# Evidence Based Practice Training:

Time Delay
(TD)

Adapted from Sam, A., & AFIRM Team. (2015). *Time Delay.* Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorder, FPG Child Development Center, University of North Carolina. Retrieved from https://afirm.fpg.unc.edu/time-delay

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What is CAPTAIN

The California Autism Professional Training And Information Network (CAPTAIN) is an interagency network developed to support the understanding and use of evidence based practices (EBPs) for individuals with Autism across the state of California.
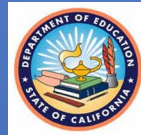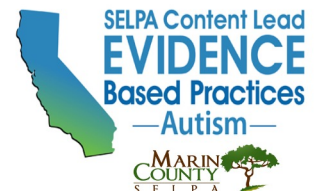
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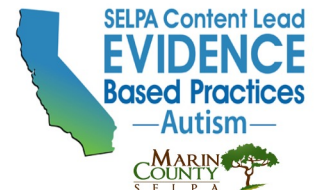
What is CAPTAIN

Marin County SELPA in partnership with CAPTAIN, are members of the Statewide System of Support as a Special Education Content Lead for Autism.

This project is funded by the California Department of Education and the California Collaborative for Educational Excellence.

Levels of Professional Development to Reach Implementation

Systems Support

Information Session

Workshop/ Training
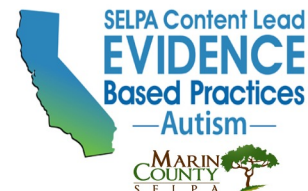
Implementation Coaching

Systems Support

This is a Workshop/Training and is designed to increase your KNOWLEDGE of the topic. Implementation supports to assist you with use of this EBP will be outlined following the TRAINING/WORKSHOP

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Before We Begin…

Please complete the **Pre Training Survey**
sent to your email

Learning Objectives

- Describe what EBPs are

- Develop knowledge about Time Delay as an evidence based practice for skills teaching

- Describe the two different types of time delay procedures in preparation for using them in practice

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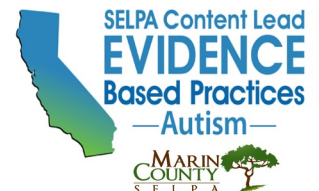
What are Evidence Based Practices?
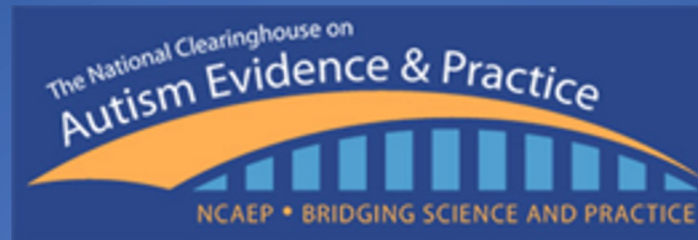
NCAEP definition of an EBP:

"Focused intervention practices that have evidence of efficacy in promoting positive outcomes for learners with ASD."

Steinbrenner, J. R., Hume, K., Odom, S. L., Morin, K. L., Nowell, S. W., Tomaszewski, B., Szendrey, S., McIntyre, N. S., Yücesoy-Özkan, S., & Savage, M. N. (2020). Evidence-based practices for children, youth, and young adults with Autism. The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, National Clearinghouse on Autism Evidence and Practice Review Team.

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Evidence Based Practice Matrix (28 EBPs)

Table 3.7 Matrix of evidence-based practices, outcomes, and age categories

Selecting EBPs

Before beginning a new practice with a learner, it is important to follow four planning steps
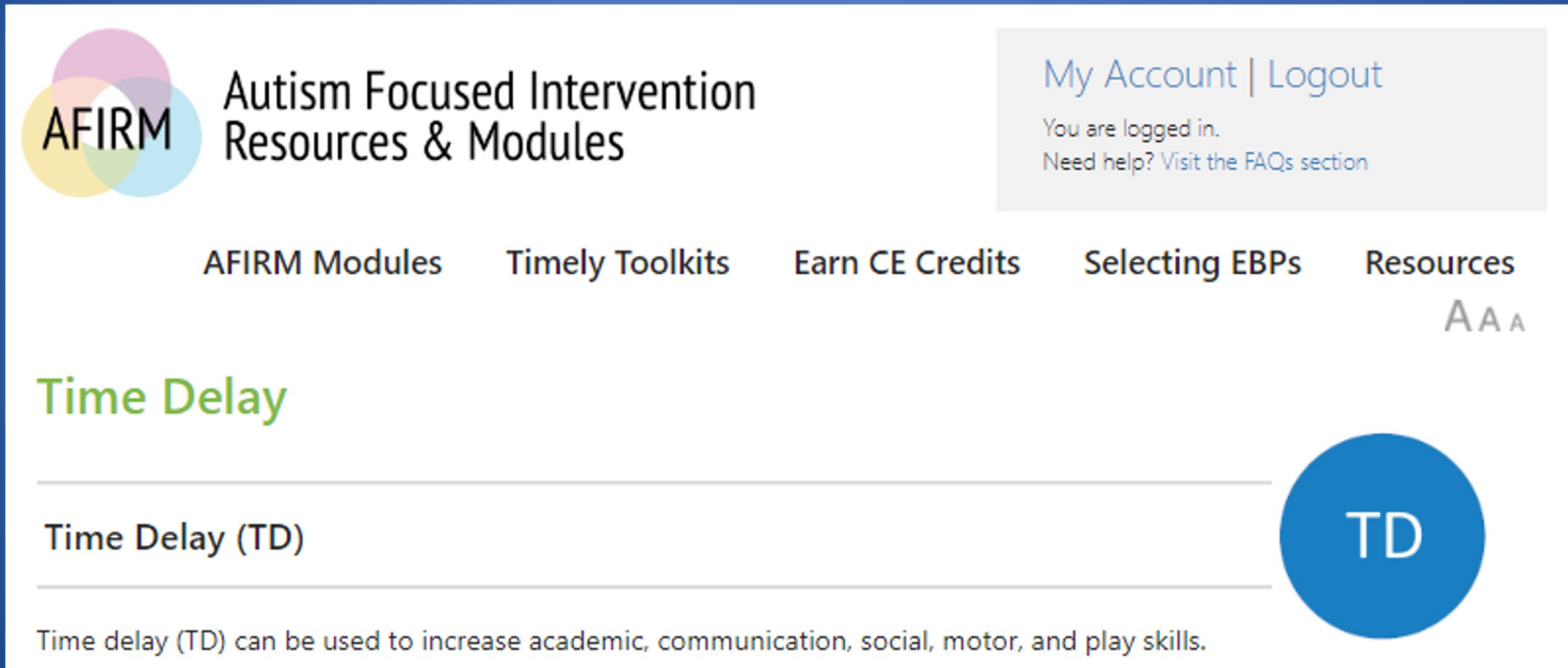
1. Identify the behavior
2. Collect baseline data on the behavior
3. Establish an observable and measurable goal
4. Choose an EBP
   - Consider the child and family characteristics
   - Consider the teacher and team characteristics
   - Consider other available resources

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Selecting an EBP Checklist

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High Quality Training:
Autism Focused Intervention Resources and Modules (AFIRM)
Designed to help you learn the step-by-step process of planning for, using, and monitoring EBPs with learners with Autism from birth to 22 years of age

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Name of EBP

Time Delay (TD)

Definition of EBP

Time delay (TD) is a practice used to systematically fade the use of prompts during instructional activities. With this procedure, a brief delay is provided between the initial instruction and any additional instructions or prompts. The evidence-based research focuses on two types of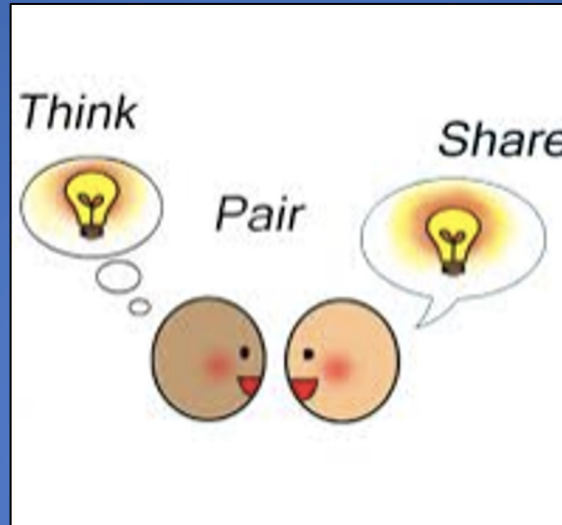 time delay procedures: progressive and constant. With progressive time delay, the practitioner gradually increases the waiting time between an instruction and any prompts that might be used to elicit a response from a learner. As the learner becomes more proficient at using the skill, the practitioner gradually increases the waiting time between the instruction and the prompt. In constant time delay, a fixed amount of time is always used between the instruction and the prompt as the learner becomes more proficient at using the new skill. Time delay is always used in conjunction with a prompting procedure (e.g., least-to-most prompting, simultaneous prompting, graduated guidance).

Outcome Areas		Age Ranges					
		0-2 Toddlers	3-5 Preschoolers	6-11 Elementary School	12-14 Middle School	15-18 High School	19-22 Young Adults
	Communication		✓	✓	✓		✓
	Social	✓	✓	✓	✓		
	Joint attention	✓	✓	✓			
	Play		✓	✓			
	Cognitive		✓	✓			
	School readiness		✓	✓		✓	✓
	Academic/ Pre-academic		✓	✓	✓		✓
	Adaptive/ self-help		✓	✓	✓	✓	✓
	Challenging/ Interfering behavior		✓	✓			
	Vocational			✓	✓	✓	✓
	Motor		✓				
	Mental health						
	Self-determination						

(Steinbrenner, 2020)

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Think - Pair - Share

Do any of your student appear to be "Prompt Dependent?"   Describe what this looks like……

Time Delay:

- A prompting procedure that systematically fades prompts during instructional activities

- A foundational practice that is used along with these other evidence-based practices including **prompting and differential reinforcement**

Why Use Time Delay?

- Time delay is associated with low error rates during instructional activities, because the use of controlling prompts results in near-errorless learning

- Time delay procedures can be used throughout the day in both <u>individual</u> and <u>small group</u> instructional activities

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Skills That Can Be Taught Using Time Delay

- Academic skills (multiplication facts, sight word reading, letter/number identification)
- Language and communication (e.g. requests, signs)
- Social skills (greeting adults/peers, exchanging materials)
- Motor skills (riding a bike, throwing a ball)
- Play skills (pretend play)

Example of How
Time Delay Can Being Used

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Steps for Using Time Dealy

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Prerequisite Skills
Needed to Benefit
from
Time Delay

Assess the learner's current abilities:

Ability	Prerequisite	Yes	No
Responding to instructional cues	When a cue or attention-getting strategy is used, is the learner able to look in the appropriate direction (at adult)?		
Wait	Is the learner able to wait for approximately four seconds for a prompt if s/he is not certain of the correct response?		
Imitate others	Is the learner able to imitate others when a model is provided?		
Stay seated	Is the learner able to stay at an activity for 5 to 10 minutes?		
Reinforcement	Does the learner have a history of using behaviors more frequently after appropriate reinforcers have been provided?		
Follow one-step instructions	Is the learner able to follow simple, one-step instructions?		

If the answer to any of these questions is 'no', time delay might not be an appropriate evidence-based practice

to use with this learner. Refer to the online module for more information or select a new practice.

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Using Time Delay

- Adults identify the Target Stimulus that they ultimately want the learner to respond independently to

- Adults provide a controlling prompt (prompt which ensures learner will use the target skill) before learner responds

- Time Delay reduces errors and increases reinforcement opportunities

Identify the Target Stimulus

TARGET BEHAVIOR	TARGET STIMULUS
LEARNER GREETS A PEER BY SAYING, "HELLO."	Presence of a peer
LEARNER READING WORDS.	
LEARNER WASHES HANDS.	

What is the target stimulus that should set up reading words and hand washing?

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Identify the Controlling Prompt

- The Controlling prompt is the prompt that is highly likely to get the student to perform the correct behavior or skill

- It should be the least intrusive prompt that ALWAYS works

- You will be fading the prompt quickly using the identified Time Delay procedure

Prompts = Physical, Gestural, Modeling, Visual/Picture, Verbal

When Does A Prompt Happen?

A → **B** → **C**

Antecedent   Behavior   Consequence

- Setting Conditions
- Target Stimulus

- Student Response

- Reinforcement for Correct Response

Prompt

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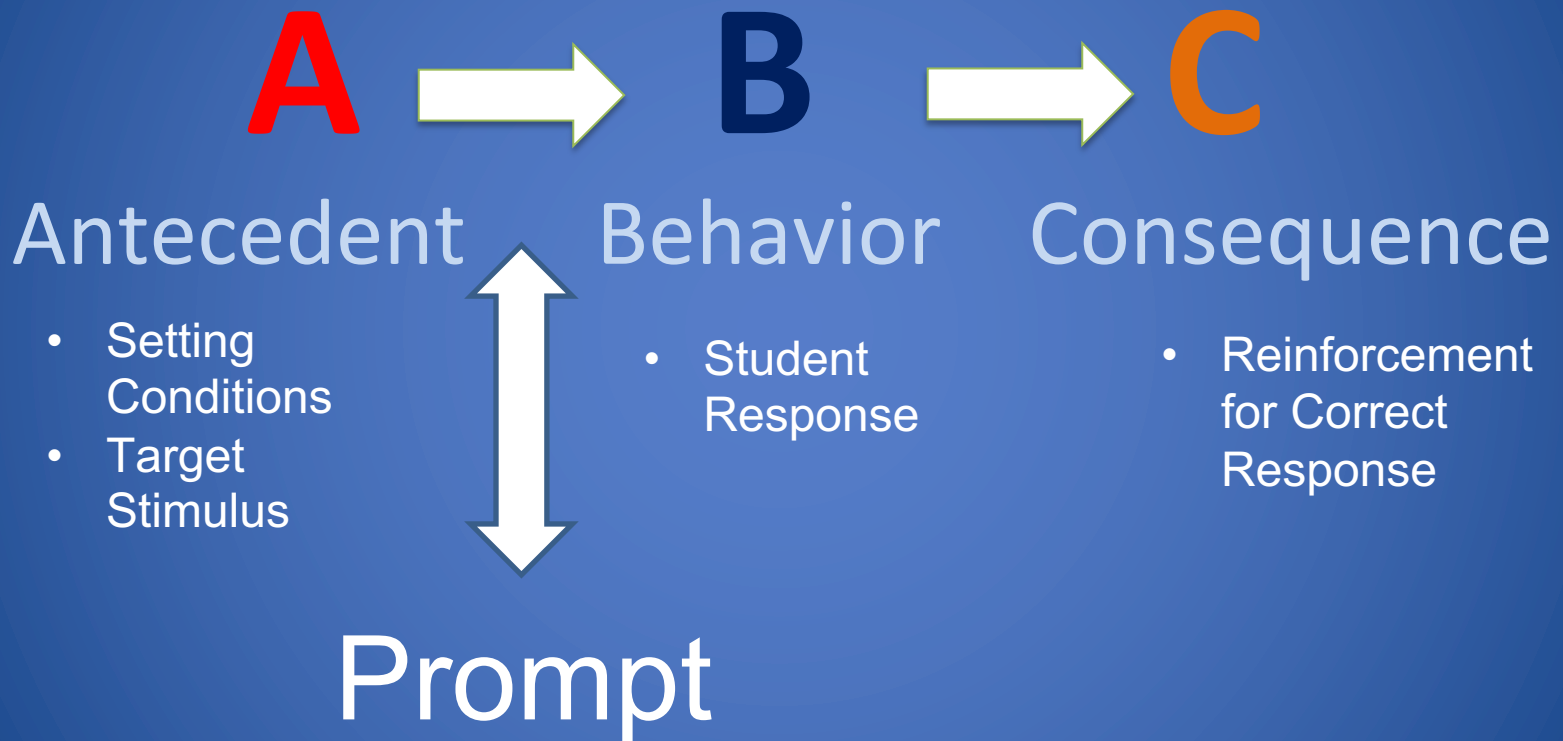
Two Type of Time Delay Procedures

PROCEDURE	DESCRIPTION
CONSTANT TIME DELAY (CTD)	When beginning to teach a target skill/behavior using CTD, provide a 0-second delay (no delay) between the cue and prompt. Model prompts are the most common prompt type to use with this procedure.[7] After a minimum of two trials using the 0-second delay, adults use a fixed amount of time between the cue and the controlling prompt (typically 3-5 seconds). This delay allows learners to acquire a new skill without becoming prompt dependent.[8-9]
PROGRESSIVE TIME DELAY (PTD)	Like CTD, adults use a 0-second delay when first teaching a target skill/behavior. Then, adults gradually increase the wait time rather than using a fixed time interval. The delay is usually increased to a 5 second interval, but can be as much as 10 seconds.

Constant Time Delay

A → 5 sec. → B → C

Antecedent   Behavior   Consequence
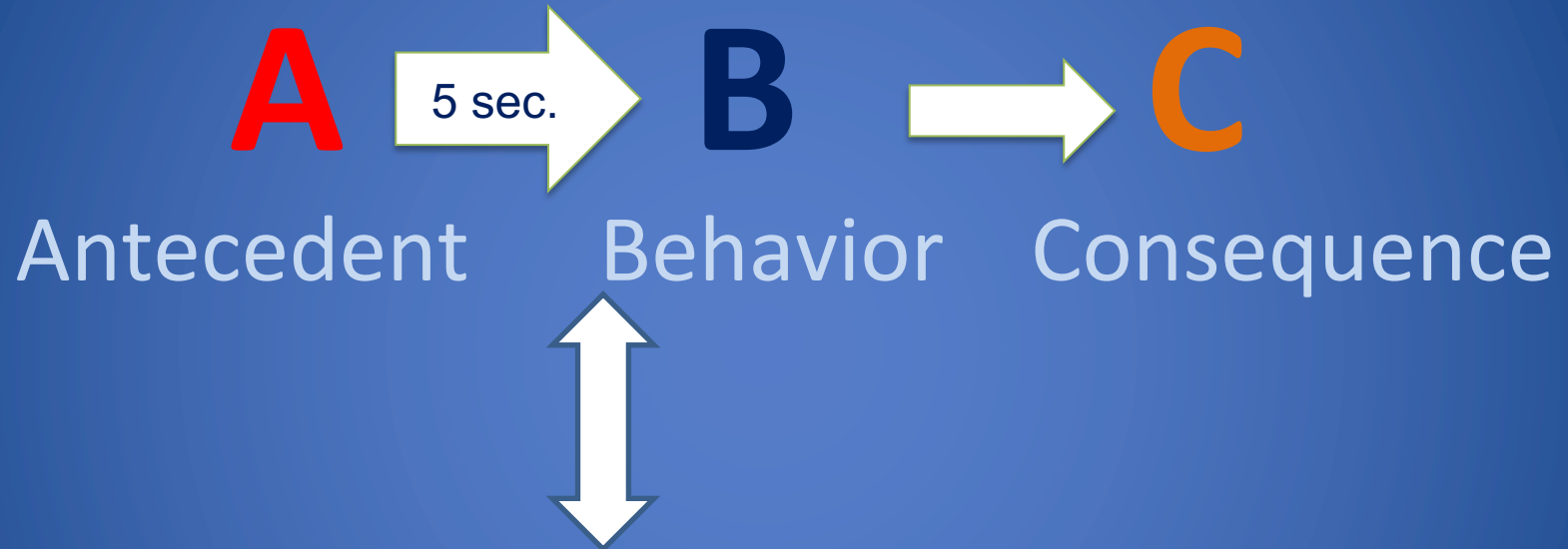
Constant Time Delay: Prompt always occurs after a set interval of time.
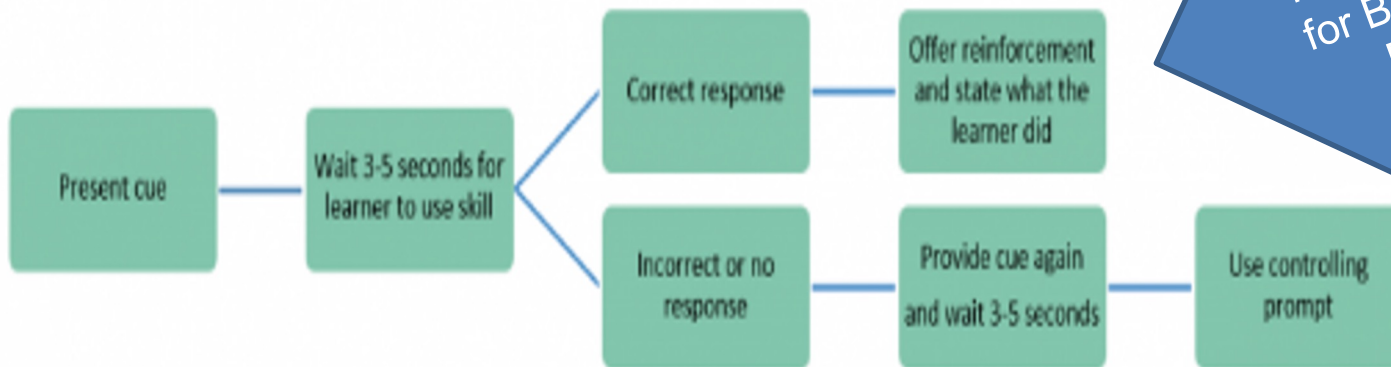
Example of Constant Time Delay
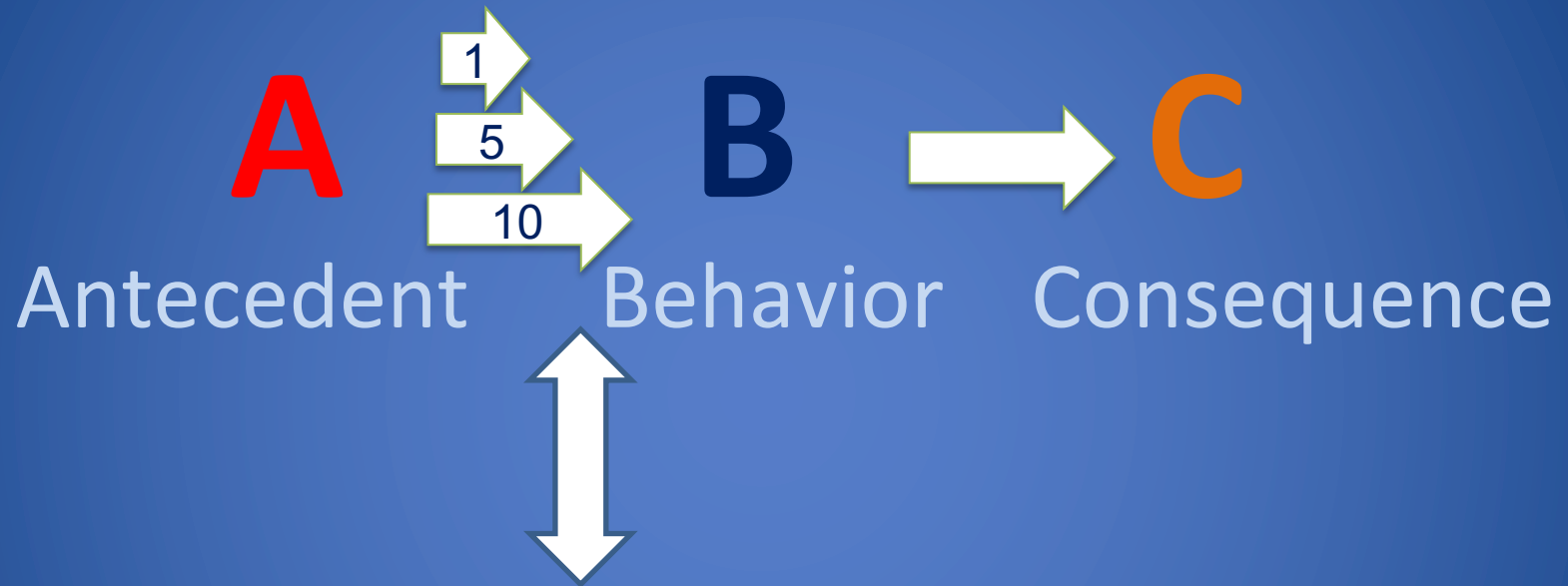

AFIRM — Autism Focused Intervention Resources and Modules

Consequence:
How To Respond to Student Using Constant Time Delay Procedure

Constant Time Delay (after the predetermined 0-second delay trials):

Present cue → Wait 3-5 seconds for learner to use skill

- Correct response → Offer reinforcement and state what the learner did
- Incorrect or no response → Provide cue again and wait 3-5 seconds → Use controlling prompt

Use Differential Reinforcement for Beating the Prompt

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Progressive Time Delay

A   1   5   10   B → C

Antecedent   Behavior   Consequence

Progressive Time Delay: Amount of time between the target stimulus and the prompt gradually increases.

Consequence:
How To Respond to Student
Using Progressive Time Delay Procedure

Progressive Time Delay (after the predetermined 0-second delay trials):

Present cue → Wait using the increased delay time →

- Correct response → Offer reinforcement and state what the learner did
- Incorrect response → Provide cue again and wait for increased time interval → Use controlling prompt

Use Differential Reinforcement for Beating the Prompt

Always Start With a Zero Second Delay

A → [0 Sec] **B** → **C**

Antecedent   Behavior   Consequence
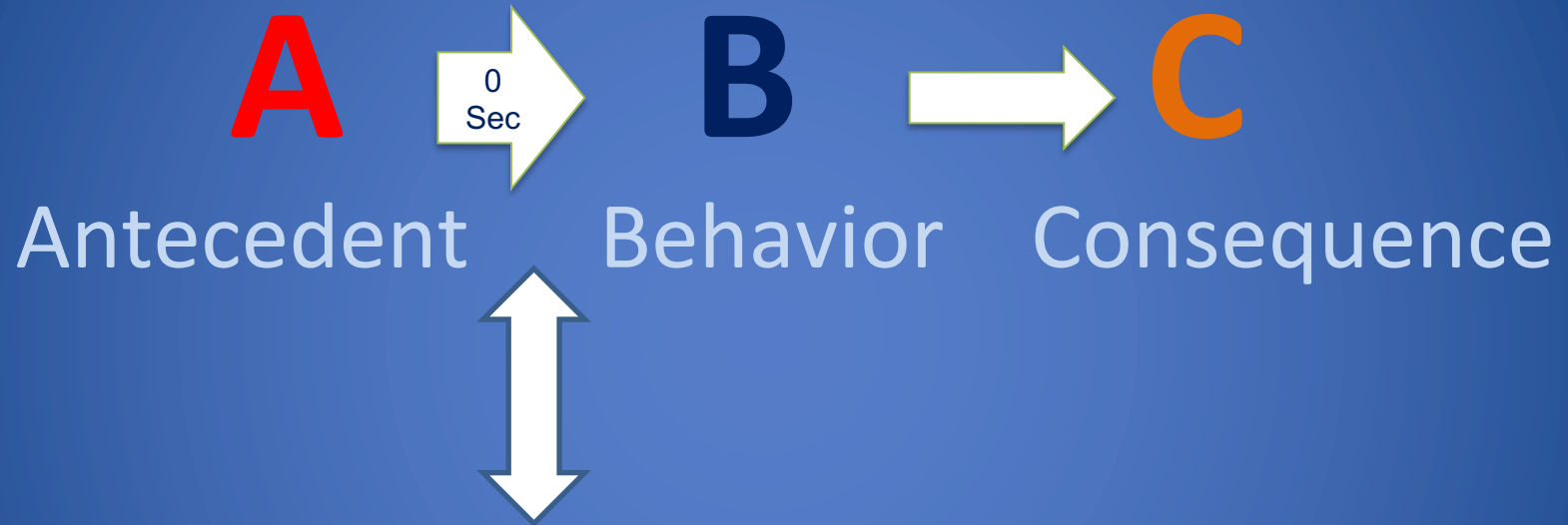
Zero Second Delay: Immediately provide the controlling prompt (0 second delay) after the target stimulus is presented.

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Let's Practice!

✅ Checking In

Brian is working on single digit addition. His cue is a flashcard with an addition problem on the card (1+5=). He sometimes will get the answer if you wait for 3 seconds.

How long should his teacher wait before providing the controlling prompt when first using time delay?

- ▸ 0 seconds
- ▸ 1 second
- ▸ 2 seconds
- ▸ 3 seconds

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Monitor Student Responding

LEARNER RESPONSE	DESCRIPTION
UNPROMPTED CORRECT RESPONSE	Learner uses the target skill/behavior correctly without prompts within the time delay interval.
PROMPTED CORRECT RESPONSE	Learner uses the target skill/behavior correctly after being prompted.
UNPROMPTED INCORRECT RESPONSE	Learner attempts to use the target skill/behavior without prompts within the time delay interval, but performs it incorrectly.
PROMPTED INCORRECT RESPONSE	Learner attempts to use the target skill/behavior after being prompted, but performs it incorrectly.
NO RESPONSE	Learner does not initiate use of the target skill during the time delay interval.

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Collect Data To Determine if TD is Working

Troubleshooting

If the learner with ASD is not showing progress with time delay, ask yourself the following questions:

- Is the target skill or behavior well defined?

- Is the skill or behavior measurable and observable?

- Is the skill too difficult and needs to be broken down into smaller steps?

- Has enough time been devoted to using this practice?

- Was time delay used with fidelity based upon the implementation checklist?

- Does the learner have the prerequisite skills and abilities for time delay?

- Are reinforcements used that are motivating to the leaner?

- Are team members responding to the learner's attempts appropriately?

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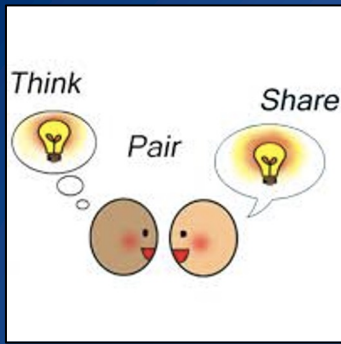
My Takeaways

1. What are 4 things you remember from today's training?

1. What are 2 things you see yourself doing?

1. What is the 1 thing you can implement tomorrow?

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Next Steps

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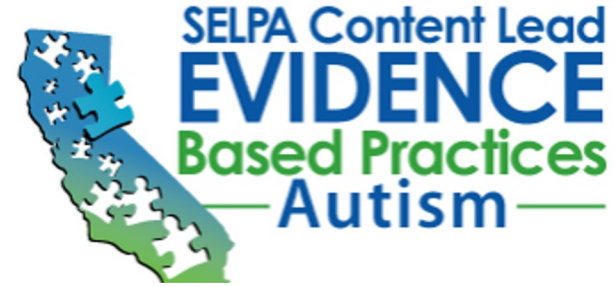
After the Training…

Please complete the **Post Training Survey**
that will be sent to your email

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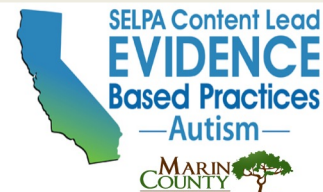
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