Mathematics Council
NEWSLETTER
The Alberta Teachers′ Association

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President’s Message

Time is an interesting phenomenon. As we get older it seems to move faster, but logic tells us that that is impossible. As I finish my 26th year of teaching, I know that the years have flown by, but I don’t feel that I have aged that much. This year, I had the pleasure of teaching the new math 7 curriculum and found that I actually had time. After years of teaching high school, I moved into administration in junior high, and part of my assignment was teaching Grade 7 math. After rushing through the curriculum for many years to get through the whole thing, it was nice to be able to backtrack and take some extra time to explore students’ questions more thoroughly. At first, I wondered whether it was the change from Grade 12 to 7, but colleagues assured me that the new curriculum did allow extra time to go deep.

I found it interesting to explore my students’ personal strategies. Some were extremely complex and took a while to understand; others were quite straightforward, but students had a hard time articulating what they meant. In probing what they meant to say, other students would try to translate and we would have very lively debates about what worked, what didn’t and why. I wish I could say that every student fully mastered the curriculum, but unfortunately some students still struggled with basic understanding. Some students just want to jump to the answer without considering the importance of how to get there. Others and their parents want one way to do a problem and expect a one-size-fits-all recipe. Parents still state that they didn’t get math either, and that is the saddest statement of all. Are we changing the culture? We hope that with time, students will gain confidence and start to feel that it is OK to take risks to make sense of new material.

It has been a busy year for the MCATA executive. We have been working with Alberta Education and the regional consortia to assist with the new curriculum implementation. As teachers, we feel that we have a chance to be heard and to work together to make this curriculum work for students. Whether you have implemented a new course this year or will be doing so in the upcoming years, take advantage of the opportunities that this new curriculum is giving us to collaborate. Hearing teachers talk about the professional learning communities that are forming shows that this is truly an exciting time to be involved in mathematics education. As you wrap up your school year, reflect on the rich dialogues that you have had with colleagues this year. Enjoy your summer, and I look forward to seeing you at the MCATA conference in October.

Sharon Gach

From the Editor's Laptop

As I near the end of another school year, I often find myself reflecting on what new things I've tried this year as an educator and how I feel they have worked. This year my reflection is not only on my classroom responsibilities but also on my role as MCATA newsletter editor. This has truly been a year of learning for me. I implemented the new mathematics curriculum with my Grade 2 students, had the chance to try out some of the new resources and spent a lot more time in conversation with my colleagues as well as my students about using personal strategies to solve problems. I feel there is still so much to learn as I engage in this new curriculum, so I look forward to the opportunities I have for professional development, particularly in the upcoming MCATA conference in October. I encourage each and every MCATA member to take the opportunity presented and attend the conference. There is so much to discuss with your fellow educators regarding implementing this new curriculum.

You may have noticed that I have changed the title of this column. As I reflected on my role with MCATA, I felt that it was time for an update. I have spent the year encouraging my students to be specific in their explanations and to use precise language. We have talked about choosing the best words so that people can really picture and understand how they thought while solving the problem. As I reflected on the name of my column for MCATA I realized that I was painting a picture that was not wholly accurate when it came to where this column originated. As a 21st-century teacher I rarely compose any piece of writing using a pencil. When I am required to write anything of length, I sit at my laptop, open a Word document and begin to type. Therefore I have decided that as the end of one year approaches and I begin to determine what changes to make for next year, I am beginning with this simple yet important change. I wish you all a happy reflection on your year and a wonderful, well-deserved summer break.

Tancy Lazar

Alberta Education

The Revised High School Program of Studies

The high school mathematics program has been revised with input from Alberta stakeholders to incorporate the most recent research in mathematics teaching and learning. The implementation of the revised program begins with Grade 10, in September 2010. Students will be able to take Mathematics 10C, Mathematics 10-3 or Mathematics 10-4 (Knowledge and Employability, which was implemented in 2006).

Alberta Education has provided a grant to the Alberta Regional Professional Development Consortia to provide support for implementation. Teachers should check with their regional consortia for information on mathematics sessions.

Implementation of Kindergarten to Grade 9

The revised K–9 mathematics program of studies was implemented across the province for kindergarten and Grades 1, 4 and 7 in September 2008. Grades 2, 5 and 8 will be implemented provincially in September 2009, and at the same time Grades 3, 6 and 9 will be available for optional implementation. Grades 3, 6 and 9 will be implemented provincewide in September 2010.

Diploma Examination Working Groups and Field Tests

Teachers who would like to participate in diploma examination working groups during the 2009/10 school year, including item writing, reviewing field tests and diploma examinations, and setting standards and developing blueprints for the revised Grade 12 program of studies, need to submit their names to their superintendent in the fall of 2009. A letter with the necessary details and contact information will be sent to superintendents in August 2009. Teachers should note that this nomination list is separate from the marking nominations, which are sent separately in the fall and the spring to superintendents.

Both Applied Mathematics 30 and Pure Mathematics 30 plan to offer online field tests during the 2009/10 school year. Watch for further details in the letter and Field Test Request Guide that will be posted and sent to principals in August 2009. The Field Test Request Guide and all forms associated with the field test process may be accessed at http://education.alberta.ca/admin/testing/forms.aspx.

Fall Conference Announcement

Please join your colleagues October 23–24, 2009, at the River Cree Resort, Enoch, for the MCATA fall conference, “Teaching Mathematics for Real Learning.” The conference will offer a variety of sessions by fellow teachers, curriculum leaders, teacher educators and ministry officials. Headlining this year’s conference is Catherine Fosnot. She will talk about “Openings and Possibilities: Developing Powerful Representations.” Dr Fosnot is a professor at the City College of New York and director of Mathematics in the City, a national centre for professional development located at the college. She has authored or coauthored many books and articles on mathematics education, most recently the Contexts for Learning Mathematics series (K–6) and the Young Mathematicians at Work series with the accompanying professional development materials funded by NSF and distributed in Canada by Pearson. The American Educational Research Association Special Interest Group (AERA SIG) on Constructivism has twice awarded her their significant contribution award, and in 2005 she received the CCNY Teacher of the Year Award.

Edmonton Junior High Mathematics Contest

The 31st Edmonton Junior High Math Contest took place May 6, 2009. It was written by some of the top students in both the public and Catholic schools in the Edmonton area. The contest was made up of 20 multiple-choice and short-answer questions. Students had 90 minutes to complete the contest.

The contest itself has certainly evolved over the years, from the days when sponsored teachers spent hours after school grading essay-style papers to the current format of curriculum-based questions. This annual tradition is largely made possible through the help of countless past and present committee members, classroom teachers, authors and university professors.

This year’s committee members are Svitlana Semenko, Margo Perry, Jason Edwards, Jana Nelson, Emily Kalwarowsky, Laura Chevalier and Bryan Quinn. We are also pleased to have three authors who contributed this year’s questions. The authors are Bryan Quinn, and professors Andy Liu and Nicolae Strungaru. Even though the contest is 75 per cent curriculum based, it is by no means without challenge. Last, financial sponsorships are also necessary to offset some of the expenses, such as prizes and the award banquet. Some recent sponsors are MCATA, APEGGA, IBM and the Alberta Ingenuity Centre for Machine Learning.

To see sample papers from the past, please visit www.mathteachers.ab.ca under Edmonton Junior High Math Contest.

Robert Wong, Chairperson

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