ONTARIO ASSOCIATION FOR MATHEMATICS EDUCATION
ASSOCIATION ONTARIENNE POUR L'ENSEIGNEMENT DES MATHEMATIQUES

MINUTES OF O.A.M.E. BOARD OF DIRECTORS MEETING
Feb 5&6, 2010 Holiday Inn, Toronto Int'l Airport

PRESENT:
Executive: Anna Jupp (Past President), Beverly Farahani (President), David Zimmer (President-Elect) , Lynda Ferneyhough, Anne Yeager, Bill Otto (Vice Presidents)
Chapter Representatives: Shaun Knowles(CHAMP), Beata Myhill (COMA), Ken Maheu (TEAMS), Jacqueline Hill (PRMA), Robert Sherk (QSLMA), Freda Liu (SAME), Ann Michele Stenning (WOMA), Cheryl Geoghegan (NOMA), Nicholas Chevalier(SWOAME), Laura Tonin (GOLDEN), Paul Szczokin (MAC2),
Elected Directors Dwight Stead, Merilyn Fox, Cathy Hall, Connie Quadrini, Glynnis Fleming, Paul Alves, Jan Crofoot, Sonia Ellison, Kyla Kadlec, Patricia Kehoe, Sandra Price, Susan Pitre, Urvi Shah, Jung Choi-Perkins, Sue Melville
Others: Sue and Dave Hessey (Exec. Directors), Stewart Craven(Gazette Editor), Greg Clarke (Webmaster), Laurie Moher (NCTM rep), Mary Lou Kestell (Abacus co-editor),
Guests: Fred Ferneyhough (Fri)
Regrets:, Kathy Kubota-Zarivnij (Abacus co-editor), Marilyn Hurrell, Trish Steele, Silvana Simone (Directors), Tom Boland (NWOAME), Richard Tong (ISOMA), Barry Ferguson (GVMA), Ada Cartaginese (Y4MA)
Friday: Paul Alves, Jan Crofoot, Shaun Knowles
Saturday: Glynnis Fleming, Jung Choi-Perkins
Sat afternoon: Greg Clarke, Stewart Craven, Mary Lou Kestell
Absent: Rob McLeish (Director)

FRI Feb 5, 2010
Small Group Meetings

The following committees met prior to the board meeting:
1.4:00-7:00 pm: Equity Planning Subcommittee Dinner Meeting: Holiday Inn Restaurant. The session on Saturday was planned.
2. 3:30-7:30 pm: Awards Committee Dinner Meeting: Suite 1111. Award nominations were reviewed and discussed. Award recipients were chosen and were notified on Feb 8**. ACTION: EDs.** The award recipients for 2010 are:

- Elementary Staff Award: St. David C.E.S, Hamilton-Wentworth CDSB
- Kenneth D. Fryer Award: Saint Joan of Arc C.H.S., York CDSB
- Award for Leadership in Mathematics Education: Patricia Steele, Simcoe County DSB
- Award for Exceptional Creative Teaching in Elementary Mathematics: Maria Casasola, Lakehead DSB
- Award for Exceptional Creative Teaching in Secondary Mathematics: Cheryl Costigan, York CDSB
- OAME Life Membership: Kathy Kubota-Zarivnij, Literacy and Numeracy Secretariat

Chapter Reps

1. **Welcome**: Greg Clarke welcomed all and each re-introduced themselves.
2. **OAME News and Information** : Sue Hessey shared that:
a) annual chapter reports have been received from 13 chapters and approved. Chapter rebate cheques were distributed to the reps of these 13 chapters. **ACTION: Please pass on to chapter treasurer for deposit ASAP.** Membership lists based on the Dec 20 date for chapter rebates were emailed to chapter presidents, reps and treasurers after the complete report was received. Chapter rebates for TEAMS and COMA are being held in trust pending receipt of their financial reports. The summary of the annual reports was circulated.

b) reports of lapsed members from Nov 15/09 were circulated to chapter reps for follow-up.

c) memberships purchased at chapter conferences should be forwarded to EDs within 2 weeks of a conference so that members will have their memberships activated in a timely fashion. **ACTION: All**

d) the OAME election is now open on our website. **ACTION: Vote and encourage chapter members to vote**

e) names of OMO co-ordinators for 2010 were circulated.

f) the names of chapter reps for next board year (May- April) will be needed by April 15. **ACTION: All**

g) Chapter Project grants are due by May 15. The process and application form were discussed and circulated. **ACTION: All. EDs to send copy electronically.**

h) new banners for cases are now available. They are a bit fragile, so please be careful when opening and closing.

i) the request for Spring promotion case was circulated.

j) The 40th committee is again seeking help. Judy Crompton is working on a section that examines the evolution of high school mathematics education, 1965 - 2010. An important part of the section will be a timeline that examines how practice changed during that period. To create that timeline, we need input from teachers. She has created a letter to teachers describing the project and a response template to complete which Sue would forward to chapter reps; each chapter rep would forward the email to five teachers in his/her chapter. She suggests two teachers near retirement, two with 15-20 years experience, and one with less than 15 years. The teachers would then complete the template and email it directly to Judy. A return date of March 10, 2010 is indicated in the letter. Once the data are in, we will go through looking for trends in practice over the period 1965-2010. The data will be summarized in a chart, including

- trends from the teacher data ,
- external Influences such as major developments (e.g., removal of departmental exams; elimination of grade 13), Ministry projects, and other major influences (e.g., the NCTM Standards
- OAME activities, an opportunity to highlight the important role that OAME has played in both leading and supporting the changes that occurred.

ACTION: All to forward letter to 5 chapter members as indicated

3. **OMO 2010:** Greg distributed packages to chapter reps for their OMO coordinator, and gave a quick synopsis of what was in the package and discussed details of the OMO2010 event. Three envelopes were distributed:
(1) OMO letters / forms / correspondence
(2) Regional contest questions / Practice questions – created by the OMO2010 contest committee that can be used for your regional playdowns. Please do not post any of these questions online until after the last chapter's playdown has been done.
(3) Regional contest question SETUP (Instructions to organizers / coaches on how to setup the questions) and ANSWERS **ACTION: All to pass on to OMO Co-ordinator. Sue to mail for ISOMA and NWOAME.**

Greg also mentioned:

- Location: Ontario Educational Leadership Camp (just east of Orillia)
- $100 per team to register
- $100 per person (mathletes , coach, chaperone)
- students will be in cabins with counselors (high school students – most grade 12)
- the structure of the relay was demonstrated with 3 sample questions
- online registration was demonstrated briefly
- full details about online registration including logins and passwords will be sent to the OMO coordinators shortly **ACTION: Greg**
- checkout the OMO2010 website at http://oame.on.ca/OMO2010/
- all files will be available electronically, and also emailed to OMO coordinators shortly **ACTION: Greg**

4. **Sharing Communication ideas** - Chapters shared how they communicate and share

- SWOAME – doing sharing while setting up the conference
- COMA – success w 2009 conference – paying it forward, holding draws at events and sponsoring 20 OAME members to the 20120 conference – paying reg'n fees + supply tchrs and renting a bus!
- Had a good social event end of Oct to thank OAME2009 helpers and mini-conference at OttawaU
- MAC2 – doing a lot of work for OMO2010 – working on proposal for sponsoring events math-related (like a family math night). Asking if other chapters have done that? Y4MA did something like that, but didn't have lots of takers.

- Y4MA – fall conference – Marian Small. Y4 committee looking at doing a book study. Communicating through board, and using web email system – very helpful. Looking to a spring conference.
- NOMA – used Adobe Connect – those who were on Adobe Connect, willing to do satellite work. Doing a survey monkey to find out what PD people want. New helpers have come on board.
- TEAMS – focus on planning for OMO2011 to be held at Vic College (U of T) "Math through the ages". Did fall miniconf
- CHAMP – coming up with a forum to generate discussion between colleges and universities to discuss transitions to go along with College and Career readiness
- GOLDEN – busy with OAME2010
- PRMA – took chapter grant and reading through Accessible Mathematics – book study – with math heads. Cover : Math Heads Book Club (right on the cover) – book: "Kiss my Math"
- WOMA – last miniconf gave out 3 free memberships
- SAME – rebuilding – looking for ways to outreach. Did in the past sponsored $100 award for graduating students (gr 8 award and high school award)
- QSLMA – fall conf – 40 were teacher candidates – great for promoting OAME in advance, but still a challenge to get practicing teachers. Planning on hosting OAME2012. Also give out a Top Math Student award (Top Euclid score) $100

Board of Directors Meeting

Call to Order: Time: 8:02 pm

1. **Welcome and President's Remarks:** Beverly Farahani welcomed all and said she appreciated all the time the board members provide. She thanked Futures Committee chairs Connie Quadrini and Sandra Jean Price for completing the OAME annual conference and OMO planners. There is a real sense of accomplishment to complete these huge tasks after so many years.
2. Curriculum Review Discussion. Beverly Farahani**,** Glynnis Fleming and Jacqueline Hill introduced the CR project and provided committee member names. Board members discussed and provided feedback on "Challenges in Education that impede kids learning in grades 3, 6 and 10".
3. Nominations and Electronic Elections: Anna Jupp provided the slate of candidates as follows and encouraged everyone to vote ASAP. The electronic election is now open in members only until April 15. It contains and instructions and bios of every candidate. **ACTION: Vote**

   Pres-Elect (1): Connie Quadrini (acclaimed)

   VP (2): Sonia Ellison, Anne Yeager. There are 2 terms available: 1 and 3 years. Voting will be for the 3 year term.

   K-6 Director (3): Glynnis Fleming, Cathy Hall, Ken Maheu, Susan Pitre

   7-12 Director (3): Mary Bourassa, Barry Ferguson, Robert Sherk , Silvana Simone, Tim Sibbald, Len Rak
4. Beverly showed a copy of the latest resource- a compilation of the Abacus 47. It is available on our website and at upcoming conferences for $10.
5. Beverly showed two models of the Slide Together that will be made as an optional Friday night activity at Leadership.

SOCIAL TIME: OAME Suite # 1111, 9:30-11:00 pm

Saturday Feb 6, 2010

Standing Committees

Equity Committee Breakfast: Sonia Ellison reported that discussion focused on

1. the afternoon's presentation.
   a. Powerpoint was shared and the overview of the afternoon 45 minute session
   b. Paul Alves – searching through the Statcan Social Justice – UN human development index activity

2. Equity breakfast at OAME was discussed as a transition due to lack of participation.
   a. Often breakfast is offered anyway

   b. Will need to amend the constitution to reflect change to Equity Breakfast to Equity Session
3. Add slide to powerpoint to say that if you use this to please share any changes or feedback with the committee (c/o Sonia – ellisons@hcdsb.org)
4. What to do with ideas from OAME – talk to Greg about hosting this information
   a. Highlight articles to house on the social justice page
5. Focus for Next meeting:Set agenda for 2010-2011 school year including continuing our social justice focus
   a. Focus on creating lessons one per grade (or division) …
   b. we need to find these teachers who are already doing this……
   c. include as a teaser in OAME conference bag with opportunities to share their own work with each other

Publications: Robert Sherk reported the following:
Business Arising from Minutes of Previous Meeting:

1. *Members Only* access for pre-service teachers on OAME website – Mary Lou Kestell's ABQ students at York and Queen's University Faculty of Ed will pilot**. ACTIONS 1. Mary Lou and Robert will send Greg contact info required. 2. Greg Clarke to create a link so that interested pre-service, ABQ, and AQ students can sign up**.
2. Paul Alves is developing a user satisfaction survey for the FacEd students. Publications Committee members viewed the draft and provided feedback.

Current Business:

1. The 40th Anniversary Committee requests Publications Committee approval to contact secondary teachers electronically for feedback on the evolution of high school mathematics education, 1965-2010. A similar request will be made to elementary teachers. **ACTION: Sue Hessey to forward the request to chapter reps for distribution at the local level.**
2. Unauthorized posting of full issues of *The Gazette* on the York University College Math Project website was resolved. The remedy was to provide PDF versions of desired articles instead of full issues.
3. *The Abacus*: The first two packages of four *Abacus* articles (*Math Operations* and *From Arithmetic to Algebra*) are selling at $10/package. The focus of the third package will be fractions.
4. *Ontario Mathematics Gazette:* Stewart Craven advises that the March issue is on track. Marion Small will begin her term as Editor with the September issue of the *Gazette*. Stewart is meeting with Marion on Feb 13th to help with the transfer of information required to assist in the process of her taking over the editorship of the Gazette.
5. Website: Greg Clarke reports the day-to-day management of the site is running smoothly with the assistance of Greg Rodrigo.
   a. MCIS registration is now open for OAME 2010, including links to book accommodation at Brock University residence or a choice of local hotels. The special rate for OAME accommodation ends April 12th.
   b. New!! OMO 2010 coordinators will be able to register their teams electronically this year through the OAME website. Chapters will still be required to pay by cheque, however.

New Business:

1. One of Stewart Craven's parting suggestions is that we maintain a relationship with the Canadian Mathematics Society (CMS) and work toward developing a pan-Canadian association with other provinces. This would provide the basis for a pan-Canadian publication for mathematics teachers.

Futures: Connie Quadrini reported the following:

1. Pre-service Student Conference Fees and Discounts
   - Ron Lancaster noticed that to get the student rate at the conference, you have to be a student member
   - He felt they should be able to get the student rate even if they aren't members
   - There are concerns:
     How do you ensure that the person is a student at a fac. of ed.?
     We are losing money in terms of their conference fee.

They do get benefits like the Gazette, access to member resources on website following the conference, e-newsletter.
It has been this way for at least the last 5 years.
Many students are joining anyway.
We didn't raise the membership fee for students.
We are setting them up with resources and a support network for their first year of teaching. We want to keep teachers in the profession.
We are interested in capacity building.
They can get local P.D. in chapters at a locally determined rate that does not require membership.

Decision: Maintain the status quo…student conference rate that requires membership.

2. a) OMO (Connie, Beverly, Sandra Jean)
   - Updated OMO planner to include video in media release form…given to Greg
   - Discussed a possible motion regarding criteria for site selection. We are waiting until OMO 2010 has been completed before re-examining any site recommendations. We feel that site recommendations will be added to the OMO planner, but a motion would not be appropriate. We need to continue showing due diligence in supervision and safety of students so that OMO can continue.

   b) OAME Annual Conference (Cathy, Laura, Nicholas)
   - went through the conference planner, learning how to navigate in the planner, using the find feature (CTRL-F), and did some troubleshooting

   ACTION: Greg was given updated CD's of both planners and will post them in the Member's Only section of the website.
3. We'd like to continue to have the yearly meeting for OAME hosts (past, present, and future) and OMO hosts (past, present, and future).
   OAME 2012: QSLMA
   OMO 2011: TEAMS
   ACTIONS: Futures committee has approached SAME for OAME2013, NOMA for OAME 2014, and CHAMP for OMO 2012. These chapters will discuss invitation back in their chapters and let us know by the next board meeting.

Promotions: Merilyn Fox reported the following highlights:
Promotional Items
1. Sue has received 1200, 8½ by 11 notepads with a cardboard backing. Each has 10 sheets with header "Math, the Universal Language" and website address. 2010 Leadership delegates will receive a ½ memo pad, and either an OAME pencil or decal, plus a membership flyer. OAME 2010 delegates will receive the 8.5 X 11 notepad and OAME pen, both new items developed by the committee. **ACTION: 200 of each will be saved for leadership 2011.**
2. Sue will follow up our committee email to the chairs of the coming OAME conference at Golden asking that they use the $1 off coupon at the OAME booth in their nametag page. The $1 would come from the Promotions budget. **ACTION: Sue**
3. Sue has found a desktop banner for $50. Sue has bought 5 which will be used in the OAME kits for chapter mini-conferences. The art work has been done, so we can order more from the same company, Double Q in London, at a reasonable cost in the future.
4. Sue will purchase 60 t-shirts with the new Sierpinski design. These will be available for sale. Dave has designed a t-shirt based on the fractal/ Sierpinski logo from the Ottawa conference. Sue is in the process of getting quotes.

Increase membership in OAME

We intend to put together a package to send to key math education Professors at the 13 various faculties of education in the early fall. This package will contain an updated PowerPoint (the road show), some new membership brochures, some pencils, some half-memo pads and some secondary graph pads, some Gazettes, a deck of cards, any other available inventory and a t-shirt for the professor to use as he/she wished. We believe the appropriate professors to contact are as follows:

OISE	Ron Lancaster, Caroline Rosenbloom
York	Dan Peter
Windsor	Pat Rogers
Queens	Geoff Roulet, Linda Colgan
UOIT	Charles Wyzkowski
Nipissing	Susan Stewart, Mike McCabe
Lakehead	Alex Lawson
Laurentian	Louis Radford
Tyndal	Trevor Brown
Western	George Gadanidis
Charles Sturt	Don Jones
University of Ottawa	Christine Suurtamm
Brock	Joyce Mgombelo, Joanne Graham

ACTIONS:1. We welcome corrections and further contacts.
2. Merilyn; find name of university and a math ed. Contact Faculty of ed. From Buffalo, campus in Toronto
3. Sue will order t-shirts and revise the membership brochure.
4. Sue will send Merilyn the OAME Promotional PowerPoint that she has started to revise. Merilyn will complete the revision and write an explanatory cover letter.
5. attach PowerPoint to an explanatory email and have the whole package vetted by the executive.
6. Future action required will be to put the packages together for the fall.

Interestingly, we have received some interest from China. Sue Hessey reported that Peter Saarimaki requested OAME cover President expenses to promote OAME to a Chinese delegation at York. The request was denied, but alternatives provided, according to the protocol for these type of requests. Peter asked for and received our OAME promo powerpoint and a box of promotional items.

Constitution: Bill Otto reported the following:

- Bill reported on the discussions from the Executive meeting in January.
- The Committee discussed a working plan for implementing two changes ASAP. The first was revamping the current OAME Committee Structure and the second was aligning the OAME Board year with the school year.
- **ACTION: Dave and Bill will present the plan to the next Executive meeting.**

Awards: Anne Yeager reported the following highlights:

1. Letters of congratulations etc for award recipients, nominators and other nominees were discussed and edited.
2. The criteria for the Staff Awards (2) were discussed and a checklist was developed to assist with the determination of these awards. **ACTION: The committee will "field test" this using some of the nomination packages from this year.**
3. Two motions were developed. **ACTION: Glynnis or Anne to forward to EDs by April 1**

Curriculum Committees

JK-8: Laurie Moher reported the following:

1. Math for Kids website: We would like to thank them for their interest. We are looking for something that is consistent our OAME vision of mathematics and that focuses on a problem solving and inquiry based learning.
2. Caribou Online Mathematics Contest: After reviewing we would support posting this site as a link on the OAME site. The website could also be mentioned in the OAME electronic updates that you send out. It fits within our OAME vision in that the challenges are varied and require thinking on the part of the students. We did not examine

alignment to the curriculum expectations as we felt this could be used as enrichment even if expectations fall outside of the grade level curriculum. While we were exploring the site we discovered one link that did not work- the link to the Kangaroo Problem Database. **ACTION: EDs to post**
3. Esso Family Math Videos: We found the video to be tool that could be used by both parents and teachers. We would recommend a viewing guide that would set the context and give information to the parent/teacher prior to viewing. In this we would include suggestions such as:
For parents:
-read the book several times before exploring the math with children in order to allow enjoyment of the story and aid in story comprehension
-a caution about not doing all the math in one reading-revisit the book several times with a different focus each time
For teachers:
-tips for how to use this as a resource, for example, during a Family Math Night, parents could view one section (e.g., patterning section) and then try what was modeled in the video and then encourage them to create their own set of questions
ACTION: EDs to pass on comments

Jan Crofoot reported the following response to the MoE: **ACTION: Beverly to submit**

Collective response to Ministry "Questions for Educators and Stakeholder Groups" regarding the Elementary Curriculum

1. Based on your experience as an educator:
   - Do you think the elementary curriculum is "overcrowded"? Yes
   - Please explain what "overcrowded means to you. Given the number of expectations and the reporting requirements and timelines, teachers feel pressure to 'cover' expectations. They cannot address all in sufficient depth and consistency is compromised when different teachers pick and choose which expectations deserve in-depth focus.
2. a) Referring to the themes listed, identify, in order of priority, the three themes that you think need to be focused on to a greater degree in the elementary curriculum.
   i. Numeracy
   ii. Problem-solving skills
   iii. Technologies/Information technology

   b) Why are these top choices? As members of OAME, it is our mandate to promote the teaching and learning of mathematics. EQAO tells us that Ontario students have weaknesses in numeracy and problem solving, yet these are life skills – essential skills for students who are becoming confident, productive, responsible citizens in this rapidly changing world.

   c) What would you add to the themes listed in the box? Why?
   Reasoning/Justifying: Students reflect upon their own thinking and the thinking of others. These processes are connected to each other, fundamental to critical thinking,, and foundational to learning and decision making in the information age.

   d) Of the themes listed, which one(s) call for the most support for implementation? Equity/diversity and inclusiveness
3. In your opinion, how could the curriculum be made more engaging for all students? Include suggested problems and examples that are relevant to students' daily lives, and model the ways in which problems that focus on Social Justice form the context for relevant inquiry and problem solving. (If teachers were to just do the suggested problems included in the curriculum, students would be engaged in significant mathematics that would capture their interest and inspire them.)
4. How might more flexibility be build into the curriculum so that teachers can tailor delivery of the curriculum to the needs of their students and thereby help to improve student learning? Focus on the big ideas in the curriculum and illuminate the relationships within and between content areas and strands.
5. In working with the curriculum
   - What strategies have you used to create an integrated program of study?
     i. Focus on relationships, processes and big ideas
     ii. Use a planning template
     iii. Address higher order thinking skills

- What advice would you provide to the working group on effective integration of subjects? Have structural alignment. In particular, expectations should be numbered within the document to make references easier and more efficient (OE's could be numbered 1, 2, 3 etc, and then corresponding SE's could be numbered 1.1, 1.2 etc.) Consider including a section on Fundamental Concepts (Big Ideas) within each strand and grade, similar to what was done in the new Arts Curriculum. Incorporating "Teacher Prompts" as was done in the Arts Curriculum would be useful and model good questioning for teachers.
  The front matter of the curriculum should be "beefed up" to include grade band overviews, details of how to read the curriculum (see the Arts document), increased emphasis on the mathematical processes (possibly through the inclusion of a graphic organizer) and other pertinent information from the Guides to Effective Instruction. We believe having much of this information in one place, might make the document a little thicker, but ultimately more user-friendy.
- How can the curriculum be most effectively aligned with new policies and initiatives? Consider producing both a hard copy and an electronic version of the curriculum. The electronic version could be 'updated'. New policies and initiatives could appear embedded in the curriculum using callouts or highlights, providing examples and sample problems where appropriate so teachers can see how the new policies and initiatives 'fit' with what they are already doing. In hard copy version of new initiatives, constantly make direct references to the curriculum.

6. As noted on pages 6 – 7, the current curriculum review process involves extensive consultation and writing by educators from across the province to develop current, relevant, and age-appropriate subject based curriculum for Ontario students.
   What advice would you provide to inform future revisions of the curriculum that will meet the needs of students in the year 2020?
   - Curriculum writing should be lead by researchers
   - It should focus on transferable skills (problem solving, communication/collaborative work/learning skills and habits of mind, critical thinking skills)
7. What is needed to support successful implementation of the curriculum, now and in the future?
   - Job-embeded professional learning, not implementation by courier
   - Focus on building content knowledge as well as pedagogical knowledge
8. What additional comments or suggestions would you like to share about the elementary curriculum?

9-12: Dwight Stead reported the following:

Item	Discussion	**Action**
Gather Feedback for Curriculum Review	The committee discussed the challenges in the 9-12 Curriculum and identified: 1. MAP4C/MCT4C: Students in college technology programs are experiencing problem in first year if they took MAP4C. Parents and students may not know the difference between the courses. Perhaps only one course is needed. 2. MDM4U: There is concern from teachers that students coming from MCF3M are not performing as well as students before the last revision. The source of this problem may have more to do with student learning skills than depth of math knowledge. 3. Race to Calculus Our secondary curriculum places Calculus at the summit: Even though Calculus is important, should Statistics be the summit. (See: TED Talks link at bottom of page) 4. Some concepts are under-represented currently: discrete math, geometry & statistics.	

College and Career Readiness Standards	The committee discussed the College Standards and Readiness Report (http://www.corestandards.org/) The issues discussed aligned with the challenges discussed in the Curriculum Review discussion	**Committee members should read the report from Bill Otto on the College Math Project.**
OAME Web Site Updates	The suggested edits made in October have not yet been added to the site.	**Dwight will submit the edits to Greg Clarke again.**
Next Steps for June 2010	1. Review the edits to the resources pages of OAME web site. 2. Continue discussion on Curriculum Review 3. Grade 9 Diagnostic Tests: stream placement or determine instructional starting points	**Dwight will share the minutes with the committee and post them on the collaboration web site.**

TED Talk Video: http://www.ted.com/talks/lang/eng/arthur_benjamin_s_formula_for_changing_math_education.html

General Meeting of Board of Directors

Approval of agenda
moved by Jacqueline Hill, seconded by Sonia Ellison that "the agenda be approved". Carried

Approval of Minutes
moved by Lynda Ferneyhough, seconded by Urvi Shah that "the minutes of the Oct 23 & 24 , 2009 board meeting be approved". Carried **ACTION: EDs to post on the website.**

Final financial report OAME2009: Cathy Hall reported a final profit sharing of $58979.63 and provided a cheque for the balance owing. They are using their profit to "pay it forward" and are providing funds, by draws at various events, for 20 COMA members to attend OAME2010, including supply coverage and transportation on a COMA coach. The board of directors gave a standing ovation to thank the committee for their excellent achievement.

Financial Report, 2009-10: Dave Hessey provided a financial report as of Dec 31, 2009.

NCTM Delegate/alternate- annual conf. Laurie Moher requested that if anyone is attending the NCTM annual conference and could be our delegate, to let the EDs know. **ACTION: The Ferneyhoughs to advise when they know.**

Nominations and Electronic Elections Reminder : **ACTION: All; VOTE!! By Apr 15**

Recognition of departing board members Beverly Farahani thanked the following for their dedicated service to OAME: Anna Jupp, Stewart Craven, and Trish Steele. Stewart will return briefly in June.

Dates for 2010/11 David Zimmer circulated the following dates. **ACTION: All: Mark on your calendars and reserve the dates now:**
Board meetings: June 11/12 2010, Oct 22/23, 2010, Feb 4/5, 2011
Exec Meetings: May 28/29, 2010, Oct1&2, 2010, Jan 14/15, 2011, Apr 15/16, 2011
Leadership 2011: Mar 3-5, 2011
OMO 2010: May 28/29, 2010
OAME2011: May 12-14, 2011

Motion: moved by Anne Yeager, seconded by Anna Jupp that "the Board of Directors ratify the selection of QSLMA to host OAME2012." Carried unanimously. **ACTION: EDs to send contract, planners, other info**

Questions from Members to Authors of Written Reports
Bill Otto will forward CMP minutes when available

Lunch

Equity Presentation
Sonia Ellison led a discussion on the meaning of Social Justice. Board members participated in a carousel of activities based on division of interest: P/J/I or I/S. **ACTION: EDs to forward powerpoint slides with minutes**

Announcements
NCTM Feature: Laurie Moher reported the following:

1. Visit the new NCTM home page at www.nctm.org. Some areas to look at are:
    a. New and noteworthy on the home page
    b. NCTM summing up
    c. Lessons and resources, including collections and interactions, Teaching Tips
2. Register for the annual NCTM conference by Mar 12 and save 25%
3. Choose OAME as your affiliate when renewing membership online to help give OAME a $3 rebate ($5 for new members)

OAME2010: Laura Tonin reported registration is now open in MCIS. Be sure to attend the banquet at Elements overlooking the Falls. The food is fabulous. There will be double decker shuttles from Brock and the Four Points for Casino Night and the Banquet.

OMO 2010: Kyla Kadlec reported that the committee is on target. Greg distributed packages of info and sample contests and demonstrated the relay to chapter reps on Friday night.

Leadership 2010: Beverly Farahani reported that there are 165 delegates to date.

OTF: Beverly Farahani reported that OAME has submitted a proposal for an OTF summer workshop in Sudbury on Interactive Whiteboards and Math. We are waiting for approval.

Ministry of Education projects update: Anne Yeager reported on the following

a) PLMLC: Sue is the project administrator. There will be follow-up in the Spring to the Fall series, as well as book studies via Adobe Connect

b) Math GAINS: Anne showed the www.eduGAINS.ca website and pointed out:

- A new Growing Success is due to be released on Feb 27
- Hot Off the Press
- Pulse of the Province (activities coming up)
- New WINS: K-8 (Winning with instructional Navigation supports)

Board members then explored the website through a TIC TAC TOE game

Sharing

1. Urvi Shah shared a book called “The Housekeeper and the Professor” by Yoko Ogawa
2. Connie Quadrini demonstrated www.prezi.com
    a. There is a free educational version for download
    b. Dynamic way of presenting
    c. Can add audio component
    d. You can store presentation on web and send others a link to it
    e. Allows animations and rotations
    f. Quick and easy to use

Reports

Standing Committees: Committee chairs shared the following highlights:
Equity: Sonia Ellison reported there would be no breakfast at OAME2010 but there is a clearly marked session on Friday.
Publications: Robert Sherk reported that Greg is working on making access to restricted members only for AQ course students, Fac of Ed students and new teachers. Chapter reps will distribute a survey on the evolution of math teaching 1965-2010 to 5 members.
Futures: Sandra Jean Price reported that they discussed student rates at conferences and OMO site selection (see minutes) . They have given the OMO and conference planner to Greg for posting for chairs. They have approached 3 chapters about hosting OMO 2012 or OAME2013/2014.
Promotions: Merilyn Fox reported the items that would be distributed at Leadership and OAME2010 (see minutes). A new t-shirt including the Ottawa Serpinski triangle is out for quotes. They are also putting packages together for Fac of Ed key math personnel for Fall. She reported that OAME has gone international with a promotional presentation to a group of Chinese educators at York.
Constitution: Bill Otto reported the committee is wounded but not slain. They looked at the Oct feedback and are working on keeping the organization the same but with the possibility of

- Aligning the meeting schedule with the school year
- Looking at revising the committee structure

They will make a presentation to the April exec mtg
Awards: Anne Yeager reported that they selected award recipients on Friday and reviewed/edited letters and are clarifying terms of reference.
Chapter Reps: Sue Hessey reported that Greg demonstrated a new online reg process for OMO teams. Reps shared how they communicate with their members.

Curriculum Committees: Committee chairs shared the following highlights:
9-12: Dwight Stead reported they discussed

- Curriculum review
- College readiness
- websites

JK-8: Jan Crofoot and Laurie Moher reported that they

- reviewed 3 websites and made recommendations (see minutes)
- finalized their curriculum response to the MoE
- looked at links to resources for our website

Questions

Q: Bill to awards Committee:

- are all nominees recognized publicly? A: No- there is no short list

Q: Bill to Publications

- why were there 2 blank pages in Dec OMG? A: not enough articles being submitted

Q: Anna to Publications

- will 40th edition have an elementary time line as well? A: Yes- being developed now by a different committee

Adjournment: 2:22 pm

Written Reports Feb 2010

OAME2010: Liisa Suurtamm reported the following update:

General	- Full group meeting: October 29 - Smaller committee meetings continue as needed
Facilities	- Talks with Brock continue to work out more specific detail - Specific rooms will be booked once schedule for Spring classes is set
Finance	- Monitoring spending by committees - Fee structure for exhibitors is set at $400 - $425 depending on booth size - Fee structure for delegates is set and posted on website as well as in the conference flyer
Registration	- Set to open the first week of February. - Fee schedule is available on the conference website.
Program/Speakers	- Speaker proposals closed November 16 with over 150 proposals submitted. - Draft schedule is completed with a good balance of presenters from each panel and a wide variety of topics - Speakers will be emailed during the first week of January with information. - All keynote speakers have been confirmed as well as Math Show and a T^3 mini-conference. - A PDF version of the program will be available online by the first week of February.
Promotions	- Website continues to be updated as we receive more information - Posters have been distributed in local schools - Flyer promoting the conference has been included as an insert in the December mailing of the OAME Gazette. This flyer will also be available at Leadership, OMCA and is available in digital format for emailing. - OAME2010 Twitter account has been set-up as another means for communicating up-to-date information
Hospitality	- Elements (restaurant overlooking falls) has been booked for Banquet for Friday evening - Wine and cheese at Pond Inlet at Brock on Thursday afternoon - Thursday night options include either a wine tour and dinner in Niagara on the Lake or a trip to Casino/Clifton Hill for those looking for a cheaper option - Rooms have been set aside at Four Points Sheraton, next to Brock University and at Niagara Falls Hilton for those who wish to stay closer to the Falls - Ideas for presenter gifts are being researched.
Exhibits	- Registration for exhibitors is now open on MCIS - Several exhibitors have come forward offering to sponsor bags, nametags, T-shirts, etc. - All arrangements with Brock have been made for the exhibits area including internet access, electricity and storage.

Student Volunteers	- Volunteer students from Brock University as well as local high schools will be used

OMO2010: Greg Clarke reported the following about the "Venncouver Olympics":
The OMO2010 committee has been meeting throughout the fall and is in good shape, according to the timelines established by the OAME Futures committee (and our own sense of what's to do, and what's to come). Thank you to the Futures Committee for all that work that you've done to establish a framework that is detailed and manageable, and very informative. Specifically, the contest committee has the actual contest questions to the point where we are just doing some fine-tuning and checking with non-partisan classroom teachers (gr 7/8 teachers from schools that are not participating locally) regarding suitability of questions, readability, level of difficulty etc.. This will be finalized by the end of January. The contest committee is also preparing a practice set of questions which is intended to be ready for the OAME board meeting of Feb 2010. These questions can be used by chapters to use as their local play-downs, if desired, OR, could be used as training materials for the chosen teams after they win their playdowns, in preparation for the OMO2010 provincial games. MAC2 is planning on using the questions ourselves for our local playdowns (March - final date TBD), and will respectfully ask that the questions not be posted on a public website until after all chapters have run their playdowns (Date to be established at Chapter Reps mtg in February). The committee has decided not to have a Math Performance as part of the Olympic events. However, there will be a parade of Mathletes to begin the Opening Ceremonies as well as at the Closing Ceremonies, and a Mathletes pledge. (Not sure about a flag raising yet - and - we didn't buy extra insurance to cover having a torch involved.) Teams will be encouraged to choose "country-like" names to identify themselves, based on their chapter name. Some examples could be:
West COMA and East COMA, Upper SAME, Outer PRMA. More details to come on that at the Chapter Reps mtg. Hospitality / Food is all under control. Costs are very reasonable with this venue.
We are still considering planning events for post-Olympics - for those teams that would like to stay for supper and a campfire + activity on the Saturday night, breakfast, then departure on Sunday morning.
From informal networking at the October OAME bd mtg, it seemed like many board members who had experience with OMOs in the past found when extra events were added that the value of the experience was enhanced, which was echoed by those in our local chapter with similar experiences. There is a commitment from the local committee to provide that type of extra experience if chapters / teams / coaches are willing & interested in offering this to students. A minimum level of participation would be needed (to be determined) for this extra event to fly, but it would not be mandatory for all. The official contests would end on Saturday afternoon still. Union Gas has once again stepped up and offered to be a major sponsor for the OMO - much thanks to them - and their $5000 sponsorship is well appreciated.
The local committee has contacted some publishers and other potential sponsors, but response has been slow, and this takes a huge pressure off the team. If companies come back with a reluctance to give actual cash, we're hoping that they will be more willing to donate items for the student / coach goodie bags.
The steering committee and various sub-committees will continue to work in January, and follow the timelines as outlined in the OMO planner, and will continue to make additional notes should changes be suggested for upcoming versions of the planner.

OTF Summer Camp 2009: Nicole Walter-Rowan reported:
Dates: August 25, 26 & 27 , 2009 **Location**: Lakehead Univ, Faculty of Education
Facilitator: Dr. Alex Lawson, Lakehead University supported by:Nicole Walter Rowan, Lakehead Public Schools (Agnew/Churchill)TLLP, Meghan Jewell, Lakehead University (Grad Student & Research

Assistant), Emilia Veltri, Lakehead University.
Description: This workshop was designed to support teachers in deepening their own conceptual understanding of the mathematics they teach. Teachers experienced firsthand the impact of teaching through problem solving and developed an increased awareness of the landscape of learning (Fosnot & Dolk) – a theoretical framework mapping the big ideas, strategies and models critical in the development of mathematical concepts and abilities.
Participants: 20 participants: primary, junior, intermediate, secondary & special education from Lakehead Public Schools, Thunder Bay Catholic, Superior Greenstone & Keewatin Patricia
Costs: Food, site, resources, facilitator honorarium – OTF and Dr. Lawson's fee: Lakehead Public Schools (Agnew/Churchill) TLLP
Summary: Participating as a community of mathematical learners, who tackle rich problems and critically evaluate the validity of solutions presented, was a new experience for many teachers. Teachers explored problems grounded in the big ideas to further develop the knowledge and skills required to work effectively with students' mathematical thinking and alternative strategies. The key items covered as part of the workshop were: The "landscape of learning". addition & subtraction, multiplication & division, fractions, decimals & percents, Facilitating a mathematical discussion and Developing a community of mathematical learners .Additional Information: Majority of the participants attended 3 additional days during the school year as members of the Lakehead Public Schools (Agnew/Churchill) TLLP. Participants who were not members of the Lakehead Public Schools (Agnew/Churchill) TLLP team were invited to join the additional 3 days. Their release time & the related administrative costs of participating were covered either at a school or Board level. Additional 3 Sessions: Subtraction algorithm & the relationship between all 4 operations, Fractions, Fractions, decimals & percents

Fields Institute: Anne Yeager reported from the Jan 30 mtg: Recent Research in mathematics education
Reports: 1. **OAME** upcoming events : Annual Conference In May: ON THE BRINK oame website for information; access to electronic materials from oame website for those at the Faculties; new look OAME website, please visit 2. **OCMA** conference in May 30th xxx for the love of math at FERN resort $325 for 3 days 3. **College Math Project** – proposal to send 2 teachers to OMCA conference and 2 college people to OAME conference (CMP will support this)
Lyndon Martin, York University, **Jo Towers**, University of Calgary
Nature of mathematical understanding Research Q: when can we talk about "they" understand vs he or she understands? The improvisational process: initially unpredictable, then created structure, then listening to the group mind, coaction=a continued building of ideas and approaches, getting a better idea "YES and…" (e.g. parallel problem with 3 gr 6 students). Implications for education: merit in collective mathematical activity but often teach individually, creativity comes from the collective, nature of the task is significant (if 1 person does the task the others watch), problem doesn't need to be that rich but still engaging with a group that might be of common background/ability. Often teachers place students in groups but don't think about what they'll specifically do in the group. Q what about collective misunderstanding? It is actually their understanding, which is a misunderstanding.
Shannon Kennedy, MSc Candidate, McMaster University: First Year Calculus: The Student Experience! Q is math hard? Interviewed 16 students from 1st year calc who were in math or science programs – most said they liked math! Why students said they have trouble in first year: too abstract / Pace/ workload-must be self motivated/ not as structured as HS; missing connection between HS and UNIV (no longer OAC) Q: have methodologies changed along with the curriculum? Students said math became hard at midterm when integrals were introduced. Needed more time to do tests. They look for "types of problems" but cannot always find one. Tutorials have about 200 students in, but students still liked their TAs. TAs often go over the problems they are expected to complete. Conclusions: Students must change their study habits, problem solving techniques, ideas and beliefs about math (they think it is algorithms) Question: What must profs do to change to support student learning? Not part of this study.
Ami Mamolo, Queen's University, **Peter Taylor**, Queen's University: Reconceptualising teaching and learning in a large first-year Calculus course. To develop a different model to teach first year calc (active engagement, collective understanding etc)

1. COLLECTIVE ACTIVITY, lectures replaced by work periods – peer leaders selected to facilitate
2. Q: how do students respond to this teaching through participation and engagement
3. meetings for feedback
4. what roles do students adopt during their participation? Active/passive/
5. how do roles change throughout the semester?

Q: what role does the professor play? He introduces the problem to the team leaders. Together teams of students solve it.
Q: how will the exam be reflected by this change in instruction? If "unstandard" questions, can you give standard questions on a test?
Asia Matthews, Department of Math and Stats, Queen's University :Teaching mathematicians how to teach. Her question: what can we do to teach new instructors or TAs at college and univ math better? Wants to develop a course outline that can be adapted to all places of 12 – 15 hours.
Component 1: techniques and logistics (boardwork, speaking out, question techniques etc)
Comp 2: writing good math problems, active learning in mathematics
Comp 3: getting feedback from the students and your peers
Comp 4: seeing research-maybe include why you would teach actively instead of "telling"
Richard Barwell, University of Ottawa: How mathematicians talk about mathematics. Is it acceptable to use everyday language to discuss and describe mathematical ideas and thinking? For example, in topology mathematicians talk about 'bagels'. The curriculum has a section on communication, and in grade 4 students use "everyday" language and in grade 8 communication refers to "mathematical language". Why is this? Explained that communication is a process [also a category of the achievement chart] and therefore it is to be assessed and evaluated by teachers. Students can use everyday language however there is a shift towards more precise mathematical language as students mature mathematically. Using mathematical language is 1 criteria teachers use to assess and evaluate students in the process and on the achievement chart.
Nirmala Niresh, University of Miami Ohio (Via Skype) : The significance of ethnomathematics research and its implications for teacher education . Sociocultural dimensions of mathematical knowledge have greatly influenced research in the field of mathematics education in the past few decades, resulting in the rise of different areas of research that include ethnomathematics, everyday mathematics, situated cognition, and workplace mathematics. The term ethnomathematics was coined by Ubiratan D Ambrosio and denotes the mathematics which is practiced among distinct cultural groups. Examples of ethnomathematics include mathematics used by different groups of people such as Kpelle and Tshokwe tribe of Africa, Mayans of South America, Maori and Warlpiri of Oceania, Inuit, Iroquois, and Navajo of North America, and the Oksapmin of Papua New Guinea. Ethnomathematics could also refer to the mathematical practices that adults and children engage in outside the school settings. Examples include mathematics used by adults outside the school settings or at work places - mathematical practices of bus conductors, nurses, pilots, candy sellers, and best buy shoppers, and carpet layers. In this session, I will provide a brief overview of research on ethnomathematics and everyday mathematics. In particular I will address the following questions:
" What is ethnomathematics? Why is it an important field of study?
" In what ways can we incorporate ethnomathematics in teacher education?
" What are the implications of ethnomathematics research on the teaching and learning of mathematics?

Executive Directors' Report: Dave and Sue Hessey reported that membership on Jan 30, 2010 was 1385 We assisted WOMA and CHAMP by processing their credit card payments for Fall conferences.

Complete annual chapter reports have been received from 13 chapters and chapter rebates will be distributed at the Feb board meeting. 2 chapters have submitted partial reports. Their chapter rebates will be held in trust until complete reports are received and approved.
Publications/Promotional Materials. A promotional box was provided to Peter Saarimaki for Chinese visitors at York, including an updated powerpoint. Pens and notepads have been purchased for OAME2010. 200 copies of Abacus Volume 47 have been ordered from the printer.

Website: Greg Rodrigo billed for the final stage of the website redevelopment, stage 1. The two Greg's are planning work on the member's side over the next several months. We have asked Greg Clarke to post up the conference and OMO planners in a special member's only section for chairs. Dave has created a cover for the annual conference guide.
OAME2009: Report requested but not received to date. Cathy Hall moved and had knee surgery in December and has been ill for several weeks.
OAME2010: Liisa Suurtamm provided a complete written report. They have set up their IATS account and we provided support on the exhibitors registration process. 2 tables were reserved for OAME and one for OAME2011.
OAME2011: David Petro and Dragana Martinovic have submitted a budget and after some consultation, submitted a revised budget. They are in the process of applying for a loan.
OAME 2012: An application to host has been received from QSLMA, to be held at St Lawrence College, Kingston, May 9-12, 2012.
OMO 2010: A budget was received. Union Gas provided $5000 to support OMO2010 and that has been forwarded to MAC2.
Accountant: Our 2009 financial statements were prepared by our accountant, Phil Griffin and a summary provided in the Dec Gazette.
ED transfer: We continue to create a monthly "to-do" list with samples, and are keeping regular office hours this year to aid in the transfer. Membership receipts announce that the EDs will change in Sept , 2010. We recommend the Ferneyhoughs arrange an OAME phone/fax # by April 1. They will assist with all aspects of Leadership 2010.
Canadian Math Association: We met with Johan Rudnick, ED of CMS on Oct 22 to discuss the possibility of some sort of Can. National association of math teachers. He was soliciting views on the value of such an organization, the reasons for a national voice, and the benefits. CMS would support starting a new organization. We referred him to Stewart Craven to discuss previous attempts to start such a group. No further action has taken place since then.
Office Assistance: We have exceeded the budget this year due to a unusual computer problem that took 3 visits from our Nerds-on-Site technician to solve.