

Ann LeSage, PhD

Associate Professor, Faculty of Education at University of Ontario Institute of Technology

Oshawa, ON, CA

Empowering pre-service teachers to engage students in new ways of learning mathematics

Good number sense comes from more than textbook teaching and learning. For Ann LeSage, PhD, it's about fundamentally changing the way pre-service teachers approach their own learning and mathematics teaching to engage children at an early age. As Associate Professor in the University of Ontario Institute of Technology's Faculty of Education, Dr. LeSage is passionate about changing children's experiences with math by changing the perceptions of pre-service educators coming into the program.

Dr. LeSage first noticed this gap early in her elementary teaching career. Students struggled to understand math from teachers who didn't have a firm grasp of mathematical concepts and were unable to engage students in learning. She has always been enthusiastic about teaching math and science and wanted to make a meaningful difference in the lives of children.

At the University of Western Ontario, Dr. LeSage earned both her Bachelor of Science (Honours) in Geology, and her Bachelor of Education in Primary-Junior Education in 1988, and 1993, respectively. Upon graduation, she began teaching Grade 2 abroad at the Abu Dhabi International School in the United Arab Emirates (UAE), and served as a mathematics and biology (IGCSE) teacher for the American International School in UAE. In 1998, she furthered her global teaching experience as a mathematics teacher (pre-algebra) at Colegio Bolivar in Cali, Colombia.

Dr. LeSage returned to Canada to pursue graduate studies, and in 1999 she completed her Master of Education in Curriculum and Leadership at Nipissing University (NU) in North Bay, Ontario. She joined the University of Toronto's Ontario Institute for Education Studies (OISE) as a research assistant in Curriculum, Teaching and Learning in 2000; where she earned her Doctorate in 2005. She also held the appointment of tenured assistant professor in the Faculty of Education at NU before joining the University of Ontario Institute of Technology in 2006. Here, she quickly realized how few math and science courses were offered to pre-service teachers, and what little background they had in these areas.

Her role at UOIT is in developing pre-service teachers' understanding of math and science to foster lifelong student engagement in these critical subjects for the benefit of society. For her work in this area, she was awarded the Best Practical Paper at the 2011 International Association for Development of the Information Society e-Learning Conference in Rome, Italy.

Education/Learning, Research, Program Development

Children's Literature and Mathematics, Classroom Use and Effectiveness (Affective and Cognitive), Critical Numeracy and Critical Literacy, Impact On Affective and Cognitive Factors Specific to Mathematics, Mathematics Education (Kindergarten to Grade 8): Teacher Knowledge and Student Development, Mathematics Teacher Development (Pre-Service and In-Service), Pre-Service Teacher Education, Video Podcasts and Digital Learning (Pre-Service Teacher Development: Cognitive and Affective)

Don't count on the quality of children's counting books
57th International Council on Education for Teaching (ICET) World Assembly

Pathways Research Team. Exploring Pathways and Advisor Experiences in a College-University Pathways Program
Ontario Council on Articulation and Transfer (ONCAT) Student Pathways in Higher Education Conference

Admissions criteria: A determinant of "who gets to be a teacher?"
Sixth Working Conference on Research in Teacher Education in Canada

Beyond the "WOW factor": A framework for selecting children's literature for teaching mathematics
Canadian Society for the Study of Education

So much to do, so little time: Supporting elementary pre-service teachers' sense of rational numbers
Awarded Best Practical Paper, presented at The International Association for Development of the Information Society e-Learning Conference (IADIS)

Supporting elementary pre-service teachers' understanding of mathematics
Canadian Society for the Study of Education

Beyond "Five Little Monkeys": Evaluating the quality of children's literature in mathematics
National Council for Teachers of Mathematics (NCTM) Annual Conference

Case Study in Designing a Logic model for program evaluations
TeachMe Conference

Case Study in Conducting a Program Evaluation: Checking for School Improvement and Effectiveness
TeachMe Conference

OISE, University of Toronto
PhD Education: Curriculum Teaching and Learning

Nipissing University
MEd Education, Curriculum and Leadership

University of Western Ontario
BEd Primary-Junior Education

University of Western Ontario
BSc Geology

Assistant Professor, Faculty of Education, UOIT

As an Assistant Professor in the Faculty of Education at UOIT, Dr. LeSage has developed invaluable online educational resources for teaching mathematics including Words2Numbers, an open access website for sharing math through literature integrated lesson plans from kindergarten to Grade 8 (<http://education.uoit.ca/words2numbers/>).

Member, Best Start Network, Durham Region

Dr. LeSage serves as a member of Durham Region's Best Start Network, and its Research and Knowledge Mobilization Committee. The network brings together the region's six school boards, child-care service providers and support agencies to meet and share information and ideas for the benefit of children from infants to 12 years of age.

[Please click here to view the full profile.](#)

This profile was created by [Expertfile](#).