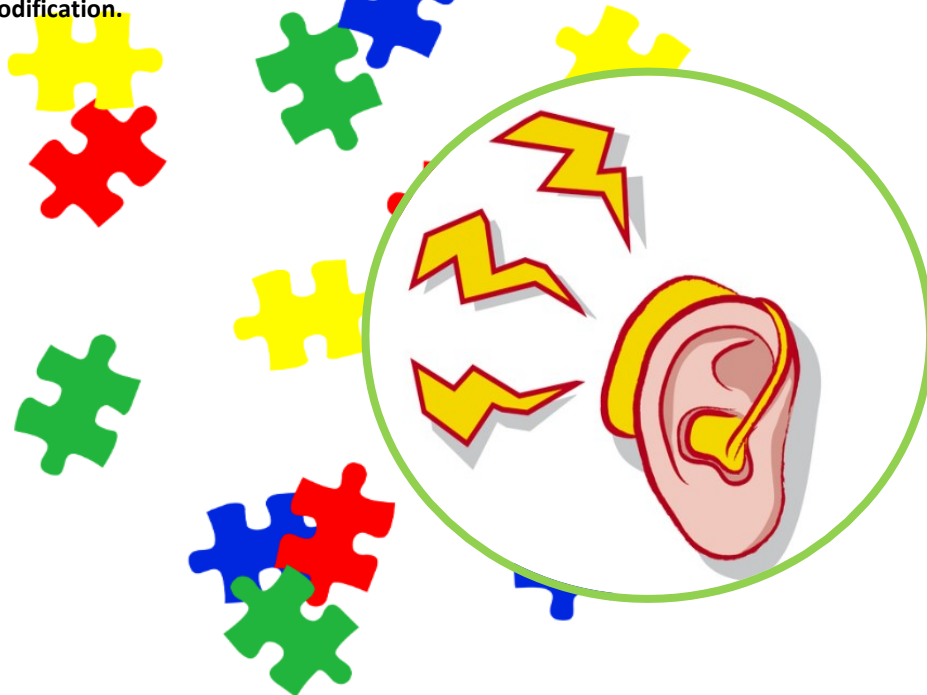


THINGS TO REMEMBER

- Make sure you determine appropriate reinforcers for the individual
- Make small attainable goals and build on them
- Phase out reinforcement slowly to avoid regression
- Do not provide positive or negative reinforcement for negative behavior – remain neutral!
- Provide reinforcement for achievement of every step/goal – no matter how small!
- **Discrete trial training** should be utilized when you have time to focus on working on hearing aid goals at home
- **Behavior momentum** should be utilized when you have limited time and want to prevent the negative behavior (refusal to use hearing aids) from occurring

IMPORTANT NOTE

This booklet is designed to provide a general overview of how to implement ABA/behavior modification strategies for individuals with the dual-diagnosis of hearing loss and ASD. These strategies are most effective when designed specifically for individuals and their unique needs. Consider consulting with a licensed BCBA therapist regarding strategies for behavior modification.



THE AUDIOLOGIST'S GUIDE TO ABA

Increasing Hearing
Aid Compliance and
Wear Time through
Behavioral
Modification
Strategies Geared
toward Parents



APPLIED BEHAVIOR ANALYSIS (ABA) STRATEGIES

Brief Overview:

ABA is the practice of evaluating behaviors and developing strategies in order to alter behavior. More specifically, the ultimate goal is to increase the occurrences of positive behaviors and decrease the occurrences of negative behaviors. ABA is a scientifically validated therapy for individuals with autism spectrum disorder (ASD). It has been found beneficial in various fields, including audiology, when implemented as part of an intervention program when working with children with ASD and other intellectual disabilities.

Hearing aid usage:

Children need to wear their hearing aids! The ultimate goal is full-time hearing aid usage during all waking hours; however, this is not always easy. The basic behavior modification strategies outlined below serve to help improve compliance for hearing aid usage, increase hearing aid wear time, and promote positivity surrounding hearing aid usage.

2 main goals regarding hearing aid usage:

1. For the individual to accept the hearing aid
2. For the individual to consistently wear the hearing aid
 - This goal may be most effectively achieved through the gradual increase of hearing aid wear time

ADDITIONAL ABA STRATEGIES FOR WHEN YOU ARE IN A HURRY

Behavioral Momentum (High-Probability Command Sequence):

This strategy increases the likelihood that the child will follow directions (tolerating putting a hearing aid on and keeping it on) because they are getting reinforced for easy behaviors first. This can decrease frustration because the child is having success, making it more likely that they will try harder with the more challenging tasks or behaviors.

How to implement:

- **Use behavioral momentum BEFORE any difficulty arises**
 - For example: If the child often refuses to put their hearing aid on before school, this strategy should be used before any negative behaviors surrounding the hearing aid are shown for the day
- **1. Identify tasks that the child can typically do with ease**
- **2. Deliver 3-5 easy requests in a row and provide social reinforcement (high-five, thumbs up, praise, etc.) after the child successfully does each task**
 - Avoid repeating the same 3-5 easy requests each time
- **3. Deliver the harder request (put on hearing aid/allow the parent to put on hearing aid) immediately after reinforcing the easy requests**
 - Provide greater reinforcer after successfully completing task (food, tickles, etc.)
- For example:
 1. "Let mommy touch knee" → praise/high five
 2. "Let mommy touch head" → praise/ high five
 3. "Let mommy put on backpack" → praise/high five
 4. "Let mommy put hearing aid on" → praise/food
- If they do not comply with the hearing aid, give additional easy requests (with reinforcement) and try again

TOKEN ECONOMIES

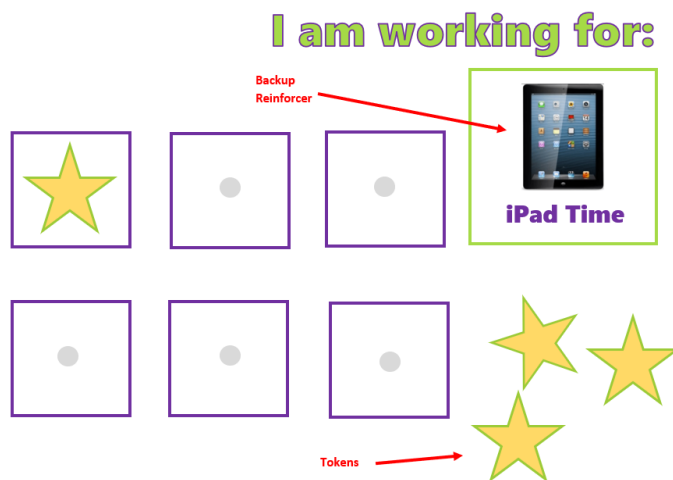
What is a Token Economy?

A token economy is a system for providing positive reinforcement by providing tokens for completing tasks or exhibiting target behaviors. These tokens can then be used as payment to obtain *backup reinforcers* (item, activity, etc. that is particularly reinforcing or enjoyable for the child)

Things to consider:

- Create a token economy chart! Token economy charts, or token boards, consist of spaces to place earned tokens and a section for a backup reinforcer or multiple backup reinforcers that the child is working toward
- The number of tokens required should be specified in advance so the child knows what they are working toward
- If there is a list of backup reinforcers to choose from, these reinforcers may all “cost” different amounts of tokens (ex: iPad time = 5 tokens, outing to the movies = 10 tokens)
- As the child becomes more willing to tolerate the hearing aid:
 - Consider increasing the number of tokens required for the backup reinforcer
 - Gradually transfer from reinforcing with tokens paired with social reinforcers to social reinforcers alone

Sample Token Board:



PROVIDING POSITIVE REINFORCEMENT: GETTING OFF ON THE RIGHT FOOT

Determining Appropriate Reinforcers: Remember that every individual responds differently and that not everything is particularly reinforcing for every child.

When choosing appropriate reinforcers consider:

- What has been particularly motivating for the child in the past
- What the child likes and dislikes
- What are things the child wants that they cannot always get
- The reinforcer should not be too extravagant (ex: a trip to Disney world is not an appropriate reinforcer for 1 day of hearing aid usage)
- The reinforcer should not be something that will significantly negatively impact the family’s routine if the child does not achieve their goal/reinforcer (ex: if withholding TV time would cause a family considerable distress, or if the family is skeptical about their ability to follow-through with withholding TV time, TV time should not be the reinforcer)

Examples of positive reinforcers: Preferred activities (ex: iPad, playing with friend, etc.), free time, food/treats, privileges, praise, tickles, high fives

- If using food/treats as reinforcers, the food can be broken up into smaller pieces to avoid any concerns regarding health/overeating (ex: if the child loves chocolate chip cookies, give them a piece of a cookie each time you are providing reinforcement)
- Praise, tickles and high fives are examples of **social reinforcers**
 - Many children with ASD do not find social consequences to be inherently rewarding so more tangible reinforcers are often needed
 - When using a tangible, non-social reinforcer, it should always be paired with a social reinforcer (ex: give praise and high fives along with a treat/food even though the food is serving as the primary reinforcer for the child at first)
 - Over time, the child will begin to find the social reinforcers rewarding and the tangible reinforcers + social reinforcers will be able to gradually transfer to social reinforcers alone (eventually you will be able to stop providing food and only provide high fives)

DISCRETE TRIAL TRAINING

What is Discrete Trial Training (DTT)?

DTT is a structured ABA technique that breaks down skills into smaller, more easily teachable components. It is a proven effective method for teaching skill development that involves consistent utilization of appropriate reinforcement to slowly build on a particular skill.

DTT and Hearing Aid Usage:

Consider consistent hearing aid usage as an overall skill. Although the general recommendation is for children with hearing loss to utilize appropriately fit amplification during all waking hours, this is not always a realistic goal for some children. For children who are constantly taking off their hearing aids and unwilling to put them back on (assuming the hearing aids are appropriately fit), DTT could be utilized to break down the ultimate goal of consistent usage into more easily achievable smaller time goals.

How to implement DTT for hearing aid wear time

Take an extended period of time during the day to focus/work on the amount of time the child will tolerate keeping the hearing aids on without trying to take them off.

Make sure you have reinforcers with you!

- Have a previously agreed upon goal for the amount of time for the child to tolerate wearing the hearing aid without trying to remove it
- When they successfully wear the hearing aids for the established amount of time provide the reinforcer and then take off the hearing aid
- Put the hearing aid back on (or have them put it back on) and repeat!
 - Should be the same amount of time and same reinforcer
- The time goal should increase **gradually**
 - For example: if the initial goal is 10 minutes of hearing aid usage, after overall success (tolerating the hearing aid for that amount of time) in 3 consecutive sessions, increase the goal to 15 minutes; once the child is able to tolerate the hearing aid for 15 minutes in 3 consecutive sessions, increase the goal to 25 minutes
- Allow the child access to typical activities during these trials (playing outside, eating dinner, etc.) **with the exception of the reinforcer they are working toward**
 - Otherwise the task/target behavior will become too challenging (ex: if the time goal is 2 hours, it is unrealistic to expect the child to sit still and do nothing for 2 hours while working toward the goal)

VISUAL TIMERS

Timers (stopwatch, phone app) provide visual reinforcement for when the child can expect to get a reward

Things to consider:

- Select an achievable amount of time
 - If they are taking the hearing aid off every 5 minutes, set the timer for every 4 minutes
- **IF: the child meets the goal → they receive the previously agreed upon reinforcer**
- **IF: the child removes the hearing aid before reaching the goal → do not reinforce behavior**
 - Do not show any attention; positive or negative
 - Remain neutral! Scolding, yelling, etc. can actually serve to reinforce the negative behavior because they are getting your attention
 - **Make sure you do not pause the timer if they take off their hearing aid—once they remove the hearing aid the time re-sets and the child should see that they are now starting over**
 - Wait 1-2 minutes and then put hearing aids back on
 - Say something neutral to signal to the child another trial such as, “Let’s try again”
 - Immediately start the timer again

