Understanding Challenging Behavior in Individuals with ASD: Developing a Proactive Approach

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Why.....

- do people behave the way they do?

What is a Functional Behavioral Assessment?

- It relies on a variety of techniques and strategies to identify the purposes of specific behavior and to teams select interventions to prevent, replace or address the problem behavior.

Why is it Important to Assess Underlying Function?

- To understand the communicative function of problem behaviors is essential to planning interventions

- To determine the function of a problem behavior so that individuals can be taught replacement skills for now and the future….

Applied Behavior Analysis in "Real Life"

Functional Relationships:
Three-Term Contingency

Antecedent -----Behavior--------Consequence

A----------B----------C

I'm late I speed I get a ticket….?

Antecedent

- Definition: event or interaction that precedes the behavior
- Controls behavior through its relation to the consequence/reinforcer
- Can serve as a signal for the behavior to occur

Behavior (Response)

- Definition: observable action
- Form does not dictate function- no “cookbook” of treatments for topographies of problem behavior
- There may be multiple functions for one form; multiple forms may serve same function
- Behavior can acquire more functions over time

Consequences

- Definition: what occurs just after/in response to the behavior
- Behavior results in “stuff” (positive reinforcement)
  - Attention
  - Tangible-
    - preferred items/activities
- Behavior results in removal or avoidance of non-preferred/aversive “stuff” (negative reinforcement)
  - Escape
  - Avoidance
- Behavior produces/reduces some internal, sensory stimulation or feedback (automatic reinforcement)
  - Sensory

What might predispose a child with autism to engage in challenging behavior?

Setting Events

Environmental condition that makes it more likely that the behavior will occur….

Crowded/noisy room

Heat

Changes to routines

Anxiety

Staff person/staffing ratios/change of teachers

Some Setting Events– Children

- Lack of Sleep
- Hunger
- Change in routine
- Illness

- Decreased Attention
- Increased Demands
- Setting/noise etc…

Why do behaviors occur initially?

- Something in the environment triggers the behavior (it's a response to something)
- A child imitates a behavior they see (imitation)
- Another child's behavior is reinforced so the child imitates that behavior (observational learning)
- Emotional response
- Lack of communication
- Accidentally
- There is intent….they are looking for the reaction (cause and effect)

Functions of Behavior

Medical

- Medical causes for behavior must be ruled out and may often be difficult to determine
- Child may not be able to tell you about a medical condition
- If a behavior has reappeared after a long time or is a new behavior consider medical causes (e.g., sickness, change of medication, lack of sleep, change in diet)

Escape/avoidance maintained behavior

- Escape/Avoidance maintained behavior involves a behavior that occurs in response to a demand or instruction
- Could also be escape from noise, social situations, etc…

Attention maintained behavior

- Attention-maintained behavior would be behavior that occurs when attention is withheld, reduced or diverted. This may occur more often when a student is in a group situation if the staff to student ratio is decreased.

Access/Tangible maintained behavior

- Tangibly maintained behavior is behavior that occurs to obtain a tangible item or in response to an interruption, restriction, removal or denial of a preferred item.

Sensory maintained behavior

- Sensory maintained behavior occurs in absence of external reinforcement and is considered to be intrinsically reinforcing. It may provide sensory input to the person related to the various senses (touch, taste, sound, smell, sight)

How to Conduct a Functional Behavioral Assessment

How to Conduct a Functional Behavioral Assessment

1. Observe the target behavior
2. Identify and Define the target behavior
3. Gather information – about behavior & the context in which it occurs
    1. *Indirect:* (e.g., Interviews)
    2. *Direct:* (e.g., ABC Data collection)
4. Review all of the information obtained and develop a hypothesis regarding the function of the target behavior

Indirect Methods

- Information Gathering: Indirect
  - From people who have direct contact with and knowledge of the student
  - Includes interviews, checklists, review of reports etc….

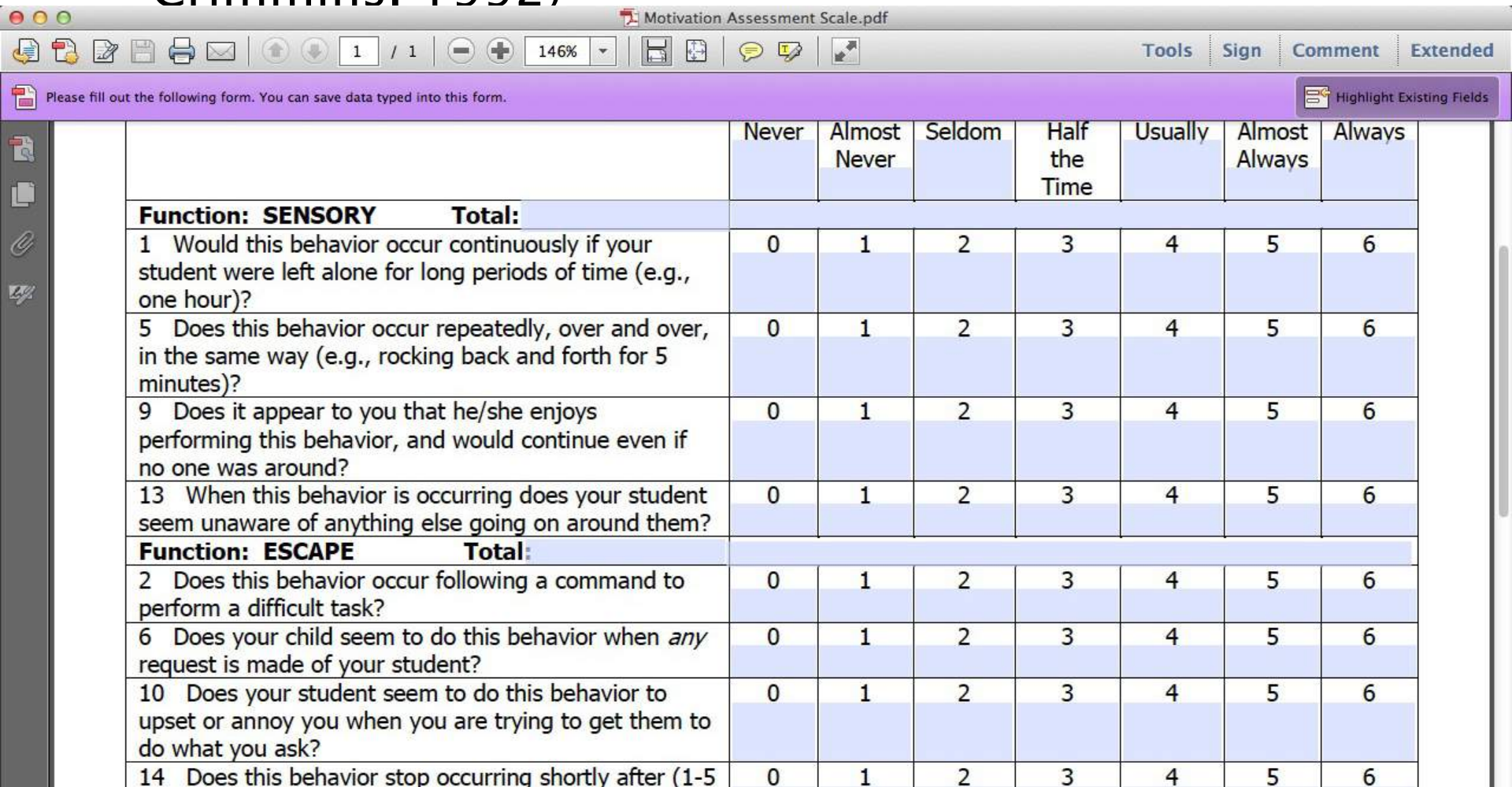
Indirect Methods

- **The Motivation Assessment Scale is used to identify the possible functions of different behaviors. Behaviors are categorized according to the needs they satisfy (sensory, escape, attention or tangible).**

- **The two versions of this form may be completed by staff members or parents/caregivers. Both versions employ a likert scale.**

Motivation Assessment Scale

- Paper and pencil assessment tool (Durand & Crimmins, 1992)



	Never	Almost Never	Seldom	Half the Time	Usually	Almost Always	Always
Function: SENSORY Total:							
1 Would this behavior occur continuously if your student were left alone for long periods of time (e.g., one hour)?	0	1	2	3	4	5	6
5 Does this behavior occur repeatedly, over and over, in the same way (e.g., rocking back and forth for 5 minutes)?	0	1	2	3	4	5	6
9 Does it appear to you that he/she enjoys performing this behavior, and would continue even if no one was around?	0	1	2	3	4	5	6
13 When this behavior is occurring does your student seem unaware of anything else going on around them?	0	1	2	3	4	5	6
Function: ESCAPE Total:							
2 Does this behavior occur following a command to perform a difficult task?	0	1	2	3	4	5	6
6 Does your child seem to do this behavior when *any* request is made of your student?	0	1	2	3	4	5	6
10 Does your student seem to do this behavior to upset or annoy you when you are trying to get them to do what you ask?	0	1	2	3	4	5	6
14 Does this behavior stop occurring shortly after (1-5	0	1	2	3	4	5	6

Direct Methods

- Direct Observations
- ABC Assessment
- Scatterplot Analysis
- Anecdotal logs

Data Systems
Direct Observation
Collecting Baseline Data

Direct Observation: Data

- Direct Observation Data Collection
  - Can record:
    - Frequency/events
    - Duration
    - Latency
  - Can express data as:
    - Frequency
    - Rate
    - % of time intervals
- Sampling methods:
  - Partial interval recording
  - Momentary time sampling

ABC Data Collection

- **Record three aspects of a target behavior:**

  A = Antecedent(s) to the behavior (what happens before the behavior occurs?)

  B = Behavior (what specific behavior is occurring?)

  C = Consequence(s) of the behavior (what happens after the behavior occurs?)

ABC Data Collection

- **After analyzing the antecedents and consequences of the behavior over time, general patterns will emerge. These patterns are indicative of the maintaining function of the behavior.**

ABC Sheet

Student: _____ **Observer:**_____

Target Behavior: _____

ANTECEDENT: The event that occurs immediately before the behavior

BEHAVIOR: The occurrence of the target problem behavior (record frequency)

CONSEQUENCE: The event that immediately follows the occurrence of the behavior

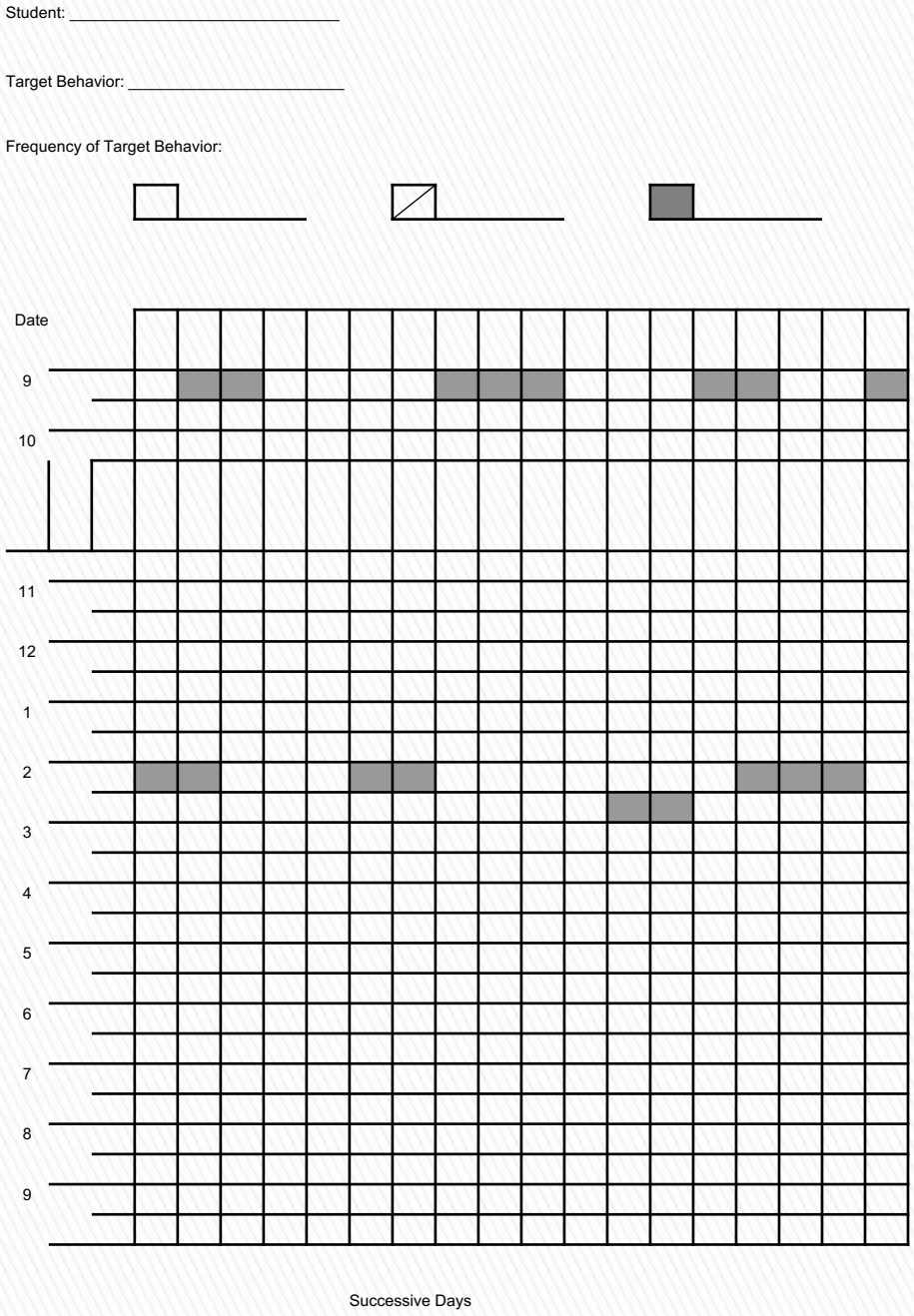
Date	Time	Antecedent	Behavior	Consequence	Comments

ABC Sheet

Date	Time	Antecedent	Behavior	Consequence	Comments
2/2	9:00	Kelly was working on math sheets	She screamed twice	I asked her to be quiet and do her work	
	11:00	The toy Kelly was playing with broke	She screamed three times	Nobody came over to help	Kelly found another toy to play with
	11:30	I called Kelly back from a break	She screamed once	I escorted Kelly back to her desk	Kelly was crying as she sat down

Scatterplot

- Data recorded on a scatterplot to determine when behavior occurs during the day
- Sample scatterplot

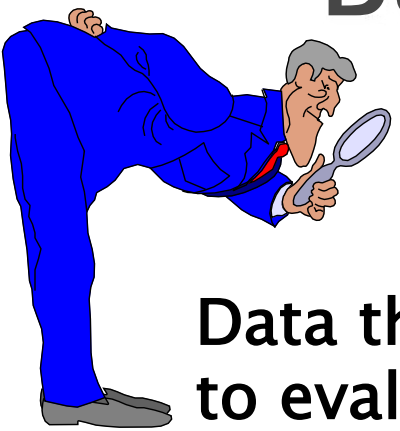


Anecdotal logs

- Record anecdotal data on behavior
- Teacher may keep a journal of observations

Date	time	Initial	Notes
1/20/12	9:30	MM	John was crying and threw his math book on the floor.
1/20/12	10:30	MM	John ripped 2 pages from his language arts workbook. He crumpled them and threw them on the floor
1/20/12	11:30	MM	John was crying and screaming for 5 minutes. He threw his lunchbag on the floor after he opened it.
1/20/12	12:30	CF	John cried and screamed for 10 minutes during recess, Mrs Smith brought John inside and he stopped crying
1/20/12	2:00	MM	John cried and screamed for 6 minutes during storytime. Mrs Fine brought him to the back of the classroom and he stopped crying

Baseline/Data Collection



Data that are collected prior to intervention in order to evaluate any observed changes in skill level

Objective measure for later comparison that allows instructor to determine if the learner benefited from instruction

NOTE

Determine best data collection method to use and then you will use for Baseline and during treatment

Sophia

Prevention of Challenging Behavior

Environmental modifications

- How could the environment be modified to prevent a behavior from occurring?

Preventing Satiation of Reinforcers

- Rotate the reinforcers
- Give choices
- Keep assessing
- Pair reinforcers to create new
- Throw in novel reinforcers as choices
- Be aware of how much access the child has had to the reinforcer that day
- If child just had a snack- a food reinforcer may be less effective….same for attention etc…
- Use differential reinforcement…

Behavioral Momentum

- Instructional sequence where high-probability outcome is presented first
  - “eat your **chocolate**”
- Followed by a low probability outcome
  - “eat your **peas**”
- Same direction is given
  - “eat your ____”

Instructional Methods

- Discrete trial teaching
- Activity-based instruction
- Incidental teaching
- Computer/Ipad
- Video modeling

- Might a different method lead to a more motivated student and less behavioral "interference"?
- Adapt your teaching style or materials to promote success for the child

Curriculum based Assessment

- Assess how the student is doing with the current curriculum
- Record data on their ability
- Look for where the errors are occurring
- Make changes to the curriculum
- Is it too challenging, too easy, too repetitive, too boring, materials are not clear?

Response Effort

- What is being expected from the child?
- You ask child to complete matching task and child is having a difficulty and hits you.
  - You then teach the child to hand you a break pass when s/he needs a break.
- Child hands the pass (the response effort is actually less)
- A different teacher then requires child to use verbalization rather than pass and child hits the teacher again….Why?

Effective use of Prompts

- Errorless and Trial and Error
- The “Frustration” factor
- Ineffective prompts- lead to:
  - Errors
  - Error correction
  - Decreased access to SR
  - Frustration

Identification of Replacement Behavior

What should the child do …instead?

What is Functional Communication Training?

- Functional Communication Training: involves of teaching/reinforcing a communicative behavior that is functionally equivalent to the challenging behavior so that the challenging behavior will decrease and eventually no longer occur

Prior to Beginning Intervention:

- What communicative alternate behavior exists?
- What is the child's skill level?
- What mode of communication will we use?
- Response effort for the new behavior

Functional Communication Training (Pre-training):

- Identify potential communicative abilities to be reinforced
  - What communicative abilities does the child have that will serve the same function as the challenging behavior?

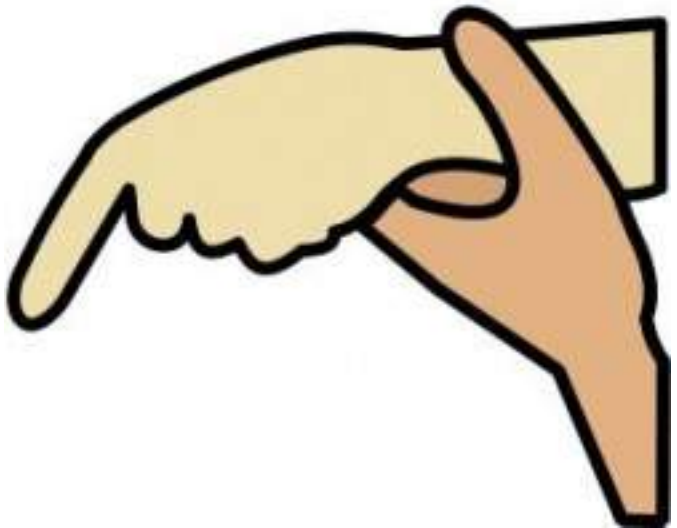
Functional Communication Training (Pre-training):

- Differential Reinforcement of Communicative Behavior (DRC)

- Child can tap someone to get attention
- Child asks to go play
- Child can request items

Functional Communication Training (Pre-training):

- If none exists, identify new communicative behavior to be taught
  - via prompting/reinforcement
  - via shaping

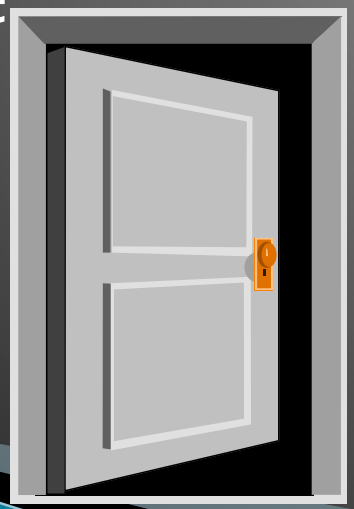


Functional Communication Training Procedure:

- Use differential reinforcement
- Provide reinforcement for the new behavior
- Do not provide reinforcement for the challenging behavior

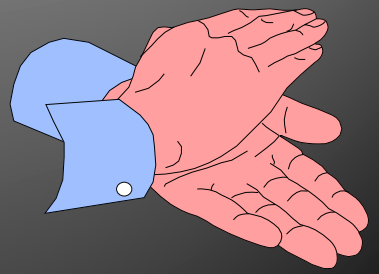
Functional Communication Training Procedure:

- Do not provide reinforcement for the challenging behavior
- Escape



- Tangible

- Attention



Functional Communication Training Procedure:

- If not possible (behavior is dangerous etc…) provide minimal reinforcement for challenging behavior
- Overwhelm the new communicative behavior with lots of reinforcement

Case Example ~ Functional Assessment :

- Case example: Charlie~ 6 yrs old
- Communication Skills: Leading, PEC's book and one- word verbalizations
- Behavior: Aggression
- Aggression = hitting, kicking, pulling hair, scratching and headbutting

Case Example ~ Functional Assessment

- Conducted Functional Assessment
  - ABC data collection
  - Interviews
  - Observation

Sample ABC Data Sheet ~ Before Assessment:

Date/Init	A	B	C
8/10MM	Called back from break	Headbutted me	Had him go back to break area and come back nicely

Sample ABC Data Sheet ~ After Assessment:

Date/Init	A	B	C
9/9	I said “do your puzzle”	Scratched my hand	Physically prompted to start puzzle

Case Example ~ Function of Behavior:

- Behavior was determined to be: Escape-Maintained

- Aggression occurred during tasks/work sessions
- Aggression also occurred on the way back from break

Case Example ~ Training Sessions:

- Conducted break training sessions (no other programming being done during this time)

- Sat across from Charlie with a break pass on table
  - (small red pass with break written on it)

Case Example ~ Training Sessions:

- Teacher physically prompted Charlie to hand the break pass
- Charlie was provided with a break immediately after giving the pass
- Prompts were faded over consecutive trials

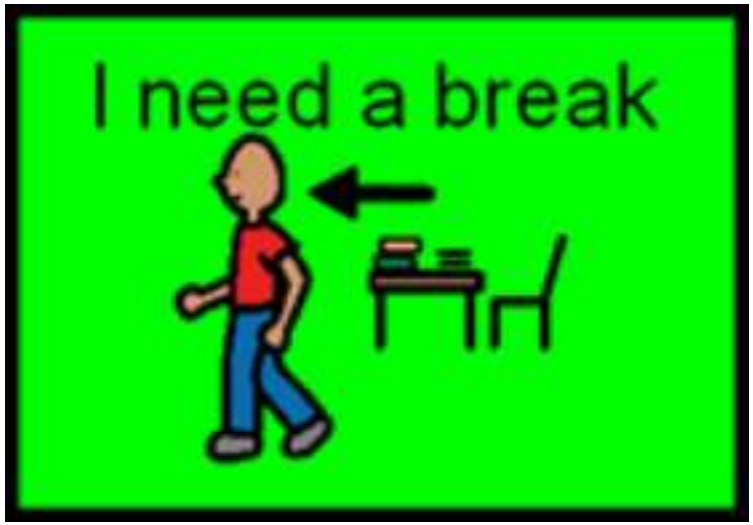
Case Example ~ Training Sessions:

- Charlie began to hand the break pass to teacher independently
- He got to take a break immediately
- Teacher waited for Charlie to hand her the break pass

Case Example ~ Training Sessions:

- If a challenging behavior was about to occur, Charlie was prompted to hand break pass

- This prevented the challenging behavior from occurring



Case Example ~ Training Sessions:

- Continued training sessions (mand training) until criterion met for independent responding (100% across 3 sessions)
- Introduced across entire school day

Case Example ~ Training Sessions:

- If challenging behavior did occur reinforcement was not provided in the form of escape from task.

- This made it clear to Charlie that only the new communicative behavior would result in escape from task

Case Example ~ Training Sessions:

- We used an “escape extinction” procedure
- We worked through the behavior, we prompted Charlie to initiate or complete tasks.

Building Tolerance for Delay of Reinforcement ~ Case Example:

- Began to require 1 response before the break was given on some trials
- Began to increase waiting time by varying number of tasks to be completed before break given on some trials
- Introduced more difficult, challenging and novel tasks

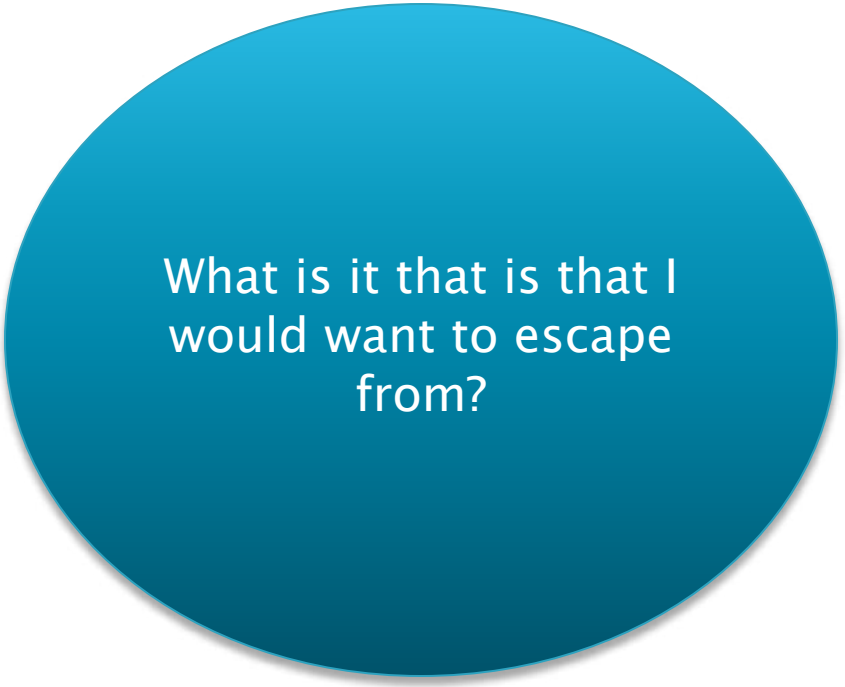
Sample ABC Data Sheet (after):

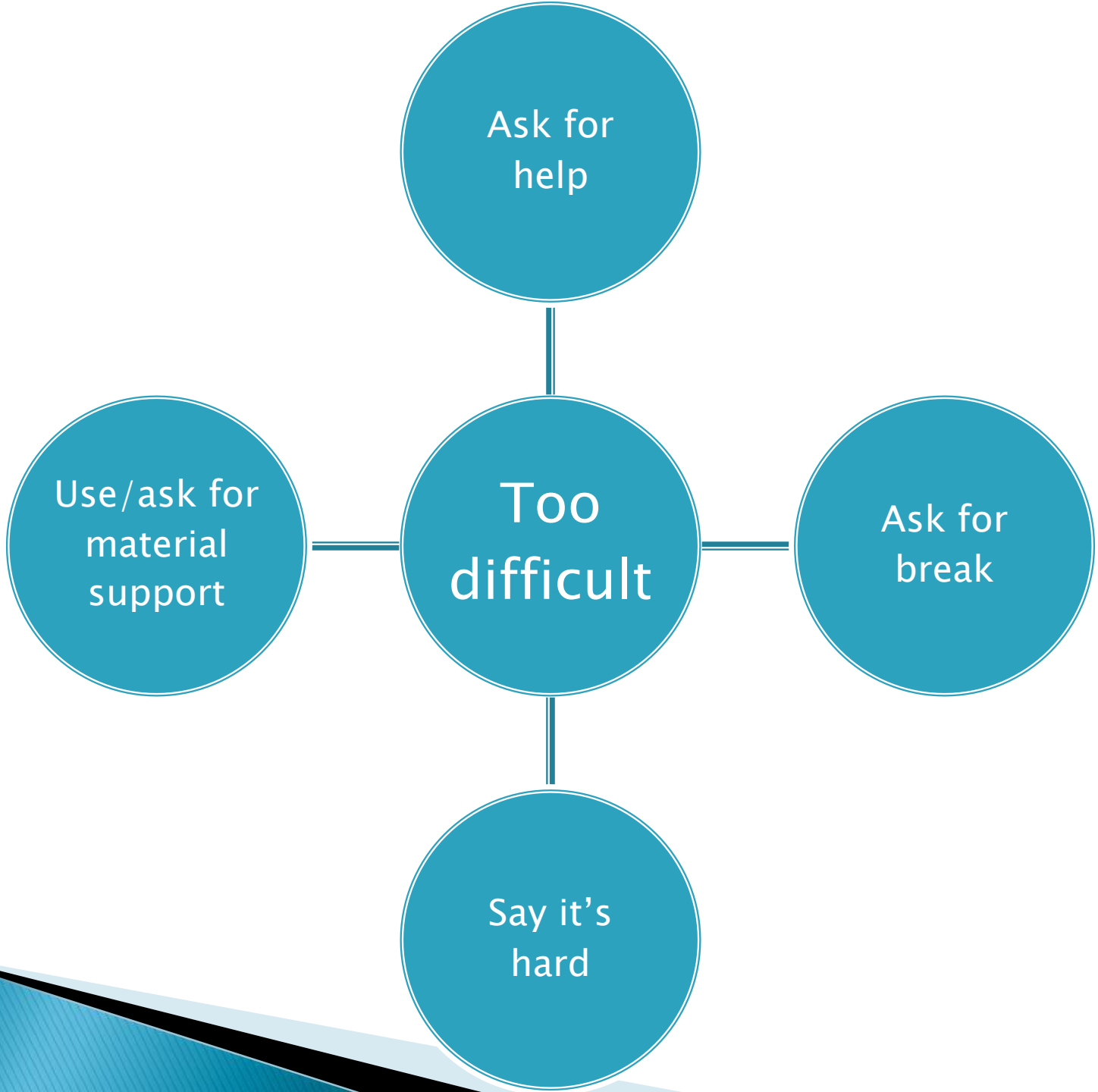
Date/Init	A	B	C
11/13 MM	I said “come sit down”	Handed me break pass	Sent to break

Matching Intervention to Function of Behavior

Escape/avoidance

- Why does the child engage in behavior to "escape" or "avoid"?
  - Too difficult
  - Too easy
  - Too boring
  - Too repetitive
  - Confusing




Ask for help
Use/ask for material support
Too difficult
Ask for break
Say it's hard

Assess often
Change the method
Too Easy
Increase the difficulty
Change materials

Attention

- Why are they looking for attention?
- Is attention diverted or shared?
- Is the type of attention being given different?
- Are they looking for attention from a particular person?
- Or a particular type of attention?
- Has the frequency or intensity of attention decreased overall? (e.g., new baby in the house?)

Teach them to ask for attention
Have child do something reinforcing
Lower levels of attention
Provide SR for waiting
Give lots of attention before this time

Tangible

- Is child grabbing at something they want?
- Are they engaging in behavior and you don't know why….and then later realize it is because they wanted something?
- Maybe you offered them something but it wasn't the right thing…red lollipop…wanted purple….

Teach child to ask for a turn
Have child learn to make another choice
Limited access to item
Provide SR for waiting
Teach turn taking

Sensory

What is the sensory maintaining variable for the behavior?

Is it possible to replace with a more appropriate way to gain the sensory stimulation? (e.g., jumping on trampoline, playing with viewmaster, kaleidoscope)

Give lots of movement breaks
Use large ball for child to sit on
Child jumping
Teach to dance with music
Use trampoline

Resource: Function Wheels

https://difflearn.com/pages/search-results-page?q=function+wheel

Keep in Touch

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