

Intensive Teaching Procedures for Learners with Autism



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December 8, 2005

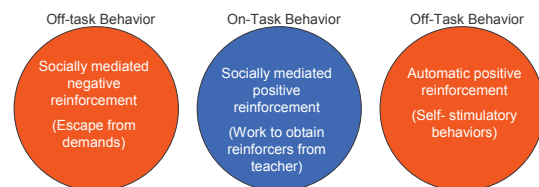
Understanding the Difference Between ITT & NET

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|---|---|
| <p><u>Intensive Teaching</u></p> <ul style="list-style-type: none"> • Responding to earn an unrelated reinforcer • Often occurs at a table, but can occur in any setting • Often use flash cards, but incorporates other materials as needed to teach skills | <p><u>Natural Environment Teaching</u></p> <ul style="list-style-type: none"> • Talking about reinforcing activities • Occurs in the context of fun activities • Use reinforcing items and materials that are of interest to the learner to teach skills |
|---|---|

Preparing the Learner for Intensive Teaching

- Identify strong reinforcers
- Pair yourself/materials with the child's reinforcers
- Teach child to mand for reinforcers
- Begin requiring very easy and infrequent demands
- Gradually morph into more structured teaching

FUNCTIONAL RESPONSE CLASSES



The goal of your teaching is to keep the student in the blue circle. If, instead, the s/he is in one of the red circles, your teaching procedures need to be altered.

Student Responding

- The student's responding—in terms of quickness and correctness—depends upon the reinforcement you deliver.
- When kids do not respond quickly and correctly it is a reflection of the amount, and rate of the reinforcement, as well as the difficulty of the tasks.

Value of the Reinforcer

- If the reinforcer promised in the blue circle is not valuable enough, the child will go to one of the red circles.
- The child has three options:
 - To respond to get what you have to offer.
 - To use problem behavior to get out of demands.
 - To use self-stimulatory behavior for some fun.
- These variables are within the control of the teacher
- As the teacher, you need to make sure that the reinforcement that you are offering is at least as exciting as self-stimulatory behavior and worth the effort to respond to the teaching demands.

Variables of Effective Intensive Teaching

- Use Competing Positive Reinforcement
- Mix and Vary Tasks
- 0 sec./2-3 sec. Time Delay Prompt
- Transfer Trial After Every Prompted Trial
- Reduce & Prevent Learner Errors
- Error Correction Methods
- Intersperse Hard & Easy Tasks
- Teach to Fluency
- Fade in Number of Demands
- Immediately Deliver Reinforcement
- Low Response Effort at First
- Extinction of Off-Task Responses
- Short Inter-Trial Intervals

Use Competing Positive Reinforcement

- Determine several possible reinforcers at the beginning of the session
- Allow the child to frequently choose their reinforcer from a variety of choices
- Periodically evaluate effectiveness of reinforcers throughout the session
- Use differential reinforcement (more reinforcement for harder tasks & better responding)

Mix & Vary Tasks

- Mix different types of tasks (echoics, motor imitation, receptive, labeling, intraverbals, etc)
- Do not mass trial or present the same type of demand several times in a row

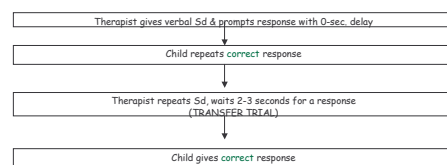
Errorless Teaching

- Use prompts as antecedents as much as possible. The less the child is wrong the more likely he will stay motivated by your reinforcer and keep the value of escape or self-stimulation down.
- Remember that we want the child to push the lever of responding not the lever of escape or self-stimulation
- Errorless teaching involves preventing errors before they can occur

Transfer Trials After Every Prompted Trial

- After every prompted trial, follow with an immediate transfer trial to get a more independent response.

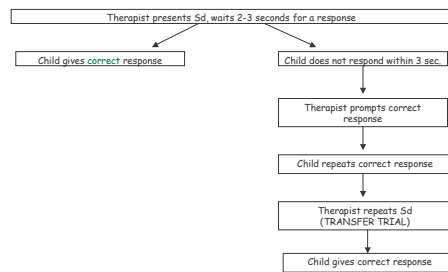
Errorlessly Introducing a New Skill (0-second delay prompt)



Use of Time Delay Prompts

- When introducing a new skill for the first time, use a 0-second delay prompt. (Give child the correct response immediately after giving the SD).
- After the initial presentation, try waiting 2-3 seconds for the child to respond independently before you prompt.
- Do not wait extended periods of time for a response.

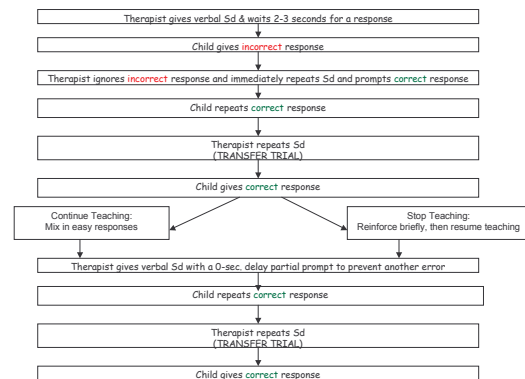
After a Skill Has Been Introduced (2-3 second delay prompt)



Error Correction Procedures

- If the child makes an error, immediately re-present the SD with a 0 sec. time delay prompt.
 - Follow with an immediate transfer trial.
 - Mix in some easy, mastered responses
 - Several responses later, re-present the same stimulus with a partial prompt to prevent another error.
- Follow with an immediate transfer trial
- Remember that error correction is not the same as errorless teaching

Error Correction Procedure



Reduce Learner Errors

- Use errorless learning teaching procedures to prevent errors from occurring
- Prompt as necessary (verbal, gestural, physical) using most to least prompting

Intersperse Easy & Hard Tasks

- Mix easy/mastered tasks with hard targets at a set ratio.
- Initially, this ratio is often 80% easy/mastered tasks and 20% hard targets
 - May vary from child to child

Teach to Fluency

- Shape quick and accurate responses.
- Do not wait more than 2-3 seconds for a response.

Gradually Fade in Demands

- Start with lots of pairing and NET.
 - Slowly fade in easy demands, and then harder demands.
 - Start with low VR, and build slowly as you develop instructional control through skillful and fluent teaching.
 - Use indiscriminable contingencies (learner should never be able to tell how much work they will do by your behavior or by looking at the number of cards)

Deliver Reinforcement Immediately

- Deliver reinforcement quickly (within $\frac{1}{2}$ second of the behavior you are reinforcing)
- Initially reinforce very frequently (low VR) and gradually fade to more spaced out reinforcement.

Easy Response Effort Initially

- Start with responses that require little effort (i.e. filling in words to favorite songs, manding, touching favorite cards/objects).

Extinction of Off-Task Responses

- Gradually eliminate off-task responses by not reinforcing these behaviors.
 - Continue teaching, without reducing demands or slowing down pace.
 - Stay on the same type of response until you get a few good responses. (If the off-task behavior occurs during a tact, keep doing tacts until the child responds appropriately).
 - THEN continue teaching a few more other types of responses before reinforcing.
 - After you reinforce the child, go back and analyze what went wrong so that you can prevent the need to use extinction again.

Inter-Trial Intervals (ITI's)

- Aim to keep inter-trial intervals (time between trials) to a less than 1 second to ensure quick pace.
 - If you "freeze" during intensive teaching and can't think of what to do next, immediately deliver a reinforcer while you figure things out.
- It is better to have a low VR (only a few responses before delivering reinforcement) with quick pace, instead of a high VR with a slow, disorganized pace. Gradually build up VR as you develop skill.

Mistakes to Avoid

- **DO NOT** wait for the child to look at you before you present demands.
- **DO NOT** look for a better reinforcer when the child is not responding to your demands or when the child leaves the table setting.
- **DO NOT** make the child wait while you determine which demand you are going to present next. If you “forget” what demand you were going to present while you are teaching and your ITI (inter-trial interval) gets too long, simply give the child their reinforcer immediately.

Mistakes to Avoid

- **DO NOT** reinforce the child more often when he/she is engaging in weak responses or pushing levers one or three. You want to stop teaching and reinforce more often when the child is responding well to your demands.
- **DO NOT** think that extinction equals ignoring!
- **DO NOT** stop teaching to reinforce a child's mands.

Mistakes to Avoid

- **DO NOT** remind the child of “what they are working for” or flash the reinforcer when they are non-responding (pressing levers one or three) at the table. This WILL get the child's attention back, but will increase the future frequency of the negative behavior.
- **DO NOT** present easier demands if the child is not responding to demands you are presenting. For example: presenting motor imitations when they do not respond to a tact you've presented.

Mimetic (Motor Imitation)

- The ability to imitate or do what others do during play or other activities is an important skill to acquire

Teaching Motor Imitation

PROMPTED TO UNPROMPTED TRANSFER:

- **Therapist:** “Do this.” [claps] (Verbal SD & 0-sec. delay physical prompt)
- **Learner:** [claps with physical prompting]

IMMEDIATE TRANSFER TRIAL:

- **Therapist:** “Do this.” [claps]
- **Learner:** [claps]

Therapist reinforces

Echoic

- Vocally imitating what others say is an important skill that leads to increased vocal verbal behavior

Teaching Echoics

- Promise procedure
- Backwards chaining
- Behavioral momentum

Tact

- The verbal response that is closest to labeling (i.e. "That's a red ball.")
- When a learner says or signs what he sees, hears, touches, tastes, smells, etc., he is tacting.
- The reinforcement for this response is not specific to what is said and is usually social reinforcement of some type such as acknowledgement of what is said or praise

Teaching Tacts: Vocal

ECHOIC TO TACT TRANSFER:

- Therapist: "What's this? Juice." (Verbal SD & 0-sec. delay prompt)
- Learner: "Juice" (echoic)

IMMEDIATE TRANSFER TRIAL:

- Therapist: "What's this?"
- Learner: "Juice."
Therapist reinforces

Teaching Tacts: Sign

MIMETIC TO TACT TRANSFER:

- Therapist: "What's this? Juice" [signs juice] (Verbal SD & 0-sec. delay mimetic prompt)
- Learner: [signs juice] (mimetic)

IMMEDIATE TRANSFER TRIAL:

- Therapist: "What's this?"
- Learner: [signs juice]
Therapist reinforces

Intraverbal

- The verbal response to someone else's verbal response (i.e. When someone asks what you had for breakfast, "I had juice" is an intraverbal)
- This class includes answering "wh" questions and filling in the blanks (i.e. "Twinkle, twinkle little ___")
- Intraverbal skills are essential to carrying on a conversation

Teaching Intraverbals: Vocal

ECHOIC TO IV TRANSFER:

- Therapist: "Ready, set...go." (Verbal SD & 0-sec. delay prompt)
- Learner: "Go." (echoic)

IMMEDIATE TRANSFER TRIAL:

- Therapist: "Ready, set, ___."
- Learner: "Go." (Intraverbal)
Therapist reinforces

Teaching Intraverbals: Sign

MIMETIC TO IV TRANSFER:

- Therapist: "Sign water." [signs water] (Verbal SD & 0-sec. delay prompt)
- Learner: [signs water] (mimetic)

IMMEDIATE TRANSFER TRIAL:

- Therapist: "Sign water."
- Learner: [water] (Intraverbal)
Therapist reinforces

Teaching Intraverbals

TACT TO IV TRANSFER:

- Therapist: "Something you drink is ___." (Verbal SD & tact stimulus)
- Learner: "Juice." (tact)

IMMEDIATE TRANSFER TRIAL:

- Therapist: "What do you drink?" (removes juice from sight)
- Learner: "Juice." (Intraverbal)
Therapist reinforces

Receptive

- The receptive response class refers to understanding what someone else says
- During NET this might include delivering requests to:
 - Perform actions: "Stand up" (receptive commands)
 - Identify an object by touching it or giving it to the teacher "Give me the red ball" (receptive ID)

Teaching Receptive ID

MIMETIC TO RECEPTIVE TRANSFER:

- Therapist: "Touch juice." (Verbal SD & mimetic prompt)
- Learner: touches juice (mimetic)

IMMEDIATE TRANSFER TRIAL:

- Therapist: "Show me the juice."
- Learner: (touches juice) (Receptive ID)
Therapist reinforces

Receptive, Tact, and Intraverbal by Feature, Function & Class

- In addition, it is sometimes useful to ask the learner to respond to the description of something rather than the item's name
 - RFFC – "Touch the one you drink."
 - TFFC – "Which one do you drink?" (item present)
 - IFFC – "What do you drink?" (no item present)

Early Learner Profile

- Limited basic skills
- Weak echoic
- Almost no formal mands
- Few receptive responses outside of the context
- Few tacts and intraverbals

Early Learner ITT

- Some early learners may have a small portion of their programming devoted to ITT (typically between 0–30%)
- Start by pairing/manding at the table
- Simple tasks
- Keep sessions short
- Keep VR low

Early Learner ITT

- Start to introduce other skills, depending upon the learner's needs and abilities
- Limited number of goals at one time
- Targets may include:
 - Motor imitation
 - Echoics
 - Receptive commands
 - Receptive ID
 - Visual performance – matching, puzzles
 - Tacting reinforcers
 - Intraverbal fill-ins

Intermediate Learner Profile

- Several mands (some spontaneous)
- Many tacts
- Some receptive
- Some RFFC, TFFC
- Simple intraverbals.

Intermediate Learner ITT

- Intermediate learners typically spend more time in ITT than NET
- Teach:
 - **Tacts & Receptive** – items, actions, features, attributes, TFFC's/RFFC's, prepositions, pronouns, carrier phrases
 - **Intraverbals** – personal information, IFFC's, IFFC Reversals, intraverbal categories
 - **Visual performance skills** – block design, visual memory, etc

Advanced Learner Profile

- Many spontaneous mands
- Manding for information
- Complex tacts
- TFFC and intraverbals (answering “wh” questions)

Advanced Learner ITT

- Advanced learners refine their verbal behavior repertoire, as well as begin to work on academic skills
- Teach:
 - **Tacts & Receptive** – complex tacts
 - **Intraverbals** – intraverbal sequences, before/after, answering questions regarding academic material
 - **Visual performance skills** – seriation, sequencing, patterns

Ratio of ITT: NET

1. NET > ITT – Focus on early manding, pairing, compliance, stimulus control
2. NET = ITT – Focus on mand, tact, receptive, imitation, echoic, and intraverbal
3. ITT > NET – Focus on academic activities and specific skill development
4. NET > ITT – Focus on learning from group instruction, socialization skills, naturalistic learning contexts
5. ITT > NET – Focus on advanced academic skills

Recommended Materials

- The ABLLS
- Language Builder Cards
- Resources:

www.VBTeachingTools.com

www.DiffLearn.com



Data Collection

- Data collection should never interfere with teaching
- Probe data: first trial of the day
 - Yes = independent, correct response
 - No = prompted or incorrect response
- Set criteria for mastery (i.e. 3 consecutive Y's = mastered skill)

Date		Drill title:																				Date	Date		
Therapist	Client																					Intro	Mast.		
1		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
2		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
3		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
4		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
5		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
6		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
7		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
8		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
9		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
10		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
11		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
12		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
13		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
14		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
15		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
16		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
17		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
18		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
19		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
20		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		
21		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		

Data Sheets

- To download a variety of data sheets, please visit:
 - www.VerbalBehaviorNetwork.com
 - www.EstablishingOperationsInc.com

For more information:

- Please log onto our website: www.POACofPA.net
- Consider attending a hands-on workshop on intensive teaching/programming or on comprehensive program development using the ABLLS: www.EstablishingOperationsInc.com