

Summary of evidence-based practice

Incorporating motor learning, cognition and task-oriented principles into interventions to foster a problem-solving approach to learning new activities

To help children learn, generalize and transfer skills to different tasks and contexts, it is important to make the learning explicit. Children with DCD have difficulties with:

- Analyzing task demands
- Interpreting environmental cues
- Using knowledge of performance for anticipatory preparation
- Error detection
- Movement correction

These difficulties are present during the execution of motor skills, especially with increased complexity of tasks, including spatial uncertainty - and compromise the learning of new tasks.

Incorporating general learning principles could be more important than the intervention itself. Incorporating motor learning, cognition and task-oriented principles into interventions to provide a solving structure will help the child "learn to learn". Although these three approaches are often integrated during interventions, each has specific key components. Recommendations are presented below.

Task oriented approach

- Use a concrete activity
- Practice in real life environments
- Grade the intensity of the activity

Motor learning approach

- Provide instructions
- Provide opportunities to practice the activity
- Provides feedback

Cognitive approach

- Use modality specific strategies (e.g., cues to focus attention)
- Use mental or self-verbalization strategies to involve cognition
- Transfer and generalize strategies

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