



# Mathematics Council NEWSLETTER

The Alberta Teachers' Association

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## President's Message

Good day, fellow mathematicians. Well, I have to say that 2020 was a most trying and tiring year. We had to deal with a global pandemic, modify our teaching practice to accommodate online and distance learning, and witness our students' anxiety and depression increase.

On behalf of the MCATA executive, I want to thank you. The tremendous amount of work and effort you put in this past year was exemplary. Teachers stepped up, dug deep and ensured that learning was kept up to the highest of standards.

I hope that 2021 brings a much better experience for you, your students and your family. Please ensure to take time for yourself and have the most amazing year!

Happy 2021!

*Dave Martin*

## From the Editor

It is with pleasure that I take over as MCATA newsletter editor, and I am honoured to serve on the MCATA executive. I thank Stacey Wu for her long-time service in this role and for her mentorship as I step into it.

What a time to be a math teacher! Under normal circumstances, the challenges are hard enough. We attempt to teach complicated and abstract mathematical concepts in large classes while students deal with a host of social, familial or personal stressors. This fall, the conditions for learning became even more difficult to navigate as we began the school year with COVID-19 at the forefront of our thinking.

Our students, or most of them, returned to our physical classrooms in September, nervous but ready to learn and excited to be with us. They were willing to don masks, follow arrows, wipe desks, stay in their seats and remain in their cohorts if it meant they could be in a classroom setting with their peers. They soaked up the IRL learning. With hardly an exception, they told me they were relieved to be back in school.

As the term continued, conditions became more challenging. Students regularly missed classes due to COVID-like symptoms, sick siblings or anxious parents. Then we had our first COVID-19 case, resulting in the isolation of four teachers and nearly 100 students, then a second case and a third. Substitute teachers were scarce, and many teachers used their

prep periods to cover colleagues' classes. Before long, Grades 7–12 students transitioned to online learning for the final three weeks of school before the Christmas break. The situation was similar for schools throughout Alberta. Disruption to learning is an understatement.

In the midst of these disruptions, colleagues in my math department, and in my entire school, rose to the challenge, never foregoing their empathy, professionalism and passion. I observed teachers teach all day in masks, prep engaging classes while maintaining an online presence for students at home, teach their at-school classes via Zoom only one day after being quarantined at home, bring clean clothing and snacks for students in need, counsel students through grief, build a sense of school community amid the restricted atmosphere, and, as always, comfort anxious students and support their colleagues, all while maintaining a refreshing sense of humour. On November 30, I observed teachers transition to online teaching (joining other colleagues who had been teaching online all term) with no gap in learning, no less commitment to their practice. In the midst of all of these challenges, mathematical concepts were taught, passion for the subject was conveyed and curricular outcomes were assessed. I'm inspired, and I'm certain my observations represent teachers across this province.

I have never been prouder to be a math teacher and a member of MCATA, the body of math teachers in Alberta.

*Dale Block*

# C<sup>3</sup>: Current Commentary by the Council

## Something You Need to Hear

If Alberta's numbers, and your numbers, are anywhere close to "Oregon's McNary High School, where 38% of grades in late October were failing" then you, like me, are probably feeling frustrated and burned out (Thompson 2020). Further flaring these feelings are transitioning back and forth from in-person to online learning and back again that are difficult even if you are an excellent teacher, and you are. Or perhaps you, like me, are feeling as though your chosen teaching practices are now under intense scrutiny in this new teaching environment; no room for mistakes online, is there? Perhaps you, like me, are feeling inadequate as administrators, parents and other stakeholders gain access to every activity, assignment and assessment criteria, and pour over the overall fulfillment of curricular expectations that your programs provide. It may be that you, like me, are experiencing unbearable pressure from administrators to fight for "evenings fraught with battles over schoolwork" (D'Amour 2020, 198). Trying to maintain conversations about instructional development and improving the learning experiences of students in such an environment while meeting the perceived need for educational perfection seems as impossible as avoiding the washboard on a bumpy gravel road.

Conceivably, the hours you and I have spent pleading with students to submit assignments and participate in discussions about curricular topics have left you feeling overwhelmed and defeated in delivering what seems like a predetermined lost cause in seeing students perform well despite dropping attendance records, poor participation rates, stacks of unsubmitted assignments and unresponsive pupils. Social media messages

following voice mails and phone calls being all that is left of those once healthy teacher–student relationships we once enjoyed as we chase after missed assignments from students whose experience of this pandemic we are unlikely to understand or even imagine. And topping all this off is the possibility that you, like me, are feeling as though you are being asked to forget what is actually important: healthy human beings. Has it really come to be that we classroom teachers are the only ones left asking if missed assignments are really what needs to be chased after?

I hope I'm overthinking this. Maybe not. I imagine that I'm not the only one feeling this way. And if you are, like me, feeling unimportant, then perhaps you need to hear this too:

You matter.  
You are important.  
You are needed.  
You are valuable.  
You are loved.  
Take care, friends.

## References

- D'Amour, L. 2020. *Relational Psychoanalysis at the Heart of Teaching and Learning: Why and How It Matters*. New York: Routledge.
- Thompson, C. 2020. "Schools Confront 'Off the Rails' Numbers of Failing Grades." *AP News website*. [https://apnews.com/article/distance-learning-coronavirus-pandemic-oregon-7fde612c3dbfd2e21fab9673ca49ad89?fbclid=IwAR30tcH-kdPc7s55kt53RoVwLl-KqV5OBBODE39L3f\\_cQewzSRBlpBSyDLQ](https://apnews.com/article/distance-learning-coronavirus-pandemic-oregon-7fde612c3dbfd2e21fab9673ca49ad89?fbclid=IwAR30tcH-kdPc7s55kt53RoVwLl-KqV5OBBODE39L3f_cQewzSRBlpBSyDLQ) (accessed January 11, 2021).

Darcy House

## Message from Alberta Education

In lieu of a specific message for MCATA members, Alberta Education is directing all stakeholders to find the most updated information on their website: [www.alberta.ca/education.aspx](http://www.alberta.ca/education.aspx).

# Meeting Summaries

## AGM 2020

With the technical support of Chris Gonsalvez, ATA executive staff officer, our first-ever online AGM was a success. This year's accomplishments included a newly redesigned website (thanks to Darcy House, Robert Wong and Amanda Schulz), an upcoming position paper on educational technologies, and multiple sources of online communication and learning. Our newsletter and our full history of *delta-K* publications can now be accessed through the website. We are the first council to offer an online conference, and we continue to explore ways to reach out to our membership through weekly Mathematical Monday posts and future professional learning opportunities.

Our staff advisor, Gaylene Schreiber, acknowledged the commitment, passion and ingenuity of Alberta educators who continue to teach during a pandemic and encouraged the council to continue to find ways to keep educators connected.

## Fall Executive Meetings

Two executive meetings were held in the fall 2020, the latter by Zoom. Our first-ever virtual conference proceeded smoothly from the planning stages through delivery. Plans are already beginning for a virtual 2021 conference. A variety of 2021 online opportunities were offered to lead and engage in professional learning, including Beginning Teachers' Conference, carousels, other specialist council conferences, ATA Women in Leadership Summit, Mathematical Monday posts, *delta-K*, PDAC and PEC nominations.

Posters will be out soon to schools for our MCATA logo contest.

The executive, representing learning contexts from early childhood through university, shared their challenges with online learning and the concern with mental health of educators and students alike during the pandemic.

A motion was passed at the November meeting that clearly delineated MCATA's support of the ATA's stance of making all diploma exams optional for the duration of the pandemic and cancelling the PATs going forward.

*Barbara O'Connor*

## 2020 Fall Conference Update

On October 23–24, over 200 participants joined more than 20 presenters during MCATA's first-ever virtual conference—the first virtual conference staged by any ATA specialist council! It was a resounding success and truly accomplished its vision of “Bringing Mathematical Thinking into Focus.”

The highly engaging keynote speakers and math educators, Jon Orr and Kyle Pearce of the *Making Math Moments That Matter* podcast, kicked off the conference and challenged participants to “break the script in the classroom” by making memorable moments, creating anticipation and encouraging productive struggle. A variety of subsequent sessions covering all division levels provided teachers many opportunities to explore visible thinking, numeracy, problem solving and practical applications of mathematical learning.

We would like to thank all of the presenters for challenging participants to think more deeply about mathematics and explore new ideas and resources. A huge thank you goes out to the MCATA executive for everything you did to help the conference run smoothly, and a special thank you goes to Chris Gonsalvez, ATA executive staff officer, who provided technical Zoom support.

We sincerely hope that math teachers from across Alberta will once again be able to gather in person at the 2021 MCATA Conference; however, as the 2020 conference proved, it is absolutely possible to stimulate deep thinking, professional learning and vibrant collegiality even across virtual platforms.

*Sandi Berg and Stacey Wu*  
2020 Fall Conference Directors

# Rethinking Final Exams

At the beginning of the 2020/21 school year, the Alberta government made the decision to make all Provincial Achievement Tests optional. Later, on November 24, 2020, the Alberta government also made all diploma exams optional ([www.alberta.ca/k-12-learning-during-covid-19.aspx](http://www.alberta.ca/k-12-learning-during-covid-19.aspx)).

A question that might be on teachers' minds is, "What will students do at the end of the year?" I propose this year we rethink our final exams.

Simply put, Premier Jason Kenney declared a public state of health emergency on November 24, 2020, which is causing an increase in anxiety, stress and fatigue. Below are the ATA's fall 2020 Teacher Pandemic Pulse Survey Results:

Teacher and school leader well-being is of critical concern given the reporting of extreme and unsustainable levels of **fatigue, stress and anxiety** within the profession.



**94%**

of respondents reporting fatigue



**95%**

of respondents reporting stress



**81%**

of respondents reporting anxiety

“As a school leader I am beyond exhausted. I see my [teacher] colleagues are stressed, anxious and already close to burning out.” – Alberta school leader

Keep in mind that the respondents are professionals who have coping strategies, multiple levels of support and avenues to access additional assistance if needed. Sadly, many students do not have these strategies and supports; this is something we cannot simply ignore.

At the end of your course, I challenge you to make it less about accountability and more about celebration. I wonder what would happen if we treated the last few weeks of the school or semester as an opportunity to celebrate this year's learning?

What would this look like? In addition to asking students traditional questions, we could ask them to reflect on this year's learning. Below are some questions you could pose:

- What is the most thought-provoking idea you have learned this year? What makes you most curious about this idea?
- What topic or question(s) made you struggle the most? How can you ensure that this struggle decreases the next time you see this topic?
- What was the most intriguing idea we explored in this course? How has this idea captivated your mind and brought delight to the world around you?
- Imagine you are given a mathematical problem you are unable to complete. What strategies did you learn this year that you could implement in tackling this problem? What problem-solving strategy is your go-to? When might this problem-solving strategy not work?
- How have you witnessed yourself as a math person this year? What experiences have shown you that you are able to think and act like a mathematician?
- What topic would you love to explore more? What question or idea has been left unanswered that you wish to investigate further?
- How have you witnessed the authentic real-world application in the mathematics you were taught this year? How has the material altered your understanding of the world around you?

Francis Su, author of *Mathematics for Human Flourishing* (2020), has also wrote a beautiful blog post entitled “7 Exam Questions for a Pandemic or Any Other Time” (2020). This blog post provides the reader with seven more questions you could ask instead of giving a traditional final exam.

A possible benefit of rethinking your final exams would be that students are able to express just how they have witnessed mathematics throughout the year. Students will be able to write about their own journey in your course and leave you understanding more about what they valued, loved and struggled with.

Of course, these are great questions this year, and I wonder what would happen if we continued to rethink final exams even when the pandemic is over?

Have an amazing rest of the year, stay safe and know that the Mathematics Council is here to help in any way it can!

## References

Alberta Education. 2020. “K–12 Learning During COVID-19.” Government of Alberta website. [www.alberta.ca/k-12-learning-during-covid-19.aspx](http://www.alberta.ca/k-12-learning-during-covid-19.aspx) (accessed January 12, 2021).

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Dave Martin  
President

# Friends of MCATA

## AGM Election Results

At the annual general meeting in November, the following three positions were elected by acclamation:

President: David Martin

Vice-President (Publications): Stacey Wu

Secretary: Barbara O'Connor

The following appointments were also made:

Past President: Rod Lowry

Vice-President (Professional Development): Carmen

Wasylynuik

Newsletter Editor: Dale Block

Congratulations to each of these executive members!

## Appreciation of Service

We acknowledge the work and dedication of six executive members who promoted mathematics education in the province and moved on from the council this year: Robert Wong (20 years of service), Tancy Whitehouse (12 years), Alicia Burdess (8 years), Amanda Schulz, Greg Belostotski and Scott Seland. We wish each of you success in your future endeavours.

## Dr Arthur Jorgensen Chair Award Recipient

We congratulate Megan McClary as our most recent recipient of the Dr Arthur Jorgensen Chair Award. This award is presented by MCATA to encourage students enrolled in education programs in postsecondary institutions throughout Alberta to pursue and commit to mathematics education. McClary, born and raised in Calgary, is a graduate of the University of Calgary concurrent education program (BSc in general mathematics and BEd in secondary mathematics 2020). She is a passionate mathematics educator who is also interested in theatre and dance. She will serve a one-year term on the MCATA executive. Applications for the 2021 Jorgensen award are currently being accepted and are due prior to April 30.

## Announcements

### Become an Executive Member

Are you interested in joining a vibrant group of educators who are passionate about promoting and supporting mathematics education in Alberta? Are you interested in playing a role and having an impact? MCATA is currently accepting applications for the following positions on the executive committee: director of special projects, director of awards and grants, web technician and two directors at large. New directors receive training, mentorship and support as they adapt to the position. To apply, e-mail the MCATA secretary, Barb O'Connor, at [barbara.oconnor@ualberta.ca](mailto:barbara.oconnor@ualberta.ca).

### Call for *delta-K* Manuscripts

Do you have ideas or thoughts you could share with other mathematics teachers? MCATA is looking for teacher submissions for its journal, *delta-K*. This is something that could be included on your yearly professional growth plan, and at the same time you are sharing with others. Please consider submitting a lesson plan, activity, book review, rich task, research paper or simply something that worked in your classroom for other math teachers to try. Our combined collaboration can enrich all of our students' math experiences. Send your submission to [lboschman@mhc.ab.ca](mailto:lboschman@mhc.ab.ca) and see your idea in print!

# PEC Report

Provincial Executive Council (or PEC as it is affectionately named because we love acronyms) is made up of the president and two vice-presidents, who are elected by the membership at large; 15 regional district representatives, the past president and the executive secretary. This year, 2021, is an election year for PEC, and I encourage all ATA members to ensure that their ATA profile is up to date and that they remember their password in order to participate in the democratic process. The new council will take over in July.

Curriculum continues to be a major concern for Alberta teachers. At the meeting in October, PEC passed a motion expressing non-confidence in the curriculum process being undertaken by the government and called on the government to reinstate the partnership with the ATA, reconvene the working groups and release the draft documents. We continue to watch this issue and raise the importance of the voice of teachers. As a teacher of mathematics, I for one am tired of the subject I love being used as a political football. The buzzwords of “back to basics” and “discovery maths” are thrown

around in the media, but in reality, have little to do with the work done in our classrooms.

COVID has caused much disruption to our lives. As always, teachers have risen to the challenge. Last March we switched our instruction to at-home emergency teaching. We embraced the technology available; we reached out to students. Now back in school, or online, or in some sort of ever-changing hybrid model, we continue to do our best to reach students. And at the same time as we face challenges, we also have the opportunity to examine our practice. Does it matter if we can't hold traditional exams? What would the impact be if instead of an exam we assigned collaborative projects? How do we assess a student's learning? Teaching is all about relationships. How do we keep those connections with colleagues and students?

I encourage all of us to take the time each day to reach out to your colleague across the hallway, say hello, wave, find a way to connect in a socially distanced manner. Watch out for each other and stay healthy. Together we will get through this.

*Katherine Pritchard*

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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)

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## MCATA Contacts

### **President**

David Martin  
Bus 403-343-1055  
teacher.davidmartin@gmail.com

### **Newsletter Editor**

Dale Block  
Bus 403-771-1972  
dale.block@gmail.com

### **ATA Staff Advisor**

Gaylene Schreiber  
Bus 780-447-9447 or  
1-800-232-7208  
gaylene.schreiber@ata.ab.ca

For a complete listing of the MCATA executive,  
please visit [www.mathteachers.ab.ca](http://www.mathteachers.ab.ca).

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