

CMEF 2009: Participants' Report

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A national conference for mathematics educators took place April 30–May 3, 2009, at Simon Fraser University in Vancouver. The Canadian Mathematics Education Forum (CMEF) 2009 focused on the ways in which resources and assessment define, inform and mould curriculum. Teachers at all levels worked collaboratively with representatives from school systems, school boards, colleges and universities, mathematics and statistics departments, faculties of education, ministries of education, parent groups, and business and industry to address the recurring theme of curriculum implementation in today's classrooms.

The forum began with keynote speakers and panel discussions that looked at the main obstacles students face in the mathematics classroom. These obstacles include

- disengagement from and fear of math,
- a lack of basic math skills,
- discomfort with mathematical language,
- calculator dependency,
- procedural dependency (step 1, step 2, . . .),
- an inability to interpret answers,
- an inability to communicate answers and
- assumptions that must be overcome.

We also looked at what we educators needed in the past and what we need now to meet the needs of our students and of our colleagues, particularly new teachers.

Then, the conference participants broke into a number of working groups to further discuss the obstacles faced by students and the needs of educators. We were part of the group called Rethinking Assessment, which considered the following questions:

- How does assessment affect the motivation in our class?
- How does the teacher know what the students know?
- How do the students know whether or not they know? And what they know?

A number of ideas came out of these discussions. However, one comment in particular stands out: "Our goal is not to teach; our goal is to help students learn."

By reflecting critically on this topic, teachers can change the whole dynamic of the classroom, not only in how they teach but also in how they assess. Assessment should be about developing a positive learning environment and setting up a path to help students develop their abilities. For a better understanding of where the Rethinking Assessment group was headed, think of a baseball card: the back of the card relays many statistics about a player and doesn't try to roll all of the numbers into one big category. Assessment can be looked at in the same way. With a number of different evaluations, students and educators can develop a better understanding of the learning taking place in the classroom.

Another key point made in our working group was the need for good mathematical problems and tasks that have an entry point for all students. It is through these problems that we can determine each student's current level of achievement. The problems should be open and rich enough to allow all students to demonstrate their understanding and to help educators see students' misconceptions.

So what can educators do? A climate in which growth can occur must be established. It was widely believed in our working group that too much focus is placed on changing a teacher's practice and not enough on changing perspectives. Sometimes colleagues pose the most resistance to new ideas, and this is where changing a perspective will help foster new ideas and techniques.

Our Rethinking Assessment working group put together a list of ideas and practices that we felt would benefit educators across the country:

- Focus on each student's success (learning) rather than on ranking students.
- Question everything.
- Students will rise to the level of their expectations.
- All students can learn.
- To know what students are thinking, we have to ask them.
- Assess to learn, not to control.
- Assessment means actively looking for understanding.
- Assessment is about the learning, not the teaching.

- Think of assessment as a relationship with students (coaching versus judging).
- We should evaluate what we value.
- Equity is not equality.
- Focus less on numbers; see assessment as a blend of the qualitative and the quantitative.
- Move away from one-size-fits-all to meeting kids where they are.
- Second chances are OK.
- Focus on differentiating assessments.
- Not everything you do has to be about the curriculum.
- Assessment is an inquiry process (not an event).
- Fairness doesn't mean sameness.
- Balance is important.

The conclusion of CMEF 2009 brought about questions about where to go next. CMEF will next be held sometime between 2012 and 2014, as there are other important national and international conferences to work around. Also, CMEF is looking toward creating a national organization similar to the National Council of Teachers of Mathematics (NCTM) in the United States. Several issues were brought up regarding this possible national organization, including bilingualism, organization, members, the mission statement and the need to get provincial teachers' associations involved. As for future topics at CMEF, curriculum and research were both brought up as potential starting points.