

Mathematics Council NEWSLETTER

The Alberta Teachers' Association

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September 2019

President's Message

Welcome, my fellow mathematicians, to the 2019/20 school year. We officially all have 2020 vision! As you begin your year and head back into schools, the Math Council wishes you the best of luck.

This year presents many wonderful opportunities for you to come and learn with us. On October 25 and 26, in beautiful Jasper, we are going to be hosting Francis Su, James Tanton and many other math educators at our annual conference. Make sure you sign up to attend at www.mathteachers.ab.ca.

I want to leave you with one of my favourite puzzles: Using each of the digits 1, 3, 4 and 6 only once, and only basic arithmetic, can you create an expression that equals to every number 1 to 24 inclusive? For example, $(6-4)/(3-1)=1$. Can you find the rest? Have an amazing year, and happy counting!

David Martin

From the Editor's Laptop

With the new math curriculum being developed, the new school year will be an exciting time for teachers. It will definitely be a year filled with challenges, and lots of reflections, too. According to Stern, Lauriault and Ferraro, the authors of *Tools for Teaching Conceptual Understanding* (2017, Corwin), one of the biggest challenges of concept-based teaching lies in the intellectual demands on teachers, because teachers themselves need to make personal meaning of the content conceptually. What resonates with me most from this book is that concept-based teaching is about “uncover” and “transfer.” How can we design specific contexts to help our students uncover the relationships of mathematics concepts? How can we design formative and summative tasks to assess students' conceptual understanding?

I encourage all MCATA members to become contributors to the Mathematics Council journal, *delta-K*, to share your ideas of *uncover* and *transfer*. Our collaboration can enrich all our students' and teachers' math experiences.

Happy mathing!

Stacey Wu

Notice of Motion

The MCATA membership will vote on an amendment to our constitution at MCATA's annual general meeting, to be held October 25, 2019, at the fall conference in Jasper. Please plan to attend!

New Executive Profile

Meet Our New Director at Large



I am thrilled to join MCATA as a director at large. Teaching mathematics has been a source of joy for me over the past eight years. I have the great pleasure of serving as the mathematics curriculum lead at our school. I am working on my master's degree in educational leadership while focusing my capstone on mathematics curriculum. I absolutely love teaching middle school mathematics and science! Seeing the eyes of a child light up as they make connections between mathematics and the world around them is a driving force for me. My ultimate goal is to build students' relationships with mathematics. In the past, I served on other executive councils, including the Special Education Students Association at the University of Alberta and the Leduc Drama Society. Besides teaching mathematics, I spend time working with the Edmonton Regional Science Fair as photographer, webmaster and volunteer. I was also fortunate enough to be chosen as a judge for the Humans in Space Youth Art Competition. I take great joy in connecting art, science and mathematics. When I am not teaching, I can be found playing with my corgis, doing photography, participating in musical theatre and podcasting.

Amanda Schulz

Meet Our New District Representative

Hello members of MCATA. I am Murray Lalonde, district representative for Central-East teachers. I am grateful to have been assigned as the Provincial Executive Council representative to MCATA. Being a new member of PEC, I do not have anything to report in this first article, but will take this opportunity to introduce myself.

I graduated from the U of A in 1995 with a BSc, majoring in math and minoring in physics. Immediately, I made a career decision to become an EMT/paramedic and worked for the St Paul and District Ambulance for six years. After completing one year of a two-year paramedic course, the school dropped the program and would not grandfather us through graduation, so I decided to put my science degree to work and completed the BEd (After Degree).

I have been a math teacher for my 17-year teaching career, and an MCATA member for most of that. Teaching in small-town schools has required me to teach every high school math course in that time, including Math 10 Prep, Pures and Applieds, -1, -2, -3, and Math 31 Calculus, as well as Math 6 and 9. I have also taught physics, PE, French (FSL), CALM 20, Science 14/24 and various CTS options.

In my teaching career, I have enjoyed being involved in extracurricular activities, coaching volleyball, NASP (archery), rugby, golf and curling, and playing many of these in adult leagues. My wife and I have three children, the oldest entering his first year of university in the Faculty of Education as a math major! We enjoy life on our small acreage with our three dogs, three cats, two horses and two donkeys.

I have been keenly involved in the Aspen View ATA local as a member and later as chair of the Teacher Welfare Committee, member of the Negotiating Subcommittee, and school representative. As of July 1, I have had to relinquish these local commitments to become a member of Provincial Executive Council. I am very happy to say that my new role in PEC is allowing me to become an active member of MCATA, something I was not able to be but has been on my "Teaching Career Bucket List."

If you would like to contact me, my e-mail address is murray.lalonde@ata.ab.ca. Please follow me on Twitter (Murray Lalonde—@dr_mo4). I will also try to keep a website updated (tinyurl.com/molalonde).

I am very excited to work with the members of MCATA and look forward to meeting you soon.

Murray Lalonde

May 2019 Executive Meeting Summary

The spring executive meeting was rife with democratic exercises, from discussion about new locations for symposiums to using our financial surplus to supplement reductions for fall conference registration fees. Reciprocal partnership models were the focus of the spring symposium in Calgary, which was well received, with discussion about future locations throughout the province. Lisa Everitt, our ATA rep, shared news of local bargaining beginning as of June 8. Olive Chapman is looking into the potential for an NCTM conference in Canada, and mathematics was the focus of the ATA publication *The Learning Team*. At the Annual Representative Assembly, delegates debated the proposed cut to specialist council funding; it was defeated, which means that our council will continue to be well supported. Although there was little political news due to the provincial election, we can have faith that our colleagues during their extensive discussions influenced the development of the new K–4 mathematics curriculum to inspire students and teachers alike to think mathematically.

Save the Date!

2019 MCATA Fall Conference

October 25–26, 2019
MCATA Fall Conference
Jasper Park Lodge, at Jasper, Alberta

Keynote speakers: Francis Su, James Tanton

2020 MCATA Fall Conference

October 23–24, 2020
MCATA Fall Conference
Red Deer, Alberta (tentative)
Keynote speakers: Jon Orr, Kyle Pearce

Speaker Proposals

We accept proposals year round; preference is given to those received by March 30 of each year.

Mathematics: A Natural High

Analyze Number sense Stories Messy Persistence
Beauty Patterns Stories Modelling Essential Nature
Mistakes are powerful Opportunities to all Research
Think outside the Box High Expectations Ideas
Reasoning Concrete Abstract Hand-on
More than a subject
New Ideas Representations
Pictorial Connections
Problem solving
Communication
Strategies
Rewarding

Exhilarating Compelling Everywhere
Magical A puzzle Important Fascinating
Like a good friend Relationships
An adventure Critical thinking
Challenging interactive
More than memorization
New Ideas Representations
Pictorial Connections
Problem solving
Communication
Strategies
Rewarding



October 25-26, 2019



Jasper Park Lodge,
Jasper, AB



#MCATA19

KEYNOTE SPEAKERS

Friday:



Francis Su

Benediktsson-Karwa
Professor of
Mathematics

Saturday:



James Tanton

Mathematician-at-Large
, The Mathematical
Association of America
Founder: The Global
Math Project

FRIDAY SESSIONS WILL EACH FOCUS ON ONE ESSENTIAL QUESTION:

1. How do you get students excited about where they are going?
2. How do you find out where they are?
3. How do you close the gap?

SATURDAY WILL PREMIER OUR MATHEMATICAL PLAYGROUND

One session time block will be dedicated to the exploration of mathematical concepts in a choose your own adventure style activity. A variety of stations will be set up around the room providing you with an opportunity to engage in mathematical conversations and activities. Merry go round the room any way you want. Don't be shy! Swing your way into conversations and activities that pique your interest. Dig deeper into your current sandbox of learning and slide on down to a different station whenever you are ready.



Find out more at www.mathteachers.ab.ca

MCATA Awards and Grants

MCATA Grants

MCATA encourages members to organize professional development initiatives that support current learning and teaching practices and current priorities, as outlined by or through Alberta Education, local school districts, MCATA, the National Council of Teachers of Mathematics (NCTM), the ATA or other reputable education associations. Grant applications for mathematics education initiatives may be considered. MCATA will award grants to a maximum of \$500 to members.

Submit an application form by December 1 or May 1 of each year to the director of awards and grants, Carmen Wasylynuik (carmenbt@telus.net). The application form is available on the MCATA website at www.mathteachers.ab.ca (Grants and Awards > MCATA Grants).

Dr Arthur Jorgensen Chair Award

A student teacher attending a postsecondary education program in Alberta will be selected on the basis of demonstrated academic excellence and a clear commitment to mathematics education in either specialization in mathematics at the secondary level or

a keen interest in and desire to expand mathematics knowledge at the elementary level. Application forms are available on the MCATA website (Grants and Awards > Dr Arthur Jorgensen Award). The application deadline is April 30 of each year.

In addition to MCATA grants and awards, ATA Educational Trust grants of \$500 are available for attending a specialist council conference in 2019/20. Apply by September 30, 2019, using the application form on the ATA website, at www.teachers.ab.ca (My ATA > Programs and Services > Grants, Awards and Scholarships > ATA Educational Trust).

Alberta Mathematics Educator Awards

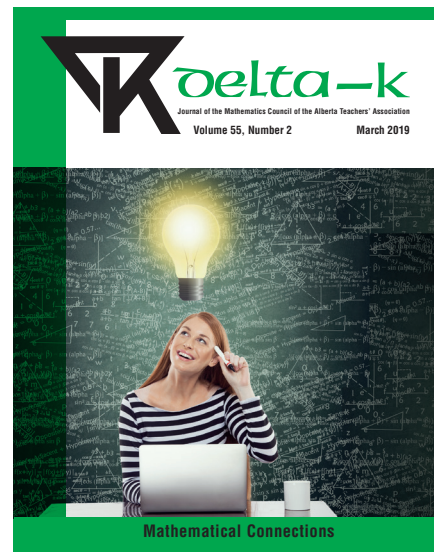
Do you work with an awesome math teacher or math lead? Is a colleague at another school your go-to resource for teaching math? Exemplary classroom teachers in K–6 and 7–12, as well as teachers who have made exceptional contributions to the professional development of teachers at the school, local, provincial or national level, can be nominated. For more information and a nomination form, go to the MCATA website (Grants and Awards > Alberta Mathematics). The nomination deadline is August 1 of each year.

ATA Specialist Council Conference Grant Application (\$500)

The ATA Educational Trust awards a number of grants to help defray the costs associated with attending an ATA specialist council conference. The application form for this grant will be posted in May. More information is available at www.teachers.ab.ca.

Contribute to *delta-K*

Do you have an idea or thoughts to share with other mathematics teachers? The MCATA journal, *delta-K*, is seeking teacher submissions. Contributing to *delta-K* is something you could include in your yearly professional growth plan, and at the same time you would be sharing with others. Please consider submitting a lesson plan, an activity, a book review, a rich task or a research paper, or simply sharing something that worked in your classroom that other math teachers can try. Our combined collaboration can enrich all our students' math experiences. Send your submission to lboschman@mhc.ab.ca and see your idea in print!



C³: Current Commentary by the Council

My Every Some Day

Some days I am the wise master.
Some days I am the enthusiastic learner.

Some days I am abundantly energetic.
Some days I am overly exhausted.

Some days I am the vocal coach.
Some days I am the silent spectator.

Some days I am the loving parent.
Some days I am the constructive friend.

Some days I am the welcoming bus driver.
Some days I am the entertaining after-school care.

But yet ...

Every day I am a teacher.

Dave Martin

Publishing Under the *Personal Information Protection Act*

The Alberta Teachers' Association (ATA) requires consent to publish personal information about an individual. Personal information is defined as anything that identifies an individual in the context of the collection: for example, a photograph and/or captions, an audio or video file, and artwork.

Some schools obtain blanket consent under FOIP, the *Freedom of Information and Protection of Privacy Act*. However, the *Personal Information Protection Act* (PIPA) and FOIP are not interchangeable. They fulfill different legislative goals. PIPA is the private sector act that governs the Association's collection, use and disclosure of personal information.

If you can use the image or information to identify a person in context (for example, a specific school or a specific event), then it is personal information and you need consent to collect, use or disclose (publish) it.

Minors cannot provide consent and must have a parent or guardian sign a consent form. Consent forms must be provided to the Document Production editorial staff at Barnett House together with the personal information to be published.

Refer all questions regarding the ATA's collection, use and disclosure of personal information to the ATA privacy officer.

Notify the ATA privacy officer immediately of any incident that involves the loss of or unauthorized use or disclosure of personal information, by calling Barnett House at 780-447-9400 or 1-800-232-7208.

Maggie Shane, the ATA's privacy officer, is your resource for privacy compliance support.

780-447-9429 (direct)

780-699-9311 (cell, available any time)

Consent for Collection, Use and Disclosure of Personal Information

Name: _____ (Please print)

I am giving consent for myself.

I am giving consent for my child/children or ward(s), identified below:

Name(s): _____ (Please print)

By signing below, I am consenting to The Alberta Teachers' Association collecting, using and disclosing personal information identifying me or my child/children or ward(s) in print and/or online publications and on websites available to the public, including social media. By way of example, personal information may include, but is not limited to, name, photographs, audio/video recordings, artwork, writings or quotations.

I understand that copies of digital publications may come to be housed on servers outside Canada.

I understand that I may vary or withdraw this consent at any time. I understand that the Association's privacy officer is available to answer any questions I may have regarding the collection, use and disclosure of these records. The privacy officer can be reached at 780-447-9429 or 1-800-232-7208.

Signed: _____

Print name: _____ Today's date: _____

For more information on the ATA's privacy policy, visit www.teachers.ab.ca.



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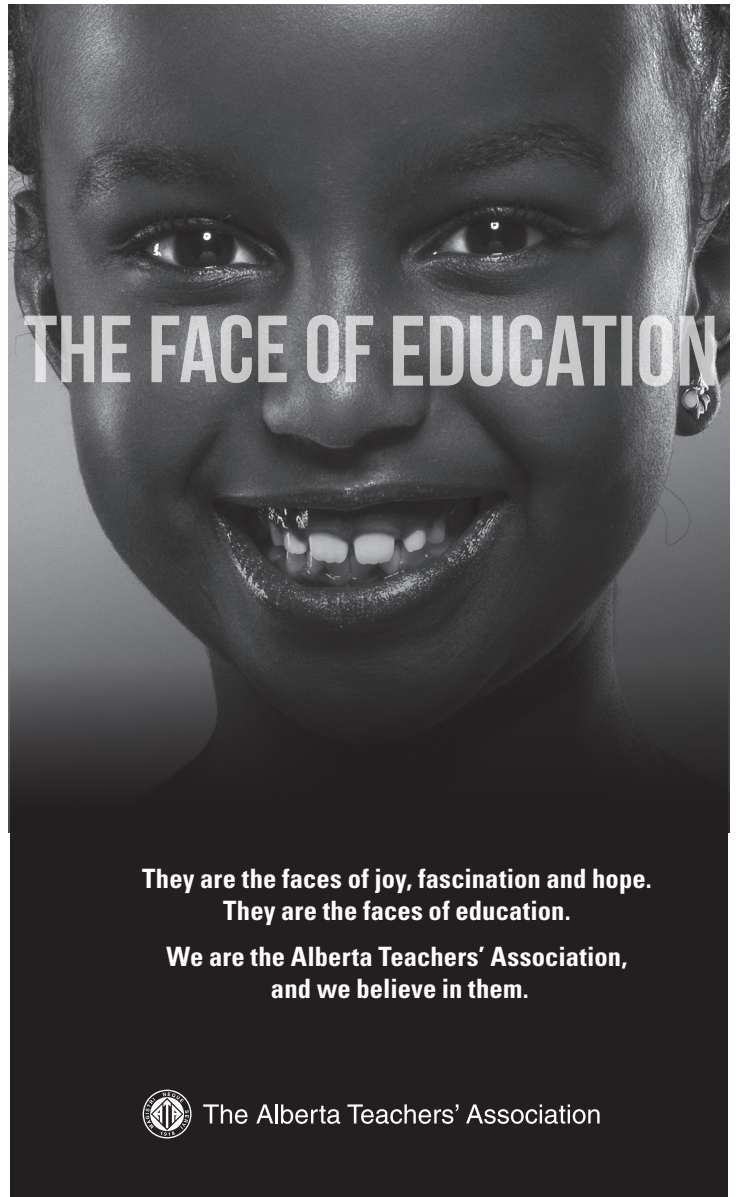
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For a complete listing of
the MCATA executive, please
visit www.mathteachers.ab.ca.



**They are the faces of joy, fascination and hope.
They are the faces of education.**

**We are the Alberta Teachers' Association,
and we believe in them.**



The Alberta Teachers' Association

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