



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

2010 Leadership Conference

for teachers, administrators, co-ordinators, coaches



Instructional Decision Making

FEBRUARY 18-20, 2010

Holiday Inn Select

(970 Dixon Rd, Toronto ON)

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

Grades K-8 --- Coaching to Build Thoughtful Instructional Decision Making

Grades 7-9 --- It's Quality not Quantity!

Grades 9-12 --- Building Community through Focused Discussions on Instructional Design

All Inclusive Registration Fee: \$438/\$473 (OAME/non-OAME)

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

WHY SHOULD TEACHERS, CONSULTANTS AND COACHES ATTEND THIS CONFERENCE?

- ... to identify and link the big ideas and instructional decisions 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. 18, 2010 | 6 p.m. – 7:45 p.m. | REGISTRATION outside the Trillium Ballroom |
| | 8:00 p.m. - 9 p.m. | OPENING KEYNOTE: Dr Marian Small: How do our instructional decisions influence students’ beliefs about what math is? <i>During this keynote, participants will have the opportunity to experience a number of "pieces" of lessons at various grade levels to see how instructional decisions we make impact a student’s perception of what mathematics is all about.</i> |
| | 9 p.m. - 11 p.m. | RECEPTION/SOCIAL. Hors d’oeuvres, sandwiches, crudités, and refreshments. |
| Friday Feb. 19, 2010 | 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: Dr Marian Small Intermediate: 7-9: Jacqueline Hill and Fareen Kanji Secondary 9-12: Shirley Dalrymple and Shelley Yearley |
| | 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. |
| | 5:00 p.m. – 5:30 p.m. | CASH BAR |
| | 5:30 p.m. – 7:30 p.m. | BANQUET & KEYNOTE SPEAKER – Ron Lancaster: Mozart’s Dice Game and other beautiful connections between probability, music, art, drama, literature and poetry <i>In 1787 Mozart developed a method for composing music that involved cutting and pasting pre-written measures of music with the order determined by the outcomes of the rolls of a pair of dice. As you will see and hear, Mozart's version always produces a very sweet sound in spite of the random elements. We will also discuss how other artists such as the painter Ellsworth Kelly, the playwright Helen Juvonen and the film maker Antonin Svoboda have made use of probability in their works.</i> |
| | 7:30 p.m. – 9:00 p.m. | FREE TIME, OPTIONAL ACTIVITY |
| 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



Ron Lancaster

Ron is a Senior Lecturer in Mathematics Education at OISE, University of Toronto. Prior to this he taught middle and high school mathematics for over 20 years in coed public schools as well as in an all-girls school. He has been a T³ National Instructor (first in Canada) since 1994, is now a Mathematics Consultant for Math for America and has given over 1100 talks throughout North America and Asia. Ron created two popular columns that appear in the NCTM Mathematics Teacher: Media Clips and the Mathematical Lens. Ron is the only teacher in Canada to have been honoured with three Hilroy Awards for Innovative Teaching and in 2007 he was selected to be the recipient of the OISE Award for Excellence in Initial Teacher Education. Ron feels that his successes are the result of being surrounded by outstanding colleagues and administrators.

Program Details

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

ELEMENTARY (K-8) WORKGROUP

Coaching to Build Thoughtful Instructional Decision Making

Delegates will explore ways to support and coach willing teachers to bring mathematically appropriate focus to a lesson, choose the right questions to ask, encourage and support alternative approaches, juggle the use of available resources, and support student differences. The ultimate goal is to help teachers see how these decisions affect their students' beliefs about math and their students' ultimate success.

Choosing what to teach: Explore how to coach teachers to get at the heart of what is mathematically important about what is being taught.

Choosing how to teach: Explore how to coach teachers to make more deliberate decisions about how much to lead/how much to elicit/how many and what pedagogical approaches to take in particular situations.

Choosing who to teach: Explore how to coach teachers to be more deliberately inclusive in their instruction to ensure that every student meets success at an appropriate mathematical goal.



Workshop Leader

Dr. Marian Small, currently an Ontarian, is the former Dean of Education at the University of New Brunswick. A former teacher and professor, she has been an author on seven text series at both elementary and secondary levels in Canada, the US, Australia, and Bhutan as well as a number of professional resources, including *Making Math Meaningful for Canadian Students: K-8*, *Big Ideas from Dr. Small: Grades 4-8*, *Big Ideas from Dr. Small: Grades K-3*, and *Good Questions: A Great Way to Differentiate Math Instruction K-8*. She has led the research resulting in the creation of *PRIME* describing student mathematical development in each of the five mathematical strands. Her work focuses on instructional decision-making, including appropriate questioning and appropriate differentiation of instruction.

INTERMEDIATE (7-9) WORKGROUP

It's Quality not Quantity!

Teachers and consultants alike have a "toolkit" of resources available to them on any given day. The underlying framework to what is done in the classroom is the "lesson plan". Each teacher may create a slightly different lesson plan, but at the end of the day they want to be certain it is a "high quality math lesson" that is delivered to students. This workshop will focus on the teacher and their quality lessons, as well as what the supervisor/consultant/administrator/coach can do to help that teacher in grades 7 - 9.



Workshop Leaders

Fareen Kanji is a Math Coach with the Durham DSB, working with teachers from grades 7-10, introducing them to a variety of resources and modeling strategies for implementing a complete math program.



Jacqueline Hill is the Durham DSB K-12 Math Facilitator, striving to help teachers and students enjoy the many facets of mathematics, She is a Past President of OAME, and current President of OMCA.

SECONDARY (9-12) WORKGROUP

Building Community through Focused Discussions on Instructional Design

By doing and discussing mathematics, delegates will identify their instructional and leadership strengths. These will be built upon to articulate strategies that will help nudge others forward in refinement of their practice. Discussion topics will include:

- The important mathematics in Grades 9 - 12, with a focus on functions and algebra
- How to effectively incorporate teaching through problem solving, the mathematical processes, and investigations including the use of manipulatives, whilst building deep understanding of the important concepts
- Alignment and consistency in the rigour of assessments
- Strategies for building partnerships based on individual strengths and fostered through formal and informal leadership.



Workshop Leaders

Shirley Dalrymple is a math department head with York Region DSB who has taken a leadership role in numerous provincial projects including Field's Math Ed Forum, CLIPS, TIPS4RM and TIPS development. Shirley is a past president of OAME.



Shelley Yearley is a Math Consultant with Trillium Lakelands DSB, and facilitates a variety of professional learning opportunities, including assessment development and data analysis sessions. Her leadership roles include the recent Math GAINS coaching initiative, Math CAMPPP, and the 2008 grade 12 resource development.

