

Research and Teacher Education

at Dr. Eric Jackman Institute of Child Study

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Dr. Eric Jackman Institute of Child Study
UNIVERSITY OF TORONTO



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OISE | ONTARIO INSTITUTE
FOR STUDIES IN EDUCATION

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Math in the Early Years

Bev Caswell collaborates and works closely with



Professor Emerita **Joan Moss**,
Dr. Eric Jackman Institute of
Child Study Laboratory
School teachers, and
Ontario educators to
design Inquiry-based
learning environments
that promote equity and a
deeper understanding of

mathematics and science concepts. As the Director of the Robertson Program, Bev's current research examines how young children learn geometry and how teachers can best foster student spatial reasoning skills through playful mathematical activities and lessons (many developed at the Laboratory School). Currently in its third year, Bev is collaborating with schools serving First Nation communities in Northwestern Ontario such as Big Grassy River First Nation, Lac La Croix First Nation, and Onigaming First Nation. The primary objective of this research is to study the effects of the teacher professional development on student achievement. The findings suggest that employing an Inquiry-based approach to early mathematics – with a major emphasis on increasing students' spatial reasoning skills – offers an effective means to improve student achievement in mathematics and also effective in improving the foundational understanding of number. *Taking shape: Activities to develop geometric and spatial thinking* by Joan Moss, Catherine D. Bruce, Bev Caswell, Tara Flynn, and Zack Hawes is published in April 2016.

For further information on her and Robertson Program Team's work, see:

www.oise.utoronto.ca/robertson

Read to Inspire Change

Viola Cleovoulou conducts case study research in the area of teachers' pedagogical practices. Her



most recent study examined practices of six elementary teachers. Through interviews and observations she found seven themes for teaching critical literacy through an Inquiry-based frame: encouraging student dialogue of critical issues through

purposeful text selection; connecting text to students' lives through ongoing reflective practice; empowering student voice; use of open-ended questions to develop deeper connections; sharing multiple perspectives through knowledge building circles; use of misconceptions to guide the learning; and affirming identities and Encouraging Advocacy. Her book *An Inquiry-based Approach to Critical Literacy: Pedagogical Practices in Elementary Classrooms* is in the works.

How Picture Books Help Kids Learn

Patricia Ganea investigates the processes involved in young children's learning about the world



through symbolic means, such as language, pictures, videos, and replica objects. She is particularly interested in children's use of language to think and communicate about what is perceptually not present.

Developing the ability to communicate about absent objects and events is a major cognitive achievement, one that enables children to learn about the world indirectly. Her research focuses on the social, linguistic, and representational factors that influence children's

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learning about the world. Picture books can be a rich source of information about the world, especially about things that we cannot learn through direct observation. She studies which types of picture books children are more likely to learn from and transfer information to the real world. Her research examines children's learning of language and science knowledge from picture books, with the goal of identifying factors that facilitate or impede this process.

Intentional Interruption: Breaking Down Learning Barriers to Transform Professional Practice

Steven Katz's work with school and district leaders around the province explores what it means for professional learning efforts to be about the kind of learning that truly improves practice. Despite best intentions and a significant commitment of resources, professional learning is often about activity rather than about learning. Real new learning is about people thinking, knowing, and understanding differently than they did before. Getting to real learning requires disrupting our natural propensity to avoid it. It is about an intentional interruption of the subtle cognitive and emotional supports that work to preserve the status quo of thinking, knowing, and doing.

For further information on his work, see: Katz, S. & Dack, L. A. (2013). *Intentional Interruption*. Thousand Oaks, CA: Corwin.



Longitudinal Study of Teachers

Clare Kosnik and **Clive Beck** have been conducting one of the largest longitudinal studies of teachers in the world. They have been following 42 teachers – mainly elementary and middle school: 20 began teaching in 2004 and 22 in 2007. Seven priorities for teacher education they



identified are: program planning; pupil assessment; classroom organization and community; inclusive education; subject content and pedagogy; professional identity; and a vision for teaching. A key publication is *Priorities in teacher education: The 7 key elements of preservice preparation* (2009).

Literacy Teacher Educators

Clare Kosnik and **Clive Beck** are conducting research on 28 literacy/English teacher educators in four countries (Canada, US, England, and Australia). They found that teacher educators must hold multiple identities (as teachers, teacher educators, and researchers). They identified four spheres of knowledge they need: research; pedagogy of higher education; literacy and literacy teaching; and current school district and government initiatives. Although there is incredible variation in their courses some of the key goals were: expand student teacher's conception of literacy; acquire a repertoire of teaching strategies (including use of digital technology); and help student adopt a professional identity. They have recently edited *Building bridges: Rethinking literacy teacher education in a digital ear* (2016).

For further information on their work, see: www.literacyteaching.net

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Little Liars and Social Perception

Kang Lee studies the emergence and development of social cognition and social behavior and the underlying neural mechanisms. His research has two foci: The first is the development of moral cognition and action with a specific focus on honesty and lying. He uses experimental and neuroscience methods to investigate how children come to grips with the concept and moral implication of truth-telling and lying, whether children are gullible or they are able to detect others' lies, and whether children can tell convincing lies in various social situations. The second is on the development of social perception with a specific focus on face processing. He uses psychophysical and neuroscience methods to study the role of experience in shaping how infants, children, and adults perceive, encode, and recognize different kinds of faces such as faces from different races, and related cognitive and social consequences (e.g., racism).



during their visit to the lab. In one recent study, Lauren Batho, a recent graduate from the Martinussen Lab, showed that youth with ADHD who complete academic tasks (e.g., writing a composition, answering questions about a history text) while concurrently listening to irrelevant classroom babble report greater level of difficulty experienced while completing the task relative to those with ADHD who completed the task in silence.

The Fall Institute

Dr. Eric Jackman Institute of Child Study Laboratory School teachers provide what Sharon Feiman-Nemser describes as “educative mentoring” in which masterful mentor teachers move beyond simply addressing the present practical learning needs of the Teacher Candidate (TC), by connecting one to a larger vision of what teaching can be. With



the new increased size of the MA CSE cohort, practicum placements at the Laboratory School are no longer possible for all TCs. **Richard Messina** and **Chriss Bogert**, with the assistance of the Lab School

Learning with ADHD

Dr. Rhonda Martinussen, in collaboration with her colleague Dr. Judy Wiener and her students, explores academic achievement and motivation in adolescents with and without a previous diagnosis of attention-deficit/hyperactivity disorder (ADHD). Her most recent study included 49 adolescents with ADHD and 47 youth without a diagnosis of ADHD. The youth completed a broad range of academic, cognitive, and self-report (e.g., perceptions of efficacy for self-regulated learning)



teachers, designed and conducted a week-long “Fall Institute” in which all 76 MA CSE Year-1 TCs were exposed to the pedagogical approaches and teaching philosophies of the Laboratory School. With in-class observations, debriefs with teachers, and workshops on research-supported learning theories, the Fall Institute provided a forum for productive talk to ask question about pressing teacher issues and explore connections between theoretical and practical knowledge. The survey result from TCs revealed that the Institute was a very valuable learning opportunity. This

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feedback is used to strengthen the partnership between the Laboratory School and the MA CSE Program.

Does Full-Day Kindergarten Work?

Janette Pelletier's longitudinal study examines the implementation and impact of Ontario's full-day kindergarten program on children, parents, and staff. Participants include 878 full-day and half-day kindergarten children and families who have been followed from kindergarten to Grade 2. The study follows the children to Grade 6 to describe pathways of development and to examine the relation between observed early program benefits and long-term social and academic outcomes.



For further information on her work, see: Pelletier, J. (2014). Ontario's Full-day Kindergarten: A Bold Public Policy Initiative. *Public Sector Digest, The Education Issue*.

Early Literacy & Family Literacy

In one of **Janette Pelletier's** longitudinal studies, kindergarten children and their parents attended afternoon or evening 9-week school-based family literacy programs facilitated by MA and PhD education students, teachers and ECEs. Parts of the research were carried out across Canada, with corporate and government support and with a media partner TVOntario. Across the multiple sites and years, 554 families participated in the research. Results showed both short-term and long-term benefits for children's literacy development and for parents' knowledge about fostering literacy

at home.

For further information on her work, see: Pelletier, J., Doyle, A., & Hipfner-Boucher, K. (2010). *Family Literacy in Action: A Guide for Literacy Program Facilitators*. Toronto, ON: Scholastic Education.

Play-Based Learning

Angela Pyle's research explores the negotiated balance between academic learning and developmentally appropriate practices in classrooms with a specific focus on play-based learning in the kindergarten years. Within this area she focuses on the role of teacher curricular stance in pedagogical decision-making, how children develop critical literacy skills through play-based learning, and how teachers' assessment practices support and extend children's learning in play-based contexts. As part of this research stream, she is interested in methods for including young children's voices in research about their learning, exploring methods that are developmentally appropriate for researching with kindergarten-aged children.



Life Span Development & Head and Spinal Cord Injury Prevention

Rick Volpe studies the relation of early experience to later life, in particular how developmental science can be used to prevent or reduce the severity of adverse problems. For the last decade he and his team have investigated and cased 140 of the world best practices in the prevention of head and spinal cord injury. Currently he is applying this work in a large scale effort to reduce the incidence

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of falls in older adults. This research is directly based on the following two of the previous projects: The first undertaking was a system wide assessment of Timiskaming's Best Start Initiative, one of the three Ontario Best Start Demonstration Projects funded by the Ministry of Children and Youth Services. This project overcame huge geographic challenges by creating "virtual" hubs to coordinate early childhood services. The second project,



funded by the Ontario Neurotrauma Foundation, involved the use of network mapping to evaluate the implementation of a community systems approach to preventing abusive head trauma in infants (formerly shaken baby syndrome). These projects currently inform the

implementation of another one of our cased best practices in Ontario's Northeast Local Health Integration Network called Stay on Your Feet. In a system wide older adult falls prevention initiative funded by the Ministry of Health, social network analysis is planned to examine how five public health units adapt the program in this vast region.

For further information on his work, see:
Volpe, R. (2013). *Casebook of Exemplary Evidence-Informed Programs that Foster Community Participation After Acquired Brain Injury*. Charlotte, NC: IAP Press.
Volpe, R. (2009). *Timiskaming Best Start Appreciative Inquiry*. Ministry of Children and Youth Services.
Volpe, R. (2000). *A Compendium of Effective, Evidence-Based Best Practices in Prevention of Neurotrauma*. Toronto, ON: University of Toronto Press.

legacy.oise.utoronto.ca/research/ONF-SBSPrevention

Knowledge Mobilization on the Internet: Putting Research into Practice

Dale Willows and her students are involved in research and development in the area of internet use for professional learning in literacy education. The primary project involves a comprehensive

research-into-practice website – *The Balanced Literacy Diet: Putting Research into Practice in the*



Classroom (www.LitDiet.org). This innovative and comprehensive site is designed to guide teacher educators and teachers in the implementation of evidence-based literacy instruction. The site presents

teaching practices that meet the needs of all students in the elementary grades, including program adaptations for English language learners and students with learning disabilities. By translating what we know from research into a consumable and engaging form the site is made accessible to all educators. The website and its YouTube channel (@BalancedLiteracyDiet) provide free professional learning resources such as virtual tours of exemplary classrooms (JK-6), video clips of expert teachers explaining and demonstrating effective educational practices, detailed lesson plans, photos of teaching materials, and exemplars of student work.