

# Autism Awareness Series:

## Fundamentals & Basics of Applied Behavior Analysis (ABA)

Presented by:



**Minnesota Behavioral Specialists**  
Helping Children with Autism Succeed

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# Get to know us!



- ▶ How did we find ourselves in this field?
- ▶ What do we love about it?



# This series will include:

- ▶ Description of what ABA is
- ▶ How ABA services are started
- ▶ Fundamental techniques that are included within ABA
- ▶ How behavior influences what is being taught
- ▶ Time for questions!



# What is ABA?

Applied Behavior Analysis (ABA) is a type of therapy!

ABA is based on the science of learning and behavior.

ABA helps us understand:

- How an individual learns.
- Why an individual may respond or act in the way that they do.
- How an individual's responses may be affected by their environment or others around them.
- How to take the information we have learned to increase behaviors that we want to develop and decrease behaviors that we do not want to keep happening.

**Q:** What are examples of behaviors we may want to develop?  
What are examples of behaviors we may not want to occur?



# What is ABA?

ABA is evidence-based. This means that ABA has passed a series of scientific tests proving it to be an effective form of therapy.

Each provider may utilize ABA uniquely to them and based on the individuals they serve.

ABA is a highly individualized and flexible therapy. There is no one-size-fits-all therapy plan and adjusts based on the changing or growing needs of the individual.

ABA can be provided in many different locations, such as at home, in a facility specific to that form of therapy, in a community setting, or at an individual's school or work.

Anyone of any age or ability can participate in ABA therapy. The most common and highly researched population using this therapy are individuals with Autism Spectrum Disorder.



# How are ABA services started?

- ▶ An individual may be referred for ABA therapy by a school professional, their doctor, a different therapy provider, case manager, their parents, or even themselves.
- ▶ When referred, typically, a team of professionals will review the individual's needs and priorities and then recommend for further assessment if appropriate.
- ▶ An individual would then typically go through an initial assessment process for the team to learn more about their abilities and behaviors regarding the specific areas of concern.
  - ▶ This may include formal assessment tools, interviews, review of records, and observations of the individual.
- ▶ At the end of the assessment, the individual would be provided with a recommendation for how often to participate in ABA and any other referrals needed.



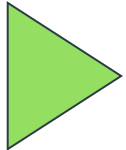
# How are ABA services started?



After completing the initial assessment, an Individualized Treatment Plan (ITP) is developed.



This includes specific goals of behaviors to develop or decrease based on what was found to be a priority and of high importance by all team members, especially the individual and/or their guardian.



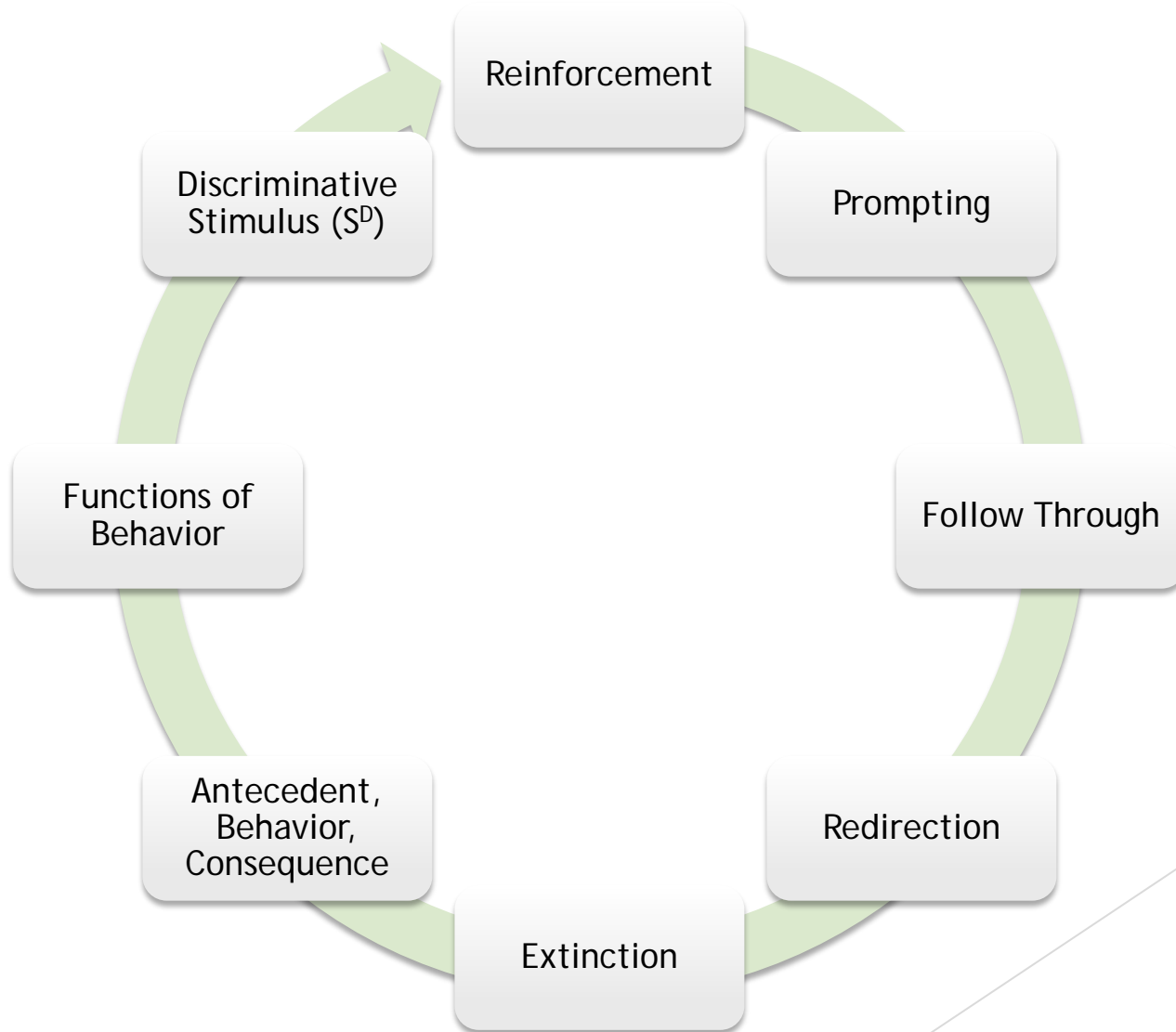
With an assessment and treatment plan, ABA Therapy is typically set to begin.



ABA Therapists then focus each session on using ABA techniques to teach the goals specified in the individual's treatment plan.



# Fundamental ABA Terms & Techniques





# Reinforcement

- ▶ Reinforcement is defined as a consequence which increases and strengthens a behavior. Reinforcement is not only effective, but essential in changing behavior.
- ▶ Reinforcement can be:
  - ▶ Items
    - ▶ Toys, screentime, treat
  - ▶ Activities
    - ▶ Going to the zoo, going for a walk, going out to eat
  - ▶ Attention
    - ▶ Getting hugs, high 5's, compliments
  - ▶ Avoiding or escaping a task or instruction
    - ▶ Not having to do the expected task or activity



# Reinforcement

- ▶ Effective Reinforcement is:
  - ▶ Immediate
    - ▶ Within 2 seconds
  - ▶ Contingent
    - ▶ Based upon completing a task or instruction
  - ▶ Differential
    - ▶ Level of reinforcement is dependent on the effort put into the task
- ▶ Reinforcement Assessment
  - ▶ Helps to understand what is motivating to the individual at that moment.
  - ▶ Conducted frequently to assess ever-changing interests.

**Q:** What can you do if you cannot identify a reinforcer for that individual?



# Prompting

- ▶ Prompting is help or assistance given to teach a new task or re-teach a previously learned task.
- ▶ Types of prompts:
  - ▶ Hand over/under hand
  - ▶ Partial physical prompting
  - ▶ Modeling - in-person or video
  - ▶ Gestural
  - ▶ Positional
  - ▶ Verbal
  - ▶ Visual - picture or written words
  - ▶ Inadvertent - natural comment or eye gaze
- ▶ Prompting strategies will vary dependent on what the individual already knows and what they still need to learn how to do.



# Prompting

- ▶ Additional types of prompting:
  - ▶ Proactive prompting - planned prompting that occurs prior to individual attempting a response.
  - ▶ Reactive Prompting - prompting that occurs as a result of the individual erroring on the task.
- ▶ Best way to use prompting to teach a skill:
  - ▶ Errorless learning/prompting - proactively providing the least-needed prompt for the individual to maintain success with the expected task, while fading away the prompt until the individual is able to complete the task on their own without errors.

**Q:** What if an individual does not seem to be independent with the certain skill or keeps doing it wrong every so often?



# Follow Through

- ▶ Follow through is a strategy that helps teach a child that when an expectation is provided, there is importance and value in completing that expectation.
  - ▶ There may be expectations or instructions provided that are very important to keep the child safe, to help a child learn a new task, or even help them to achieve what they really want.
  - ▶ Without follow through of the expectation, a child will be less likely to understand the why it is needed to follow instructions provided by adults and may be placed in more unsafe scenarios, less learned opportunities, and less chances to gain what they want.
- ▶ Follow through typically is most successful if all individuals involved in a child's care follow through with the same expectations that are provided.



# Follow Through

## ▶ Tips for Follow Through

- ▶ Once an instruction is provided, typically the child should begin to respond within about 2-5 seconds.
  - ▶ What happens if a child does not respond?
- ▶ Using a strategy like behavioral momentum can be helpful to get back to a state where follow through is successful.
  - ▶ What could this look like?
- ▶ “First, Then” is a great way to set up an instruction paired with reinforcement and then follow through with it.
  - ▶ What are some examples of “First/Then”?



# Redirection

- ▶ Redirection is a strategy that helps “reroute” a child to a more appropriate activity or response.
- ▶ Redirection is most often used once a child begins to engage, or shows signs of beginning to engage, in an action that is unwanted.
- ▶ Examples:
  - ▶ Unwanted action: Drawing on the walls
    - ▶ Redirection: Moving child to a table with available paper
  - ▶ Unwanted action: Screaming “no!”
    - ▶ Redirection: Helping the child say what they do want instead
  - ▶ Unwanted action: Pulling an adult’s hair to get them to look
    - ▶ Redirection: Replacing child’s hand on the adult’s shoulder to tap for attention



# Extinction

- ▶ Extinction is another strategy that can be used in response to behaviors. This can be used in addition to previously mentioned strategies, such as follow through and redirection.
- ▶ Extinction is a strategy that is intended to provide no reinforcement to a behavior that one would not want to be continued.
  - ▶ What are behaviors that we wouldn't want to continue?
- ▶ Extinction can look a variety of different ways based on why that behavior is occurring.
  - ▶ The main aspects of extinction that can be the same across all behaviors are that the person responding to the behavior has:
    - ▶ A neutral expression
    - ▶ A neutral tone of voice
    - ▶ Does not directly comment on the unwanted behavior, such as "No throwing!" or "You need to sit back down!"
- ▶ It is important to know that extinction is **NOT** ignoring the child or the unwanted behavior, but it is rather just not providing reinforcement to the behavior.





# Antecedent, Behavior, Consequence

- ▶ Antecedent, Behavior, Consequence is a way to document forms of unwanted behavior and analyze why they may be happening.
  - ▶ Understanding why behaviors are happening will help to identify the appropriate response to change or modify the behavior.
- ▶ Antecedent: What happened right before the behavior?
- ▶ Behavior: What did the behavior look like that was unwanted?
- ▶ Consequence: What was the response to the behavior?



# Functions of Behavior

## Sensory/Self Stimulation

- Tapping fingers on a desk, humming, or twirling a lock of hair are examples of **self-stimulatory behaviors**. We all tend to engage in self stimulatory behaviors during our day but have found strategies and understand the importance of controlling these when needed.

## Escape Motivated

- **Escape-motivated behavior** occurs when a student attempts to avoid a task, demand, situation, or person. For example, when Ken asked to use the bathroom each day during individual writing time. Or when kids argue to get out of doing an activity that makes them anxious.

## Tangible

- **Tangible** items include items you can hold/touch such as food, toys, computer time, turn at a game, etc. For example, a child pinches a friend and as a result gets the toy that they were playing with. You child has now learned that pinching is power, and they will most likely attempt to pinch people to get things more often.

## Attention Seeking/Social Positive Reinforcement

- **Attention seeking behavior** is to act in a way that is likely to get **attention**, either to gain praise or to get negative attention. For example, When Earl threw a spit balls on the floor and wall the teacher removed the attention that was on the full class and instead gave full attending to Earl.



# Strategies to Reduce Challenging Behaviors

- ▶ ▶ Behaviors may have multiple functions. Behaviors often get worse before they get better. Be patient and consistent.
- ▶ ▶ It is necessary to gather data on what happened before the challenging behavior, what the behavior looked like and what happened after to determine why the child is engaging in the challenging behavior.
- ▶ ▶ Then a behavior reduction plan is created based upon the function of the behavior.
- ▶ ▶ The goal is to not give the child what they are seeking while engaging in engaging in the challenging behavior because that would reinforce (and therefore increase) the challenging behavior.
- ▶ ▶ For example: If a challenging behavior is to gain attention, then the behavior plan will be to not give attention to the behavior.
- ▶ ▶ We also want to find a replacement behavior that is more desirable and reinforce the replacement behavior.
- ▶ ▶ For example: if the behavior is to gain attention, we want to teach the child to request attention and to wait for attention.
- ▶ ▶ Understanding the function of the behavior helps us to decrease the problem behaviors and increase appropriate or desired behaviors.



# Discriminative Stimulus (S<sup>D</sup>):

- ▶ The request/instruction or event that signals what behavior should occur.
- ▶ Instructions should be clear and stated in the term level that your child can understand.
  - ▶ Ex. “Bag on Table” vs. “put on”
- ▶ In most cases an SD should be a statement, not a question.
- ▶ An SD can be a non-verbal instruction as well.
  - ▶ Ex. Handing a child a puzzle for them to put together
- ▶ Gaining attending is extremely important prior to presenting gaining Establish attending with the child before you deliver the SD.



# Teaching Methods

## Discrete Trial Teaching (DTT)

- It is a highly structured teaching technique.
- Breaking interactions into small units/steps.
- SD → prompt → response → consequence (reinforcement)
- Repeating this sequence to effectively teach the child a new skill.

## Natural Environment Teaching (NET)

- When skills are worked on in the context in which they naturally occur - Bringing skills learned in the DTT to the real world.
- It is okay to set up contrived learning opportunities in the natural environment.
  - Park, store, doctor, dentist, mall, parking lots

## Incidental Teaching

- Taking advantage of opportunities that arise in the natural environment to teach a skill. These are not planned or structured learning opportunities.





## Where can I learn more?

- ▶ [www.mn.gov/autism](http://www.mn.gov/autism)
- ▶ [www.casproviders.org/about-aba-for-consumers](http://www.casproviders.org/about-aba-for-consumers)
- ▶ [www.casproviders.org/about-aba-for-providers](http://www.casproviders.org/about-aba-for-providers)
- ▶ [www.autismspeaks.com/resource-guide](http://www.autismspeaks.com/resource-guide)
- ▶ [www.mnaba.org](http://www.mnaba.org)
- ▶ [www.bacb.com/about-behavior-analysis/#ABAFactSheets](http://www.bacb.com/about-behavior-analysis/#ABAFactSheets)

Questions?