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Effective Approaches to Reduce and Replace Challenging Behaviors

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October 13, 2017

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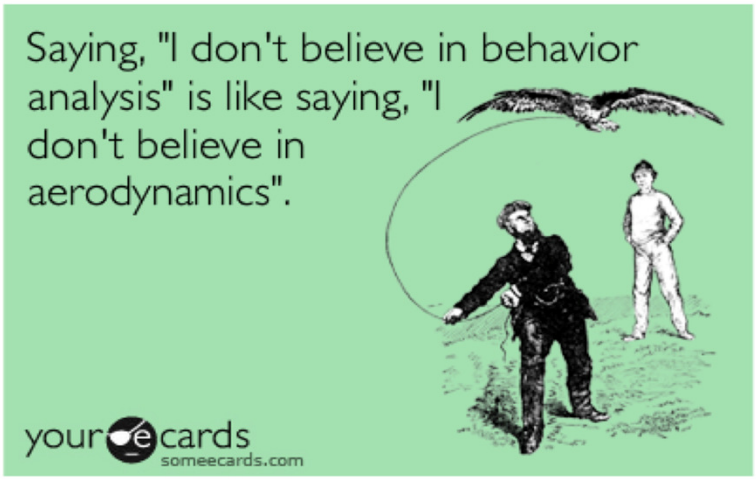
What is ABA

- Developed from research conducted by behavior scientist B.F. Skinner
- Studies the environment and its relationship to behaviors
- Uses that knowledge to change and shape behaviors

ABA is…

- How everyone learns
- A step-by-step building of skills
- A structured methodology for changing existing behaviors and teaching new behaviors
- Uses reinforcement to increase the occurrence of behaviors and punishment to decrease the occurrence of behaviors
- Uses prompting to create positive practice



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ABA Strategies

- Discrete Trial Training
- Shaping
- Prompting
- Errorless Teaching
- Task Analyses
- Token Economies
- Functional Communication Training
- **It is structured, evidence-based, data driven and widely applicable across settings and environments.**

Terminology

- Reinforcement:
  - The event that occurs **IMMEDIATELY** following a behavior that **INCREASES** the future occurrence of that behavior

Terminology

- Reinforcement:

Positive Reinforcement: Light Switch

Before	Behaviour	After
darkness	Press light switch	Light present

Drying Wet Hands

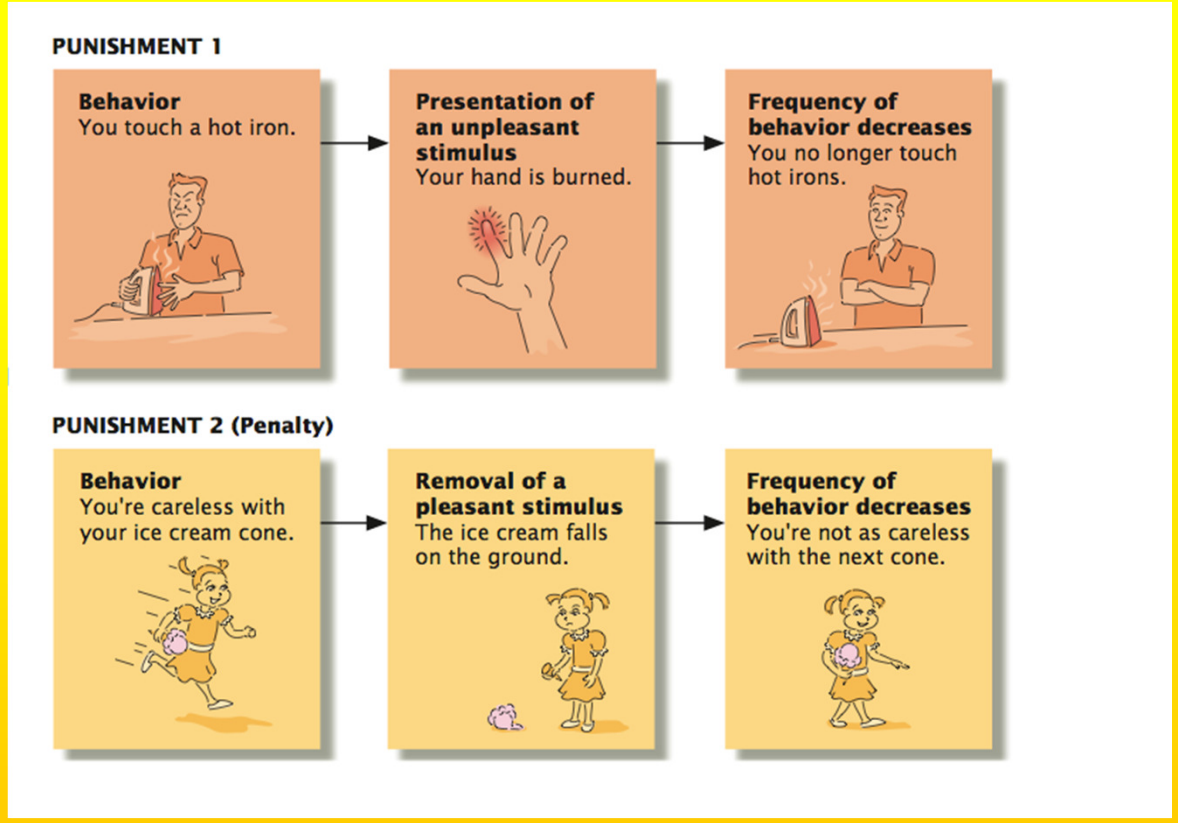
Before	Behaviour	After
Wet hands	Rub hands in a towel	Water gone from hands

Terminology

- Punishment:
  - The event that occurs **IMMEDIATELY** following a behavior that **DECREASES** the future occurrence of that behavior

Terminology

- Punishment:



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Myth Busters

The National Autism Network lists the following 10 myths about ABA:

1. ABA is not a scientifically proven form of therapy for autism
2. ABA therapy is a new treatment for autism
3. All ABA programs are the same

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Myth Busters

4. ABA is composed of solely table work/sitting
5. ABA therapy is only for children with autism
6. ABA therapy promotes robotic language/behavior
7. Anybody can direct an ABA treatment program

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Myth Busters

8. Children must undergo 40-hours of ABA therapy a week to achieve a positive effect
9. ABA programs institute punishment in their teaching procedures
10. ABA uses bribes consisting of food and toys to manipulate children's behavior

http://nationalautismnetwork.com, Retrieved 10.10.2017

Terminology

- Behavior:
  - An organism's interaction with its environment
    - an observable, measurable movement of some part of the body through space and time.
  - Dead man's test:
    - Can a dead man do it?
      - If he can, then it is NOT a behavior. Can a dead man lay still? Yes. Can a dead man *be quiet*? Yes. Can a dead man *not pay attention*? Yes.
      - If he can't, then it IS a behavior. Can a dead man get out of his seat? No. Can a dead man talk? No. Can a dead man engage in off task behavior (talking out, looking around the room, fidgeting with objects)? No.

What is problem behavior?
Is the behavior a problem?

Note:

If the behavior is serious or harmful, consult with a behavior analyst before implementing an intervention for behavior reduction.

Go to www.bacb.com to find a behavior analyst.

Houston, We Have a Problem

Behavior can be considered a problem if:

- It limits the person's access to reinforcers, or the things the person enjoys
- It interferes with learning new things
- It limits the person's interaction with peers or family
- It limits the family from enjoying things together

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We have a problem… now what?

One of the first steps to addressing challenging behaviors is to ensure that you have identified a specific, observable, and measurable behavior.

What do these mean?

- Not being a good listener
- Hyperactive
- Out of control

The Incident Method

- The Incident method is an interview procedure that allows us to pinpoint a specific observable behavior.

- By asking a series of questions the interviewer can go from
- Not being a good listener ---------->

We have a specific, observable, and measurable behavior…

- Now we need to collect baseline data to determine how often the behavior is occurring.

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Data Collection

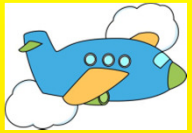
- Three term contingency
  - ABC Data (Antecedent, Behavior, Consequence
- Frequency
- Latency
- Duration
- Partial-Interval

Terminology

- Antecedent:
  - An event that occurs immediately PRIOR to the behavior

ANTECEDENT
Child swinging at the park, and a plane flies over

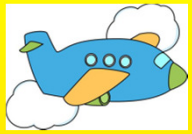
BEHAVIOR
Child is crying



Terminology

- Consequence:
  - An event that occurs immediately AFTER to the behavior

BEHAVIOR
Child is crying



Consequence
Plane leaves, and child is happy again

A-B-C Data

- Anecdotal Observation:
  - Continuous observation, in which the observer records a descriptive account of the antecedent, behavior, and consequence as those events occur in the client's natural environment
  - Questions to ask myself:
    - What happened right before the behavior?
    - What was the behavior?
    - What happened right after the behavior?

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Frequency

- Count/Rate:
  - Count per standard unit of time (min, hour, day)
  - Question to ask myself:
    - How many times did the behavior occur?
    - Ex: How many times a child/student screamed during the day

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Duration

- Measuring the total extent of time in which the behavior occurs
- Question to ask myself:
  - How long did the behavior occur?
  - Ex: For how long a child/student screamed throughout the day

Latency

- The elapsed time between the antecedent and the initiation of a response
- Question to ask myself:
  - How long did it take between the directive and the response?
  - Ex: How long after you told the child/student to be quiet, that they stopped screaming

Partial Interval

- When the observation period is divided into a series of brief time intervals (30 seconds, 1 minute, 5 minutes). The observer recorders whether the behavior occurred at any point during the interval.
- Question to ask myself:
  - Did the behavior occur during the interval?
  - Ex: Whether or not a child/student screamed during each session

Terminology

- Functions of Behavior:
  - The purposes a problem behavior serves for a person
    - Automatic (sensory)
    - Escape
    - Attention
    - (access to) Tangibles

Functions of Behavior: Attention

- When an individual engages in problem behavior, they often receive attention
- Direct Attention: verbal reprimand, attempts to soothe or distract, etc.
- Indirect Attention: a startle response, a quick glance, etc.
- When the individual receives attention after a problem behavior, it may increase the likelihood that the problem behavior occurs in the future under similar circumstances.

Example of Problem Behavior Reinforced by Attention

Example:

- There are a large number of students in one classroom with one teacher. The teacher is not able to give students a lot of 1:1 attention. Tim notices that when he throws something across the room, the teacher walks over to his desk and reprimands him. Timmy likes this attention. Next time when the teacher is occupied, he may throw something across the room again because he knows in the past the teacher will come to his desk and speak with him.

Functions of Behavior: Tangibles

- When an individual engages in problem behavior, they may receive access to reinforcing objects.
- These problem behaviors can be reinforced (become more likely to happen), if in the past engaging in the behavior resulted in the gaining access to a desirable item.

Example of Problem Behavior Reinforced by Access to Tangibles

Example:

- Upon arriving home from school, Sue asks her dad if she can watch TV. Dad replies, “not until you finish your chores.” Sue then begins to hit and kick dad. Dad allows Sue to watch TV before she completes her chores. Next time Sue comes home from school and dad tells her she cannot watch TV until her chores are finished, she is more likely to hit and kick dad because in the past dad then let her watch TV.

Functions of Behavior: Automatic

- Some behaviors are reinforcing on their own. These behaviors do not depend on the actions or presence of others.

Example of Problem Behavior Automatically Reinforced

Example:

- Having an itch and scratching your skin. Scratching your skin rids you of the itch. Therefore, the next time you have an itch you will be more likely to scratch to rid yourself of that itch.

Functions of Behavior: Escape

- Sometimes when an individual engages in challenging behavior it postpones or terminates an aversive event.

Example of Problem Behavior Reinforced by Escape

Example:

- An individual may hit a teacher when work is placed in front of him. This results in the teacher removing that work and giving the student a break. Now, when the student is presented with a task he or she does not want to complete, the student will be more likely to hit the teacher because in the past, the teacher removed the work.

Terminology

- Proactive Strategy:
  - When the ***antecedent*** is changed to:
    - reduce the likelihood of the challenging behavior

      or
    - increase the likelihood of a wanted behavior

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Proactive/Antecedent Strategies

What can we do for the student before the behavior is taking place?

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Classroom Checklist

- Whenever a challenging behavior is occurring, this checklist is a good place to start.

Classroom Checklist

- Is the environment optimal for learning?
- Does the student have an effective way to communicate?
- Depending on the age of the student, are there enough opportunities for movement?
- Are the materials clearly presented in an appropriate format?
- Are the expectations for the student clear?
- Are the expectations appropriate?
- Is the reinforcement effective?

Can't do or Won't do?

- When the child is not following directions (non-compliance)
  - Is the problem behavior due to a skill deficit or a lack of motivation?
- **Teach** the skill by
  - Modeling to the child, then providing support until the skill is learned
- **Motivate** the child by giving access to preferred activities only after task is completed
  - 'First-Then' rule or 'Grandma's Rule'

Replacement Behaviors

A replacement behavior can be an alternative behavior that is taught, or a behavior already in your student's repertoire that serves the same function as the challenging behavior.

- Just remember that when introducing a replacement behavior, you MUST be reinforcing the new or alternative behavior.
- Example: Rip Box

Functional Communication Training

FCT is a replacement behavior (alternative behavior) that focusses on communication. The student/child can be taught to use a visual or verbal communication to get need met instead of engaging in challenging behaviors.

- A student can be reinforced to ask for help instead of having a meltdown when challenged.
- A student can use a break card when they necessitate a break from their work instead etc.

Group Contingencies

Great way to promote positive behaviors and reduce challenging behaviors within a classroom or home environment.

(Example: Good Behavior Game)

*Remember like all reinforcement, it must start out immediate and meaningful.

Terminology

- Reactive Strategies:
  - When the ***consequence*** is changed to:
    - reduce the likelihood of the challenging behavior

      or
    - increase the likelihood of a wanted behavior

Consequence/Reactive Strategies

Today's Goal:

- Learn strategies in order to decrease problem behaviors.

How?

- Through reactive strategies and by teaching replacement behaviors that result in the same outcome.

3 Basic Principles that Alter our Behavior:

1. Reinforcement
2. Punishment
3. Extinction

Terminology

- Extinction:
  - No longer providing reinforcement for a behavior that had been previously reinforced, until the behavior no longer occurs

Extinction Examples

Function of Behavior	Extinction Procedure	Example
To gain attention	Not attending to the behavior	Learner is calling out to get the teacher's attention, and the teacher does not respond to the calls
To escape/avoid demands or interaction	Deny opportunity for escape/Teach appropriate ways to ask for help	Student throws up whenever he is asked to complete a new task to avoid the demand. The teacher continues with the task.
To gain sensory stimulation or to avoid unwanted stimulation	Interrupt and re-direct the behavior OR change the consequence so it is no longer reinforcing	Learner bangs his head on a desk so the teacher puts a soft pillow to block the reinforcing sensation
To gain tangible items	Deny access to materials	Learner screams to get time on a computer and is denied access

Environment Changes Our Behavior

- Behavior is either reinforced, punished or put on extinction by the environment around us.
  - If behavior is everything we do, how does it come about to begin with?
  - Think of a baby in a crib with a mobile above her.
  - Baby moving arms below the mobile, then
  - Makes contact with the mobile
  - Mobile moves, makes a pleasant sound
  - Baby more likely to move arms where contact with mobile can be made

Environment Changes our Behavior

In the crib example, reinforcement was provided automatically: the baby's behavior made the mobile move and play a pleasant sound. The baby's environment changed her behavior!

Let's look at how people in our environment change our behavior!

Act 1:

Grocery store: Child and dad go grocery shopping after work and daycare.

- Child asks for a cookie. Dad says nope, not before dinner.
- Child cries, falls to the floor, kicking feet.
- Dad gives child a cookie.
- Problem behavior stops: Child walks quietly, dad gets shopping done.

Problem behavior, tantrum, has been **positively reinforced,** dad's giving in to 'tantrum' has been **negatively reinforced**.

So, in the future:

- Because both the child's and the dad's behaviors have been **reinforced**…
  - Child is more likely to engage in crying and stomping to get a cookie at the store *and*
  - Dad is more likely to give in to a 'tantrum'.

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Now what???

To **decrease** a problem behavior (or any behavior, really) we can:

- Put the behavior on **extinction**
- Teach an alternative behavior
- Implement a **punishment** procedure

Important: **WE MUST ALWAYS** teach an alternative behavior that will result in the same outcome for the child as the problem behavior.

Extinction

- If we put the ‘tantrum’ behavior on extinction the procedure would look like this:
  - Child on the floor, crying, dad profoundly perspiring in his winter coat but NOT REACTING TO CRYING OR DROPPING ON THE FLOOR IN ANY WAY. Dad can engage in:
    - Reading food labels
    - Tweeting about interesting food labels etc.

This takes a lot of patience from a parent but the likelihood of the tantrum occurring in the future has now significantly dropped.

Extinction

However, not reinforcing a behavior (not providing the preferred outcome) that has been reinforced consistently in the past can have serious effects:

- If dad **ignores** the tantrum, the child may 'amp it up' (consider all the stuff on the shelves of a grocery store!)

Solution: begin the teaching of the alternative behavior in a safe place.

Teaching an Alternative Behavior

Act 2:

Grocery store: Dad and child making a quick run for one item just to practice *waiting* for the cookie (alternative behavior) and *helping dad* with groceries (incompatible behavior).

- Child asks for a cookie. Dad says "not until after dinner BUT if you can wait and help me find ketchup you can watch an extra 10 minutes of TV (reinforcement) after dinner." Shopping trip was a success and child ate the cookie after dinner and got to watch extra TV!

Reinforcement Always Works!

- Reinforcing means strengthening or increasing the likelihood that the behavior will occur more often in the future.
- So, **if** the child waits for the cookie in the future and does not engage in 'tantrum' behavior then the 10 minutes of TV reinforced waiting for cookie.
- And, **if** in the future the child continues to engage in the tantrum, the 10 minutes of TV was not reinforcing AND the waiting behavior was not reinforced.

Act 3:

Grocery store: Child asks for a cookie and dad explains (after reading up on both reinforcement and punishment):

- "Not until after dinner but if you can wait, you can watch Nickelodeon while I cook dinner"
  - This consequence intends to reinforce the alternative behavior of *waiting by offering a special TV channel contingent on waiting*
- Dad continues: "If you cannot wait and become loud then there will be no TV tonight."
  - This consequence intends to punish the 'tantrum' behavior by taking away something the child likes (response cost)

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Punishment 101

- What it ***is***: It is an immediate consequence to the behavior that **decreases** the likelihood of its future occurrence.
- What it ***isn't***: spanking, being grounded, public shaming (these procedures ***may*** punish the behavior but they ***may not*** be in the best interest of the child).

ALWAYS combine a punishment procedure with a reinforcement procedure. NEVER use punishment alone!

Punishment 101

- The dad has planned to implement
  - A **reinforcement procedure** to **increase** the future likelihood or strengthen the behavior of *waiting* for cookie (the alternative behavior) by giving the child access to a more preferred TV channel (more valuable) contingent on waiting for the cookie
  - A **punishment procedure** to **decrease** the future likelihood of 'tantrum' behavior by taking away a preferred activity contingent on problem behavior (response cost)

The Procedure

At the store again: Child keeps asking for a cookie. Dad repeats the plan about earning Nickelodeon and also losing all TV time if the child tantrums. Child drops to the floor crying. Both leave the store.

- Child does not get to watch TV that evening

Reinforcement…

- Has to '**match**' the effort that the alternative behavior requires:
  - If the problem behavior has a long reinforcement history, the new alternative behavior that the child is learning has to result in a highly preferred outcome. It has to be **valuable** to the child. It has to be **worth the effort to engage in the alternative behavior!**

Brave Dad

<u>Act 5:</u> The following day at the grocery store after implementation of both reinforcement and punishment (response cost) procedures:

- Child asks for a cookie. Dad says after dinner. Child walks with dad and grocery shopping gets done.
- Remember, punishment and reinforcement **work by definition:**
  - If the problem behavior decreases, it has been punished
  - If the alternative behavior has been learned and the likelihood of its occurrence increased, it has been reinforced

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Token System

- In a token system, behavior is reinforced with a **token** that has become reinforcing by **pairing** or **presenting it at the same time** with a reinforcing item. The token becomes a type of *promise* that something even better is on its way!
- Tokens are exchanged later with a reinforcing item
- Money is a type of token!
- Some advantages of a token system:
  - Don't have to supply a reinforcing item immediately! (This could have been useful in the grocery store!)
  - Less interference during instruction

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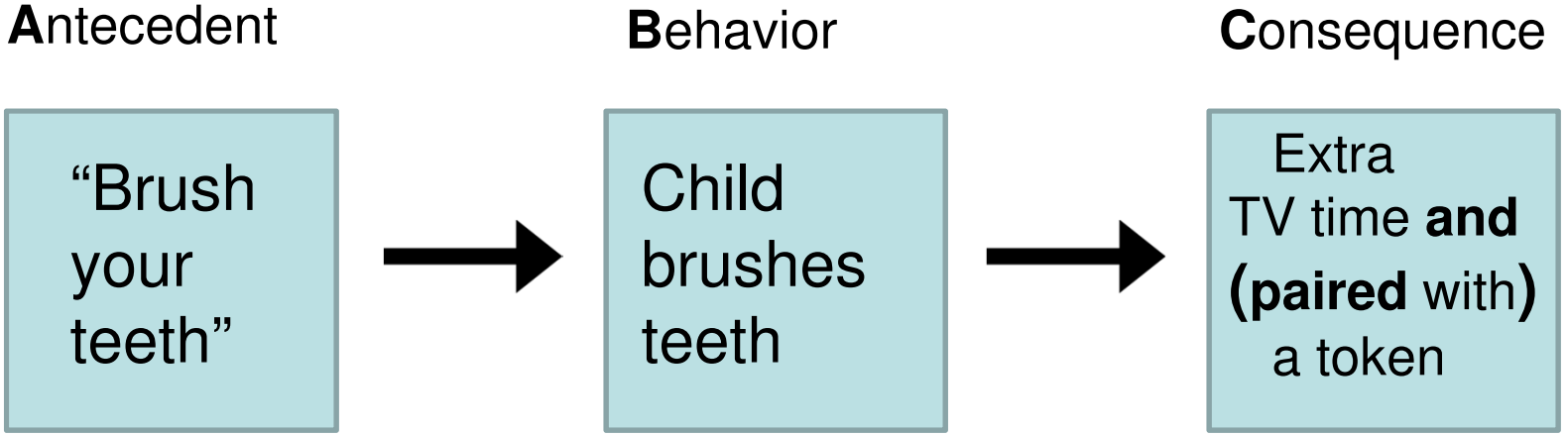
Token System

In a token system, tokens are initially paired (presented at the same time to the child) with a reinforcing item. After **successful pairing,** the **tokens** themselves **become** the **reinforcing** item for the behavior we want to increase. The child has learned that the tokens have value.

Here's how it works:



What if the Behavior Continues?

- Behavior still being reinforced: Is everyone on board with the plan? Is behavior intermittently reinforced?
    - Plan has to be a right fit for the child and manageable for the ones who implement it (training, proper resources, buy-in)
- Behavior has a long reinforcement history and is resistant to change
- Alternative behavior is not learned/not being reinforced/too much effort for the child
    - Alternative behavior may not be appropriate for the child
    - Items intended as reinforcing are not valuable to the child

Evidence Based

When an intervention for a problem behavior is recommended:

- Is there research on the effectiveness of the intervention?
  - Does the research support the application of the intervention to the particular problem behavior?
- Is the intervention the best one for the child?
- Is the intervention a good fit for the environment?
- Is data being collected on the behavior? Is data guiding the intervention?

Ethical Considerations

When planning for behavior reduction:

- **Is** the behavior a problem?
  - Does it interfere with child's learning?
  - Does it prevent the child from interacting with others?
- Consider effort of alternative behavior!
  - Ideally the alternative behavior that replaces the problem behavior should not be more effort than the problem behavior
    - Reinforce heavily when learning a new behavior
- Minimize the use of unhealthy reinforcers like candy
  - Offer a smaller amount of the reinforcer and less frequently as the new behavior is learned
  - Pair specific praise with the reinforcer

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Q & A

- Any Questions?
- Feel free to email us any questions you have as well!
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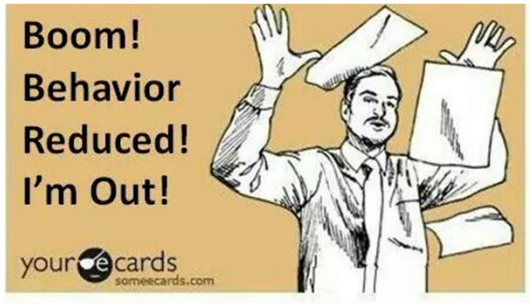

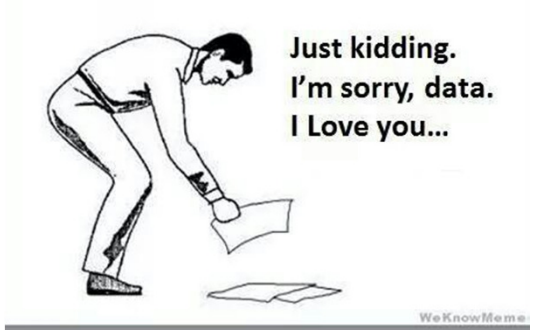

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