

Mary J. Wright Research and Education Centre at Merrymount Signature Areas of Research

Environmental effects on brain development – toxic stress

Children who are exposed to stressful and traumatic circumstances early in life are prone to lifelong problems in learning, behavior and physical and mental health. Working in collaboration with Drs. J Bruce Morton and Elizabeth Hayden, Professors in the Department of Psychology and principal investigators at Western's [Brain and Mind Institute](#), the Mary J. Wright Research and Education Centre at Merrymount will investigate the impact of early adversity on the development of brain functioning and develop interventions that will help prevent children who have experienced traumatic circumstances from developing lifelong disabilities.

Cognition, language, literacy and numeracy

Math, reading and oral language skills are the foundational pillars of learning and education and the key to success in school and beyond. The development of treatments and interventions for learning disabilities in these areas, such as dyslexia, has been hampered by a lack of understanding of the different ways in which they can affect individual children. World-renowned cognitive neuroscience researchers Drs. Daniel Ansari, Mark Joanisse and Lisa Archibald will study the cognitive processes that support children's learning and examine the key mechanisms associated with emerging, established and delayed skills in language, reading and math. Faculty of Education professor Dr. Perry Klein, an expert in cognition and instruction, will research and develop interventions related to early writing skills and Dr. Rachel Heydon and her team from the Faculty of Education will bring their internationally-recognized research focusing on multimodal literacy, intergenerational and early literacy curricula. Combined, this research will improve identification and understanding of general and specific learning disabilities in math, reading and oral language, and provide strong evidence for versatile and customizable interventions that lead to improved outcomes for children.

Social, Emotional and Behavioral Resiliency and Well-Being

Very little research has been done to examine the patterns and causes of social, emotional and behavioral challenges in preschool children and to link those findings to interventions that support the well-being of those children and their families. Dr. Claire Crooks, Director of the Faculty Education Centre for School Mental Health, will work in partnership with Drs. Shannon Stewart, Elizabeth Nowicki, Jacqueline Specht, and Vicki Schween, to explore the cause and frequency of mental health problems in young children, and develop and evaluate tailor-made early childhood assessment measures and intervention programs to enhance mental health outcomes for children. Dr. Don Saklofske, internationally recognized researcher in emotional intelligence, resiliency and psychological assessment will conduct studies focusing on the role of individual differences in the development of psychological health and well-being in young children.