## Evidence Based Practice Training Time Delay



## **Objectives**

- Become aware of 27 EBPs identified for learners with ASD
- Describe key steps to using time delay
  - How to prepare for implementation
  - How to implement
  - How to assess progress
- Identify key pitfalls and ways to avoid them
- Identify ways to learn more about how to implement time delay

## What are EBPs?

Focused interventions that:

- Produce specific behavioral and developmental outcomes for a student
- Have been demonstrated as effective in applied research literature
- Can be successfully implemented in educational settings

(Odom, Colett-Klingenberg, Rogers, & Hatton, 2010)

## Evidence – Based Practices (2014)

Antecedent-based interventions Cognitive behavioral intervention\* **Differential reinforcement Discrete trial training** Exercise Extinction Functional behavior assessment Functional communication training Modeling Naturalistic interventions Parent-implemented intervention

Peer-mediated instruction/intervention Picture Exchange Communication System™ Pivotal response training Prompting Reinforcement **Response interruption/redirection** Scripting Self-management Social narratives Social skills training Structured play groups Task analysis Technology-aided intervention/instruction Time delay Video modeling Visual supports

## For All EBPs



#### **Evidence Based Practices:**

# **Time Delay**



## Who uses Time Delay?



## Time Delay can be used by

- Special education teachers
- General education teachers
- Peer tutors
- Time delay can be used during
  - 1:1 activities
  - small group instruction
  - ongoing routines and activities



## What is Time Delay?

- Practice that focuses on fading the use of prompts during instructional activities
- Time delay procedures are always used in conjunction with prompting and reinforcement.
- With time delay, prompts are provided *before* learners respond, which reduces errors and provides more opportunities for reinforcement.
- These prompts are called *controlling prompts*.

## **Target Skills Addressed**

- Time delay can address a variety of skills
  - academic
  - play/leisure
  - language/communication
  - self-help
  - social



### **Types of Time Delay**

You have a choice between two different strategies:

- Constant time delay
  - Fixed number of seconds (e.g., 3, 4, 5 seconds)
- Progressive time delay
  - Gradually increases across trials or sessions (e.g., 1 second, then 2 seconds, then 3 seconds)

## How long do you wait?

When starting to teach a new skill, don't wait at all!





## Steps for Implementation 0-Second Delay



When the learner gives the correct response, immediately offer reinforcement and label the behavior

## An Example of 3-second Delay



When Evan selects 'hubris', say "Excellent job, Evan! Hubris means very proud."

## An Example of 5-second Delay

Place the supplies Sarah needs to complete her science model in a box in her field of vision



When Sarah signs "help", open the box, give her the supplies, and say "Great job Sarah, you asked for help!"

# How do you pick the cue or task direction?

Draw the learner's attention to the stimulus and give the cue or task direction

- What will cue the learner to do the target behavior?
  - Naturally occurring event
  - Completion of one event or activity
  - External signal
  - Material or environmental manipulation
  - Task direction

# How do you pick the controlling prompt?

- Select the prompt that ensures that that the learner will use the target skill correctly
- Use the least intrusive prompt that will still ensure that the learner is successful

Give the controlling prompt



## How do you choose a reinforcer?

- Conduct reinforcer assessment
- Consider
  - What has motivated learners in the past
  - Learner's deprivation state (i.e., what do they want that they can't easily get?)
  - Reinforcers that are appropriate for the target skill and instructional task

When the learner gives the correct response, immediately offer reinforcement and label the behavior

## **Start With 0-Second Delay**



When the learner gives the correct response, immediately offer reinforcement and label the behavior

#### **Increasing the Delay**

- Length of delay should be based upon:
  - learner characteristics (e.g., how long it takes learner to respond) and
  - task characteristics (e.g., how long it takes a different learner with similar skills to complete the task)

## Constant versus Progressive Time Delay

<b>Constant Time Delay</b>	Progressive Time Delay
Always wait for the same number of seconds (e.g., 3)	Gradually increase delay over time (e.g., first 2, then 3, then 4)
Easier for peer tutors and paraprofessionals to implement	Provides a gradual withdrawal of prompts for learners who are prompt dependent

ucpendent

## **Collecting Data – Example**

Target Skill/Behavior: Saying "Stop" when presented with a flashcard with the word "stop" on it.						
Date: 8/12/08	Delay: 0-second		Date: 8/13/08	Delay: 3-second		
Trial #	Before prompt	After prompt	Trial #	Before prompt	After prompt	
1	-		1	-		
2	+		2	-		
3	+		3	-		
4	+		4		+	

## **Common Problems and Solutions**

Problem	Solution
The learner gives the wrong response	Ignore the response Go to the next trial
The learner gives the wrong response in multiple trials after the controlling prompt has been given	Change to a more intensive controlling prompt
The learner does not respond at all	Deliver the controlling prompt Insert another response interval Provide feedback Correct – provide reinforcement Incorrect – ignore and go on to next trial Does not respond again – ignore and move on to next trial
The learner does not respond at all in multiple trials	Use a more motivating reinforcer

#### UT! CAUTION! KEEP OUT! CAUTION! KEEP OUT! CAU

## **CAUTION!**

When the learner responds incorrectly and you provide a more intensive prompt, verbally restate the <u>targeted response only</u>



## The Key to Effective Time Delay

- Determine controlling prompt
- Consider length of delay
- Provide meaningful reinforcement



### To Learn More...

Find additional information on Time Delay and other Evidence Based Practices within the following resources.

## **EBP Case Studies for High School**



#### http://csesa.fpg.unc.edu/high-school-case-studies

## **Evidence-based Practice Resources**

- EBP literature review <u>http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.u</u> <u>nc.edu/files/2014-EBP-Report.pdf</u>
- EBP Case Studies for High School
- EBP Briefs (<u>http://autismpdc.fpg.unc.edu</u>)
  - Overview
  - Evidence Base
  - Steps for Implementing
  - Implementation Checklist
  - Sample Data Collection Forms (optional)
- Autism Internet Modules (<u>http://www.autisminternetmodules.org</u>)

## EBP Literature Review

Evidence-Based Practices for Children, Youth, and Young Adults with Autism Spectrum Disorder

Connie Wong, Samuel L. Odom, Kara Hume, Ann W. Cox, Angel Fettig, Suzanne Kucharczyk, Matthew E. Brock, Joshua B. Plavnick, Veronica P. Fleury, and Tia R. Schultz

Autism Evidence-Based Practice Review Group Frank Porter Graham Child Development Institute University of North Carolina at Chapel Hill

#### **Example: Step-by-Step Directions**

#### Step 1. Identifying and Setting Up the Device

In Step 1, teachers/practitioners focus on identifying an appropriate SGD device for the learner with ASD by taking into account a number of factors including learner needs and characteristics, and available training and technical assistance.

 Teachers/practitioners select an appropriate device, taking into account how the information is displayed, the learner's present and potential abilities (e.g., attention span, experience with symbols, ability to establish joint attention), portability of the device, available training and technical assistance, and funding sources.

Teachers/practitioners also choose a number of symbols in the visual field that the learner will be able to discriminate easily by considering the learner's attention span, experience with symbols, and ability to establish joint attention (Ogletree & Harn, 2001).

Teachers/practitioners introduce the device to the learner by having a device with few symbols and/or buttons with nothing on them.

To begin, teachers/practitioners introduce a single symbol and have buttons with nothing on them to introduce the idea that the symbol, not the button, is the important factor.

Teachers/practitioners include desirable and undesirable symbols to facilitate the learner's ability to discriminate.

#### **Example: Implementation Checklist**

		Observation	1	2	3	4	5	6	7	8
		Date	6/14/11							
		Observer's Initials	AC							
		Planning (Steps	1 – 5)							
Step	<ol> <li>Identifying and Setting Up the Device</li> </ol>	ne				Sco	ore**			
1.	Select an appropriate device, taking information is displayed, the student abilities (e.g., attention span, experie ability to establish joint attention), po available training and technical assis sources.	into account how the s present and potential ence with symbols, rtability of the device, tance, and funding	2							
1.	Introduce the device to the student to few symbols and/or buttons with not	by having a device with hing on them.	2							
1.	Include desirable and undesirable s student's ability to discriminate.	ymbols to facilitate the	0							
Step	2. Introducing Direct Support Persons to the Device				-					
1.	Team members are identified and tra program and use the device.	ained in how to	2							
1.	One or two key members of the tean primary contacts regarding its use.	n are identified as	0							

\*\*Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable

## **Autism Internet Modules**

#### http://www.autisminternetmodules.org/

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AUTISM INTERNET MODULES > DASH	IBOARD					
Dashboard						
Module Navigator	Professional Development Certficates	Continuing Education Credits	College and University Course Credit			
Module Navigator Print Assessment Results Welcome to the Autism Internet Modules (AIM)! AIM is designed to provide high-quality information and professional development for anyone who supports, instructs, works with, or lives with someone with autism. AIM modules are available at no cost. Each module guides you through case studies, instructional videos, pre- and post-assessments, a glossary, and much more. If you would like to receive credit for your time on AIM, certificate and credit options are available for a fee. Need assistance? Visit the help page.						
<ul> <li>Recognizing Autis</li> <li>Infants and Toddle with Autism</li> <li>Autism at Home</li> </ul>	ers Current Modules (4 • Antecedent-Bas • ASD-4-El: Wha • Assessment fo • Autism and the	Current Modules (43) <ul> <li>Antecedent-Based Interventions (ABI)</li> <li>ASD-4-EI: What Early Interventionists Should Know</li> <li>Assessment for Identification</li> <li>Autism and the Biopsychosocial Model: Body, Mind, and Community</li> </ul>				
Autism in the Classroom	Cognitive Difference     Comprehensive	Cognitive Differences     Comprehensive Program Planning for Individuals With Autism Spectrum				

## Action Plan What will I do tomorrow:

1.

2.

3.





