



Evidence Highlight: Executive Function

What are the big takeaways from current research?

- **Obtain the student's medical and family history:** Studies show that students with certain diagnoses have higher rates of EF deficits. Obtain a comprehensive social and medical history that includes history of prematurity, ID, hypertension, and abuse/trauma.
- **Identify EF through observation and assessment:** Schultz-Krohn and Polatajko (2013) suggest observation and:
 - Stroop Color-Word Test and Trail Making Test (Ability to shift sets and inhibit responses)
 - WCST and the Tower of London test (Planning, problem-solving, and flexible thinking)
 - Behavior Rating Inventory of Executive Function (BRIEF-2)
- **Improve EF skills specific to the student:** Danielsson et al. (2012) recommend providing services to support development of the student's specific EF deficit skills. Aarnoudse-Moens et al. (2011) emphasize the importance of providing individualized external structure and support to allow students the greatest ability to participate in the curriculum.
- **Teach and embed EF strategies:** Consider strategy teaching and self-regulation programs embedded into the student's day (CO-OP, Cog-Fun, Alert program, etc.), which were found to be the most effective interventions for students with EF difficulties; explicit training of underlying EF skills was not as effective (Takacs & Kassai, 2019).
- **Educate staff and administration about EF development and support in the classroom:** Consider providing in-services about EF's link to brain development, teaching and supporting EF (ex. CO-OP, Cog-Fun), and recommending EF strategies that can be implemented in the classroom.

Intern Highlight: Meridith Butler

Meridith Butler is a Master's Occupational Therapy student at LIU. Meridith completed a literature search and article reviews for the Executive Function section of the Evidence Inventory.



"My pediatrics fieldwork experience at the DOE provided me with many tools and experiences as I move forward with my career. Previous to my fieldwork experience, I had minimal experience with pediatrics and had planned on focusing on pursuing a career with geriatrics in the future. However, I ended up thoroughly enjoying my placement and learning more than I could have ever expected during the 8 weeks. I became fascinated with how everyday objects can be utilized creatively in order to improve skills worked on in school based OT. I was also able to interact with children of various ages, diagnoses and functioning levels which allowed me to develop new skills as a fieldwork student. After my experience at the DOE, I am very interested in pursuing a career with pediatrics."

"There are many key elements from the research that will impact my future practice as an OT. Primarily, as in many other treatment approaches there is no one size fits all method for improving EF skills for school aged children. A systematic review by Takacs and Kassai, emphasized that although there are impactful treatments to improve EF, both typically and non-typically developing children may respond differently to the same intervention (2019). Therefore, the literature review found that if a child of typical development was treated with explicit training that will help develop that populations' EF skills further. In comparison, providing new strategies for self-regulation would be considered more effective in fostering EF skills for non-typically developing children (Takacs & Kassai, 2019)."

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