OAME Board of Directors' Meeting Minutes
Holiday Inn Hotel, Toronto Int'l Airport
970 Dixon Rd., Toronto
416 674-4342
Feb. 19-20, 2016
Friday February 19, 2016

Attendance: Present: Tim Sibbald, Paul Alves, Judy Mendaglio, Lynda Ferneyhough, Fred Ferneyhough (Saturday only), Bill Otto, Sandra Jean Price, Jill Lazarus, Bart Vanslack, Jung Choi-Perkins, Anne Yeager, Pat Kehoe, Bill Lundy, Amanda Luxton, Melissa Black, Pamela Chun, Vincent Glavine, Charlotte Aust, Krista Sarmatiuk (subbing for Denise Filipovic), Corrine Russell-Pritoula, Kathy Pilon, Freda Liu, Christine Sasso, Alvarine Aldaridge, Katelyn Beecroft, Todd Romiens, Greg Clarke, Daniel Jarvis, Lori Yee (Saturday only)
Regrets: Fred Ferneyhough (Friday only), Paulene Washington, Chi Hang, Lori Yee (Friday only), Kathy Kubota-Zarivnij, Mary Lou Kestell
Guests: Alison Macaulay, Joanie Causarano

7:00-8:30: **PD Activity**: Curriculum Committee workshop on assessment with two guests from the MOE.
Alison shared what is going on with curriculum changes. Getting ducks in a row but not very far down the road.
Joanie shared the two main things regarding assessment are 1. Integrating instruction and assessment and 2. Students have an important role to play in assessment. She also went over the Achievement Chart and tried to clear up what are Ministry expectations and what are Board expectations. Looking at marking schemes. There are rubrics on the EduGains site for the processes. The processes are the crux of assessment. Try to take the latest evidence of achievement. There are misconceptions about evaluating all curriculum expectations. Ministry platform is you need to evaluate all overall expectations and address all specific expectations.
The curriculum committee prepared collections of student work, which was to be assessed by the Achievement Chart and specific expectations.
8:45-9:00: **President's Welcome and Remarks**: Tim Sibbald

- welcome
- Director updates, housekeeping: Lynda Ferneyhough

9:00-9:15: **Reports**

- NCTM: Todd Romiens NCTM report was in the agenda
- OAME2016: Greg Clarke did a presentation on OAME 2016, May 5-7 in Barrie.

- Leadership 2015: Tim Sibbald reported on the recent event in early November, featuring Lynda Colgan, Ian VanderBurgh, Ralph Connelly and Dragana Martinovic. Attendance was low given the labour issues in the province.
- Leadership 2016: Judy Mendaglio reported that Dr. Jo Boaler will be doing a full day workshop led by Jo Boaler, Friday, November 4.

9:15-11:00 pm **SOCIAL** (ALL BOARD MEMBERS WELCOME)
Social Gathering for all Board Members OAME Suite 1046

Saturday February 20, 2016

8:30- 9:30 Light buffet breakfast is served.

9:00-10:00 **GENERAL MEETING of the BOARD OF DIRECTORS**:

- Approval of the Agenda Moved: Pamela Chun, Seconded: Bart. Carried
- Approval of Minutes Oct. 16-17/15 Moved: Bill Otto, Seconded: Pamela Chun. Carried
- Financial Picture, as at Jan.12/16 Lynda Ferneyhough presented the financial summary as of the end of December 2015 and answered questions. Moved: Paul Alves, Seconded: Judy Mendaglio. Carried.
- Notices of Motion: (Tim Sibbald). There are none.
- Nominations for the 2016/2017 Board (Paul Alves)
  Paul Alves reported on the candidates for the election:
  - President Elect: Jill Lazarus, Krista Sarmartiuk, David Petro.
  - Secondary Representative: Charlotte Cutajar, Melissa Black and Lisa Suurtamm.
  - Elementary Representative: Bart VanSlack, Catharine, Tom Boland.
- Grade 9 Applied Math Project: Lynda Ferneyhough reported on the progress of this project. Part of the project will feature a summer institute where teams of four (administrator, department head and two teachers) will be accepted at a cost of $200 per team, with all other costs covered. Presentations from the teams in the project and the researchers will be featured. One hundred teams will be accepted at each of the London and Toronto sites. A link to the registration is on our website and included here.
  http://oame.on.ca/main/files/wshops/Gr9InstituteAug2016registration.pdf

10:00-11:45: **ALL COMMITTEES**: Work Period (Communications/Outreach/ Curriculum/ Strategic Planning & Renewal)

11:45 – 12:00 Questions from Members to Authors of Written Reports:
there were none

COMMITTEE OF THE WHOLE:
Food for discussion:
SPaRC wanted some suggestions for online meetings.
OUTREACH informed the board that no chapter has come forward to volunteer to

host OAME 2018, so this now becomes the responsibility of the board. Ideas for the event were discussed and the idea of a point person being hired to coordinate the event was raised. Much of the discussion centred around the concept of each of the chapter representatives conscripting an additional member from their chapter to serve on the organizing committee, referred to loosely as the "plus one".
After much discussion, an offer from COMA was presented for both 2018 and 2019. Three options were presented.
c) COMA hosts both 2018 and 2019 with lots of help in 2018 with the same point person and same venue in 2019 in Ottawa. This received 13 votes.
b) The board runs 2018 and COMA runs 2019 with the same conference planner at the same venue in Ottawa. This received 6 votes.
c) The board runs 2018 and COMA and QSLMA co-host 2019. This received 2 votes.
COMMUNICATIONS – Amy Lin will be offered the role of editor.
CURRICULUM did a quick report on the professional development session from last night by showing an iPad app called "Plickers".

Greg Clarke announced that the Guidebook App is being used for the 2016 conference.

Moved by Bill Otto, seconded by Corrine Russell-Pritoula, that we adjourn. Carried

CHAPTER REPORTS
CHAMP has successfully run a 2-part online web-series on Measurement for K-6 teachers, with much positive feedback. As a result we are now offering a new 3 part series on Measurement for J/I teachers on March 8, 29 and April 19.
Also, on April 7 CHAMP is hosting a Mini Conference with Kyle Pearce, Jon Orr and Ian Vanderburgh as featured speakers. The evening is designed as a workshop and dinner to build community amongst our membership.
The team is enthusiastically preparing for the local OMO competition happening in April as well.

COMA, currently with 135 members, has planned their Spring Forum on Saturday, April 30th, which replaces the Ron Bender conference usually held in the Fall. COMA also has been doing significantly more outreach with their members and non-members surrounding a future OAME (annual conference and general events) at local board PD days and at local university info fairs for teacher candidates. They are hoping to find people who can step up as Co-chairs so they can host an annual conference in the near future.

GOLDEN: Planning for the Spring Mini-Conference is moving forward. We are looking forward to improved attendance by teachers from the Elementary Panel again this year. We have many exciting workshops for teachers from K all the way to 12. The format for the secondary panel is slightly changed this year. The secondary teachers will have a keynote speaker, Mary Bourassa, who will speak about Small Steps/Big Changes. Then all secondary teachers will have a choice of workshops for the second half. We look forward to seeing you all there!

Crescent School hosted our annual **ISOMA** conference on January 13, 2016. There was a fabulous turnout with teachers coming together from independent schools across the GTA. The theme of the conference was Approaches to Teaching and Learning. We ran three sessions during which attendees had the option of listening to a number of presentations or engaging in a round table conversation with colleagues. A highlight of the evening was the exceptional food and the creative math-inspired menu.
We hope to see you at the ISOMA Math Olympics which will be hosted by Havergal College on April 9, 2016.

MAC2 held its autumn miniconference "*What to look for before you leap* " in November. Dr Alex Lawson author of " *What to look for Understanding and Developing Student Thinking in Early Numeracy*" was the keynote speaker. The miniconference was very well attended and all attendees gained a great deal from Dr. Lawson's great wealth of knowledge. The mini-conference was held in Barrie and it was also transmitted electronically to two other locations in Bracebridge and Orillia. The OAME 2016 committees continue to plan for the annual conference in our desire to make the Annual conference an exciting and memorable experience for all future attendees.

NOMA continues to have a focus on creating connections across our large geographic region. Tim Sibbald has taken the lead in this area, offering online workshops. In September, he hosted a Geogebra Workshop. With our large region in mind, we are also looking to update our webpage and will be seeking advice from our membership in terms of their areas of greatest interest and need, through an online survey. With such a small leadership team, we are also trying to reach
out and engage other NOMA members in event organization, so that we can offer opportunities such as OMO in our region.
NOMA is always keen to provide opportunities for professional learning to our membership. Recognizing that our largest concentration of active members is based around Sudbury, we are considering a variety of face-to-face and virtual learning opportunities for the second half of the school year. Plans are currently in the works to provide a set of workshops in Sudbury in the spring, using a similar format as the Spring Mini-Conference we held in Sault Ste Marie in April 2015.

Lots of exciting things happening here in the Northwest!
NWOAME is hosting a "Math Night Social" for members and guests on Wednesday, March 2, 2016. The event will start with an OAME/ NWOAME presentation, highlighting the website, resources and benefits of membership. The highlight of the evening is Dr. Alex Lawson (Lakehead University) is going to be talking about how to recognize and understand children's mathematical thinking.
In April, we will be hosting our regional Math Olympics at Superior High School in order to identify our team to send to the Provincial Competition. New this year, NWOAME is including a grade 6 non-competitive division to our Olympics. We are hoping this will spread the love of math and also help prepare our students for the

grade 7/8 competition.
Many of our schools celebrated the 100th day school wide. Older students planning, preparing and implementing 100 day activities.
The upcoming Pi-Day in mid-March will also be celebrated in many schools, with preparations already underway.

PRMA is in rebuilding mode. We hope to have our AGM from last year soon. PRMA is looking at avenues to attract more members (i.e. survey, social, etc.) to our chapter.

Quinte St. Lawrence MA: Our mini-conference, Exploring Mathematical Mindsets, was held on Tuesday, November 17th at Queen's University. We invited Dr. Marian Small to be our keynote speaker. We began the evening with the Marian's keynote address, There's Student Mindset but what about Teacher Mindset?, followed by a breakout session. We had 100 attendees which is the largest number of attendees in a number of years; we had some local board support to cover the registration fee for the mini-conference. We have started our regular meetings to prepare for our hosting of OAME 2017; we regularly meet at St. Lawrence College, the site of our conference.

SAME is hosting a number of events this spring!
SCARBOROUGH INDIVIDUAL MATH CHALLENGE Tuesday, March 8th, 2016
Participants may choose between three options. The top students in each grade/gender category will be invited to train for the Ontario Math Olympics in May.
SCARBOROUGH MATH OLYMPICS Thursday, April 14th, 2016
Participants will compete in individual, pairs, and team math challenges. The top students in each grade/gender category will be invited to train for the Ontario Math Olympics in May.
ONTARIO MATH OLYMPICS Friday, May 27th and Saturday, May 28th, 2016
University of Toronto Scarborough Campus
Optional Saturday night Serengeti Bush Camp stay available at the Metro Toronto Zoo. Interested in volunteering? Please email freda.liu@oame.on.ca

WOMA is currently planning for a mini conference to be held on May 19th in the evening. Conference attendees will get to choose from one of four sessions (each session will be directed towards a specific level - Primary, Junior, Intermediate and Senior) followed by a light dinner and a key note speaker (TBD).

OTHER REPORTS
NCTM: You have probably heard of the Common Core State Standards for Mathematics (CCSSM) trying to be implemented across the United States. This is an educational initiative that details what K – 12 students should know in mathematics at the end of each grade. It seeks to establish consistent educational standards across each state as well as to ensure that students graduating from high school are prepared to enter credit courses at two or four year college programs or enter the work force.

President Obama is clearly in favour of it and often tries to claim credit for it, but the development of Common Core was well underway before he took office in 2009. NCTM has issued a favourable position statement.: "The widespread adoption of the Common Core State Standards for Mathematics presents an unprecedented opportunity for involvement in mathematics education in the United States"

The mathematics standards include both mathematical content standards and mathematical practices (process standards) outlining what each student should know and be able to do at the end of each grade.

The mathematical practice standards mandate eight principles be taught:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

These are adapted from the NCTM standards document, and should be taught in every grade level from K – 12. How this is done is left to the local implementation of the standards.

Here is the full description of principle number 6 from above:
"Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of symbols they use, and are careful about specifying units of measure and labeling axes. They calculate accurately and efficiently and express numerical answers with a degree of precision appropriate for the problem context. In elementary grades they give carefully formulated explanations".

The mathematics content standards are organized in a number of domains. At each grade level there are several standards for each domain, organized into clustered and related standards. An example of the domains for elementary school are:

1. Operations and algebraic thinking.
2. Number and operations in base 10.
3. Measurement and data.
4. Geometry.

High school domains for algebra include:

1. Seeing structure in expressions.
2. Arithmetic with polynomials and rational functions.
3. Creating equations.
4. Reasoning with equations and inequalities.

All domains are broken down with more detailed descriptions of what they entail.

NCTM provides a number of resources designed to help teachers carry out the expectations of the Common Core. There are lessons, journal articles, books, professional development and online content, organized by level available. They emphasize effective instruction strategies in all grade levels, for understanding

concepts as well as assessment of those concepts. You can access these by going to "NCTM Common Core Resource Collections".

The NCTM website also has a detailed correlation of the Common Core Standards with the Ontario curriculum.

Formal assessment of the Common Core Standards initiative is scheduled to be happening now, during the projected implementation. As I mentioned in June's column, two consortiums are creating assessment items, the Partnership for Assessment Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium (SBAC). Each group has a different assessment strategy and has different support from states. PARCC has 19 states following while SBAC has about 20. Obviously not all states have opted into a plan. Some states are working together to create a common, universal assessment while others are working with PARCC and SBAC to develop their own assessment.

There is still a lot of controversy surrounding the implementation of these standards and their assessment. Some feel very strongly that the benefits will far outweigh the negatives, while others suggest there is too much government intervention in the educational process.

A distinguished professor from Michigan State University, William Schmitt wrote:

" In my view, rather than a fragmented system in which content is a mile wide and an inch deep, the new curriculum offers the kind of mathematics instruction we see in top achieving nations."

While Louis C. K. , a parent, says: "My kids used to love math. Now it makes them cry. Thanks standardized testing and the Common Core". Stay tuned.

OTF Subject Association Retreat

The theme this year was poverty. This was grounded by an ETFO presentation by Jim Giles, which presented a document with many details including PD and classroom oriented materials. The document is "Possibilities: Addressing poverty in elementary schools" co-authored by Charmain Brown and Jim Giles for ETFO. The presentation addressed many misconceptions about poverty. The presentation was followed by Dr. Parker; a researcher from Brock University. She put forward an emphasis on avoiding deficit thinking about poverty. The overall message was the need to recognize the issue among students without falling into misconceptions and then addressing in a constructive, rather than deficit, way.

Two students who have had impoverished experiences spoke of their experiences. One was from a troubled home, had good non-visual learning skills, and ultimately succeeded because he found stone masonry / horticulture through the high skills major program. The other is an immigrant from Jamaica who struggled with language but demonstrated resilience and a willingness to take constructive risks.

Speakers also included a women's shelter and a food bank. Both spoke to the issues they see on the ground that are closely associated with poverty. They provided some details that connected the issues to teaching from a different perspective.

A session was held around issues that subject associations are addressing. OAME is clearly doing well, albeit we have facets of all the issues; there were several

issues where strategies that OAME has used were shared with the audience. There were a few elements that were news. For example, OTF is investigating the possibility of arranging an insurance option for subject associations. The thinking is that this would likely be through OTIP and there was a mention that there may have to be a large subject association engaged in order to make the program work (no details). The key message is that OTF is investigating the possibilities. Other issues included renewing membership, keeping websites current, issues around interactions with the Ministry of Education, how to engage membership, etc. The opportunity was taken to point out that having a video conference option addressed collectively might be beneficial. OTF uses Blackboard Collaborate for its webinars and could potentially arrange for that to be available for virtual meetings.

Notes from **Ontario Education Research Symposium** (OERS) February 9 – 11 Fireside Chat with Dr Chris Dede, Harvard, moderated by Cathy Montreuil, Assistant Deputy Minister, Learning and Curriculum Division New visions for leadership · Put problems in front of students have them go at it · When students are engaged in authentic problem solving, instead of looking at a textbook, they are looking at their world · Teacher reframing: What do I need to know next? Requires a shift from a culture of control; Come to school every day as a learner...as a teacher but also as a learner · Student is being a researcher · WE need to avoid Frankenstein collaboration ... You do this part, I'll do that, then we'll glue it together and hope that the pieces fit together · Pisa next year will measure student collaboration... Connection in real time · First stage inquiry: The teacher knows the answer, but the students do not. Second stage inquiry: Neither the teacher nor the students know the answer...Now we have everyone working on problems and we see true collaboration and teachers modelling learning · From MoE: Don't wait for us to reform curriculum for you to reform teaching and learning · Foundational? This has changed. Example: the number line, the periodic table – these are foundational. We need to stop focussing on that which is no longer core knowledge · From MoE: "Specific expectations are for teachers to selectively teach to get at the overall expectations" Teachers are only accountable for teaching the overalls. [Note: This was in reference to "not having time". I know that the math curriculum specifically says that all expectations must be covered in instruction and this phrasing describes assessment, not instruction. I even looked it up during the talk, just to be totally sure. I went to speak with Ms Montreuil after the talk with this information. She did not rephrase or in any way change her message, even when I told her that I would be quoting her frequently. She indicated that she would ensure that this message would be made more clear in the updated math curriculum.] · We need to define outcomes based on authentic performance tasks. · Peer mentoring ! Peer teaching is an authentic task: This is a direct measure of learning – can you teach someone else? It is known that you can learn more from someone who is closer at your own level. Peer learning should be used when the peer's knowledge is good enough (which it usually is – peer learning has been shown to be reliable). Cascading expertise, horizontally as well as vertically · Move to "Leadership without followers" · A change in perspective is worth 85 iQ points
· New communication tools to help people share · Change may be counterintuitive - If

it was common sense we would have been doing it all along...it is data- and research-driven · Teachers struggling with change: there may be student in classroom, thinking....I could help him/her · Sometimes it depends on how students learn best... Some learn best from videos on YouTube while others learn best from reading from a textbook. Teachers make an ecosystem of learning by providing choice in a learning environment · Bring students to the learning table. Ask students ex what app they think would help them learn · Apps can package learning into smaller and smaller pieces · Virtual learning environments, twitter, etc provide a back channel of talk and sharing (learning opportunities) while in a traditional f2f, only one person can talk at a time · Tweeting can become some of the larger conversation, it can deepen the discussion · Apps are almost always better for directed study · Do not use technology to automate" teaching by telling" and "learning by watching" · Schools need an administrative manager. They also need instructional leadership and these are both full time jobs. In the modern knowledge economy, innovation is a necessary component (as well as administration and management) · Education has always responded to economy – The one room schoolhouse was created for the agricultural economy; the current model of the school was created for the industrial economy. The past models are not taking students into the existing knowledge economy · Our past systems of learning and assessment have held time constant and allowed outcomes to vary. The new model is to hold outcomes constant and allow time to vary · Teacher: I am trying to model how to find the truth so that you will be able to find it when the current truth is no longer the truth · Interesting note from an international conference: Due to the high financial and human cost of preparing students to achieve higher scores in international testing, Korea is backing away from the education strategies of the past · Barriers to change...Psychology...Parents who were successful preparing for their world want their children to do the same things that they did. However, the children are preparing for a radically different world; Teachers teach as they were taught · Technology as an active form of outreach...knowledge mobilization Opening Remarks: Hon. Liz Sandals, Minister of Education; George Zegarac, Deputy Minister of Education; Doris McWhorter, Director, Education Research & Strategy Branch · Focus of MoE continues to be mathematics and well-being · Investigating expanding experiential learning (Input: http://www.edu.gov.on.ca/eng/general/consultations/index.html?platform=hootsuite) · Themes: Networking and collaboration · Students to voice vision · Differentiated needs ....differentiated interventions Keynote Chris Brown, Institute for Education, University of London · Evidence-informed practice · 2014 education endowment fund - question of professional learning communities · Cycles of enquiry · The Dreyfus Model of expertise: o Example: Learning about hand washing. You learn the 12 stages of hand washing.

Once you know how to navigate the 12 stages, you decide how much of the 12 stages you need to go through on a case-by-case basis. Another example is teaching children to cross the street (5 stages). We want students to learn procedures but also we need to teach students to use their judgment after they have learned them (and not spend their lives blindly going through 12 step hand washing for every set of circumstances) · When you have knowledge of the idea, you don't need to follow the idea · What is

required is an expanded repertoire · Learning conversations...Adapted from Japanese business success in 1980s à
· Stages: o Make tacit knowledge explicit
o Co-create new knowledge (teacher/student, student/student) o Practice new knowledge o Make new knowledge tacit (by practice) · Accommodating, not assimilating knowledge. You are not trying to force fit what is new into what your existing system. You need to change the system. · Visible learning....feedback is number 1 (Hattie) Workshop A - Achieving Excellence and Enhancing Public Confidence: OISE Surveys of Educational Issues *The OISE Survey of Educational Issues is a public opinion poll that has been administered every two years since 1978. The 19th OISE Survey Report was published online in early December 2015 and is available at:*
http://www.oise.utoronto.ca/oise/About_OISE/OISE_Survey/19th_Survey.html, alongside links to the past five surveys. This workshop looks at the unique value of long-term surveys and at the many challenges that make such projects difficult to sustain. In the first instance, we show how taking the long view allows us to build up a picture of how public opinion has developed over time. In particular we examine how opinion changes over time in some areas, while remaining relatively constant in others. As far as challenges, we discuss problems of sustainable funding, building relationships with other educational researchers, gaining the interest of journalists, and discovering and demonstrating the relevance of the surveys to stakeholders. Participants are asked to review the 19th Survey Report prior to the workshop. We invite people to send us questions and comments that could be addressed through the survey data but are not covered in our report. We will use part of the workshop to address questions submitted to doug.hart@utoronto.ca by Saturday, February 6.Presenters: Doug Hart and Arlo Kempf, both from the University of Toronto · Note statistic about paying for tutoring · Good at identifying issues but not good at finding explanations Vignette #1: Taking IT Global · Education for social innovation · Transformative pedagogy · Teacher leading from behind Vignette #2: Teacher Learning and Leadership Program (TLLP) · What should teacher learning look like? Slide · Not action research in that they are expected to share their knowledge
· Leadership flows through non-hierarchical networks Panel Discussion: Research-to-Practice Networks in Ontario · KNAER · SURE · FACEs network evaluation (Nipissing) · RIPPLE (Queens) · Research impact network Breakout Sessions - Mobilizing What We Know in Priority Areas Mathematics and the Early Years – Facilitated by Jacqueline Herman, Ontario Ministry of Education, Cathy Bruce, Trent University and Lynn Strangway, Toronto District School Board · 36 000 students in study · 54 months to age... Mathematics is a fantastic predictor of future success of the 15 year old · Kindergarten students like shape, pattern, symmetry, magnitude, abstract thinking · Ministry vision: *Achieving Excellence, April 2014 http://www.edu.gov.on.ca/eng/about/renewedVision.pdf* · Student Achievement Division: Currently working with boards on a renewal for mathematics o Goals and actions closely linked to board improvement plans o Mathematics for Young Children is one project o Not just more time, but effective instruction o Extending the principles of play-based learning to grade 3 and beyond · Curriculum and assessment branch ·

Notice and name the mathematics in student work
Keynote: Willa Black Cisco Systems · Connected North · CSR programming · CILC Centre for Interactive Learning · Technology broadens the teacher's scope · Students love things that sizzle, fizzle, have colors, explode · Classroom Connect program...It takes a while for relationships to gel, but they do and they are amazing · Networking Academy ... Training to maintain networks, certification · Requirements: Project management, passion Workshop B - Ensuring Equity and Promoting Well-Being - The Benefits and Challenges of a School-University Research Partnership: The CITE Collaborative Inquiry Community *This workshop describes a research partnership between a school and university faculty to address the 'challenge of practice' in the school improvement plan and to develop research acumen among participants. A collaborative inquiry process was used with teachers, the principal and board resource staff to develop and explore a specific area of focus. Videos produced by the School Board University Research Exchange (SURE) Network provided an excellent foundation for the sessions. The action plan and strategies used by teachers in their classrooms yielded very positive results in relation to student resilience, persistence and engagement. In addition, participants reported increased understanding and appreciation for the research process. The Collaborative Inquiry Team in Education (CITE) findings indicate that a school-university partnership facilitates the process to name, frame and proclaim both student and professional learning. Presenters: Debra Curtis, Heather Papp, and Sherrie Rellinger, all from the Waterloo Catholic District School Board; Maria Cantalini-Williams, Nipissing University* · CITE. SURE network videos http://www.surenetwork.ca/models-of-collaboration/ · Research either validates what you are doing or it gently pushes you in another direction · Crossword activity · Yarn web building activity · Time on task research · Research action plan slide · D2l site. www.wcdsb.elearningontario.ca//d21/home/6175296 · Teacher role has been "Curriculum delivery" · Students and teachers both need ownership of learning · The power of "not yet" Vignette #4: Reflections from Chris Brown Chris Brown quoting Chris Dede. "Ten minutes more" (Get 10 minutes more work from students, then 10 minutes more, … ICSEI 2017 · 80 countries · 30th anniversary · Research. Policy. Practice · F2F and electronic · What works to improve schools? currently five networks who meet in virtual environments · High achievement and high equity 2016 slide from Finland – Ontario is towards the very top · One strand is system and school improvement · Volunteers? Keynote Address: *Santiago Rincon-Gallardo, OISE, University of Toronto* · Start with why group · Richard Elmore at Harvard...the improvement of schooling and the improvement of learning are not the same thing · Schools are good at teaching students how to be taught. This is fundamentally different from teaching students how to learn · Job description for students is "help humanity" · Lightening strike story · Middle school worked to design an accessible subway · Effective networks Improve independent learning · Social physics reality mining · Beware: Reported practice versus actual practice · 8 Essential Features of Effective Networks in Education 1. Ambitious student learning goals linked to effective pedagogy (sustained problem solving) - Changing instructional practice is the most effective way of improving and deepening student learning 2. Establish relationships of trust, learn in public, internal accountability. Contrast this to certainty, authority,

power, teacher as the giver of knowledge. Modeling learning in the open. It takes a lot of time...New Zealand...6 months 3. Continuously improving practice through cycles of collaborative inquiry. Identify a problem of practice. Zone of proximal development (teachers/administrators).What are the practices that are creating the problem? Designing, testing, and refining solutions...rare. We often see sharing but not action. 4. Flat leadership, different power structures...need a skilled facilitator, deliberate leadership. From social physics...equality of contribution of all is tied to effectiveness of network 5. Engagement 6. and exploration....engagement .. Constant interaction inwards, frequent connection outwards. Exposure to new idea determines whether or not you will take the new behavior...very powerful. Avoid the echo chamber of old ways 7. Development of new partnerships, among students, among teachers, and families and larger community organizations 8. Adequate resources "Means becomes an end ... Curriculum was a means, but it has become an end."

Update from **the Fields Institute**

The theme of the November meeting was *Thinking in "code": Exploring relationships between mathematics and computer programming.* The speakers were Carly Rozins (*Becoming a computational thinker*); George Gadanidis (*Computational thinking in the elementary classroom*); Chantal Buteau, Ramona Rat, and Eric Muller (*Thinking in "code" and coding for thinking: a university implementation*); and Sheila Rhodes (*Programming with LEGO robotics*).

As usual, January was Research Day. Speakers were Immaculate Namukasa (*Classroom practices supporting mathematics curricula in the Montessori system*), Cathy Bruce (*Connecting spatial reasoning to math learning*), Amy Lin (*Multimodal learning of mathematics around touchscreens*), Margo Kondratieva (*Helping in-service mathematics teachers to adopt a problem solving approach*), Lauren DeDieu (*Writing to learn mathematics in a differential equations course*), and Peter Liljedahl (Building Thinking Classrooms). Posters presented were *Students' misconceptions of trigonometric circle* (Elahe Aminifar, Shahid Rajee, Maryam Majidifar), *Teacher candidates' online math-for-teachers journals: A search for mathematical surprise* (Rosa Cendros Araujo), *Concept Maps: Empowering students to learn* (Marja G. Miller), *Community in the elementary mathematics classroom: Student engagement in face-to-face and online environments* (Kiran Pain), *Effective and fiscally responsible mathematics teacher education?* (Steven Khan), *Exploring the impact of changes in Ontario's senior mathematics curriculum on student success in STEM programs* (Gurpreet Sahmbi), *The relationship between middle school students' self-regulatory skills and problem-solving performance* (Zeynep Sonay Ay), *Self-Directed Professional Development and the Elementary Mathematics Teacher* (Chloe Dawn Weir), *Proof Construction and Reconstruction: An Investigation in Undergraduate Mathematics* (Kitty Yan).

News from the Fields Institute:

The 2016 Margaret Sinclair Memorial Award, recognizing innovation and excellence in mathematics education, has been awarded to long time member and supporter of OAME, Ron Lancaster.

The January meeting saw the first attempt to stream the MathEd Forum. It was tested

for us by OAME's own President, Tim Sibbald and his associates in and around North Bay.
The structure of the Fields Institute is changing. In response, the members of the Steering Committee of the MathEd Forum submitted a well-supported proposal for a new Centre for Math Education and this received formal approval in January. The Centre has a start date of July 1, 2016. President-Elect, Judy Mendaglio, is a Steering Committee member of the new Centre.

COMMITTEE MINUTES
CHAPTER REPS MEETING
Present: Lynda Ferneyhough, ED; Greg Clarke, OAME Webmaster; AMANDA LAXTON, CHAMP; MELISSA BLACK, COMA; PAMELA CHUN,GOLDEN; VINCENT GLAVINE,GVMA; CHARLOTTE AUST,ISOMA; Krista Sarmaiuk, NOMA; CORRINE RUSSELL-PRITOULA, NWOAME; Sandra Jean Price, PRMA; KATHY PILON, QSLMA; FREDA LIU, SAME; CHRISTINE SASSO, SWOAME; ALVARINE ALDRIDGE, TEAMS
Regrets: PAULENE WASHINGTON, DENISE FILIPOVIC, CHI HANG
Absent: KATELYN BEECROFT
1. Lynda - A few chapters still have outstanding rebates. Lynda will follow up with you. Those who got rebates in October, please cash those if you haven't already!!
2. Members Only features - Greg gave a demo of updating your chapter information available
* Login to Members Only section of OAME (let Greg know if you can't get in and he'll reset your password)
* Scroll down to CHAP REP LINKS on left panel
* Choose My Chapter Update
    * You can edit Chapter Meeting information, add Chapter Exec, add / modify Chapter events
- Greg also demoed the Send a Custom Email function - which now has additional options available. New options include:
* ability to email ALL chapter Reps
* ability to email ALL chapter leaders (president / chair)
* ability to email any specific chapters Rep or Leader or Exec members
* ability to email OMO coordinators (provincial or chapter coordinators)
* rewording (simplification?) of ability to target chapter members whose membership has expired or WILL expire.
3. Lightning round - each chapter had 30 seconds to share something cool - here are the quick notes taken!
TEAMS - successful mini conference this week - rescheduled from postponed Fall one
GVMA - new website
GOLDEN - looking fwd to April mini conference
SWOAME - holding mtgs - Dragana and Todd pushing forward with project, suggestion that 3 schools in Windsor Essex might be good to involve in mini conference
WOMA - mini conference coming up - just posted - in April

NOMA - exciting things in Sudbury - ramping up to Spring Fling - conference in April - good representation in Barrie for OAME 2016
NWOAME - math night - march 2nd - Alex Lawson - Gr 6 non competitive OMO like event
ISOMA - mincing in Jan - huge turnout - half presentations / half rounds tables w themes - getting ready for OMO
CHAMP - two part webinar on measurement focus on PJ - three part web series on JI - April mini-conference and OMO
PRMA - in flux - lots of acting - getting back on track - possibly partnering with another chapter for fall social
SAME - planning provincial OMO - May 27th & 28th - Saturday overnight in the Zoo (bush camp?). Local in April - individual is done remotely / school competition as well
QSLMA - miniconf in November - Marian Small - largest in a while - over 100 attendees! (local boards supported) , gearing up for OAME 2017. OMO in April at Queens U.
COMA - have lots of snow - intended to have a valley forum - in lieu of fall mini-conference, now in the spring. Looking for co-chairs for potential OAME conference

COMMUNICATIONS

1. Editor's Report- see below
2. Gazette Editor - Amy Lin submitted application
3. Obituaries - past member list
4. Website updates
5. Other

1. Editor's Report - need to review the criteria for articles - not just math education but also a celebration of math - direct reviewers to the OAME vision about promoting
- changing format of articles to full page to allow for charts and graphs to be easier to read.
- online tracking not a good option at this time.

2. Amy Lin acclaimed as the new edition
Bart to contact Amy Lin to let her know she is the new editor. Dan is willing to have Amy Lin job shadow him leading up to the Sept issue - Amy Lin to be in place for Sept issue of the Gazette.

3. Obituaries - Research boxes in the Gazette could move to be Living Memories feature.
- Bart to email - the chapters nominate and write the featured article for each issue highlighting Members that have made significant contributions to Chapter and/or OAME
- list to be housed with the Ex. Directors
- possibility of have a website page for obituaries

4. Website Updates
- Greg has done some updates to MCIS - most back end and organization features
- e Conference - options for 1, 4, 8 sessions

- MCIS server will need update this summer - due to credit card security issues

5. Tim - to write acknowledgement letter to Math Challenge Western for 20 years of service.
- Look into Virtual options for future meetings. (Google hangout, Goto Meeting, Adobe Connect)

Gazette Editor Report (D. Jarvis) February 19, 2016

- Volume 54 Number 2 (December 2015). This issue was finished on schedule and included the following items:
  Regular Columns
  Ask Assessment Abby: Group Work Assessment /Assessment Abby
  Hey, It's Elementary: Parents as Mathematics Teaching Partners: A Toolkit for Ontario Families /Lynda Colgan
  Fields Institute MathEd Forum Notes /Stewart Craven
  In the Middle: Starbucks Math /Carly Ziniuk
  MB4T (Mathematics by and for Teachers): Multiplying Integers /Ann Kajander
  OAME/NCTM Report: Being an Affiliate Member of NCTM /Todd Romiens
  Provincial Digital Learning Resources: What's New? Number Line by mathies /Greg Clarke, Agnes Grafton, Ross Isenegger, Markus Wolski
  Technology Corner: Desmos Activity Builder /Mary Bourassa
  What's The Problem? Pirate Treasure Hunting /Shawn Godin
  Articles
  Ontario Mathematics Olympiad (OMO): An OAME Tradition /Paul Alves & Judy Mendaglio
  Math Exploration Using the Morley Triangle /Tim Sibbald
  Learning Elapsed Time Through Afterschool Activities /Miwa Takeuchi & Robin Coyle
  Special Features
  Letter to the Editor: Response to the Review of The Mathematics Olympian /Tom Griffiths
  OAME 2016 Conference Information /Victoria & Jim Baumgart
  In Memoriam: Frances Schatz /Jack Weiner
  EME Excerpts and Math Education Researcher Profiles
- Volume 54 Number 3 (March 2016). This issue is currently in the final editing/proofing stages, and will include the following items:
  Regular Columns
  Ask Assessment Abby: Assessing the Mathematical Processes /Assessment Abby
  Technology Corner: Number Talks /Mary Bourassa
  Hey, It's Elementary: Rich Tasks and Big Ideas . . . Then and Now /Lynda Colgan
  Fields Institute MathEd Forum Notes /Stewart Craven
  What's The Problem? Nifty Number Nine /Shawn Godin
  MB4T (Mathematics by and for Teachers): Dividing Integers (Part 1) /Ann Kajander
  OAME/NCTM Report /Todd Romiens

Provincial Digital Learning Resources: What's New? Whole and Relational Rods (mathies.ca) /Markus Wolski, Agnes Grafton, Ross Isenegger, Greg Clarke, Kathleen Corrigan
In the Middle: Starbucks Math (Part 2) /Carly Ziniuk
Articles
Mathematics and Special Education: Two Teachers in One Classroom /Jacob Speijer, Connie Gray, Sandra Peirce, Gail Doherty
Orthogonal Curves /Meth Devendra
The Good Luck Paper Crane: Paper Folding and Mathematics Activities /Betty Long & Deborah Crocker
Special Features
Letter to the Editor /Louis Lim
Book Review: Open Questions for the Three-Part Lesson: Number Sense and Numeration (M. Small, 2015)
/Daniel Jarvis
EME Excerpts and Math Education Researcher Profiles

- Financial: Cost for the "Prime Proofing Services" (Gitta Berg) for V54N2 was $612.50 and for V54N3 was $621.25. Costs for Penny C for layout/design has been approximately $2000/issue.
- Online Tracking: At the June 2015 meeting, I had agreed to begin looking into online journal tracking system options for the *Gazette*, as is common with many academic journals. Now wondering, however, that given the unique teamwork approach of the *Gazette*, with heavy reliance on columnists, as opposed to primarily articles, in each issue, and the use of a copy editor and a layout designer with very quick turn-around times, if whether the current system (Dropbox/Email) may in fact work best for our given situation.
- OAME Vision Statement: One of our reviewers and I had communicated about the core focus of the journal in terms of how we critique submissions and report back to authors by way of reviewer feedback. In light of the focus of the journal in recent decades/years (i.e., I believe it has shifted from more of a mathematics focus [see Editorial excerpt below] to a mathematics education [practice/research] focus), might OAME consider changing its vision statement from "Promoting Excellence in Mathematics Education" to "Promoting Excellence in Mathematics and Mathematics Education" to reflect the balance that I think we are still wishing to capture? In other words, some of our articles and regular columns focus on doing and thinking about mathematics, and others focus on teaching/facilitating the doing/thinking of mathematics.

  In 1962, Ralph Stanton, the first editor of the Ontario Mathematics Gazette, began his editorial with the following words: "It is with some trepidation that I look forward to the task of prefacing each issue of the Ontario Mathematics Gazette with an editorial." I share his sense of mild anxiety, knowing how far the publication has come in the interim. He also explained two original goals for the journal, "We are trying to develop a typically Canadian magazine which will differ from corresponding American publications in two respects: the percentage of articles on mathematics, rather than on 'education,' will be higher; the articles on

purely American themes will be lacking" (OMG, V1N1, p. 3). At present, it is fair to say that the Gazette remains a predominantly Canadian-focused publication; however, the emphasis on both mathematics and on mathematics education seems to have developed into a more equitable situation. This dual focus had actually become apparent as early as 1972, when the co-editors, J.S. Griffiths and William Eames, promoted the following types of submissions to the journal: "Main Articles: We seek discussive and expository articles reflecting the content or mode of current mathematics or mathematics teaching; and, Mathematical Notes: We seek short papers which give new insights, new proofs of old theorems, applications (in any sense of the word) of standard material, which are suitable for classroom presentation or for student projects" (OMG, V11N1, pp. 2-3). Editor's Message, V53N2

- Copyright Requests: I have had a question about permission to upload previous *Gazette* articles into the free online database resource, *ResearchGate* (similar to *Academia*). This is of course different than a person asking to post a full article on their own website, which we have allowed in the past. Should the *ResearchGate* option be allowed, and if so, how might it affect our secure online membership archive benefits? However, is the free advertising beneficial?
- Layout: Wondering if the committee would consider allowing the Editor to feature the articles (usually 2 or 3 per issue) in full-page format, and still have all of the regular columns and other features in 2-column format? The rationale here is that often the articles have figures or tables that are difficult to display and read in the small column format. In my opinion, it would also look more professional, and similar to other academic journals in terms of presenting articles.
- Award: Very excited to hear about the NCTM Affiliate Member Journal Publication Award, and would like to thank OAME for their kind offer to assist with my conference travel expenses.
- I continue to enjoy the Editor's role, and look forward to working on my final issue (Volume 54 Number 4), and assisting the new Editor (?) during the transition period this coming summer.

CURRICULUM

Present: Alvarine Aldridge, Charlotte Aust, Katelyn Beecroft, Pamela Chun, Krista Sarmatiuk (for Denise Filipovic), Vincent Glavine, Jill Lazarus, Judy Mendaglio, Todd Romiens, Corrine Russell-Pritoula,, Anne Yeager, Lori Yee

Regrets: Chi Hang, Paulene Washington; Jung-Choi Perkins

Agenda Items:

1. Debrief PD from Friday night
   - The presentation by Ministry representatives provided useful information. Having student work to look at for the assessment activity was valuable. The activity was a good opportunity to look at assessment questions and student work through a particular lens using common language.
   - Joanie offered to return for a workshop in the future if there is interest. We decided not to pursue this for the June Board meeting given the current focus on preparing for OAME 2018. In the future, we hope that Joanie may share tangible

examples (e.g., rubrics, ideas, documenting conversations, descriptive feedback)

2. Plans for future curriculum changes
   - From the Ministry presentation we found out that curriculum "renewal" is not happening yet.
3. Assessment Abby column
   - Two Assessment Abby columns were created at this meeting. The first column describes what it might look like to integrate instruction and assessment in mathematics, and the second addresses the question, "How do I make my student's thinking more visible? I am struggling with the documentation piece!"
   - We discussed potential questions for future issues (e.g., helping students and parents get on board with current assessment practices, documenting conversations and observations). We also looked at different types of technologies that may be used to support assessment (e.g., Showbie, Plickers).

OUTREACH

Present: Bill Lundy, Kathy Pilon, Sandra Jean Price, Freda Liu, Melissa Black, Amanda Laxton, Paul Alves

NEW & OLD BUSINESS:

1. **Awards for 2016** - This was our principal focus this weekend.

1.1. Deliberations

1.2. Decisions

1.3. Next steps - all on separate document - for June, will have cleaned up the entire process (e.g.., rubrics, submission process, definitions) - for approval by the board - Action: ALL

2. Future OAME and OMO: (these notes penned in the order things occurred, for the most part)

2.1. **OAME Annual Conference**:

2.1.1. Status of any feelers - Sandra Jean - initial feelers to groups other than COMA have had no responses

2.1.2. COMA looking at 2019 - p = 60%, but higher if a hired chair - what about an event planner type of person, e.g. a retiree, who would do this for an honorarium (part of the 2019 committee's budget)

2.1.3. Invocation of board management of 2018 - as required

2.1.4. Ways to make 2018 happen: (choose one or more) - shared with the committee-of-the-whole before lunch

2.1.4.1. Have each chapter take on a role - at least 2 pers per chapter

2.1.4.2. "Hire" a chair as per 2015

2.1.4.3. Organize teams through the board as per 2015 model

2.1.4.4. Profits, if any, to go into a trust from which chapters could draw upon application as per the vision for 2015

2.1.4.5. Location TBD - based on where point person is

2.1.4.6. Persons currently on the docket for president should be made aware of this so they can reconsider letting their names stand (i.e., whoever is elected from this list would be president in 2018) David Petro, Krista Samartiuk, Jill Lazarus

2.1.5. Discussions from the floor - committee of the whole:

2.1.5.1. Have every chapter do something at the same time (e.g. a different chapter takes a different night during a given week), then distribute it (electronically) across OAME - easier and cheaper to shut down should there be a labor dispute (Tim) - concern that arose from the floor: cost to the chapter, esp. for those chapters that are small and/or financially strapped

2.1.5.2. flipped conference - watch video on your own time, then get together to discuss the video (Tim)

2.1.5.3. advantage of using the board vice 2 per chapter - already paying for the board folks (Pat K) - financial problems in 2015 were not a function of how we organized ourselves but due to external factors (e.g. cost of facility)

2.1.5.4. we need to build on our strengths - we did our business and we did the conference stuff and did all well - (Lynda)

2.1.5.5. 2 per chapter called up by the tbd "chair" (Paul A)

2.1.5.6. consider the location - participation by chapters contingent on location

2.1.5.7. could we suggest to NCTM that we run a joint conference?

2.1.5.8. what's the long term prognosis - is this problem going to repeat? what kind of model can we make that is sustainable?

2.1.5.9. verbal support for having a chairperson/point person who then assembles the team

2.1.5.10. distilling things (by Bill) - select a point person (PP), then he/she digs up 2/chapt (one of whom is chapter rep) - board will commit to providing the 25 bodies, augmented by the chapter reps accompanied by one additional body - this latter person, ideally, would be someone new to this group (so we grow the group)

2.1.5.11. Summary: Grand Poobah plus board plus the Chapt Reps and their alter egos (must be members of OAME) - June 2016 meeting this will stand up - Lynda confident that our point person will be in place by then

2.1.5.12. from Bill Otto: we may be being given a signal by the membership about this kind of PD event, but because we aren't being given commitments beyond 2019, it's an opportunity to think of a new model (think outside the box) - is the model of chapters hosting this still workable? what else could work, e.g. 100% e conference?

2.2. **OAME 2018** final points, brought forward in the afternoon:

2.2.1. COMA has come forward -

2.2.1.1. Option A: will offer to run 2018 AND 2019, with PP paid by board in 2018 with board people, but in 2019 run by COMA 100% - same PP

2.2.1.2. Option B: board does 2018, then COMA runs in 2019 - PP hired in 2019 is involved in 2018 planning

2.2.1.3. Option C: board does in 2018, then COMA+QSLMA run in 2019 in Ottawa - PP hired or an experienced

2.2.2. Next steps with board covering 2018:

2.2.2.1. seek applicants/select a PP (Wayne, Dwight, Anne Y, Krista/Amy Lin, Cathy H, Jack Weiner - these names mentioned, although if COMA does indeed ratify 2018, the consensus was that the PP be someone from the Ottawa area) - we need short time line in this process - so done by next exec meeting and person in place by June meeting

2.2.2.1.1. Bill to ask EDs to contact Wayne, Dwight, Anne, Cathy H to determine interest to do this then pass on with Krista/Amy to exec - by mid March - subject to final decision by COMA

2.2.2.2. chapter reps each get a "+1" to accompany them to June board meeting - ideally someone who might have interest in working on a future conference tbd

2.2.2.3. June meeting for hired PP, board, chapter reps and the "+1" people with principal focus being establishment of committees and beginning the planning processes

2.2.3. Multitude were polled as to which of the above options they felt would work best: A = 13, B = 6, C = 2

2.2.4. Committee info only: PRMA/SAME might consider teaming up to run 2020 @ UofT Scarborough (Meadowvale)

2.2.5. Starting asap - an ad hoc visioning committee who looks at the long term, i.e., "Beyond 2019" - explore models, delivery methods - this would run parallel to the planning & execution of 2017, 2018, 2019

2.3. **OMO**:

2.3.1. 2017 - TEAMS has come forward

2.3.2. CHAMP has expressed interest to host in 2018

2.3.3. Need originals of OMO docs from Greg - put into Google Docs - Action: Bill

3. Strike a sub-committee for **e-conference**

3.1. Create a section of the conference planner that contains TOR and operational guidelines for hosting an eConference (said section would make it clear that eConference is suggested but optional) - Action: Bill - get input from Anne, Rod as originators, and Greg/Bruce as 2016 chairs; also Paul A and Dwight - cc the committee - Paul A has shared docs from an earlier conference and Bill will post to Outreach's Google Drive

4. **Other discussion** -

4.1. **Conference Planner** - Bill - On line in "final draft" form through OAME 2017 planning site - committee members will be given view/comment access - Action: Bill

4.2. Action: All - Need recommendations/samples of useful support documents from prior, recent years for inclusion in annexes and appendices (all) - including ideas for sample documents people feel would be useful (whether or not they exist)

4.3. Awards Planner - Sandra Jean working on this - ongoing

4.4. Conference locations - discussions about whether we want to go with set sites, and/or a list of recommended venues - tabled for now but will return to it in Jun

STANDING ITEM(S):

Critical path document - reviewed; adjusted dates and added "review/revision of awards document(s)" to Feb standing items

SPaRC

1) Review of Minutes from October 2015 meeting

2) Review Process for Changing the AGM:

- Board passed the motion agreeing to change the AGM from being held at the conference in May to being held in the fall. This is a change to the By-

Laws, not the Constitution

- The Board passed a notice of motion at the Feb meeting re 7.2.2 (only change to the Constitution required to change the AGM to the fall)
- Action Item: Pat to remind Tim and Lynda that that motion must go to the AGM in Barrie May 2016

3) Recommendations from SPaRC to Executive re first Fall AGM:
   - The AGM will be attached to the October Board Meeting. Saturday AM at 10:am
   - All members of the Board and the membership at large will be invited to attend in person. The Executive Directors will need to know how many people to expect, so a registration process is required. The invite could include the possibility of selecting to stay for a portion of board meeting and for lunch.
   - Re-Org of October 2016 board meeting: Start earlier Friday. Do some of Board business on Friday. There is usually a PD activity done on Friday. Move some portion of the PD to after the AGM on Saturday so that if members stay for lunch there will be something interesting for them to participate in.
   - Each chapter could be provided with an opportunity to attend virtually. For the first year a free version of "Go To Meeting" could be used.
   - Once the Executive has hammered out the details for the new AGM format, they must present this information to the Board at the June Meeting
4) Discussion of the need for a platform for Virtual Meetings
   - There is a need for virtual meeting software within the organization. Virtual exec meetings, virtual committee meetings, and virtual attendance at AGM are examples of where this software could be used.
   - The Communications Committee were invited to explore possibilities for purchasing this software and make recommendations to the executive for the September 2016 Executive meeting.
5) Committee of the Whole:
   - Sparc reminded the Board of the AGM attached to the conference in Barrie in May. All are welcome to attend.
   - Update on new format of AGM: At the last meeting they voted to move the AGM to the fall. The first one will be in the fall of 2016. Details to be presented at the June Board Meeting.
   - The group was asked for input on their experience with effective Virtual meeting software. To be shared with the Communications Committee.
6) Our Executive Liason, Bill, has suggested that OAME needs something in their Terms of Reference to outline the protocol for the handling of external requests of OAME from outside organizations. (e.g. commercial organization, research groups, MOE, etc.) SPaRC will tackle this at their next meeting.
7) Before April 1st Fred will update the Constitution documents and provide hard copies to other members of the committee.

8) The Committee agreed to meet on April 22nd before the Executive meeting to deal with outstanding issues