Evidence-Based Practices to Support Standards-Based Instruction

A Focus on Everyday Practice

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This session will focus on:

- Embedded systematic instruction to teach academics to students with significant intellectual disability.
- Plan and implement grade-linked instruction in English/language arts, mathematics, and science aligned to the Common Core State Standards.
- Models of instruction will be provided with curricular frameworks and lesson plans with explicit guidance.
- Strategies that can be used to collaborate with general educators to generate grade-linked lessons in core academic content areas.
- Implementation feasibility, K-12 application, and inclusive practices

Systematic Instruction: An Evidence Based Practice

To teach:
ACADEMICS
- Spooner, Knight, Browder, & Smith (2011)

SCIENCE
- Spooner, Knight, Browder, Jimenez, & DiBiase, 2011

Examples from the Field

Specifically time-delay, task-analysis, and prompting hierarchies were found to be effective strategy when teaching reading and literacy skills, science and math to students across all grade levels.
**TASK-ANALYSIS**

- Chained skill

**Prompting Hierarchy**

**Barriers and Concerns**

- Students with severe disabilities have intensive support needs (Kennedy & Horn, 2004).
- Spooner, Dymond, Smith, and Kennedy (2006) described the “multifaceted” barriers to providing students with significant intellectual disabilities access to the general curriculum.

**Massed vs. Distributed Trials**

- Instructional targets occur one after the other with no time between each.
- “acquisition and initial learning”
- Instructional targets are naturally embedded in ongoing activities throughout the day.
- “facilitates generalization”
**Embedded Instruction**

*Jimenez & Kamei, 2013*

- 11 studies met criteria (Horner et al. 2005; NSTAAC, 2010)
- Strong or moderate (acceptable) levels of causal inference.

“explicit, systematic instruction designed to distribute instructional trials within the ongoing routines and activities of the performance environment”

McDonnell, Johnson, & McQuivey, 2008

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**Definition of A Practice**

- Role Call, bathroom breaks
- Transitions (e.g., lecture to science lab)
- Cooperative Learning Groups
- Ongoing lesson

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**Is embedded instruction happening?**

- 11/11 studies used EI in the inclusive classroom
  - Elementary
  - Middle Schools
  - High Schools

*Disclaimer . . . . Distributed Trials!

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**can I embed learning trials?**

- 1/11 studies used EI in the inclusive classroom

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**embeds the instruction?**

- GENERAL EDUCATORS (e.g., Polychronis, McDonnell, Johnson, Riesen, & Jameson, 2004)
- SPECIAL EDUCATORS (e.g., Collins, Evans, Creech-Galloway, Karl, & Miller, 2007)
- PARAPROFESSIONALS (e.g., Riesen, McDonnell, Johnson, Polychronis, & Jameson, 2003)
- PEERS (e.g., Jameson, McDonnell, Polychronis, & Riesen, 2008; Jimenez, Browder, Spooner, & DiBiase, 2012)
The POWER of Peers

Hudson, Browder, & Jimenez, in press for 2014, RPSD

What about kids with more complex communication needs?

Constant Time Delay
*see handout

- Most common form of Systematic Instruction
- Easy to use
- TONS of research to support its use to teach
  - Discrete
  - Chained steps of a task analysis

Step 1: 0 delay rounds
Step 2: Delay round (e.g., 3 seconds)
Step 3: Praise; error correction

Personally Relevant Curriculum

But... How do I “make it happen”

- Identify student academic goals
- Social Skills
- Academic Readiness
- Grade Aligned
  - Big Ideas, Vocab.
Example of word/picture/concept set for Unit 2.

Example: Generalization of “instruction” to Inclusive Math Class
- 3rd, 4th, or 5th grade
- Based on chronological age; not math achievement
- Target skills identified from special education teacher/class lessons
- Taught by teaching assistant in general education math class
- Taught using embedded instruction

Example

General Education Math Classroom
- Using sets to develop understanding of multiplication or division
- Creating 3 sets of 4
- Dividing 12 into 3 sets

Embedded Instruction
- Create sets up to 5 (skill learning in Early Numeracy instruction)
- Generalized to general education math materials for creating sets
- Extended to multiplication
- Can select number from number line to label sets
- Using number line from Early Numeracy instruction in general education math classroom
- May be able to count to find multiplication answer

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Inclusive Education
- Embedded skills delivered by paraprofessional
- 4-5x per week

Example of an Embedded Instruction Planning Form

Building Early Numeracy Skills
“make it happen” continued

Try it! See what works for you!
Evidence Based Practice vs.
Practice-Based Evidence

References

