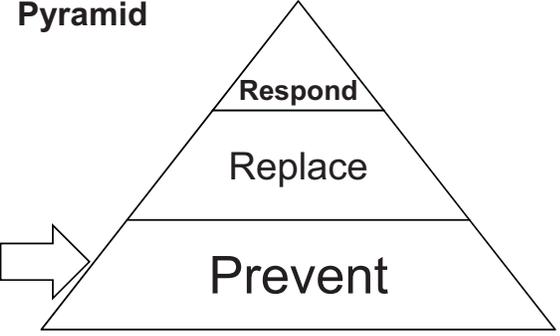
Friends
Shared interests & experiences, Relationships...

Outings/Events
Places family goes, Activities...

CHILD

SELF-ASSESSMENT:  *A Journey of Change* 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Managing Challenging Behavior Pyramid



Respond

Replace

Prevent

SELF-ASSESSMENT:  *A Journey of Change* 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Prevention Strategies

AKA: Make the challenging behavior irrelevant

What modifications to the environment (academic, social, physical) may PREVENT the challenging behavior?

What adjustments will make the challenging behavior unnecessary?

SELF-ASSESSMENT:  *A Journey of Change* 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Prevention Strategies

1. How can the environment be changed to reduce the likelihood that challenging behavior will occur?
2. What can be done to make challenging behavior irrelevant?
3. What procedures can I select that fit in the natural routines and structure of the classroom or family?

Prevention Strategies (Cont.)

4. How can I build on what works?
5. What can be done to help the child not respond to the trigger or change the trigger so it does not cause challenging behavior?
6. What can I do to minimize the impact of setting events on the child's challenging behavior?

Preventive Strategies

Prevention: Choice

- Choice can be offered using photographs, visuals, or actual objects
- When used as a prevention strategy, choices must be offered explicitly and personally to the child
- Choices should represent options of desirable activities or materials
- In the beginning, you may want to provide many opportunities for the child to choose the preferred activity or item

Prevention: Visual Schedule

- Use photographs or line drawings
- Depict the major activities or steps of an activity
- Assist the child in removing the visual once the activity is complete

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Prevention: Within Activity Schedule

- Provide visuals of the steps used within an activity (e.g., art project)
- Child can use the visuals to complete activity independently
- Some children may need to remove each visual as steps are completed

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Prevention: Visual Guidance

- Provide visuals for children that highlights boundaries
- Use feet for line-up (each child stands on a set of foot prints), carpet squares for circle time, mats for block structures

SELF-ASSESSMENT: 
A Journey of Change

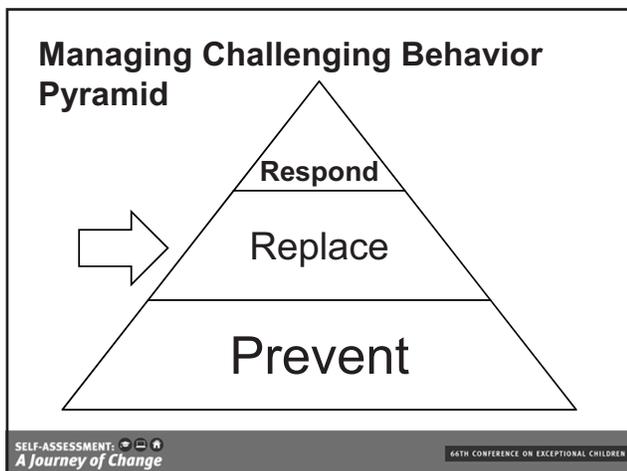
64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Group Management Strategies

- Prevention Strategies
 - Remaining in proximity
 - Reducing distracting stimuli
 - Reviewing classroom rules
 - Using motivating materials/activities
 - Using visual schedules and manipulatives
 - Layering groups
 - Shortening the duration of groups

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN



Design a Behavior Support Plan: Teaching Strategies

AKA: Make the challenging behavior inefficient

What skills can be taught to the student that:

- 1) will meet the same need, or purpose, as the challenging behavior,
AND
- 2) will provide access to the desired outcome as "efficiently" as the challenging behavior?

SELF-ASSESSMENT: *A Journey of Change* 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Replacement Interventions

- If the behavior is a result of a skill deficit then you may want to teach the child an alternative or replacement behavior
 - Example: What if the child lines up toys because he/she does not have any other play skills?

SELF-ASSESSMENT: *A Journey of Change* 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

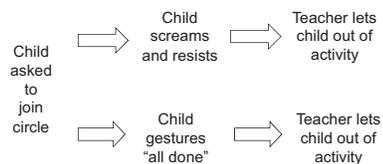
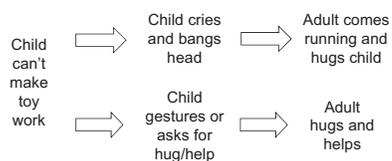
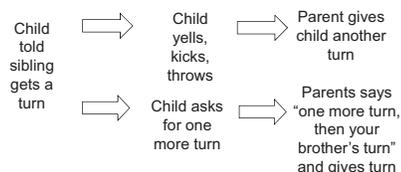
Teaching Replacement Skills

- Replacement skills must be efficient and effective (i.e., work quickly for the child)
- Consider skills that child already has in his/her repertoire
- Make sure the reward for appropriate behavior is consistent
- Attempt to ensure "functional equivalence" between replacement and challenging behavior

SELF-ASSESSMENT: *A Journey of Change* 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Functional Equivalence

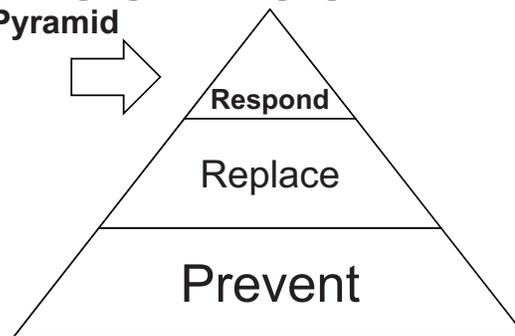
- Identify an acceptable way that the child can deliver the same message
- Make sure that the new response is socially (and developmentally) appropriate and will access the child's desired outcome
- Teach the child a skill that honors the purpose of the behavior (e.g., if child wants out of activity, teach child to gesture "finished")



Designing Replacement Skill Instruction Procedures

- Select a skill to teach
- Select a **method** of instruction
- Follow steps of instructional procedure systematically
- Teach throughout the day

Managing Challenging Behavior Pyramid



Design a Behavior Support Plan: Consequence Strategies

AKA: Make the challenging behavior ineffective

What can I do to ensure that:

- 1) the challenging behavior does not result in access to the desired outcome,
- AND
- 2) the alternative behavior does result in access to the desired outcome?

Response to Challenging Behavior

- Make sure rewards for appropriate behavior are equal to or exceed rewards for challenging behavior

"In behavior management, the motto is consistency, consistency, consistency" (Laura Riffel—www.pbsga.org)

Response Strategies

- Don't sweat the small stuff!!!
- Non-response or minimize response to problem behavior
- Redirect to use alternate skill
- Reinforce use of alternative behavior (immediately & consistently)
- Use natural or logical consequences
- Maintain your composure

(Janney & Snell, 2000)

SELF-ASSESSMENT:  *A Journey of Change*

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

When You Know but Can't Honor the Purpose of the Behavior...

- Teach tolerance for delay in achieving the reinforcer (e.g., help the child stay engaged by giving a signal about how long to hang in "two more songs, then all done")
- Provide choices ("You can wear goggles or the visor hat, but we need to wash your hair.")
- First, then contingency ("First, ride in car. Then, playground.")

SELF-ASSESSMENT:  *A Journey of Change*

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

When You Know but Can't Honor the Purpose of the Behavior...(Continued)

- Provide preferred items as distraction ("Sit in car seat; you can have teddy bear or you can have blanket.")
- Teach child to anticipate and participate (e.g., provide a transition warning and a visual schedule so the child can anticipate the transition and actively participate)

SELF-ASSESSMENT:  *A Journey of Change*

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

What if the Child Needs to Do It?

- Create a means to communicate to child When and Where to engage in behavior
- Initially, you want to schedule multiple opportunities for the child to engage in behavior
 - Build tolerance for delay of "reinforcer"
- Communicate to child How long they can engage in behavior

SELF-ASSESSMENT:  *A Journey of Change*

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Addressing Repetitive Questioning

If I remember to raise my hand and wait 5 times before I answer the question, I will get 10 extra minutes of computer time.

I have to **raise my hand and wait for Mrs. Thomas** to say my name before I answer the question.



YES, I remembered to raise my hand

SELF-ASSESSMENT:

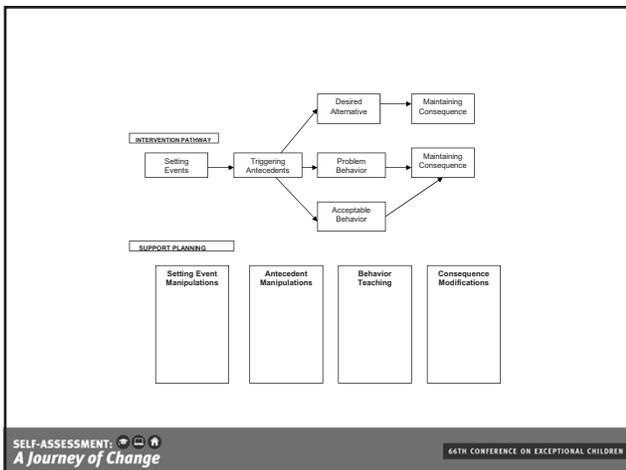
A Journey of Change 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Safety-net Procedures

- If a child is in danger of harming himself or others, you must first be concerned about safety
- Safety-net procedures may be planned for children who have a history of dangerous outbursts
- Safety-net procedures only keep children safe, they **do not change behavior**.
- Safety-net procedures are only appropriate when there is also a full behavior support plan or intention to develop a plan

SELF-ASSESSMENT:

A Journey of Change 64TH CONFERENCE ON EXCEPTIONAL CHILDREN



Repetitive and Sensory-Specific Interventions

SELF-ASSESSMENT:

A Journey of Change 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

National Professional Development Center on ASD

<http://autismpdc.fpg.unc.edu/>

Intervention approaches

Based on research, there are at least 3 categories of interventions that have been used to address repetitive behaviors

(a) *Consequence-based interventions* that involve disrupting the repetitive behavior—reinforcer relationship

(b) *Antecedent-based interventions* that involve modifying the environment or the individual's routine to prevent or reduce the likelihood of repetitive behavior occurring, and

(c) *Antecedent-based interventions* that have directly targeted enrichment of the child's environment or skill enrichment by teaching the child replacement skills.

Boyd, B. A., McDonough, S. G., & Bodfish, J. W. (2012). Evidence-based behavioral interventions for repetitive behaviors in autism. *Journal of autism and developmental disorders*, 42(6), 1236-1248.

EBPs for “Lower Order” Repetitive Behaviors

Topography	Recommend Practice	Brief Description	*Supporting Evidence
Stereotypies & Self-injury	Response Interruption & Redirection / Response Blocking	Physically or verbally blocking the individual from engaging in the behavior	Ahearn, Clark, MacDonald, & Chung, 2007; Koegel, Firestone, Kramme, & Dunlap, 1974; Liu-Gitz & Banda, 2010
Stereotypies & Self-injury	Response Cost Procedures	Removal of a positive consequence when the problematic behavior occurs	Athens, Vollmer, Sloman, & Pipkin, 2008; Sidener, Carr, & Firth, 2005
Stereotypies & Self-injury	Differential Reinforcement	Reinforce other behaviors the individual displays instead of the problematic behavior	Azrin, Besalet, Jamner, & Caputa, 2002
Stereotypies & Self-injury	Functional Communication Training (FCT)	Teach the individual an appropriate communication response that can be used to obtain the same reinforcer as the problematic behavior	Kennedy, Meyer, Knowles, & Shukla, 2000

EBPs for “Lower Order” Repetitive Behaviors

Stereotypies	Visual or Verbal cues	Can provide cues to forewarn individual of a change in the activity, or allow him to engage in calming or highly preferred activities prior to a difficult or less preferred activity	Conroy, Asmus, Sellers, & Ladwig, 2005; Horner, Day, & Day, 1997
Stereotypies	Engaging in Physical Exercise	Have the individual engage in an exercise routine (e.g., jogging, roller skating) prior to participating in a subsequent task or activity that has been associated with stereotyped behavior	Kern, Koegel, & Dunlap, 1984
Stereotypies	Environmental Enrichment Strategies	Involves providing the individual non-contingent access to appropriate, competing sources of reinforcement, such as preferred objects	Piazza, Adelinis, Hanley, Goh, & Della, 2000; Rapp & Vollmer, 2005; Vollmer, Marcus, & LaBlanc, 1994
Stereotypies	Skill Enrichment Strategies	Entails teaching the individual more adaptive skills (e.g., social initiation skills); with the thought being that an increase in appropriate skills will offset the need to engage in behaviors that do not serve a clear purpose or goal	Lee, Odom, & Lofin, 2007; Lofin, 2005; Lofin, Odom, & Lantz, 2008

EBPs for “Higher Order” Repetitive Behaviors

Topography	Recommend Practice	Brief Description	Supporting Evidence
Obsessions and/or compulsions	CBT / ERP * when OCD is comorbid	Involves engaging in cognitive reframing and exposure response prevention exercises (i.e., inhibiting the compulsive act that typically accompanies the obsessive thought)	Lehmkuhl, Storch, Bodfish, & Geffken, 2008; Reaven & Hepburn, 2003
Circumscribed Interests (CI)	Consequence-based uses of CI	CI is used as a contingent or differential reinforcer delivered contingently on the occurrence of appropriate behaviors	Charlop-Christy & Haymes, 1996; 1998
Circumscribed Interests (CI)	Antecedent-based uses of CI	CI is embedded into the task or activity the individual will engage in to increase his motivation to display a desired behavior during that activity	Baker, 2000; Baker, Koegel, & Koegel, 1998; Boyd, Conroy, Mancil, Nakao, & Alter, 2007

EBPs for “Higher Order” Repetitive Behaviors

Routines and insistence on sameness behaviors	Differential Reinforcement of Variability (DRV)	Involves reinforcing the individual for varying his behavioral responses with the reinforcement being linked to how novel the behavior is	Boyd, McDonough, Rupp, Khan, and Bodfish, 2010; Miller & Neuringer, 2000
Routines and insistence on sameness behaviors	Use of visual schedules or video-based technologies	Used to help individuals tolerate changes to their routine, or expand their repetitive play behaviors	Hine & Wolery, 2006; Odom et al., 2003

What about “Sensory” Behaviors?

Intervention Approaches

- *Therapeutic strategies* – strategies designed to enhance caregiver-child interactions
- *Remediative strategies* – strategies designed to remediate the effects of sensory differences on child performance
- *Modification strategies* – strategies target the environment and/or the activity to create a more optimal fit among child, task & environment

Boyd, B. A., & Wakeford, C. L. (2013, November). Repetitive behaviors and sensory features. In *Springer New York*.

Therapeutic Strategies

- Strategies designed to improve the quality of the parent-child interaction for toddlers with sensory processing differences
 - Responsiveness / sensitivity
 - Positive affect

Jaegermann, N. & Klein, P.S. (2010). Enhancing mothers' interactions with toddlers who have sensory-processing disorders. *Infant Mental Health Journal*, 31, 291-311.

Remediative Strategies

- Evidence-base for general teaching strategies, such as:
 - Modeling, prompting, scaffolding, reinforcement

Modification Strategies

- Environmental & Task Modifications
 - Creating a sensory space in the classroom
 - Using visual supports or social stories
 - Use of music to cue child

Sensory Feature	Related Terminology	Evidence-based but SUGGESTED strategies
Hypo-responsive	"Under-aroused"	<ul style="list-style-type: none"> • Exercise / movement • Redirection to social opportunities
Hyper-responsive	"Over-aroused"	<ul style="list-style-type: none"> • Exercise / "heavy work" (proprioceptive input) • Self-regulation or calming strategies • Requesting to "take a break"
Sensory seeking		<ul style="list-style-type: none"> • Visual schedules for when to engage with sensory interest • Requesting access to sensory stimulus (deep pressure, swinging)

Specially-designed instruction

SELF-ASSESSMENT:  *A Journey of Change*

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Developing Individualized Behavior Support Plans

SELF-ASSESSMENT:  *A Journey of Change*

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Components of the Support Plan

- **Behavior Hypotheses** - Purpose of the behavior, your best guess about why the behavior occurs
- **Prevention Strategies** - Ways to make events and interactions that trigger challenging behavior easier for the child to manage
- **Replacement Skills** – New skills to teach throughout the day to replace the challenging behavior
- **Responses** - What adults will do when the challenging behavior occurs to ensure that the challenging behavior is not maintained and the new skill is learned

SELF-ASSESSMENT:  *A Journey of Change*

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Prevention Strategies: Repetitive & Sensory Behaviors

SELF-ASSESSMENT:  *A Journey of Change*

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Focus on Prevention

- Antecedent-based strategies / interventions
 - Naturalistic teaching strategies
 - Visual supports

Proven Naturalistic Strategies

- Environmental arrangement
- Encourage child initiation & follow child's attentional focus & interest
- Intersperse preferred & non preferred activities
- Embed instruction in natural environment
- Offer choices & encourage choice making
- Use natural reinforcers
- Use time delay/waiting
- Structure predictability into activities

Replacement Strategies: Repetitive & Sensory Behaviors

What Alternative Skills Do You Need to Teach to the Individual Child?

- **Replacement Skills:** One-to-one replacement skills that serve the exact function as a challenging behavior (functional equivalence).
- **Cognitive Skills:** Includes actual academic skills as well as skills related to organization and planning.
- **Communication or Social Skills:** Skills that increase the child's communicative and social attempts.
- **Coping and Tolerance:** Skills that teach students to cope with or tolerate difficult situations.

(Adapted from Bambara & Knoster, 1998)

SKILL LEVELS	CATEGORIES			
	Exploratory Age of Emergence: 0-10 months	Relational Age of Emergence: 10-18 months	Functional Age of Emergence: 12-18 months	Symbolic Age of Emergence: 18-30 months
				<p>EX Child does 3 or more different purpose actions, one after other, on their own, with the same toy.</p> <p>EX1 Child pulls, pushes ball, marsh, puts ball in, takes go-toy.</p> <p>EX2 Child pushes or tugs, takes paper out of envelope, and places on top of bed.</p> <p>EX3 Child uses toy objects representat- ively for another example.</p> <p>EX4 Child blocks as a handshake or cup.</p> <p>EX5 Child sprays in bowl or food.</p> <p>EX6 Child plays as a handkerchief or paper.</p> <p>EX7 Child uses pretend objects to play.</p> <p>EX8 Child uses pretend objects to play.</p> <p>EX9 Child uses pretend objects to play.</p> <p>EX10 Child uses pretend objects to play.</p> <p>EX11 Child uses pretend objects to play.</p> <p>EX12 Child uses pretend objects to play.</p> <p>EX13 Child uses pretend objects to play.</p> <p>EX14 Child uses pretend objects to play.</p> <p>EX15 Child uses pretend objects to play.</p> <p>EX16 Child uses pretend objects to play.</p> <p>EX17 Child uses pretend objects to play.</p> <p>EX18 Child uses pretend objects to play.</p> <p>EX19 Child uses pretend objects to play.</p> <p>EX20 Child uses pretend objects to play.</p> <p>EX21 Child uses pretend objects to play.</p> <p>EX22 Child uses pretend objects to play.</p> <p>EX23 Child uses pretend objects to play.</p> <p>EX24 Child uses pretend objects to play.</p> <p>EX25 Child uses pretend objects to play.</p> <p>EX26 Child uses pretend objects to play.</p> <p>EX27 Child uses pretend objects to play.</p> <p>EX28 Child uses pretend objects to play.</p> <p>EX29 Child uses pretend objects to play.</p> <p>EX30 Child uses pretend objects to play.</p>

Development of Social Communication

- **Social Interaction:** Communicating to engage with a person
- **Requesting:** Communicating to gain access to something, someone, or some action
- **Joint Attention:** Communicating to share interest in an object or an event

Skill Levels across Three Categories of Social-Communication

SKILL LEVELS	CATEGORIES		
	Social Interaction Age of Emergence: 0-12 months	Requesting Age of Emergence: 0-15 months	Joint Attention Age of Emergence: 10-18 months
	<p>SI1 During face-to-face games, physical activities, or routines, child watches the adult closely.</p> <p>SI2 During face-to-face games, physical activities, or routines, when a brief pause-child shows reacting the game to continue (e.g., looks, moves body to make a motion of the game, looks the partner, vocalizes).</p> <p>SI3 Child plays back-and-forth games with objects or actions (e.g., exchanges objects back-and-forth).</p> <p>SI4 Child imitates familiar game variations (i.e., not right after an adult does the action).</p> <p>SI5 Child expands games or routines, e.g., includes a third person in the game routine (switches roles with other person (e.g., father's, brother).</p> <p>SI6 Child combines gestures and/or vocalizations with looking at person to show wanting game to continue.</p>	<p>RQ1 Child reaches for out-of-reach object to show wanting the object.</p> <p>RQ2 Child points with one hand toward objects to show request for help.</p> <p>RQ3 Child gives objects to show request for help.</p> <p>RQ4 Child looks at nearby objects when another person points to the objects as a request (i.e., objects within reaching distance).</p> <p>RQ5 Child points to nearby objects to request them.</p> <p>RQ6 Child points to distant objects when another person points to the objects as a request (i.e., objects that are beyond reach).</p> <p>RQ7 Child points to distant objects to request them.</p> <p>RQ8 Child combines gestures and/or vocalization/ verbalization with looking at person to request.</p>	<p>JA1 Child responds to another person giving objects just to share interest in the object.</p> <p>JA1A Child gives objects just to share interest in objects with another person.</p> <p>JA2 Child responds to another person showing objects just to share interest in the objects.</p> <p>JA2A Child shows objects just to share interest in the objects with another person.</p> <p>JA3 Child follows a point to nearby objects or events just to share interest in objects events.</p> <p>JA3A Child points to nearby objects/events just to share interest in objects events with another person.</p> <p>JA4 Child follows a point to more distant objects events just to share interest in the objects events.</p> <p>JA4A Child points to more distant objects events just to share interest in objects events with another person.</p> <p>JA5 Child follows a gaze of another person to objects events just to share interest.</p> <p>JA6 Child combines gestures and/or vocalization/ verbalization with looking at person just to share interest in an object/event.</p>

Classroom Activity Matrix

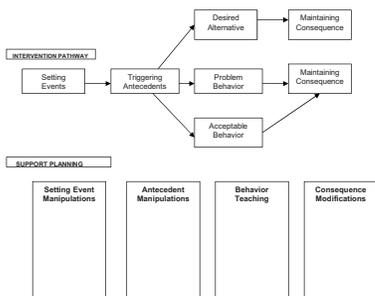
Activity/Routine Matrix

Time/Activity	Request Help			
Arrival	✓ Cubby			
Planning				
Centers	✓ Toys; computer			
Clean-up	✓ Spray			
Washing Hands				
Snack	✓ Milk			
Outside Play	✓ Slide; toy cabinet			
Washing Hands				
Small Group	✓ Open container			

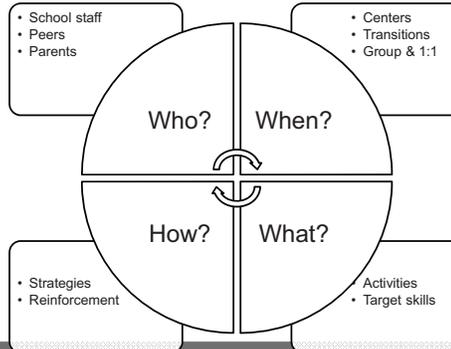
My Morning Routine

Activity/Routine Matrix

	Say Help	Say/Gesture up	Point
Time to get up	✓	✓	
Eat Breakfast	✓	✓	✓
Rock with Mommy	✓		
Get Dressed	✓		
Car Seat	✓	✓	



Other Intervention Considerations



7 Principles of Behavioral Interventions

(Adapted from McWilliam, 2002)

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Principle 1

- Comprehensive purposefulness – each instructional opportunity should address multiple goals, AND each goal should be targeted during a variety of instructional opportunities

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Principle 2

- Balance participation and independence – provide assistance when *needed* AND allow the child the opportunity to function independently

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Principle 3

- Behavioral responsivity – be responsive to the child's interests and motivations AND use those to target important skills

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Principle 4

- Distributed learning opportunities – work on teaching episodes throughout the day and during a variety of activities versus using massed learning trials

Principle 5

- Contextually relevant learning – embed teaching episodes in naturally occurring activities that provide an opportunity for the child to display the targeted skill

Principle 6

- Program generalization – do NOT just expect the targeted skill to generalize BUT actively work on having the child use the skill with other people and in multiple settings

Principle 7

- Use natural reinforcers – provide the child access to logical consequences when they display the targeted skill or behavior

Response to Challenging Behavior

- Make sure rewards for appropriate behavior are equal to or exceed rewards for challenging behavior

*"In behavior management, the motto is consistency, consistency, consistency" (Laura Riffel—
www.pbsga.org)*

What are Restricted Interests?

- "All encompassing topics or objects individuals with autism pursue with great intensity and focus"
- Also called:
 - Circumscribed interests
 - Obsessions
 - Compulsions
 - Special interests
 - Narrow interests

What are some common RIs for students with autism?

Most Common:

- Gadgets/devices/electronics
- Power rangers/other action figures
- Dinosaurs
- Video games

Somewhat Common:

- Fantasy/science fiction
- Natural disasters
- Disney characters
- Letters/numbers

Least Common:

- Mythology
- Trains (other than Thomas)
- License plates

Why should we encourage RIs?

- Research studies have shown that using their RI gradually decreases the amount of time children engage with that item
 - Provide children structured and expected opportunities to engage with their RI
- Teaches kids a more functional and appropriate way to engage with their interest

How *do* RIs encourage social behavior?

- Students with autism appear to be “motivated” to discuss or interact with RIs, either internally or externally
- Often they are motivated to engage in 1-sided conversations about them,
OR
- Play with the RI by themselves

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

How *could* RIs better be used to encourage social interactions?

- Antecedent-based uses of RI
- Consequence-based uses of RI

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Antecedent-based uses of RI

- 6 steps
 1. Determine their RI
 2. Establish a measurable social goal
 - Take into account child’s play skills:
 - Developmental level of play
 - Stage of play
- | | |
|--|--|
| <p><u>Developmental level</u></p> <ul style="list-style-type: none"> • Sensorimotor • Relational • Constructive • Dramatic • Games with rules | <p><u>Stage of Play</u></p> <ul style="list-style-type: none"> • Unoccupied • Onlooker • Solitary/independent • Parallel • Associative • Cooperative |
|--|--|

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Antecedent-based uses of RI (cont’d)

3. Embed interest into cooperative games or play activities
 - Take into account child’s skill level and developmental abilities:
 - Can the child match pictures?
 - Can s/he sort objects?
 - Can s/he read?
4. Teach child how to play the game
 - Depends on child’s social & developmental abilities
 - May need to teach skill in a 1:1 setting and eventually integrate peers into activity
 - May be able to immediately introduce activity into a small group activity (teacher may need to monitor)

SELF-ASSESSMENT: 
A Journey of Change

64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Antecedent-based uses of RI (cont'd)

5. Provide child structured and expected opportunities to engage with RI game
 - Make sure game has a clear ending
 - Set limits for when child is allowed to engage with game
 - Provide choice board
 - Daily picture or written schedule
6. Monitor the child's progress

Consequence-based uses of RI

- This method is particularly useful if the RI is not particularly appropriate for school, or for lower form repetitive behaviors (e.g., stereotypy)
- The RI or another repetitive behavior can be used to reinforce more appropriate social behavior

Can RIs be used to facilitate academic engagement?

- Research suggests that RIs can be used to increase on-task behavior and decrease the number of errors students make while working
 - RIs can be used in an antecedent-based manner OR
 - RIs can be used in a consequence-based manner

Moving Beyond RI: Is it Possible?

- Eventually kids will move on because of development, they outgrow their interests
- 1 strategy to help kids move on:
 - Start a sharing group
 - Different kids share their interests, including the child with autism
 - Each child has to learn about the other person's interest
 1. The child with autism learns that other people have interests different than his or her own
 2. The child learns about other people's interests
 3. The child learns to share talking and listening time around their interest

Closing Activity

- Let's develop a mini-plan to help you get started with using RIs in a positive way



Closing Activity Worksheet

Child's Name	Identify the Restricted Interest (RI)	Academic (A) or Social (S)	Antecedent (AN) or Consequence (C)	Strategies for Inclusion RI	Materials Needed

Monitoring Progress



Evaluating a Behavior Support Plan

Measuring Progress - What Information to Collect:

- Increases in use of replacement skills
- Reductions in occurrence of challenging behavior
- Positive side effects (e.g. improved grades, increased attention, peer acceptance)
- Improvements in consumer satisfaction (e.g., student, family, staff, and others)

Evaluating a Behavior Support Plan

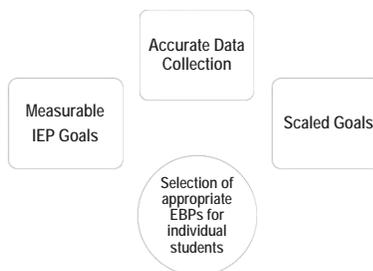
Measuring Progress - How to Collect Information

- Interviews (e.g., teachers, students, parents, service providers)
- Informal and anecdotal reports (e.g., communication logs with parents, teacher progress notes)
- Rating scales (e.g., student effect, social scales, opportunity for choice)
- Natural documents (e.g., report cards, incident reports, medical records, placement records)
- Direct observation (e.g., frequency counts, measures of duration, observation logs)

What is Goal Attainment Scaling?

- a method for measuring amount of progress made on a goal, objective, or benchmark
- compatible with measurable Individualized Education Plan (IEP) goals
- allows progress to be easily summarized across multiple goals, domains, or students
- supports selection of evidence-based practices (EBPs) and implementation
- used in conjunction with data collection procedures

Essential Elements for GAS



GOAL ATTAINMENT SCALING PROCESS



<http://csesa.fpg.unc.edu/resources/training-goal-attainment-scaling>

GAS Process Step 1: Review Individual's Current Goals

Review the goals. Identify priority skills to target.

- must align with the current goal
- must be observable and measurable

Guidelines for Writing Measurable Goals

1. Write **annual** goal relative to present levels of performance. If present levels are unknown, assess current skill levels.
2. Include **antecedent**, **behavior**, and **criteria** components.
3. Incorporate goals that **target across domains**: communication, socialization, adaptive, motor, & behavior.
4. Determine appropriate **data collection** procedures that are practical and easy to use.

Components of a Measurable Goal

<u>Antecedent</u>	<u>Behavior</u>	<u>Criteria</u>
<ul style="list-style-type: none"> >Setting >With whom >Supports provided >High v. low structure 	<ul style="list-style-type: none"> >Specific >Observable >Measurable 	<ul style="list-style-type: none"> ># of times >Amount of time >Percent >Consistency >Data collection method
<i>"When this event occurs,</i>	<i>the student will do this behavior(s),</i>	<i>at this rate or level of proficiency."</i>

A Highly Measurable Goal: A Case Example

Antecedent	Behavior	Criteria
When presented with a task menu, visual cues, and opportunity to earn a reward,	Tony will complete <u>four</u> 2-3 minute tasks each day	w/out aggression across 2 weeks.

GAS Process Step 2: Determine Present Level of Performance via Data Collection

- Ensure present levels are:
- highly observable and measurable
 - accurate, using clear procedures for measurement
 - Inclusive of any current prompting strategies, settings, persons, materials, etc. that may affect present levels of performance.

GAS: PRESENT LEVEL OF PERFORMANCE: TONY'S GOAL

PRESENT LEVEL OF PERFORMANCE (COLLECT DATA) ☆	0	Tony pushes his chair from the desk, hits the table, and yells when he does not want to do a task. Over a period of a week, Tony was observed when he was asked to begin a task at his desk. Tony engaged in these behaviors on an average of 8 times per day. Tony does not have a more appropriate way to communicate refusals.
INITIAL BENCHMARK	1	
SECONDARY BENCHMARK	2	
ANNUAL GOAL ☆	3	When presented with a task menu, visual cues, and opportunity to earn a reward, Tony will complete <u>four</u> 2-3 min. tasks each day w/out aggression across 2 weeks.
EXCEEDS ANNUAL GOAL	4	

GAS Process Step 3: Scaling the Goal

Establish a five point range of performances:

- Current level of performance
(present level) ✓
- Initial benchmark
- Secondary benchmark
- Expected level of goal ✓
(annual goal)
- Exceeds goal

GAS: SCALING TONY'S GOAL

PRESENT LEVEL OF PERFORMANCE (BASELINE)	0	Tony pushes his chair from the desk, hits the table, and yells when he does not want to do a task. Tony engages in these behaviors on an average of 8 times per day. Tony does not have a more appropriate way to communicate refusals.
INITIAL BENCHMARK ☆	1	Task menu, choice board, and visual cues, and opportunity to earn a reward, Tony will complete <u>one</u> 2-3 min task each day w/out aggression across 2 weeks
SECONDARY BENCHMARK	2	
ANNUAL GOAL	3	When presented with a task menu, visual cues, and opportunity to earn a reward, Tony will complete <u>four</u> 2-3 min. tasks each day w/out aggression across 2 weeks.
EXCEEDS ANNUAL GOAL	4	

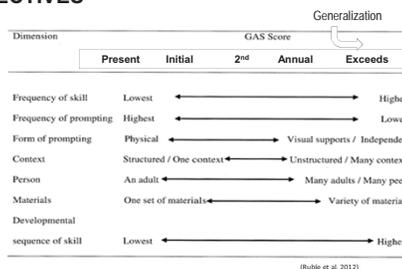
GAS: SCALING TONY'S GOAL

PRESENT LEVEL OF PERFORMANCE (BASELINE)	0	Tony pushes his chair from the desk, hits the table, and yells when he does not want to do a task. Tony engages in these behaviors on an average of 8 times per day. Tony does not have a more appropriate way to communicate refusals.
INITIAL BENCHMARK	1	Task menu, choice board, and visual cues: <u>one</u> 2-3 min task each day w/out aggression across 2 weeks
SECONDARY BENCHMARK ☆	2	Task menu, choice board, and visual cues: <u>three</u> 2-3 min tasks each day w/out aggression across 2 weeks
ANNUAL GOAL	3	When presented with a task menu, visual cues, and opportunity to earn a reward, Tony will complete <u>four</u> 2-3 min. tasks each day w/out aggression across 2 weeks.
EXCEEDS ANNUAL GOAL	4	

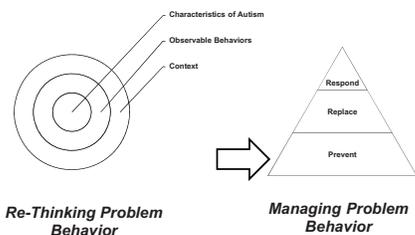
GAS: SCALING TONY'S GOAL

PRESENT LEVEL OF PERFORMANCE (BASELINE)	0	Tony pushes his chair from the desk, hits the table, and yells when he does not want to do a task. Tony engages in these behaviors on an average of 8 times per day. Tony does not have a more appropriate way to communicate refusals
INITIAL BENCHMARK	1	Task menu, choice board, and visual cues : <u>one</u> 2-3 min task each day w/out aggression across 2 weeks
SECONDARY BENCHMARK	2	Task menu, choice board, and visual cues : <u>three</u> 2-3 min tasks each day w/out aggression across 2 weeks
ANNUAL GOAL	3	When presented with a task menu, visual cues, and opportunity to earn a reward, Tony will complete <u>four</u> 2-3 min. tasks each day w/out aggression across 2 weeks.
EXCEEDS ANNUAL GOAL	4	Task menu, choice board, and visual cues: <u>six</u> 2-3 min tasks each day w/out aggression across 2 weeks

CONSIDERATIONS: SCALING OBJECTIVES



Re-Cap



Easy to Understand Overview

- E**xplain—What is the problem?
 - R**eason—What is he/she getting out of it or avoiding?
 - A**ppropriate—What do you want him/her to do instead?
 - S**upport—How can you help this happen more often?
 - E**valuate—How will you know if it works?
- (Dr. Terry Scott, University of Louisville)

Motivation Assessment Scale II
Test Version – 2.0

Name:

Age:

Rater:

Today's Date:

**Behavior
Description:**

Setting Description:

Frequency Description (circle only one): More than once per;

Year month week day hour

Name: Enter the name of the individual with the problem behavior.

Rater: Enter the name of the person filling out the scale or being interviewed.

Behavior Description:

Enter a *specific* behavior (e.g., hits his head) rather than a more general description of the individual's behavior (e.g., he gets upset).

Setting Description:

Specify the situation where the behavior is a problem (e.g., at home after dinner, during lunch, during one-on-one teaching).

INSTRUCTIONS TO RATERS

Rate each of the items on the following pages by circling the number that corresponds to about how often the individual engages in the behavior indicated, in the setting which has been selected.

MOTIVATION ASSESSMENT SCALE - II
TEST EDITION – 2.0

ITEM	RESPONSE						
1. Would the behavior occur continuously, over and over, if this person was left alone for long periods of time? (For example, several hours.)	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
2. Does the behavior occur following a request to perform a difficult task?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
3. Does this behavior occur when others are attending to him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
4. Does the behavior occur in response to your talking to other persons in the room?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
5. Does the behavior ever occur to get a toy, food, or activity that this person has been told that he or she can't have?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
6. Would the behavior occur repeatedly, in the same way, for very long periods of time, if no one was around? (For example, rocking back and forth for over an hour)	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
7. Does the behavior occur when any request is made of this person?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
8. Does the behavior occur when there are many people around?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
9. Does the behavior occur whenever you stop paying attention to this person?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
10. Does the behavior occur when you take away a favorite toy, food, or activity?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
11. Does it appear to you that this person enjoys performing the behavior? (It feels, tastes, looks, smells, and/or sounds pleasing)	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
12. Does the person seem to do the behavior to upset or annoy you when you are trying to get him or her to do what you ask?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6

13.	Does the behavior stop occurring when he or she is left alone?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
14.	Does this person seem to do this behavior to upset or annoy you when you are not paying attention to him or her? (For example, if you are sitting in a separate room, interacting with another person)	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
15.	Does the behavior stop occurring shortly after you give this person the toy, food, or activity he or she has requested?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
16.	When the behavior is occurring, does this person seem calm and unaware of anything else going on around him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
17.	Does this person seem to do the behavior to get people to stop paying attention to him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
18.	Does the behavior seem to occur when this person has been told that he or she can't do something he or she had wanted to do?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
19.	Does this person ignore others when engaging in this behavior?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
20.	Does the behavior stop occurring shortly after (one to five minutes) you stop working or making demands of this person?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
21.	Do others try and prevent this behavior by not attending to him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
22.	Does this person seem to do the behavior to get you to spend some time with him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
23.	Does this person always have access to a particular toy, food, item or activity in an effort to avoid this behavior?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
24.	Does it seem that this behavior occurs most often during "down time", when there isn't much activity going on in the classroom/work setting?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
25.	Is this person not asked to do certain tasks because of this behavior?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6

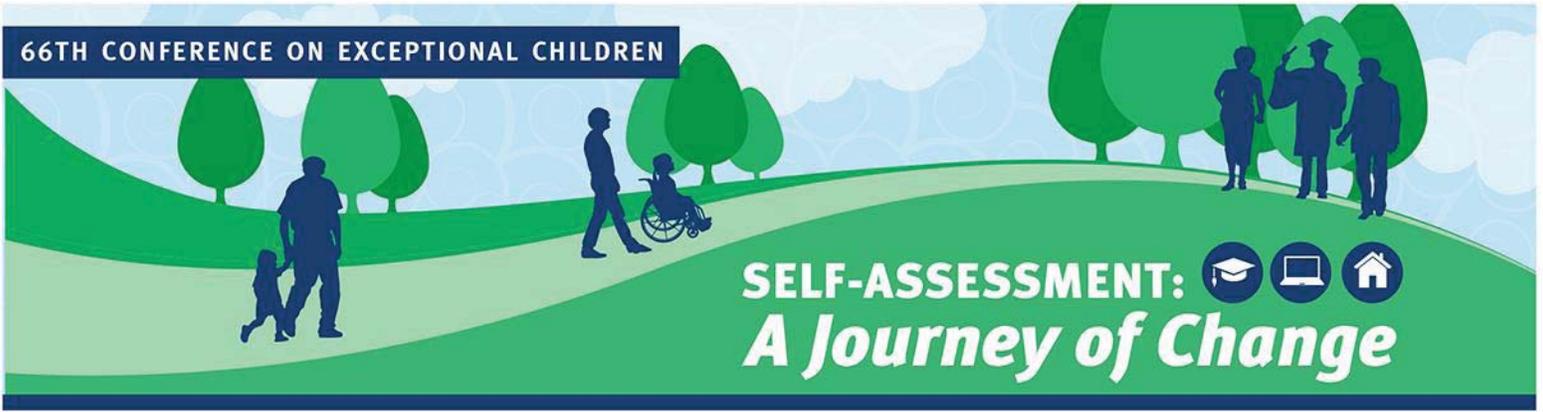
26.	Do others try and “prevent” this behavior by talking to or paying attention to him/her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
27.	Does this behavior occur when he or she seems bored?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
28.	Does the behavior allow the person to “get out of” doing what you ask of him/her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
29.	Does this person spend much time alone, in an effort by others to stop this behavior?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
30.	Does this person always seem to have one-on-one attention from others in an effort to prevent this behavior?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
31.	Would this behavior occur if he or she was denied access to something he/she wanted?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
32.	Does engaging in this behavior seem to make him or her happy, content, or less frustrated?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
33.	Does the behavior seem to occur most often when others try to interact with him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
34.	Does the presence of other people make this behavior less likely to occur?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
35.	Would giving him or her a favorite object, food or other item stop the behavior?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
36.	Are requests not made of this person for fear they will engage in the behavior?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
37.	Does this person seem to enjoy his or her time alone?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
38.	Does this behavior occur when everyone seems to be busy and not able to attend to him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
39.	Do others try and “prevent” this behavior by giving him or her something to do, eat or play with?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
40.	Would the behavior occur continuously, over and over, if this person was in an unstructured setting (i.e., no demands, little attention) for long periods of time? (For example, several hours)	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6

41.	Does it seem that this behavior occurs most often during group activities?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
42.	Would the behavior occur repeatedly, in the same way, for very long periods of time? (For example, rocking back and forth for over an hour)	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
43.	Does the person seem to do the behavior to upset or annoy you when you are interacting with him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
44.	Does this person seem to like having other people around him or her?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
45.	Does saying “no” to a request start to make him or her upset?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
46.	Does this behavior occur when he or she is expected to work independently?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
47.	Does it seem this behavior most often occurs during instructional periods?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
48.	Does the behavior stop occurring shortly after (one to five minutes) you leave him or her alone?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
49.	Does the behavior stop when you pay attention to this person?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
50.	Does the behavior occur when you indicate that it is time to move to a new activity?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6
51.	Does this person seem “driven” to complete the behavior?	Never 0	Almost Never 1	Seldom 2	Half the Time 3	Usually 4	Almost Always 5	Always 6

SCORING

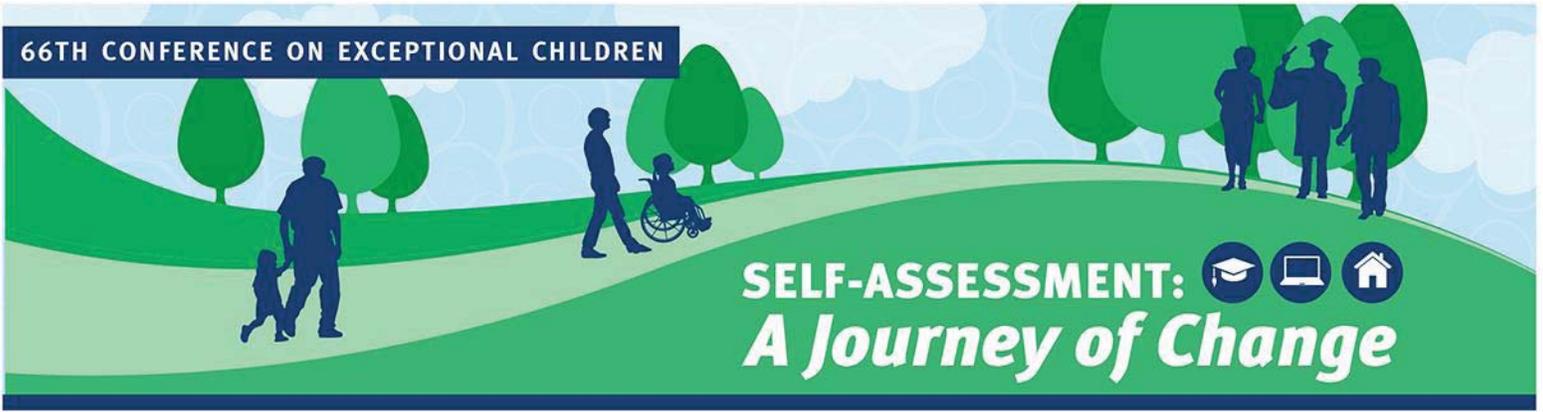
Transfer the numeric Response for each Item to the blanks below. Scores are organized into columns by type of motivation. Total each column of numbers (Total) and calculate the Mean (Total divided by the number of questions in that column) for each motivation. Determine the Ranking for each motivation by assigning the number “1” to the motivation with the highest Mean score, “2” to the motivation with the second highest Mean score, and so forth.

SENSORY	ESCAPE DEMANDS	ESCAPE ATTENTION	ATTENTION	TANGIBLE
1.	2.	3.	4.	5.
6.	7.	8.	9.	10.
11.	12.	13.	14.	15.
16.	20.	17.	22.	18.
19.	25.	21.	26.	23.
24.	28.	29.	30.	31.
27.	36.	33.	34.	35.
32.	47.	37.	38.	39.
40.		41.	44.	45.
42.		43.	49.	50.
46.		48.		
51.				
TOTAL				
MEAN				
RANK				



SELF-ASSESSMENT:   
A Journey of Change

Name:	Observer:	Date:
General Context:		Time:
What Happens Before the Behavior Occurs? (describe what the child & adults do):		
What Actually Occurs? (make sure to clearly describe the behavior):		
What Happens After the Behavior Occurs? (describe what the child & adults do):		
What Purpose Does the Behavior Serve? (describe if the child wants to obtain or escape something)?		
Are There Any Known Setting Events?:		



Child:

Routine/Activity:

Activity Description	Behavior Expectations	Problems
Steps:		

