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**Understanding Why and How Behavior Changes: How to Support Success in Different Settings**



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**A Little About Me!**

  
  


**E**ducation

- BS in Communication Sciences and Disorders (OU)
- M.Ed. Master of Education with specialization in Special Education(NCU)

**C**ertification:

- BCBA (Board Certified Behavior Analyst)

**F**amily Life

- Wife and Mom of 2 girls (3 ½ and 1 year old)

**E**xperience:

- Worked in the field for over a decade in home, school, and center based services
- Some of my expertise : functional communication, reduction of problem behavior, functional assessment, parent training, etc.



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**What are we going to cover today?**

- ❖ Characteristics of autism?
- ❖ Why is ABA effective?
- ❖ How do we create motivation?
- ❖ Why is pairing, reinforcement and instructional control important?
- ❖ How do we change behavior?
- ❖ What is the cause or function of the behavior?
- ❖ How to create an effective behavior intervention plan?
- ❖ How to implement a behavior intervention plan in different settings.





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**Autism Characteristics from the DSM-5:** Core deficits in the areas of social skills, restrictive interests and repetitive behaviors, and communication difficulties.



ASD Level 1  
Requiring Support

ASD Level 2  
Requiring Substantial Support

ASD Level 3  
Requiring Very Substantial Support



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**Autism is Treatable**

- Applied Behavior Analysis (ABA): Empirically validated approach to the education of individuals with autism
- Thirty years of research demonstrated the efficacy of applied behavioral methods in reducing inappropriate behavior and in increasing communication, learning, and appropriate social behavior<sup>®</sup> (Surgeon General's Report, 1999)
- 550 studies published in scientific journals showing the effectiveness of behavior analytic procedures with persons with autism.



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**What is ABA?**

- The Science of ABA is not only used to analyze problem behavior but can also be applied to analyze how a individual learns
- Behavior analysis is the science of learning
  - Defined: Studies environmental events that change behavior, (Baer, Wolf & Risley, 1968)



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### What is ABA?

- **Applied** : application, there is a social significance, the behavior serves a purpose
- **Behavior**: observable response that can be measured
- **Analysis**: study of behaviors, what is the functional relationship



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### Research and Contributions

- **FAMOUS STUDY: Lovas 1988**  
Applying ABA to teaching children with autism
- **VERBAL BEHAVIOR: Skinner 1957**
- **FUNCTIONAL ASSESSMENT** : Intervention based upon function of problem behavior (Dr. Brian Iwata)
- **MOTIVATIVE OPERATIONS** - Antecedent motivational variables (Dr. Jack Michael)



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### How to create Motivation? The Power of reinforcement!



Ask yourself what would you work for.....  
Would you run a marathon for a dollar or a thousand dollars ?...  
Would you keep doing something that was really difficult if punishment was the only thing available ?...



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**Use acronym VERMI to assess if your reinforcement is appropriate**

V-value  
Assess how valuable the item is to the student.... Remember that an item may lose it's value with time and effort

E-effort  
How much effort is required to be put forth by the individual for that reinforcer

R-rate  
At what rate are you reinforcing? Sometimes after just one positive response... sometimes consider a variable ratio of reinforcement

M-magnitude  
How much of that reinforcer will you give the individual for the task at hand? The individual may be much more motivated to work for a 5-10 minutes of a movie rather than a 30 second clip.

I-immediacy  
How quickly will you deliver the reinforcer to the individual upon completion of the task? Remember that the item may lose its value if the effort is too high.



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**Pairing, Reinforcement and Instructional Control**

A positive functional relationship should begin with pairing and rapport building. Even if you already know the individual, you shouldn't immediately jump into giving demands. Pairing is how we establish instructional control, build trust, and connect ourselves to reinforcement (eventually becoming a reinforcer), and get to know the individual's interests. Skipping the pairing process can cause problem behaviors to increase, kill instructional control, and impair the relationship.

Parent vs. Teacher vs. Clinician



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**Changing Behavior** (positively or negatively) is a scientific process which is verified by data. Behaviors are defined in measurable, observable terms that allow two people to agree on whether the behavior occurred or did not occur. We monitor daily progress and then conduct additional assessments as needed.



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### Understanding Why/Function

Antecedent	Behavior	Consequence
Event that occurs prior to behavior	Observable Response	Event occurs as a result of Behavior



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### The four main functions that maintain behaviors are:

- ♦ **Escape/Avoidance:** The individual engages in a behavior in order to get out of doing something he/she does not want to do.
- ♦ **Attention Seeking:** The individual engages in a behavior to get focused attention from parents, teachers, siblings, peers, or other people that are around them.
- ♦ **Seeking Access to Materials:** The individual engages in a behavior in order to get a preferred item or participate in an enjoyable activity.
- ♦ **Sensory Stimulation:** The individual engages in a specific behavior because it feels good to them.



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### What do you do after you identify the function?

- ♦ Once you have identified what function or functions maintaining the behavior, you can start to implement an intervention that will help decrease the problem behavior and increase more appropriate behaviors. Behavioral interventions should be written and followed by teachers, staff, and parents for maximum improvement. For greater success it is important to have a qualified professional write all the behavior intervention plans.

**Tip:**

- Praise and reinforce student for appropriate behavior (i.e. sitting in chair, staying quiet, raising hand)
- Assess the students VERMI when the problem behavior is occurring and see if the level of reinforcement needs to be modified
- Extinguish unwanted behaviors by not reinforcing them



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**We are all Behavior Analysts!!**

**Lets practice a few scenarios and try to guess the function.....**

- ▶ 1) Teacher /parent is talking to another child and another child/sibling starts screaming ( function is \_\_\_\_\_)
- ▶ 2) The teacher/parent starts asking the student to start working on some work and he/she starts playing with his fingers ( function is \_\_\_\_\_)
- ▶ 3) A child throws his cup on the floor when his water cup is empty (function is \_\_\_\_\_)
- ▶ 4) A child is sitting alone while parent/teacher is busy so they start hitting their head (function is \_\_\_\_\_)



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**Addressing Problem Behaviors**

- ▶ Focus on Antecedent strategies, consequence precursor behavior and aligning home and school.
- ▶ Address Precursor Problem Behavior (the idea is to catch the behavior before it escalates.)



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**What to implement for Success?**

- Teach Leisure Activities for independence
- Teach Communication (Sign, PEC's, Aug Com)
- Promise Procedure for appropriate behavior
- Token system for appropriate behavior
- Practice Compliance, Transitions and Accepting "no"



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### Keys to help make you successful

- 1) Meet the individual where they are
- 1) Do what is doable for you as the parent/teacher/or clinician
- 1) Don't make promises or consequences that you cannot keep



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### How to Apply ABC to your Life

<b>Antecedent</b>	<b>Behavior</b>	<b>Consequence</b>
		



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### Why do you need to introduce a behavior intervention plan?

There is a behavior you would like to reduce:

- scream
- cry
- whine
- aggression



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**Step 1: Define the Topography of the behavior**

What does it look like?

Example: hit, kick, elope, scream, bite

Non example: tantrum, got mad, had a fit



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**Step 2: Analyze why the behavior is occurring**

How do you do this?  
Look at what antecedents and consequences maintain the behavior...

- Functional Analysis
- Functional Assessment
- Find the patterns of behavior



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**Step 3: Find out what the individual is motivated by**

- Do a preference assessment to see what the individual likes
- We all need to be motivated by "money" to get us to do something we would rather not do
- Find a replacement behavior that meets the same desired outcome



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### Step 4: Introduce the ABC method

**A:** manipulate the **antecedent**, change environment or stimulus to evoke appropriate behavior (teaching, practice, priming)

**B:** **behavior** occurs (could be inappropriate or appropriate)

**C:** manipulate the **consequence**, (reinforcement of appropriate behavior **increases** the likelihood that it will continue to happen, and removing reinforcement for inappropriate behaviors will **decrease** the future likelihood that they will occur)





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### Example: Behavior Intervention Plan

Condition/What is Happening Before	Behavior	Function	Antecedent Intervention	Consequence Intervention
<p>When _____</p> <ul style="list-style-type: none"> <li>Is given a verbal directive</li> <li>Is expected to engage in a novel experience or task</li> <li>Wants to terminate an activity</li> </ul>	<ul style="list-style-type: none"> <li>Scream</li> <li>Verbal Protest</li> <li>Aggression</li> <li>Cry/wine</li> </ul>	<ul style="list-style-type: none"> <li>Socially Mediated Negative</li> </ul>	<ul style="list-style-type: none"> <li>Utilize a reinforcement contingency</li> <li>Show increase demands (80%) and difficult tasks (20%)</li> </ul>	<ul style="list-style-type: none"> <li>Block demand</li> <li>Follow-through with original instruction (escape extinction)</li> <li>Prompt an alternative and acceptable protest such as "in a minute please"</li> <li>Differential Reinforcement of appropriate behavior</li> </ul>
<p>When _____</p> <ul style="list-style-type: none"> <li>Wants access to preferred item/activity</li> <li>Is denied access to preferred item/activity</li> </ul>	<ul style="list-style-type: none"> <li>Scream</li> <li>Verbal Protest</li> <li>Aggression</li> <li>Cry/wine</li> </ul>	<ul style="list-style-type: none"> <li>Socially Mediated Positive</li> </ul>	<ul style="list-style-type: none"> <li>Provide an environment that incorporates a reinforcing contingency</li> <li>Establish reinforcement contingency</li> <li>Contrive and reinforce alternative responses</li> </ul>	<ul style="list-style-type: none"> <li>Prompt alternative socially acceptable communicative responses</li> <li>Restrict access to preferred item/activity until an appropriate response is made of manipulative behavior is established</li> </ul>
<p>When _____</p> <ul style="list-style-type: none"> <li>Is not engaged in functional activities</li> </ul>	<ul style="list-style-type: none"> <li>RRB</li> </ul>	<ul style="list-style-type: none"> <li>Automatic</li> </ul>	<ul style="list-style-type: none"> <li>Provide an environment that incorporates a reinforcing contingency</li> <li>Contrive and reinforce alternative socially acceptable communicative responses</li> <li>Observe and prevent solitary engagement in RRB for longer than 5 minute durations.</li> </ul>	<ul style="list-style-type: none"> <li>Prompt participation in an alternate activity</li> <li>Intercept verbal RRB with random questions and/or instructions to actively alternate</li> </ul>




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### TAKE DATA!!!

A	B	C
Location: Time: Activity: What Happened:	Behaviors Observed:	What did you do:
Location: Time: Activity: What Happened:	Behaviors Observed:	What did you do:




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### Reminders and Takeaways...

- Be Consistent
- Focus on the function of the behavior
- Make sure you have something that is actually reinforcing and continue to assess motivation
- Use Antecedent intervention (i.e., priming and prompting, not bribing)
- Take data to make sure behavior is changing in the direction you want it to go, and for you own sanity!



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### Questions?!



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Thank you from all of us at



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