### Welcome!

Thank you for joining us! The webinar will begin shortly.



#### The Basics of Delivering Systematic Instruction

5.0

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#### Overview of Our Chat

What is systematic instruction?

- What are the systematic response prompting procedures that are supported by research? How can systematic instruction be used to teach meaningful
- core content? How can systematic instruction be embedded in inclusive settings?
- How can systematic instruction be used in a virtual environment?

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#### Two Types of Systematic Instruction

Stimulus prompting

Red → Red → Red → Red

#### Response prompting

Verbal directions, gestures, models, physical guidance

Focus of this Presentation:

Response Prompting Procedures

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Based on Applied Behav	ior Analysis
nstructional trials	<b>A</b> B <b>Ç</b> Ş
Antecedent   Behavior	→ Consequence
Or	
Stimulus → Response –	Consequence
Example	
Teacher direction → correct respon	se ➡ praise or good grade

#### Nearly Errorless Learning

Prompts added to instructional trials to facilitate correct responses

 $\mathsf{Stimulus} \twoheadrightarrow \mathsf{Prompt} \twoheadrightarrow \mathsf{Response} \twoheadrightarrow \mathsf{Consequence}$  Example

Teacher direction  $\Rightarrow$  guidance  $\Rightarrow$  response  $\Rightarrow$ praise or error correction

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#### **Response Prompting Procedures**

Graduated Guidance Most-to-Least Prompting System of Least Prompts Time Delay • Constant or Progressive Simultaneous Prompting



#### **Graduated Guidance**

Physical prompt

Shadows learner's movement until momentary assistance needed Example

• Shadowing movements while teaching learner to write name or tie shoe, providing physical guidance as needed



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#### Most-to-Least Prompting

Hierarchy of prompts

Starts with most intrusive prompt until criterion is reached Moves to less intrusive prompts across sessions as criterion reached at each level

Ends with independence

Example

• Teaching independent self-nourishment

• 1 week physical, 1 week model, 1 week verbal, 1 week independent



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#### System of Least Prompts

Hierarchy of prompts

Start with least intrusive prompt until criterion is reached Moves to less intrusive prompts within trials until correct response performed

Example

 Facilitating participation in science experiment

 Independence, verbal prompt, model prompt, physical prompt



#### Time Delay

Single controlling prompt

0 seconds to perform correct response before prompt during initial trials Moves to larger intervals of time to perform before prompt across sessions

perform before prompt across sessions Example

 Teaching vocabulary words during shared reading



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#### Two Types of Time Delay

Progressive time delay

 Slowly increases delay interval before prompt over time Constant time delay

 Increases to present delay interval before prompt and remains there



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#### Simultaneous Prompting

Single controlling prompt

Daily probe trials to assess independent correct response

Subsequent daily training trials with immediate prompting to perform correct response

Probe-training sequence continues until criterion met in daily probe trials



#### Simultaneous Prompting

Example

• Math lesson

 Probe with problem, then provide guided instruction if needed



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#### Myths About Systematic Instruction

Systematic instruction can only be used in a one-to-one format.

Systematic instruction can only be used by a trained special education teacher.

Systematic instruction can only be used in a segregated special education setting.

Systematic instruction can only be used to teach functional skills or flash cards.

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#### What the Research Says

Systematic instruction can only be used in a one-to-one or group format.

Systematic instruction can only be used by anyone who is trained in the procedures.

Systematic instruction can only be used in any setting. Systematic instruction can only be used to teach core content and complex skills.









Teaching numeral recognition and basic calculations while solving math problems in group lesson



Teaching numeral recognition and basic calculations while shopping for materials for class



# Systematic Instruction - Inclusive SettingsEMBED TRIALS OF<br/>FUNCTIONAL CONTENT IN<br/>ACDEMIC LESSONSEMBED TRIALS OF<br/>FUNCTIONAL CONTENT IN<br/>DALLY ROUTINESTeaching budgeting while<br/>teaching algebraic equationsEaching budgeting while<br/>shoping for class projectImage: Image: I

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#### Making Relevant and Meaningful Connections

Nontargeted Information

Content that is not directly targeted for specific instruction



• Example

 Add information on healthy lifestyle choices to science lesson on genetics



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#### Examples from the Research

Elementary sentence construction using technology (Pennington et al., 2014)

Elementary geometric shapes and characteristic (Orihuela et al., 2018) Middle physical education skills and core content (Park et al., 2020) Middle school health core content embedded by general education teachers (Tekin et al., 2017)

Middle school science core content embedded during leisure time with peers (Fetko et al., 2013)  $\,$ 

#### Examples from the Research

Secondary Pythagorean theorem taught with video anchor (Creech-Galloway et al., (2014)

Secondary algebra and biology skills taught by paraprofessional and peers in inclusive settings (Heinrich et al., 2016)

Secondary listening comprehension and communication with technology and peer involvement (Collins et al., 2019)

Secondary biology content on genetic core content with links to healthy lifestyle (Riggs et al., 2013) Secondary biology photosynthesis core content in school greenhouse (Collins et al, 2017)

Secondary group reading comprehension, algebra, and physics core content embedded during consumer science cooking activity (Karl et al., 2013)

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#### Virtual Systematic Instruction

Trained instructors

• General or special education teacher, paraprofessional, peer, caregiver, related service personnel



Instructional technology

Direct instruction

Video prompting and video modeling

Assistive technology

• Communication, motor, and hearing impairments



#### Take Away Number 2

Response prompting procedures are supported by a large data base across disabilities and age groups.































## Thank you!