The Neuropsychology of Mathematics

Facilitator(s):	Steven Feifer
Date:	December 06, 2019
Time:	9:00 am – 3:00 pm
Cost:	$175.00 (includes lunch, which is not prepared in a nut/gluten-free environment)
Location:	Edmonton (Executive Royal Hotel) 10010 178 St NW, Edmonton, AB T5S 1T3
Session Code:	20-MA-094

Target Audience

Teachers (Grades K to 12); Instructional Coaches; Inclusive Learning Teachers; District Leaders/Consultants

Also Recommended For

School-based Administrators; Specialists who work directly with students

This workshop is sponsored by the Centre for Literacy

About this Learning Opportunity

***Note:** The following session is part of a Neuroscience for Literacy series designed to deepen understanding of the application of research about how the brain works and literacy learning. By exploring how knowledge transfer, new skill development, and behavioral change occurs in the brain, this can clarify existing assumptions of how students read, write and numerate.

This workshop will explore how young children learn and acquire basic mathematical skills from a brain-based educational perspective. The role of language, working memory, visual-spatial reasoning, and executive functioning will be featured as primary cognitive constructs involved in the acquisition of basic number skills. There will be a discussion on three primary ways in which numbers are formatted in the brain, as well as critical neurodevelopmental pathways that contribute to skills such as automatic fact retrieval, quantitative reasoning, and the development of number sense. The expected learner outcomes will be to better understand three prominent subtypes of math disabilities in children, learn critical assessment techniques to tease out each subtype, explored the role of anxiety and math, and to introduce more efficient ways to diagnose and remediate math disorders in children. The following objectives will be covered:

About the Facilitator(s)

Steven G. Feifer, D. Ed., NCSP, ABSNP is an internationally renowned speaker and author in the field of learning disabilities, and has authored seven books on learning and emotional disorders in children. He has nearly 20 years of experience as a school psychologist, and was voted the Maryland School Psychologist of the Year in 2008, and awarded the 2009 National School Psychologist of the Year. He was the recipient of the 2018 Outstanding Contribution to the Education and Training of Psychologists award by the Maryland Psychological Association. Dr. Feifer serves as a consultant to a variety of school districts, and is a popular presenter at state and national conferences. He has authored two tests on diagnosing learning disabilities in children; the FAR and FAM, both published by PAR.

- Discuss international trends in mathematics, and where Canada stands compared to many other industrialized nations in math and science.
- Explore the role of various neurocognitive processes including language, working memory, visual-spatial functioning, and executive functioning, with respect to math problem solving ability and quantitative reasoning.
- Introduce a brain-based educational model of math by identifying three basic subtypes of math disabilities in children, and developing numerous games and intervention strategies for each subtype.
- Introduce the Feifer Assessment of Math (FAM) battery as a more viable means to both assess and remediate math disabilities in children.

You might also be interested in:

- The Neuropsychology of Reading and Written Language Disorders
- The Neuropsychology of Mathematics
- Neuropsychology of Reading: Differentiating Literacy Instruction

This session addresses the LQS competencies

- *#2: Modeling Commitment to Professional Learning*
- *#6: Providing Instructional Leadership*

This session addresses the TQS competencies

- *#2: Engaging in Career-Long Learning*
- *#3: Demonstrating a Professional Body of Knowledge*
- *#4: Establishing Inclusive Learning Environments*

This session is being offered on a cost recovery basis.