



Ontario Association for Mathematics Education
Association ontarienne pour l'enseignement
des mathématiques

2009 Leadership Conference

for teachers, administrators, co-ordinators/consultants



Developing Perspectives on Learning and Teaching Mathematics

FEBRUARY 19-21, 2009

Holiday Inn Select

(970 Dixon Rd Toronto Ontario)

An opportunity as a teacher leader to investigate ways to make connections in elementary or secondary mathematics by focusing on ONE of the following:

- Grades K-8 --- Developing Algebraic Thinking
Grades 7-12 --- Connecting Practice, Research, and People

All Inclusive Registration Fee: \$435/\$470 (OAME/non-OAME)

Includes: All sessions, 2 nights accommodation (2 people/room), meals, banquet, receptions, publishers' and suppliers' displays

WHY SHOULD TEACHERS, ADMINISTRATORS, AND CONSULTANTS ATTEND THIS CONFERENCE?

- ... to identify and link the big ideas and process expectations to student learning and teaching;
- to share best practices in order to see, hear, and experience mathematics in a classroom;
- ... to determine ways to integrate available resources that are effective in building mathematics understanding;
- ... to discuss and share thoughts and views on current emergent ideas and issues with other educators.

Program Overview

DAY	TIME	ACTIVITY
Thursday Feb. 19, 2009	6 p.m. – 7:45 p.m.	REGISTRATION outside the Trillium Ballroom
	8:00 p.m. - 9 p.m.	OPENING KEYNOTE: Dr John Mason: What can a Math Teacher do ...? <i>During this keynote, participants will be invited to engage in some mathematical tasks in order to experience for themselves some aspects of their natural powers to make mathematical sense and to make sense of math. A variety of tasks will be used to illustrate the role of tasks to initiate, sustain and learn from experience of mathematical thinking.</i>
	9 p.m. - 11 p.m.	RECEPTION/SOCIAL. Hors d’oeuvres, sandwiches, crudités, and refreshments.
Friday Feb. 20, 2009	7:30 a.m. - 8:30 a.m.	BUFFET BREAKFAST
	9 a.m. - 12 noon	WORKGROUPS and LEADERS. Mid-morning refreshment break included. Elementary K-8: John Mason, Kathy Kubota-Zarivnij, Pat Margerm Intermediate/Secondary 7-12: Myrna Ingalls, Irene McEvoy
	12 :15 - 2:15 p.m.	PUBLISHERS’/SUPPLIERS’ LUNCHEON: preview of new products and an opportunity to view the many displays
	2:30 p.m. - 4:45 p.m.	WORKGROUPS continue. Mid-afternoon nutrition break included.
	4:45 p.m. - 6:00 p.m.	FREE TIME
	6:00 p.m. – 6:45 p.m.	CASH BAR
	6:45 p.m. – 8:45 p.m.	BANQUET & KEYNOTE SPEAKER – Paul Rosen: Who’s in Your Mirror? <i>Paul takes a hard look at dealing with unexpected changes, and challenges, in life. From a leg that snapped in 14 places at age 15 – shattering his promising hockey career...to a life-saving operation that took his right leg- shattering his life as he knew it... Paul has developed a strategy for facing, and dealing with, life’s unexpected turns. Delegates will leave with insights on harnessing their emotional responses to challenges; and on turning their challenges into opportunities.</i>
	9:00 p.m. - 11 p.m.	RECEPTION/SOCIAL. Snacks and refreshments.
Saturday Feb.21, 2009	7:30 a.m. - 8:30 a.m.	BUFFET BREAKFAST
	9 a.m. – 11:30 a.m.	WORKGROUPS continue. Mid-morning refreshments and assorted pastries. Complete evaluations.



ABOUT THE FRIDAY KEYNOTE SPEAKER

Paul Rosen is the Canadian National Sledge Hockey goalie, with a lightning-fast glove, cat-quick reflexes and a calm presence in the crease. He has everything an NHL goaltender has... except... his right leg. Paul is an inspirational speaker with a great sense of humour, a 2006 paralympic Gold Medalist in Torino, Italy, and a family man with 3 adult children. It is said that when they cut off his leg, it seems they increased the size of his heart.

Program Details

Each participant will remain with the same workgroup for a total of 7 hours of workshop time

ELEMENTARY (K-8) WORKGROUP

Developing Algebraic Thinking

Delegates will develop perspectives on algebraic thinking by participating in the following sessions during their workshop:

Mathematics as a Constructive Activity: Explore and analyze task formats that can be used with learners of all ages, to promote the use of their mathematical powers and to develop deep structural understanding. Core constructs will include example spaces, dimensions of possible variation, and ranges of permissible change.

Initiating and Sustaining Mathematical Thinking: Engage in tasks that highlight the use of some fundamental powers used to make mathematical sense and to make sense of mathematics. Attention will be directed to identifying core awarenesses which underpin mathematical topics.

Learning from Experience: Engage in various tasks which illustrate ways of prompting learners to reflect on their recent experience, so to learn from that experience.



Workshop Leader

Dr. John Mason received his BSc at Trinity College, Toronto in Mathematics, MSc at Massey College, Toronto, and his PhD in Combinatorial Geometry at Madison Wisconsin. At the Open University, he led the Centre for Mathematics Education in various capacities for fifteen years. His principal focus is thinking about mathematical problems, and supporting others who wish to foster and sustain their own thinking and the thinking of others. Some of his must-read publications include: *Thinking Mathematically*, *Routes-to Roots-of Algebra*, *Learning and Doing Mathematics*, *Practitioner Research Using The Discipline of Noticing*, *Designing and Using Mathematical Tasks*, *Fundamental Constructs in Mathematics Education*, *Learning and Doing Mathematics*, *Mathematics as a Constructive Activity*, *Developing Thinking in Algebra*, and *Developing Thinking in Geometry*. and, in the edited volume, *Algebra in the Early Grades*, the chapter, *Making Use of Children's Powers to Produce Algebraic Thinking*.

Ontario Facilitators

Pat Margerm teaches preservice and inservice courses at York University, writes, and works for EQAO in grade 6 math and was the TEAMS chapter rep on the OAME board. **Kathryn Kubota-Zarivnij** is a Student Achievement Officer at the Literacy & Numeracy Secretariat, an OAME Abacus co-editor and a Past President.



INTERMEDIATE/SECONDARY (7-12) WORKGROUP

Connecting Practice, Research, and People in 7-12 Mathematics

Delegates will make connections by participating in the following sessions during their workshop:

Theoretical Frameworks that Promote Precision and Personalization: Explore the power of selected theoretical frameworks in infusing precision and personalization into classroom instruction and into professional learning activities. Participants will learn which frameworks are underpinning the latest implementation supports, and experience activities designed using these frameworks.

Purposeful Practice of Principled Practices: Delve into stages of practice, thinking tools for aligning and promoting selected practices, and new resources designed to support productive practice cycles. Participants will learn which practices are being practised in GAINS pilot research projects, discuss ways that particular professional learning models incorporate purposeful practice, and practise use of tools and resources.

Connecting All the Ps: Participants will dig deeper into new course/program-specific resources in order to: establish connections among the Ps; address burning questions; and, make plans to network beyond this conference.

Workshop Leaders

Myrna Ingalls is an Education Officer in the Curriculum and Assessment Policy Branch of the Ministry of Education. She has been a Math Department Head in York Region DSB and an elected Director of OAME. Myrna was lead writer for the first major revision of Grades 11 and 12 curriculum as Ontario moved from a 5-year to a 4-year high school program. She also led development of the Grade 9 and 10 Course Profiles. Since 2000 Myrna has been leading the development of Grades 7-12 Targeted Implementation and Planning Supports (TIPS), Critical Learning Instructional Paths Supports (CLIPS), and Growing Accessible Interactive Networked Supports (GAINS).

Irene McEvoy has recently enjoyed roles as Education Officer in the Curriculum and Assessment Policy Branch of the Ministry of Education and as Instructional Coordinator of Mathematical Literacy for the Peel DSB. Irene has taken a lead on development of various Targeted Implementation and Planning Supports (TIPS) resources, and pushes herself to keep current with emerging instructional technologies. She was a member of the Expert Panel that reported in *Leading Math Success* in 2004. Irene is a sought-after presenter for OAME conferences, and for provincial and board-level professional learning sessions.



