

What is School Neuropsychology? An interview with Dr. Dan Miller

What is school neuropsychology and how is it different from school psychology?

The emphasis today in our field is making sure that our assessment data is linked to evidence-based interventions. Traditional psychoeducational assessments which follow the IQ – achievement paradigm are often limited and do not address underlying processing deficits that many children with current learning difficulties may be experiencing. School neuropsychological assessments are more thorough because a wider variety of constructs are included such as: sensorimotor functions, attentional processes, visual-spatial processes, language functions, learning and memory, executive functions, speed and efficiency of cognitive processing, academic achievement, and social-emotional functioning. In many ways, a traditional psychoeducational assessment serves as an initial screener to identify potential processing deficits that can be further delineated by a school neuropsychological evaluation.

The bottom line is that more thorough assessment related to the referral questions will generally yield more targeted interventions. As an example, as school psychologists we are used to saying a child has a reading disability and often leave it up to the teachers to determine the appropriate intervention. As one example, school neuropsychologists are trained to identify the subtype of reading disability (e.g., dysphonetic difficulty, and orthographic difficulty, or a mixed dyphonetic-orthographic difficulty) based on assessment data which leads to more refined and ultimately more successful interventions.

Where does school neuropsychology fit within an RTI service delivery model?

School psychologists who have developed competency in integrating neuropsychological principles into their professional practices will be able to utilize those skills at all levels of a RTI model. School neuropsychologists who have a broader knowledge base of processing disorders can use that knowledge to assist educators in pre-referral intervention development in Tier I. Best practices in school neuropsychology typically require a cross-battery assessment model that is guided by the referral question and what is known about the neurocognitive deficits associated with the suspected disability. School neuropsychological assessments are not necessarily more thorough but they are more specific and targeted to the suspected processing disorders.

When should a child be referred for a school neuropsychological evaluation?

There are multiple reasons why a child should be referred for a school neuropsychological evaluation including:

- when a child has suspected processing deficits from a psychoeducational evaluation and more in-depth assessment information is needed for intervention planning.
- A child is not responding to multiple intervention strategies.
- A child with a known or suspected neurological disorder (e.g.,

- A child with a history of neurodevelopmental risk factor (e.g.,
- A child returning to school after a head injury or neurological insult (e.g., chemotherapy)
- A child who has a dramatic drop in achievement that cannot be explained by psychological or environmental factors.

What constitutes competency in school neuropsychology?

Our assessment instruments are becoming more complex and yield a wealth of clinically relevant process-oriented data (e.g., NEPSY-II and D-KEFS) but require practitioners to have competency-based training. Going to a 3 hour workshop on the NEPSY-II does not make a school psychologist a school neuropsychologist, despite the claims of some people. School neuropsychology is the application of brain-based principles to education and it not dependent upon learning how to administer a set of tests. The tests are only tools to help us test hypotheses and take samples of behavior in controlled settings. Most specialist-level school psychology training programs in the US only require one course in the biological bases of behavior. If a school psychologist wanted to gain competency in school neuropsychology they have three options: 1) seek out doctoral training in school or pediatric neuropsychology (e.g., Texas Woman's University, Ball State University, Texas A&M University, etc.); 2) complete a competency-based post-graduate training program in school neuropsychology, or 3) individually develop the skill set through continuing education credits, graduate coursework, and supervised practice.

What are some resources that I can go to learn more about this field?

Books:

- Miller, D. C. (Ed.) (2010). *Best practices in school neuropsychology: Guidelines for effective practice, Assessment, and evidence-based intervention*. Hoboken, NJ: Wiley & Sons.
- Riccio, C. A., Sullivan, J. R., & Cohen, M. J. (2010). *Neuropsychological assessment and intervention for childhood and adolescent disorders*. Hoboken, NJ: Wiley & Sons.
- Miller, D. C. (2007). *Essentials of school neuropsychological assessment*. Hoboken, NJ: Wiley & Sons.
- Hale, J. B., & Fiorello, C. A. (2004). *School neuropsychology: A practitioner's handbook*. New York: The Guilford Press.

Website: www.schoolneuropsych.com

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