

Defining Embedded Instruction for Research and Flexibility in Practice

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Background

Embedded instruction (EI) is a term used in early childhood and severe disabilities. The same term might have different meanings in research and practice.

Other approaches that refer to embedding:

- Individualized Curriculum Sequencing (Mulligan, Guess, Holvoet, & Brown, 1980)
- Transition-Based Teaching (Wolery, Doyle, Gast, Ault, & Simpson, 1993)
- Building Blocks (Sandall & Schwartz, 2002)
- Activity-Based Instruction (Losardo & Bricker, 1994)

Literature Review

A systematic literature review was conducted to identify:

- ☐ how the term EI was defined.
- ☐ how the definition influenced the planning, implementation and evaluation of EI.

13 studies met the following criteria:

- ☐ Implemented EI for students with significant disabilities including early childhood and school age
- ☐ Used single subject research
- ☐ Reported student outcome data

Findings from Review

Four major themes about embedded instruction:

- ▶ EI defined and applied in two distinct ways
- ▶ Both EI approaches associated with acquisition of targeted skills for learners
- ▶ Differences might relate to curricular goals, particularly with respect to supporting engagement, learning, participation, and independence in naturally occurring activities and routines versus “mastering” general curriculum content
- ▶ Key features across both applications

Embedding Into Activities or Routines

Definition:

Instruction that occurs within on-going naturally occurring activities or routines without breaking the flow of the routine

Discriminating Feature:

Emphasizes embedding in contexts or activities that are meaningful to the learner without interrupting learner’s engagement

Key Features of Research:

- ❖ Instruction integrally linked to the activity/context
- ❖ Variety of systematic instructional procedures (CTD, SLP, MLP, SP, ELO)
- ❖ Typically used in early childhood settings

Examples in Practice:

- ❖ Small group of children, including target child, cleaning up block area. Teacher asks target child for different shape blocks to put in the basket. Teacher uses SLP.
- ❖ During snack, teacher puts utensils needed slightly out of child’s reach and prompts the child to verbalize to obtain utensils after child uses gesture to request utensils. Teacher uses incidental teaching procedures.

Embedding Between Activities or Routines

Definition:

Instruction that occurs during naturally occurring opportunities such as breaks during activities or transitions from one activity to another

Discriminating Feature:

Uses activity breaks or transitions as context for embedding learning trials; does not emphasize meaningful engagement in activities

Key Features of Research:

- ❖ Instruction is peripherally related to the context
- ❖ One systematic instructional procedure (CTD)
- ❖ Typically used in school-age settings

Examples in Practice:

- ❖ Teacher passing back papers at beginning of language arts class. Para-educator provides brief trials on identifying sight words using CTD.
- ❖ Student asked to define key science terms (e.g., matter, energy, mass) as class transitions from lecture to lab work during science period.

Questions to Consider:

- ▶ What is the impact on practice if embedded instruction is defined and used differently in research?
- ▶ How do you define and understand embedded instruction?
- ▶ What are the key features?
 - **Purpose**—increased engagement, learning, participation, and independence or mastery of general curriculum content
 - **Activity/Context**—related or unrelated
 - **Naturally Occurring**—meaningful, functional, or routine
 - **Content**—meaningful to student – how is meaningful defined?
 - **Format**—distributed or massed trials
 - **Instruction**—systematic or opportunistic
 - **ABC**—natural or contrived