Providing Intensive and Structured Teaching in Inclusive Preschool Settings

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Creating Connections Therapy

Topics To Be Covered

- Effective Instructional Strategies
- Definition of Applied Behavior Analysis
- Common Misconception of ABA
- Intense and Effective Instructional Strategies
- Collecting and Using Data
- Knowing Where to Start & Creating a Program in Inclusive Settings
- Final Thoughts

Hierarchy of Effective Instructional Strategies

1. Structuring the Physical Space and Materials
2. Using Child Preferences for Materials and Activities
3. Structuring Social Aspects of the Environment
4. Structuring Routines
5. Reinforcement Strategies
6. Naturalistic Strategies
7. Response-Prompt Strategies
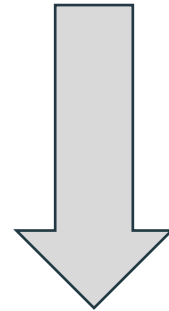
What is ABA?

- ABA is the science in which procedures derived from the principles of behavior are systematically applied to improve socially significant behavior to a meaningful degree and to demonstrate experimentally that the procedures employed were responsible for the improvement in behavior.

- A discipline devoted to the understanding and improvement of human behavior

What is ABA? The "user friendly" definition...

A: "Applied" means the behavior targeted for change is socially relevant or important

B: the term "Behavior" refers to events that are observable and measurable

A: the term "Analysis" refers to the process by which the effects of a behavior change program are measured

ABA Defined Continued

- Provides structure for looking at all kinds of human behaviors; what causes them and how to make them increase or decrease
- Provides a basic structure for teaching new skills (Behaviors we want to increase!)
- Basic procedures include: shaping, prompting, fading, chaining, differential reinforcement....all things good teachers are probably already doing even without knowing!

Remember the Hierarchy? What portion is ABA??

1. Structuring the Physical Space and Materials
2. Using Child Preferences for Materials and Activities
3. Structuring Social Aspects of the Environment
4. Structuring Routines
5. Reinforcement Strategies
6. Naturalistic Strategies
7. Response-Prompt Strategies

ALL OF IT!!

Hierarchy-Working Your Way Up

1. **Structuring the Physical Space and Materials**

   The first few portions of the hierarchy, as research suggests, requires less adult direction and greater opportunity for child-initiated behavior generally associated with increased generalization of learned skills across settings, with different materials and people.

   These strategies are also compatible with Positive Behavior Supports

Hierarchy-Working Your Way Up

7. Response-Prompt Strategies (Discrete Trial Training/Intensive Teaching)

This portion of the hierarchy is reserved for the most adult-directed interventions and are reserved for the most delayed child behaviors/skills, or for critical behaviors that require rapid acquisition or extinction.

Common Misconceptions of ABA

- ABA will cure children with autism
- ABA is just a fad in the literature
- ABA is based on the work of only one individual
- Behavioral reduction interventions derived from ABA exclusively utilize punishment
- ABA is based solely on research with animals
- ABA is not a feasible approach because it takes too long
- ABA is not at all appropriate for individuals with less severe impairments
- ABA is only appropriate for preschool age children
- ABA and DTI/Intensive Teaching are synonymous terms and can be used interchangeably

What does "Good ABA" entail?

- Focus on many different areas (behavior, communication, play, social, self-help, pre-academic, etc.)
- Primarily uses activity, play and social reinforcers as quickly as possible
- Uses both systematic and Natural Teaching techniques
- Works in natural and inclusive settings
- Teaches children to handle distractions
- Provides extensive parent training
- Endorses research based techniques
- Staff receive ongoing training and supervision
- Requires data driven decision making and objective evaluations

Effective Instructional Strategies

**Today we will focus mainly on the top of our hierarchy; those strategies that provide the most adult directed interventions and are aimed at helping a learner acquire critical missing skills in the most effective and timely manner.

We will discuss:

- Reinforcement Strategies
- Response-Prompt Strategies
- Naturalistic Strategies

Reinforcement Strategies

- ❑ Defining Reinforcement
- ❑ Reinforcement Hierarchy & Reinforcer Assessment
- ❑ Pairing & Instructional Control
- ❑ Reinforcement Schedules
- ❑ Behavioral Momentum

Defining Reinforcement

Defining Reinforcement

What is Reinforcement?

The contingent presentation of something that is valued or desired by the individual immediately after the behavior and results in an INCREASE or maintenance of the behavior.
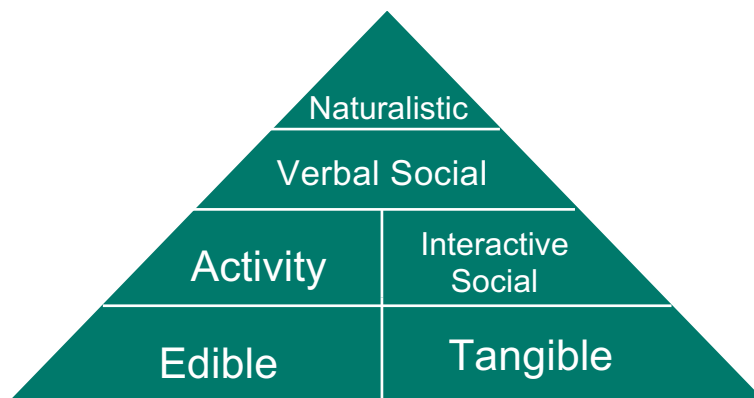
Reinforcement vs. Bribery

Webster's Dictionary definition of "Bribery":

- An inducement for an illegal or unethical act

  OR….

- The giving of a reward to an individual to stop an inappropriate or misbehavior

**Avoid the bribery trap by being PROACTIVE rather than waiting until the problem behavior occurs!

Reinforcement Hierarchy

Reinforcement Hierarchy

Pyramid diagram from top to bottom:
- Naturalistic
- Verbal Social
- Activity | Interactive Social
- Edible | Tangible

Reinforcers should BE reinforcing

- "Bob doesn't like his reinforcers today"
- "His reinforcers are not working!"
- "Nothing is working, I have tried everything"
- If student does not show interest in a reinforcer, then it is not actually a reinforcer!

Use a Variety of Reinforcers

- Each time a reinforcer is used, the less reinforcing it becomes
- Consider limiting access to some reinforcers
- A wide variety of reinforcers should be available throughout the day
- Expose student to reinforcers even if they do not choose them at first
- Help students find new reinforcers by pairing them with established reinforcers

Continually Develop New Reinforcers

- Should be an ongoing process throughout the year
- Sell the item or activity by adding your excitement and enthusiasm!
- Exposure and creativity is extremely important!
- Be persistent…..don't give up!

Pair Social Reinforcers with Tangible Items

- Increases social engagement
- Move towards more natural reinforcers
- Requires another person…YOU!!
- Remember that some kids are not going to be motivated by social reinforcement alone at first…it has to be taught. We need to meet them where they are at.

Pairing and Instructional Control

Understanding the Importance of Pairing & Instructional Control

- Student's motivation drives our programming and instruction
- Before learning can take place, our students need to know us, trust us, like us and most of all, want to be WITH us!
- You should make every toy, interaction, game BETTER because you are FUN
- Treat them as if they are your own child with whom you have a vested interest.

What is Pairing?

- <u>Pairing</u> is the process by which you establish yourself as a reinforcer in order to build a positive relationship and rapport with a student
- As demands placed on the child increase, be sure to maintain the positive relationship
- FREQUENTLY pair yourself with reinforcement (not just at the "beginning" of working with a child, but ALWAYS…)

Pair Teaching and Improving Conditions (Carbone, 2002)

- Pair instruction with Improving Conditions
- Fade in demands gradually
- Low response effort at first
- Immediate delivery of reinforcement
- Reduce learner errors
- Fast paced instruction (short time between trials)
- Intersperse easy/hard tasks
- Teach to Fluency

What is Instructional Control?

- <u>Instructional Control</u> is the likelihood that your instructions will evoke a correct response from your student.
- If you do not have instructional control, you may describe the child as "noncompliant" or "nonresponsive"

2 Critical Components of Instructional Control

1. The child must associate YOU with the delivery of reinforcement

1. You must develop a history of reinforcing compliance to your instructions

7 Steps to Instructional Control

Taken from

"Turning the Table on Autism, A Verbal Behavior Teaching Manual"

By: Robert Schramm, MA, BCBA

These steps are essential to work through when first connecting and initiating a teaching program with a child.

Step 1

Show the child that you are the one in control of the items that he wants to hold or play with and that you will decide when and for how long he can have them.

- Rewards should be contingent
- Set the stage for "temptation"
- Do NOT take out of child's hands
- Be "detectives"
- Once you are in control, use your discretion and provide some non-contingent rewards as well

Step 2

SHOW THAT YOU ARE FUN!!

- Make the child WANT to follow your directions to earn more time sharing experiences with you.
- 75% of every interaction should be reserved for "pairing" yourself with fun activities and known reinforcement.
- Pairing activities should be led by the child's motivation and should include only non-verbal and declarative language
- Make playtime more fun because YOU are a part of it! This is the essence of pairing!
- Pairing should be based around the child's more reinforcing items and activities.
- Always work to increase the level of enjoyment beyond what he would be capable of on his own.

Step 3

Show your child that you can be trusted….

Or….

Always say what you mean and mean what you say!

- Only use imperative (directives) language during the 25% of your interaction with the child in which you are not pairing
- Imperatives=Expectation of a response
- Do not reward the child for avoiding learning
- Imperatives should be presented in all environments...teach in all settings!

Step 3 (continued)

- To say what you mean and mean what you say, you must consider your words carefully.
- Think about the possible response BEFORE you ask the question
- Be sure to find a way to offer more reinforcement when your child does a skill without your help and less when prompts are needed (differential reinforcement)

Step 4

Show the child that following your directions is beneficial and the best way for him to obtain what he wants.

- Give easy directions as often as possible and reinforce good choices
- Use the Premack Principle "Grandma's Rule"
- First/Then: Must follow a direction or demonstrate an appropriate behavior before allowing him to have what he wants
- Warning: Be careful with "If/Then" statements!
- We don't want to open the door to "negotiation"
- Surprise the student with a reinforcing activity or item after he makes a positive choice.
- Remember to keep it FUN!! Always end an interaction with playful social reinforcement, praise, tickles, etc.

Step 5

Provide consistent reinforcement. In the early stages of instructional control, reinforce after each positive response. Eventually, thin out the schedule of reinforcement.

- Consistent reinforcement is important because your child must understand that certain behavior results in contact with something he values.

Step 6

Demonstrate that you know your child's priorities as well as your own.

- Prioritize the reinforcing value of your student's items and activities.
- Try to expand on new reinforcers.
- Use differential reinforcement to avoid satiation.
- Always continue to evaluate YOUR priorities; what is the more important and FUNCTIONAL skill to teach your student.

Step 7

Show your child that ignoring your instructions or choosing inappropriate behavior will NOT result in the acquisition of reinforcement.

- By pairing yourself with your child's activities and items during 75% of your interaction, YOU will become the major source of reinforcement.
- This will allow you to hold your behavioral expectation high during the 25% of the time you are giving instructions.
- Avoid providing reinforcement when your child specifically refuses to comply or engages in problem behavior.

Reinforcement Schedules

Reinforcement Should be Contingent

- Typically contract the reinforcer BEFORE you give the instruction
- Student only gains access to reinforcer when targeted behavior/skill is displayed
- Clear expectations as to when they can earn reinforcement
- Needs to be obvious to anyone observing
- "Changing their mind" regarding selected reinforcer is OK!!

You will know the student understands the "contingency" of reinforcement when the reinforcer(s) can be right there and the student can work and not attempt to grab for the items because they know they can simply follow directions to get access to it!

Label the behavior being reinforced

- "Good sitting!", "I love how you are coloring!" "You are walking so nicely!" "Great job following directions!" are much more specific and meaningful than more general statements such as "Good job!"
- The more clearly we label the behavior, the easier it is for the student to understand the connection between behavior and reinforcement.

Initially, Reinforcement Should Occur Immediately

- Easier to learn contingency between target behavior/skill and earning reinforcement
- Immediate reinforcement produces the highest rate of behavior change initially
- Once the child understands the contingency you can work on intermittent reinforcement to maintain skills

Differential Reinforcement
How to Differentiate Your Reinforcers

- Frequency: How often will reinforcement be earned?
- Duration: How long will access to reinforcement be allowed?
- Magnitude: The strength of the reinforcer

Use Differential Reinforcement

- Student responses are not always "right" or "wrong"
- Differentiate the level of reinforcement given according to the quality of the behavior/response

Great responding: correct and independent=highest level of reinforcement

Lesser Quality: prompt needed, slower to respond, etc.=mid-level reinforcement

Poor or No Responding: Correction and no reinforcement

"Don't look for the big, quick improvement. Seek the small improvement one day at a time. That's the only way it happens and when it happens, it lasts."

John Wooden

Maintaining Skills/Behaviors Through Differential Reinforcement

- Student may become dependent on continuous reinforcement schedule
- Always work towards a more naturalistic reinforcement system.
    - Earn reinforcer every time
    - Earn reinforcer every other time or 3 times
    - Token economy system

Summarizing Differential Reinforcement

Levels of and Frequency of Reinforcement

- Skill is difficult or day is proving to be more challenging
  - Reinforcement may need to be more frequent and consistent
  - Higher level of reinforcer might need to be used
- Skill is mastered or close to being mastered
  - Reinforcement may be less frequent/predictable
  - Lower level of reinforcer can be used

Behavioral Momentum

Behavioral Momentum

When presenting a task that may be more challenging or less desirable to student…

**First present a series of tasks/directions in which the student has shown previous success: START EASY

**After several successful trials, introduce the more challenging task/direction

**May be able to gradually decrease the number of easy tasks as student is able to handle frustration

The Importance of Behavioral Momentum

- Provides student with early success
- Increases motivation for learning
- Reduces frustration

Because frustration is reduced and access to reinforcement is quicker, escape behaviors are less!

Behavioral Momentum

- It is important to mix and vary the different "easy" or mastered tasks you present so that these do not become a trigger for escape behavior

- Remember to apply positive, but differentiated, reinforcement to BOTH the mastered/easy trials and the new, harder task/target

REMEMBER!

- Reinforcement needs of each child and use of Behavioral Momentum are very individualized!

- On any given day, you may need to move up or down the reinforcement continuum.

On the Top of our Hierarchy...

#7: Response-Prompt Strategies

**There are many different strategies that fall into this category; today we are going to focus on DTI/DTT

Discrete Trial Teaching

What is Discrete Trial Instructions?

- Discrete Trial Teaching is a method of teaching that involves carefully manipulated sequences of antecedents and consequences to enhance skill development.
- DTT is a method of teaching within ABA that is research based and from which many of our teaching procedures are based.

DTT & DTI all mean Discrete Trial teaching!
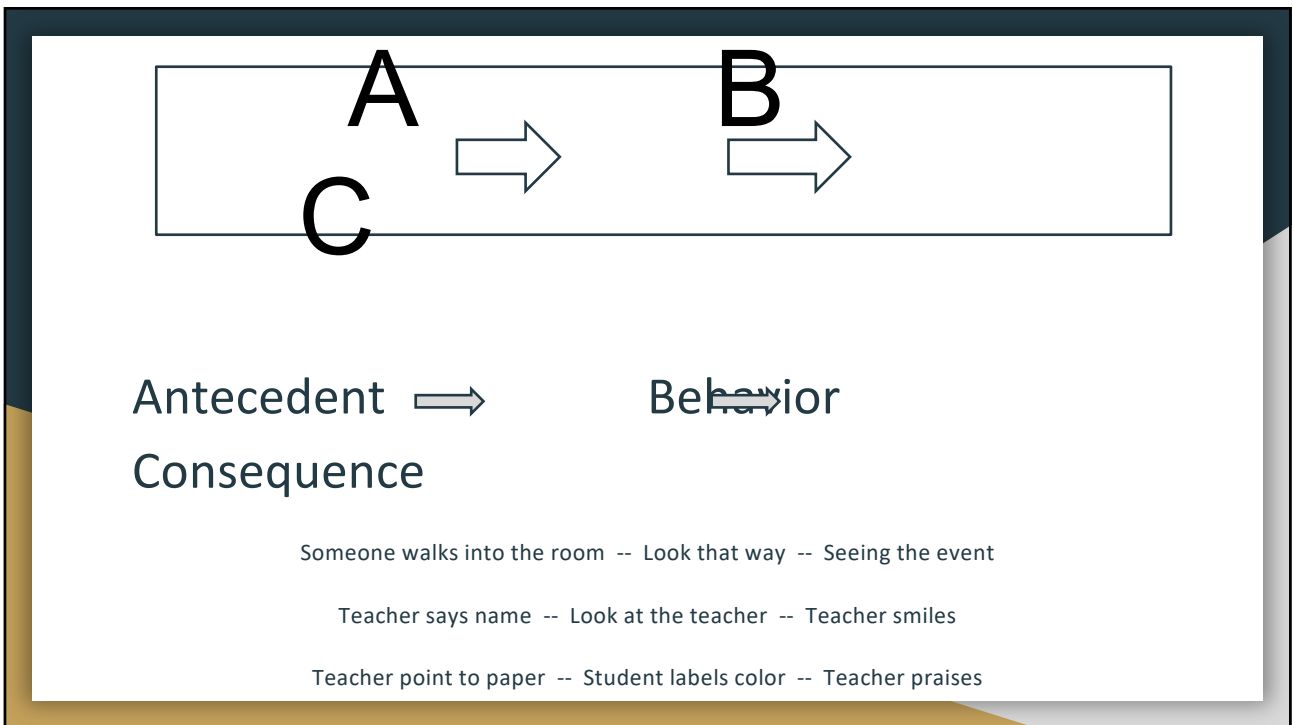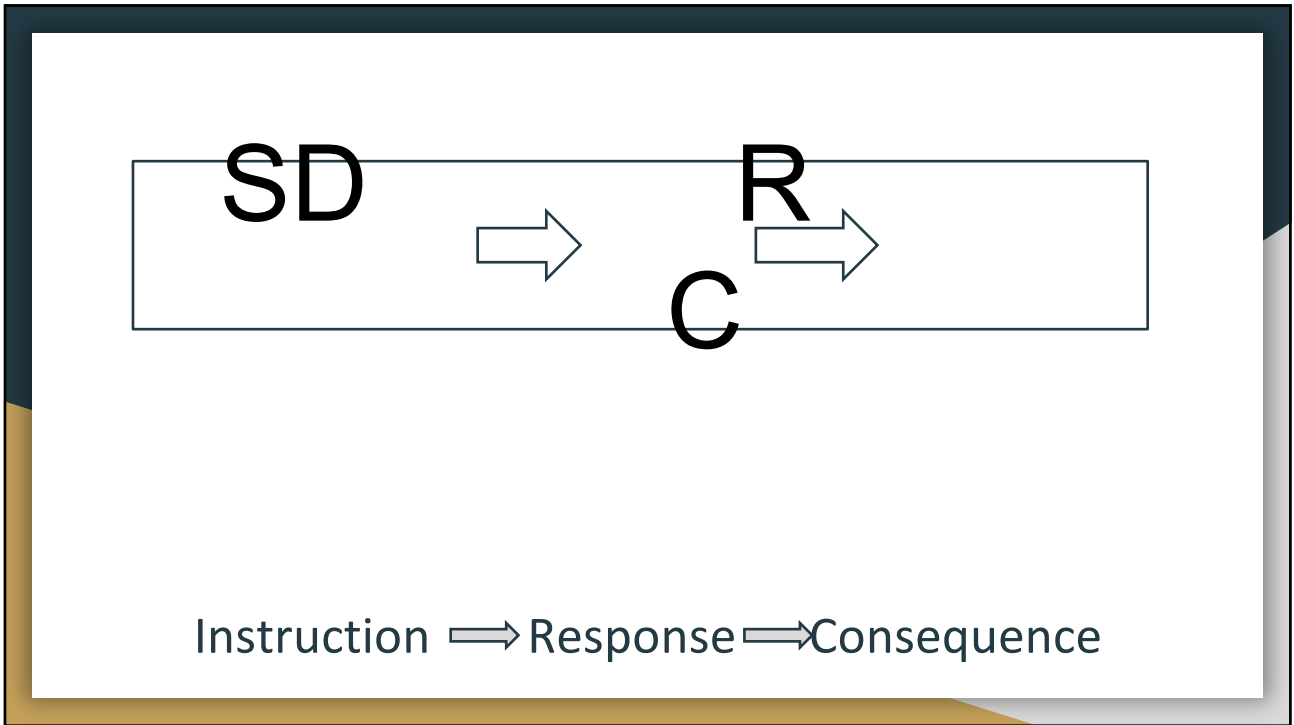
Discrete Trial Vocabulary

Target: The Identified Correct Response

Distractor: Any item presented during a full teaching trial that serves to teach stimulus discrimination or see if the child "remembers" the target skill after being asked other questions.

Discrete Trial Teaching

DTT involves:

1. Breaking a skill into smaller parts
2. Teaching one sub-skill at a time until mastery
3. Allowing repeated practice in a concentrated period of time
4. Providing prompting and prompt fading as necessary
5. Using reinforcement procedures

SD → R

C

Instruction ⟹ Response ⟹ Consequence

A → B →

C

Antecedent ⟹ Behavior
Consequence

Someone walks into the room -- Look that way -- Seeing the event

Teacher says name -- Look at the teacher -- Teacher smiles

Teacher point to paper -- Student labels color -- Teacher praises

The components of a trial include:

- Discriminative stimulus (S^D): verbal direction, instruction or cue. Equivalent to the "A"
- Response (R) : Equivalent to the "B"
- Consequence (C) : What occurs after
- Stimulus Reinforcer (S^{R+}): If the response is correct, the child is reinforced
- Inter-trial Interval: pause between trials

The Discriminative Stimulus (S^D)

AKA: "A" or Antecedent

- Clear and distinct command that signals to the learner that a particular response will be reinforced
- If varying commands, may need to teach individually (ie, show me, point to, give me....)
- Instruction is appropriate to task
- Learner is provided with opportunity to respond

The Discriminative Stimulus (S^D)

Guidelines for Delivery:

- Use as few words as feasible
- Keep instructions succinct and clear
- Avoid the S^D "getting lost in the conversation"
- Allow time to respond
- Give instructions one at a time

The Response
AKA: "B" Behavior

- Clearly defined target response (across instructors)
- Observable to avoid subjectivity and inference
- Be distinct (free from other responses)

The Consequence

- Immediate and consistent

- Meaningful to the student

- Individually selected and known to be effective

3 Main Types of Trials
Compare to Madeline Hunter's Model "I DO", "WE DO", "YOU DO"

1. Teaching Trial
   - Incorporates principles of Errorless Learning to avoid negative practice
   - Used for introducing new targets

Think "I DO"

3 Main Types of Trials
Compare to Madeline Hunter's Model "I DO", "WE DO", "YOU DO"

2. Trials Involving Error Correction

- Incorporates principles of prompting and prompt fading to correct errors
- Used for "testing the waters"

Think "WE DO"

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3 Main Types of Trials
Compare to Madeline Hunter's Model "I DO", "WE DO", "YOU DO"

3. Assessment/1st Trial/Cold Probe Trials

- No prompting provided
- Can be used to determine current skill level
- Can be used to assess mastery or maintenance of skill/target

Think "YOU DO"

Levels of Prompting

Verbal	Full Physical	Partial Physical	Model	Gesture	Visual
A step-by-step narration is given to the student in order for the task / direction to be completed	An adult offers hand-over-hand manipulation of the student to control / direct motor movements	An adult moves a student's body in the direction he needs to go or towards the targeted object	An adult or another student demonstrates the task / direction that is requested of the student	An adult points or makes an action to indicate the next step of a task / direction	An adult points to a visual or an object that is the next step of the task / direction

Adapted from materials created by Jean Brodie

6 Steps of Teaching Intensively

1. Use Errorless Teaching
2. Most to Least Prompts and Fading
3. Variable Ratio Reinforcement
4. Mix & Vary Instructional Demands
5. Intersperse Easy & Hard Demands
6. Fluency

1. Use Errorless Teaching/Learning

"Errorless Learning" involves presenting an instruction with a prompt to ensure a correct response

- Use prompts as antecedents as much as possible
- The less a child is wrong, the more likely he will stay motivated
- Less negative practice!
- Appropriate when teaching new skills or when working with early learners to minimize frustration and decrease learned errors

Use lowest prompt possible to ensure correct response

Errorless Learning

A system of most to least prompting which initially involves prompting with a 0 second time delay (meaning immediately) and gradually fading the prompts to foster independence.

Examples of Skills Taught through Errorless Teaching

Colors

Numbers

Letters

Counting from a group and 1:1 Correspondence

Shapes

Beginning Sight Words

Name Writing

Errorless Learning Example

- Teacher delivers an antecedent and either prompts immediately or waits a beat to see what the student will do.
- If the student moves to an incorrect response, or doesn't respond, the teacher immediately prompts the correct response and praises.
- The same antecedent is then presented again, this time as a transfer trial (meaning it's an attempt to have the student respond correctly without the prompt or with less of a prompt).
- If the student is correct independently, the teacher reinforces more strongly (differential Rf) and moves on.

2. Most-to-Least Prompts & Fading

- Many typical teaching methods call from Least-to-Most prompting procedures; this may allow for more mistakes, which we want to avoid
- For new or difficult responses, immediately use a full prompt and then use fading procedures to promote learning and independence

Prompts-What are they?

Teacher behaviors designed...

- To help students respond correctly

- To give information to the student on how to do the behavior

- To get the behavior to occur so it can be reinforced when the target stimulus is present

Prompts- - - What are they?

THEY ARE:

Help being correct

Assistance in being correct

Clue (not cues)

Hints

These things give info on <u>how</u> to respond correctly before a response is given

THEY ARE NOT:

Task directions

Task questions

Attending cues

Target stimuli

These things tell students <u>when</u> to respond not <u>how</u> to respond correctly

Prompting

- Use the Hierarchy of Prompts to teach
- Should typically use most-intrusive to least-intrusive prompting techniques
  - o Easier to fade the prompt
  - o Reduces prompt dependency
- **Should start out with the least intrusive prompt necessary for accurate completion of the skill

Prompting: The Critical Component

- Before introducing a prompt you must determine:

  HOW WILL YOU GET RID OF THE PROMPT?

  Begin with the end in mind!

Prompting

If the student requires an extended period of prompting, you should occasionally provide reinforcement for prompted trials in order to:

- Increase the student's motivation

- Reduce the student's withdrawal and frustration

- Provide an opportunity for the student to experience the more desirable reinforcer.

Prompting

Move quickly to the next trial and repeat the instruction with reduced or no prompts to:

- Reduce prompt dependency.
- Provide the student with an opportunity to demonstrate learning from the previous trial.
- By fading the prompt you are strengthening the correct response.
- Differential Reinforcement should be used contingent upon the level of prompting required.
- Remember to avoid a pattern of failure!!

Prompts—when do they occur in trials?

Usually are <u>antecedents</u> used:

- Before the student has opportunity to respond
- After student has had a short opportunity to respond and if the student has not responded

Sometimes are <u>consequences</u>

Used after errors occur (error correction)

Avoiding Prompt Dependency

- Be sure you have the child's attention prior to giving direction/instruction
- Allow appropriate wait time for independent response
- Use effective reinforcers
- If you repeat the instruction, do it with the prompt
- Fade prompts as quickly as possible
- The more independent the response, the higher the reinforcement

Prompt dependency is NOT a characteristic of a disability...it is a sign of poorly planned teaching

Fading

- Fading is the systematic reduction of a prompt as the child demonstrates success in learning the target behavior
- Prompts can be faded according to their intensity, magnitude, frequency or duration
- When embedding a prompt, consider restating the original instruction so that the response will be given under the control of the instruction, rather than the prompt

Fading

- Fading can be used for both expressive, receptive, motor and routine skills
- Expressive: Fade from whole words, partial word, silent mouth prompt or use visuals
- Receptive: Fade from hand over hand, elbow, pointing, etc.

3. Variable Ratio Reinforcement

- The best kind of reinforcement-the child doesn't know when it's coming
- If you reinforce after every 5 trials, sometimes reinforce after 1, sometimes after 7, etc.
- Intermittent reinforcement increases engagement and creates the strongest behaviors...good and bad!

Examples of VR in the classroom

When teaching a new or hard skill, reinforcement can be delivered more frequently. After they are accustomed to a more intensive teaching format, reinforcement can be delivered on a variable schedule in which reinforcement is delivered after an AVERAGE number of trials.

David is working on learning his upper case letters. His teacher is teaching them to him using errorless teaching, and is providing reinforcement after an average of every three trials.

4. Mix & Vary Instructional Demands

- Avoid presenting the same demand over and over (especially without consequating the response!)
- Mix demands from all skill areas
- This will ensure fluency and mastery of skills and hopefully avoid children memorizing restrictive patterns of learning

Ben is working on colors, shapes, counting and prepositions. Work on targets and mastered items from each of these areas mixed together to ensure success, flexibility in learning, attending and mastery!

5. Intersperse Easy and Hard Demands

- Use Behavioral Momentum
- In the beginning, use a ratio of 20% hard and 80% easy when presenting demands at the table
- Easy responses are those that the child can typically complete without prompts.

Examples of Interspersing Easy

& Hard Demands

1. When working on colors as 2 known colors and then an unknown, etc.
2. When working on counting, work on rote counting, then mix in 1:1 correspondence, then number ID
3. When working on new sight words, always have a stack of known sight words mixed in to keep them successful

**Doing this allows for the delivery of reinforcement and for students to feel successful.

6. Fluency

- Keep your inter-trial interval short (time between responses/ABC cycle)
- Try to keep the *latency* of the child's responses quick (time it takes for student to respond)-if response is delayed, use prompting procedures that are appropriate
- Fade the prompts as soon as possible
- When done well, the rate of responding for many tasks during a 1:1 work session can be 20-25 responses/min. (Remember this includes about 80% easy trials and 20% new skills with errorless learning used to help assist with error correction.)

How to *Teach* Using DTT

- Identify what you want student to learn-targets, goals/objectives through assessment
- Set up your data collection systems
- Create student's daily schedule-when will DTT occur? Frequency/duration of sessions
- Consider the Teaching Progression for New Targets

What Does This Look Like?

With Targets Identified:

1. Trials with Errorless Learning (I DO) & Fading of Prompts
2. 1st Trial/Assessments/Probe Trials (YOU DO) when you think student has target mastered
3. Trials with Error Correction when mistakes occur (WE DO)

Putting It All Together

PROMPT-TRANSFER-DISTRACT-CHECK

This takes care of …

- Most to least prompting
- Prompt Fading
- Mixing and Varying target and mastered skills (with good planning)

Error Correction Procedure
**You have given an S^D and the R is incorrect**

1. **END** the trial: look away, pause
2. Present S^D again with immediate **PROMPT**
3. Allow for **TRANSFER** of correct response
4. Provide a **DISTRACTOR** trial
5. **CHECK** that learning occurred, present without prompt
6. **REINFORCE** correct response

END - PROMPT - TRANSFER - DISTRACT - CHECK

Example of Growth in Skills

Acquisition of Verbal Skills

- Three Preschoolers with
- 5 months
- 15 minutes per day
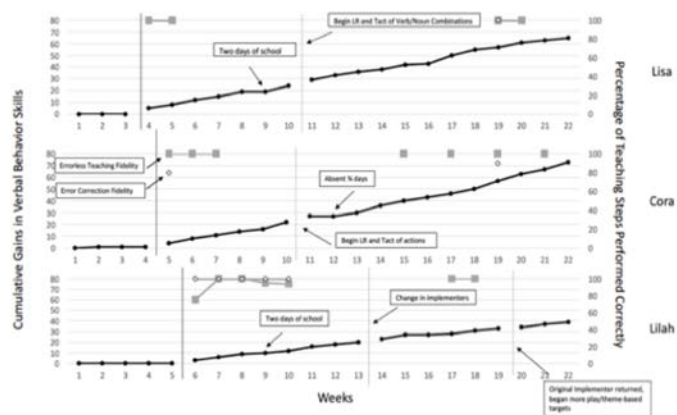
So Far We Have Covered…

- The basics of a discrete trial
- Errorless Learning- "I Do"
- Prompting and Prompt Fading- "We Do"

Where do we go from here?

How to *Teach* Using DTT

1. Identify what you want the student to learn-targets, goals/objectives/benchmarks through assessment.
2. Set up your data collection systems
3. Create student's daily schedule-when will DTT occur? Frequency and Duration of sessions
4. Consider the Teaching Progression for New Targets

So How Might This Look for a Student?

With Targets Identified-

1. Trials with Errorless Learning (I DO) and Fading of Prompts
2. 1st Trial/ASsessment/PRobe Trials (YOU DO) when you think student has target mastered
3. Trials with Error Correction when mistakes occur (WE DO)

Error Correction- "WE Do"
Receptive Identification of Color Red

"Touch Red" with NO prompt

Student responds incorrectly

Begin Error Correction sequence

Error Correction Procedure

- Is a consequence for an incorrect response or lack of a response to an instruction
- Involves systematic prompting and fading
- Goal is to obtain a correct response to an unprompted instruction

Error Correction Procedure

*You have given an SD and the R is incorrect

1. End the trial: Look away, pause
2. Present the SD again with immediate PROMPT
3. Allow for transfer of correct response
4. Provide a distractor trial
5. Check that learning has occurred: present without prompt
6. REINFORCE correct response

END-PROMPT-TRANSFER-DISTRACT-CHECK

DTT Sessions

Characteristics of Sessions

Frequency and Duration of Sessions

Setting

1:1 vs. Group

Characteristics of DTT Sessions

Enthusiasm!

Interesting, Preferred, and Functional Materials!

High Success Rate!-Varied and Natural Reinforcers

Build in Choices!

Language is as natural as possible

Intersperse trials from various programs

Frequency and Duration of DTT Sessions

As many as is productive for student

Provide short breaks between tasks and longer breaks between sessions

Setting of DTT Sessions

- May need to be away from distractions-temporarily!
- Reduce structure as much as possible
- At the table, on the floor
- Look for opportunities within naturally occurring activities-NET

1:1 vs DTT Sessions

Typically, student will need 1:1 initially

As student acquires better skills for listening, attending, joint attention, imitation, waiting, THEN introduce others to group.

Using DTT with a Group

Working within the same skill area but different targets

Working within same skill area and similar targets

Working between different skill areas

Could also involve different materials (pics versus objects) different presentations (FO, prompting levels, etc.)

Discrete Trial Teaching is not a teaching strategy that is used only for teaching language, nor is it only employed for young children with autism.

IT IS SIMPLY GOOD TEACHING!

Naturalistic Instructional Strategies

Naturalistic Instructional Strategies

- Also referred to as Natural Environment Teaching
- Involves Planned Episodes of brief adult-child interactions
- Takes advantage of naturally occurring reinforcers during ongoing activities and routines.

Naturalistic Instructional Strategies We Will Focus On…

Naturalistic Time Delay

Incidental Teaching

Naturalistic Time Delay

During a familiar routine, the adult skips a step or pauses between steps and looks expectantly to the child and allows wait time. If a child initiates the response, the routine continues. If not, the adult models the expected behavior before the routine continues.

When a verbal response is expected, this strategy may also be called intraverbals.

Naturalistic Time Delay

Examples:

Luka is learning to wash his hands. Upon reaching the sink, the adult pauses to see if Luka will initiate turning on the water. If he does, he is reinforced and the routine of hand washing continues.

While singing "The Itsy Bitsy Spider" the teacher pauses before the word 'spider' to see if the child will fill in the word (Intraverbal)

Incidental Teaching

- An instructional strategy in which the adult uses child initiations during ongoing activities as an opportunity for more elaborate behavior.

- Specific targets are *known in advance*

Incidental Teaching

Example: Sage enjoys looking at and popping bubbles when other people blow them. When his teacher blows bubbles, he will pause and wait expectantly until Sage says, "Bubbles". When she does, the teacher says, "You want bubbles!" and blows more bubbles.

If Sage does not respond, her teacher will provide a prompt (will say bubbles) and wait for Sage to repeat it, at which point he will blow bubbles.

If Sage still does not say the word, the teacher will model/prompt three times and then deliver bubbles anyway so the child does not lose motivation.

AND NOW.....

DATA!!!

Collecting and Using Data

WHY collect data

Collecting ACCURATE data

WHEN to collect data

WHO can collect data

What TYPE of data to collect

HOW MUCH should be collected?

WHY   Collect Data?

To Determine a Baseline

To prepare for an IEP or Progress Reporting

To support the effectiveness of the instruction OR guide you to needed modifications of the program.

WHY Collect Data?

"Four Questions"

What do we expect the child to learn?

How do we know they have learned it?

How will we respond when they don't learn?

How will we respond when they already know it?

Collecting ACCURATE Data

Correct and Incorrect Responses

Who took the data, date

WHEN to Collect Data

- At your professional discretion
- Highly individualized based on student and specific skill/behavior
- Examples:
  - Every day, 3 times per week, first ten minutes of therapy session
- Determine this prior to giving a task or assignment (not after).

WHO Can Collect Data

WHO Should?

- Teachers
- Paraprofessionals
- Therapists

WHO Should Not?

- Substitute teachers (unless long term)
- Peers, Parent Volunteers

WHAT Type of Data to Collect

Probe Data/Baseline

- Initial data taken before beginning programming to establish baseline and current level of functioning.
- Can be taken intermittently throughout programming to check on a child's ability to move forward
- Depending on type of objective, first trial or % correct data is typically most appropriate.
- Teachers and Therapists should be probing often to progress monitor and ensure we are challenging kids.

WHAT Type of Data to Collect

1st Trial Data

Appropriate when learning individual targets that need to know with 100% accuracy in order to be successful.

Mastery criteria: Responds correctly for three consecutive data days on the 1st Trial.

Examples: Expressive and Expressive labels, academic concepts, imitation skills, receptive directions, early learning skills.

WHAT Type of Data to Collect

Trial by Trial/Mass Trial Data

Taking data repeatedly on the same skill

Will provide a % correct measure

Appropriate for students that require frequent practice on the same target

Make sure to collect same number of trials on a day *and* incorrect AND correct responses

Examples: Greetings, eye contact, concepts, matching, turn taking.

WHAT Type of Data to Collect

Frequency Data

Simply documenting the number of times a response occurs

Appropriate for behaviors or skills you are trying to change rate

Examples: Requesting, initiating with a peer, verbalizing/using AAC

WHAT Type of Data to Collect?

Maintenance Data

Once a skill is mastered it should be put into a "maintenance" program

Data should be taken in the same format as when targeted but less frequently to ensure the skill is maintained (once a week, month, etc.)

If data indicates the skill is not being maintained, specific targets should be moved back to daily practice.

WHAT Type of Data to Collect

Duration

Used to measure the length of time a child engages in a behavior.

Can be used to track behaviors that we want to increase or decrease

Examples: How long a child can sit at circle without disruptive behavior (want to increase), how long a child's challenging behavior episode lasts, how long a child participates in an intensive teaching session without escape, how long a child interacts with a toy/activity before moving on

HOW MUCH Data Should Be Collected

Enough data should be collected to ensure a consistent trend is established

Dependent on individual student and program, but typically 6-7 data points are needed to indicate consistency.

If you are running a program, why NOT collect data all the time?

If you have the system established, more data will lead to more informed decisions regarding progress monitoring.

HOW MUCH Data Should be Collected?

We do not want to go too fast or too slow with our student's programming

Accurate and appropriate data collections is the only way to ensure we are on the right track.

Consider taking the most data you can without making things unmanageable, while still ensuring fidelity.

Example: 3 Days of data: 0%, 40%, 100%...average is 46%. Is this adequate?

How to USE Your Data

Consider keeping a binder/folder at your 1:1 work table with all IT programs and data collection sheets for ease of access

Must be graphed for interpretation; set aside time on a consistent basis to review the data for trends, mastery and changes that may need to be made

Decisions to make program changes should be based on trend lines

Program changes should be noted on graphs.

How Do I Know Where to Start?

Assessment

IEP

Goals-Including objectives and/or benchmarks

Instructional Strategies to Meet Goals

How Do I Know Where To Start

Consider the child's skills related to:

Rate of Skill Acquisition

Fluency

Maintenance

Generalization

Does the strategy promote independence and/or increased participation?

BE ORGANIZED!!

Keep everything you need at the learning area

Each student needs his own set of supplies

Have data sheets ready before you begin instruction.

Have all materials, reinforcing items, PECS books, other visual supports, targeted toys and workbaskets ready to go in the 1:1 area to avoid wait time and having to get up and leave the child to grab something.

Schedule idea for EC classroom that incorporates Intensive Teaching Opportunities Based on Classroom of 10 with Teach and Paraprofessional Support

Student Information:

- Maddy, James, Elizabeth, Jenna and Drew all need some 1:1 Intensive Teaching to varying degrees
- Tom, Phillip, Morgan, Paula and Cassie and all do IT in a group or dyad

Monday/Wednesday Schedule

Time	Maddy	James	Eliz	Jenna	Drew	Tom	Phillip	Morgan	Paula	Cassie
8:50-9	Arrival Activity	Arrival Activity	1:1 ITT *Para*	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity
9-9:10				1:1 ITT *Para*	1:1 ITT *Teacher*					
9:01-9:20	1:1 ITT *Para*	1:1 ITT *Teacher*								
9:20-9:40	Opening Circle Activity (Large Group)									
9:40-9:50	Music & Movement					IT Dyad *Para*			Music & Movement	
9:50-10:15	Small Group Activity *Teacher*					Small Group Activity *Para*				
10:15-10:45	RECESS									
10:45-11	Structured Play/Centers								IT Dyad *Teacher*	
11-11:15	Structured Play/Centers					IT Small Group *Teacher*			Structured Play/Centers	
11:15-111:30	Small Group Activity *Para*					Small Group Activity *Teacher*				
11:30-11:45	CLOSING CIRCLE									

Tuesday/Thursday Schedule

Time	Maddy	James	Eliz	Jenna	Drew	Tom	Phillip	Morgan	Paula	Cassie
8:50-9	Arrival Activity	1:1 ITT *Para*	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity	Arrival Activity
9-9:10				1:1 ITT *Teacher*	1:1 ITT *Para*					
9:01-9:20	1:1 ITT *Teacher*	1:1 ITT *Para*								
9:20-9:40	Opening Circle Activity (Large Group)									
9:40-9:50	Music & Movement					IT Dyad *Para*			Music & Movement	
9:50-10:15	Small Group Activity *Teacher*					Small Group Activity *Para*				
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11:30-11:45	CLOSING CIRCLE									

"If the only tool you have is a hammer, you tend to see every problem as a nail."

~Abraham Maslow