Evidence Based Practice Training

Time Delay

CSESA
The Center on Secondary Education for Students with Autism Spectrum Disorders
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

**Plan**
- Choose skill/behavior
- Collect baseline data
- Make specific decisions related to EBP

**Implement**
- Implement steps of EBP well and consistently

**Assess**
- Collect data on learner progress
- Collect data on your implementation
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!

Wait for 0 seconds
Steps for Implementation

0-Second Delay

1. Draw the learner’s attention to the stimulus and give the cue or task direction.
2. Wait for 0 seconds.
3. Give the controlling prompt.
4. When the learner gives the correct response, immediately offer reinforcement and label the behavior.
An Example of 3-second Delay

“Evan, our vocabulary word is ‘hubris.’ Hubris means very proud. Can you show me the vocabulary word that means very proud?”

Wait for 3 seconds

When Evan selects ‘hubris’, say “Excellent job, Evan! Hubris means very proud.”

models choosing the word ‘hubris’
An Example of 5-second Delay

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

Wait for 5 seconds

Give Sarah a full physical prompt to sign “help”

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

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

Wait for 0 seconds

Give the controlling prompt

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

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

Target Skill/Behavior: Saying “Stop” when presented with a flashcard with the word “stop” on it.

<table>
<thead>
<tr>
<th>Date: 8/12/08</th>
<th>Delay: 0-second</th>
<th>Date: 8/13/08</th>
<th>Delay: 3-second</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial #</td>
<td>Before prompt</td>
<td>After prompt</td>
<td>Trial #</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>+</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>+</td>
<td></td>
<td>2</td>
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<tr>
<td>3</td>
<td>+</td>
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<td>3</td>
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<td>4</td>
<td>+</td>
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<td>4</td>
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</tbody>
</table>
## Common Problems and Solutions

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

When the learner responds incorrectly and you provide a more intensive prompt, verbally restate the targeted response only.
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

- EBP Case Studies for High School

- EBP Briefs (http://autismpdc.fpg.unc.edu)
  - Overview
  - Evidence Base
  - Steps for Implementing
  - Implementation Checklist
  - Sample Data Collection Forms (optional)

- Autism Internet Modules
  (http://www.autisminternetmodules.org)
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.

1. 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).

2. 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.

3. Teachers/practitioners include desirable and undesirable symbols to facilitate the learner’s ability to discriminate.
**Example: Implementation Checklist**

<table>
<thead>
<tr>
<th>Observation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>6/14/11</td>
<td></td>
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<tr>
<td>Observer’s Initials</td>
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</tbody>
</table>

**Planning (Steps 1 – 5)**

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

1. Select an appropriate device, taking into account how the information is displayed, the student’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. **Score**: 2

1. Introduce the device to the student by having a device with few symbols and/or buttons with nothing on them. **Score**: 2

1. Include desirable and undesirable symbols to facilitate the student’s ability to discriminate. **Score**: 0

**Step 2. Introducing Direct Support Persons to the Device**

1. Team members are identified and trained in how to program and use the device. **Score**: 2

1. One or two key members of the team are identified as primary contacts regarding its use. **Score**: 0

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

• http://www.autisminternetmodules.org/

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.

Browse Modules A-Z

Current Modules (43)

- Antecedent-Based Interventions (ABI)
- ASD-4-EI: What Early Interventionists Should Know
- Assessment for Identification
- Autism and the Biopsychosocial Model: Body, Mind, and Community
- Cognitive Differences
- Comprehensive Program Planning for Individuals With Autism Spectrum Disorder
- Recognizing Autism
- Infants and Toddlers with Autism
- Autism at Home
- Autism in the Classroom
Action Plan

What will I do tomorrow:

1.

2.

3.
Questions