



Intersection Points

The Newsletter of the Research Council on
Mathematics Learning

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The Research Council on Mathematics Learning seeks to stimulate, generate, coordinate, and disseminate research efforts designed to understand and/or influence factors that affect mathematics learning.

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President's Column

Are We "Waiting for Superman?"

by Anne Reynolds

As I write this, NBC is hosting a week long forum on education in the United States titled *Education Nation*, and the documentary movie, *Waiting for Superman*, is playing to audiences in New York and Los Angeles. One item from the NBC network coverage caught my attention and other listeners' attention, judging by the responses on various blogs. A short commentary by a young teacher in New York City public schools lays the blame on teacher unions for stopping her and others in the profession from doing what they believe will help their students. She gave an example of being prevented from offering after

school tutoring to some of her students because it was outside her official work time negotiated by the union with school authorities. When the video clip aired on NCB Nightly News, it was presented as refreshingly different, a brave young teacher standing up to asinine union rules, an 'insider' fighting the system, where teacher unions are frequently presented as negatively impacting reform by school authorities trying to impose some restructuring effort. From the chatter on some blogs, as you would expect, arguments have been made both in defense and offense of this teacher's argument. I was reminded, as I read some of the pros and cons,

of the example Susan Ohanian gave in her book, *Caught in the Middle: Non Standard Kids and a Killing Curriculum* (2001). Here she shared her consternation in her first year of teaching in New York City public schools as she noticed that the teacher work contract with the school district stipulated that the district would provide toilet paper in the schools, only to learn that this clause was negotiated into the contract by the teacher union because, in the past, the district had not provided such basic resources to school sites.

While I have yet to see the movie, *Waiting for Superman*, the reviews I have read are in line with what a Wall Street Journal reviewer wrote: "The main instrument of salvation (is) in publicly funded charter schools" and the film "fingers teachers' unions as the main obstacle to reform" (9/23/10). The documentary features not students from dysfunctional backgrounds but five students who are eager to learn and have the support of their parents, who are caught in public schools that are failing them. Their stories are heart wrenching, as they and their parents, wait for the luck of a winning lottery number for a place in a charter school (I have seen a clip of one such wait from the movie). While I have no doubt that the film presents more than these snapshots I have gleaned from the reviews, again it seems as if the answers are all too simple: get rid of public schools and teacher unions.

Coincidentally, in my graduate class the last two weeks, students have been sharing ideas from research articles in mathematics education that they chose to critique as part of an assignment for class. As I have listened to the students share and discuss the findings from their chosen research articles, I have been conscious of several themes running through the reported findings. A number of the articles reported on research into teacher effectiveness in the mathematics classroom. In each case the common thread was that teachers do make a difference and that when their classroom practices revolve around providing space for students to think and reason about mathematical ideas, significant learning takes place. Another thread my students discussed

was the finding that teachers who had opportunities for extensive in-depth study of students' thinking around mathematical ideas become highly successful in their classrooms. These ideas are not new to members of RCML. In sessions at our annual conferences I have heard various shades of meaning around these themes reported and discussed. Yet, I don't remember when I have heard these findings reported in any news briefs involving public education.

Perhaps these ideas do not have the appeal of translation into provocative sound bites that can easily be captured and reported. Maybe it is much easier to capture the viewers' attention with findings about school uniforms, class size, or single sex classrooms. Yet, we know of the significant (both in quantity and quality) studies that have identified the importance of the teacher who knows and attends to how students think mathematically and encourages students to struggle with making sense of their mathematics and critically analyze their ideas in a mathematical community of their peers. When teachers try to implement these practices in their classroom they are often met with resistance from parents and sadly even sometimes from school authorities. It would seem that we would be well served in our efforts to provide effective learning settings for mathematics if the media highlighted the findings that we know from research help increase student learning opportunities in mathematics.

This is not an easy task. The current issue of the AAUP magazine, *Academe*, has an article discussing ways that faculty can effectively communicate with the press. While the article focuses on issues in higher education, the points made apply more generally. The author lists 10 tips; I will mention just one here: "Don't assume that reporters (or their audiences) will share your values and 'get it' just because you do." Having done a number of interviews with reporters over the years, I know how difficult it is to communicate complex ideas in ways that they can make sense of for their viewers and readers. Yet, if they don't hear about these important ideas from us, who will they hear them from?

2011 RCML Conference

38th Annual Meeting



Hilton Cincinnati Netherland Plaza

SAVE THE DATE!

10-12 March 2011

Dear Fellow Members of RCML,

We need your HELP! In order to organize the quality level of conference we have all come to expect we NEED more presentation proposals. Please consider submitting a proposal to present at the 2011 RCML conference in Cincinnati, Ohio, and encourage your colleagues and graduate students to do the same.

HOTEL information may be found on our website: <http://www.unlv.edu/RCML/>

**Speaker Proposal
deadline extended to
15 October 2010**

The SPEAKER proposal form may be accessed and submitted via the RCML website <http://www.unlv.edu/RCML/>. If you have questions, contact information is provided on the form. Note the section at the bottom of the form that provides you with the submission process for being included in the conference proceedings - a new option to consider! If you prefer to submit your proposal via e-mail, please complete the form and send it to Lynn Columba at lynncolumba@gmail.com

Thank you,
Stacy Reeder, VP for Conferences
Lynn Columba, Conference Program Chair

**CONFERENCE PROCEEDINGS
proposals due 15 November 2010**

RCML now publishes conference proceedings for selected papers submitted and accepted as conference presentations. You are encouraged to prepare and submit a paper for the conference proceedings. The due date for conference proceeding papers is 15 November 2010. Submit papers to Stacy Reeder, Vice President for Conferences, at reeder@ou.edu. All submitted proceeding papers will be blind reviewed by three conference committee members. Before preparing and submitting your paper, please review the Proceedings Submission Guidelines document found on our website <http://www.unlv.edu/RCML/RCMLProceedingsReq.pdf>

Please note that acceptance to present at RCML does not guarantee that your paper



by: **Summer Bateiha**

Pick up any math textbook, and you're likely to find a plethora of story problems in almost every chapter; they're an integral part of what we do as mathematics educators. They create connections between the abstract ideas, formulas, and the concrete world in which students live. Although the prevalence of word problems is neither in short demand nor supply, rarely do we find ones with contexts that focus on meaningful social connections to students' lives. Most seem to be attached to superficial scenarios like whale weights, rabbit populations, pizzas, and colored candies. Even though there is no question that rich mathematical discussions and ideas can emerge from such contexts, I ask you to consider the following questions: What might happen if mathematics story problems combined both quality mathematical content and meaningful global contexts? What if proportional reasoning resulted from an assessment of world wealth and poverty? What if algebra materialized from connections to child labor? What if calculus were connected with world AIDS data? What kinds of discussions could surface from problems situated within these types of contexts?

Consider the following story problems:

will be accepted for publication in the conference proceedings. The review process for proposals and proceedings papers are separate processes.

A group of youth aged 14, 15, and 16 go to the store. Candy bars are on sale for 43 cents each. They buy a total of 12 candy bars. How much do they spend, not including tax? (Gutstein & Peterson, 2006, p. 6)

Factory workers aged 14, 15, and 16 in Honduras make McKids™ children's clothing for Walmart. Each worker earns 43 cents an hour and works a 14-hour shift each day. How much does each worker make in one day, excluding any fees deducted by employers? (Gutstein & Peterson, p. 6)

Both of these problems address the same mathematical concept, but one deals with buying candy bars while the other connects directly to a critical global issue. When mathematics and social issues intertwine as they do in the second problem, not only does mathematics become "more lively, accessible, and personally meaningful (Gutstein & Peterson, 2006, p. 1)" to students, but also mathematics becomes a tool "that helps students more clearly understand their lives in relation to their surroundings (p.1)." In order "to have more than a surface understanding of important social and political issues, mathematics is essential" (p. 2), and without it, "it is impossible to fully understand a government budget, the impact of a war, the meaning of a national debt, or the long-term effects of a proposal such as the privatization of Social Security (p. 2)."

So, the next time you pick up a textbook and consider giving your students a mathematics story problem, ask yourself this question: Is this the context I want my students to explore, or is

there a more meaningful way for me to address the mathematics while deepening students' understandings of both the world they live in and the role this subject plays in it?

REFERENCES

Gutstein, E. & Peterson, B. (Eds.). (2006). *Rethinking mathematics: Teaching social justice by the numbers*. Milwaukee, WI: Rethinking Schools.

INVESTIGATIONS IN MATHEMATICS LEARNING

Sheryl A. Maxwell

smaxwell@memphis.edu

During the past year, I have determined that there are two types of people—(1) those that meet deadlines, shop for holidays early, often ahead of time, a place for every item, in other words, organized, methodical, and maddeningly efficient. Then, there are (2) those individuals that delay to activate when receiving an email or snail mail request, need to think about a task before plunging in, wait to capture the spirit of the holiday season before shopping, and frequently misplace items or forget them altogether.

It seems institutions of higher learning also have these characteristics. Some promptly pay their journal subscriptions during the summer months as designed. Other institutions are sent several invoices, first the initial one, then overdue ones, and still no response. These same institutions are then puzzled when the journals no longer arrive. I have emailed several institutional representatives to tell them that not only have they not paid for the volume of journal for this academic year, but also I have omitted them from the mailing list. Others in this category simply do not read that *Investigations* is ordered on an academic year, not the calendar year.

I continue to update subscription lists for the journal into the three databases--RCML members, USA subscriptions, and outside USA subscriptions. We have added new subscribers, deleted some due to non-

payment, and renewed many subscriptions. Volume 3 issues are starting to be published. The first issue was mailed in early September 2010.

I hope you have paid your 2010-11 dues. If you received the Vol. 3, No. 1 issue in mid-September, you are on the PAID RCML DUES database. If you did not receive the journal, please check with Mary Swarhout and me to find out if you have forgotten to pay your dues or we have made a mistake.

As usual, we encourage you to check with your institution's library, making certain that they are subscribing to our RCML journal. See if other institutions in your state could begin subscribing also. Perhaps you were first introduced to the journal at the institution where you graduated. Have they renewed their subscription? I continue to order a few extra journals, so if you would like me to send a copy to a new colleague, or for your graduate class, just send me an email.

Please consider writing an article for the journal. We still have many authors who are not members of RCML. Although their research is good, it is always gratifying to have an RCML member contribute. When we know an author, we can eagerly communicate with them to learn even more.

ELECTIONS

Annual elections are held in the fall. This year we elect a Secretary and two positions on the Conference Committee. The Secretary holds a position on the Executive Board for 2011-2013. Two Conference Committee members are

elected for three-year terms. Candidates for Secretary are Darlinda Cassel and Megan Che. The nominees for Conference Committee are Keith Adolphson, Nancy Cerezo, Lynn Columba, Bob Drake, and Mikhail Turegun.

Darlinda Cassel

Institution: University of Central Oklahoma

Office of Nomination: Secretary

Why do you want to be considered for this office? I have been a member since 2000 and now it is time for me to give back to the organization.

What do you believe are the challenges for RCML for the next two years? I think we need to help people feel connected to the organization. I would like to see the membership increase.

How would you seek to accomplish these challenges if you are elected to this office? I think RCML can help people feel connected in a variety of ways; one is to have awards for 1st timers, 2- or 5-year members, and by recognizing the students that attend and have something for them and maybe an award or recognition for the member that brings the most students. Recognizing the students and members for bring students may help increase RCML membership. I also think that at least one of the authors of a submitted paper must be a member at the time of acceptance.

Describe your participation in RCML. I have been presenting at the conference since 2000 and have had articles published in Focus and in Investigations. I served on the conference committee for 2 years and as the conference chair in Oklahoma City.

Describe other related experiences that you believe qualify you for this office. I have been a PI on four NCLB grants.

Megan Che

Institution: Clemson University

Office of Nomination: Secretary

Why do you want to be considered for this office? I have been attending and presenting at RCML conferences for quite a while now. RCML is one of the conferences I value most because of the length of time devoted to sessions and because of the supportive atmosphere. It is high time for me to start contributing to RCML and I am excited about the possibility of doing so.

What do you believe are the challenges for RCML for the next two years? One of the primary challenges I see is for RCML to grow sustainably; that is, to increase membership in such a way that the strengths of RCML are maintained. Another challenge is for the RCML-sponsored journal, Investigations in Mathematics Learning, to become more widely known and perhaps influential for its high quality contributions.

How would you seek to accomplish these challenges if you are elected to this office? As secretary, I would focus on supporting the functioning of RCML through the maintenance of

accurate records of organization meetings. I would also support an ongoing conversation about how the RCML members envision the nature of RCML currently and into the future.

Describe your participation in RCML. I attended and presented at my first RCML conference when I was a doctoral student at the University of Oklahoma. I have attended and presented at the last four RCML conferences and have enjoyed the active nature of the sessions. I have been a member of RCML for several years and always seek to introduce colleagues and students to the organization. Two of my colleagues have attended and presented at RCML and I am already encouraging our two new mathematics educators to become involved!

Describe other related experiences that you believe qualify you for this office.

One important experience/quality that qualifies me for this office is my high regard for this organization and its continued success. So, I am vested in ensuring the smooth functioning of RCML. Because I am a very organized person and adept at managing many different projects, roles, and responsibilities simultaneously, I am well qualified to be secretary. I am president-elect of a state mathematics educator's organization and am chair of a department committee. I have experience with recording and communicating their operations.

Keith Adolphson

Institution: Eastern Washington University

Office of Nomination: Conference Committee

Why do you want to be considered for this office? I value RCML for its emphasis on being a caring, collaborative, and supportive professional community, as well as, a source personal renewal. I feel an obligation give back to the organization that has nurtured me by taking a more active role.

What do you believe are the challenges for RCML for the next two years? I feel that the main challenges facing RCML are increasing membership and conference participation while enhancing its visibility and stature in the mathematics education community without sacrificing its intimate character as a professionally supportive community.

How would you seek to accomplish these challenges if you are elected to this office?

Word-of-mouth can be an effective means of recruiting new members while preserving the quality of our conferences and journal will keep them around. I believe that raising the visibility of our conferences and journal will help attract new members and enhance the organization's stature. We might want to think about how we advertise. We may also want to consider other venues for the conference in order to avoid a regional cachet.

Describe your participation in RCML. I have been an RCML member since 2001. I have attended and presented at most conferences since then.

Describe other related experiences that you believe qualify you for this office. Previously, I taught have served as the Vice President for Middle Schools on the Central Oklahoma AMTE where I helped organize our semiannual conferences. In addition, I have participated and presented at numerous regional, national, and international conferences including: PME, PMENA, Northwest Mathematics Conference, and NCTM in addition to RCML. I believe that I bring many strengths to the conference committee position: resourcefulness, organizational skills, the ability to be a collaborative team member, some facility with technology, and an excellent sense of humor.

Nancy Cerezo

Institution: Saint Leo University

Office of Nomination: Conference Committee

Why do you want to be considered for this office? Having attended a couple of the conferences, I have found this organization to be engaging and supportive to all attendees. My positive experiences have guided me in wanting to become more involved in the organization. Serving on this committee will allow me many opportunities to meet others who have a common interest in mathematics education and research. I believe RCML is the organization in which I can contribute and serve as mathematics education is my passion.

What do you believe are the challenges for RCML for the next two years? The main challenge is to increase attendance at the annual conference.

How would you seek to accomplish these challenges if you are elected to this office?

Search for the names of mathematics instructors at various universities and invite them to attend the conference; challenge the membership in bringing one colleague to the conference.

Describe your participation in RCML.

I have attended and presented at a couple of the annual conferences.

Describe other related experiences that you believe qualify you for this office. I have served 10 years in many capacities for organizing events within a civic organization that sponsors a national PGA golf tournament. I have also organized conferences for our department that services our students and local teaching population at our off-site locations. These experiences as well as my attention to detail would allow me to be a vital member of the committee.

Lynn Columba

Institution: Lehigh University

Office of Nomination: Conference Committee

Why do you want to be considered for this office? I enjoy serving and giving back to my mathematics education profession which has given so much to me. I attend this conference and value the colleagues that participate in the RCML organization.

What do you believe are the challenges for RCML for the next two years? Increasing membership, visibility, and participation in the conference.

How would you seek to accomplish these challenges if you are elected to this office?

Through communicating with my own colleagues, through other mathematics organizations, through doctoral students that are looking for feedback on their research.

Describe your participation in RCML. I attend the conferences and have brought at least one of my doctoral students to present. This is such a receptive audience for their research.

Describe other related experiences that you believe qualify you for this office. I present at NCTM, AMTE, SSMA and NCSM frequently. I participate in my state organizations. I have been on the conference planning committee for PCTM and I hold an office in the PAMTE representing private institutions at large. I am the only mathematics educator at a small private institution therefore participating in national and regional mathematics educator organizations is an opportunity to interact with my colleagues which is wonderfully energizing and rewarding.

Bob M. Drake

Institution: University of Cincinnati

Office of Nomination: Conference Committee

Why do you want to be considered for this office? The Conference Committee is one of the most important committees of RCML. It provides guidance to those organizing the annual meeting which helps members connect, share ideas, and develop close professional relationships with other mathematics educators. Successful annual conferences are necessary for the growth of RCML to maintain membership, and to help members learn of the work being done by others. A successful conference committee is synonymous with a successful, viable organization. I believe there are ways to make the conferences more successful, and in that way increase the strength of RCML. I would like the opportunity to work with this committee to help achieve those goals.

What do you believe are the challenges for RCML for the next two years? Like most organizations, financial stability is at the top of the list. Though it's rarely at the forefront of most members' thoughts, the organization cannot function without funds to support our work. Additionally, increasing the distribution of our journal will help maintain RCML as an important leader in the field. In many ways, the journal is the face of the organization. It clearly demonstrates our mission, our interests, and the quality of our membership's work. Distributing the journal to more people is not an easy task, but it's necessary. The conference committee contributes, directly and indirectly, to both goals. When conferences are well operated, membership increases, conference attendance increases, we distribute more copies of our journal, and we provide income to the organization.

How would you seek to accomplish these challenges if you are elected to this office? Membership (and the corresponding funds that accompany membership) can be enhanced by making it easier for members to pay dues and conference registration. I hope to make the 2011 RCML Conference the first to accept online payments for conference registration and membership. A larger membership means a greater distribution of the journal. It also means a greater pool from which articles are drawn, and from which reviewers may be solicited.

Describe your participation in RCML. I have attended and presented at many conferences since we were known as RCDPM. I am currently co-chairing the 2011 Conference in Cincinnati, and am working to make certain this meeting matches the standards set by previous conferences.

Describe other related experiences that you believe qualify you for this office. In addition to co-chairing the coming RCML meeting in Cincinnati, I have chaired two Ohio Council of Teachers of Mathematics Annual Conferences (1993 and 1996) hosting more than 1000 mathematics teachers, 225 inservice sessions, and 60 exhibitors at each conference. At the completion of the 1993 OCTM conference, I wrote a handbook for future conference chairs that is still used by new chairs. I believe my experiences can add to the successes we've had in the past.

Mikhail Turegun

Institution: Oklahoma City Community College

Office of Nomination: Conference Committee

Why do you want to be considered for this office? Having been a member for the last three years, I benefited both personally and professionally from sharing and collaboration with other mathematics education researchers. I have also received a great deal of support and input from many members of RCML for my own work as a graduate student. I decided to become more involved in RCML by serving as a member of Conference Committee.

What do you believe are the challenges for RCML for the next two years? One of the challenges we face is to find ways to increase the membership count, which seems to be declining in the last few years.

How would you seek to accomplish these challenges if you are elected to this office? I think providing the speakers with an opportunity to have their presentations included in the conference proceedings may entice more individuals to at least consider becoming members. This is a new process for the conference this year and I think we may need to promote this process within the mathematics education community.

Describe your participation in RCML. I became involved in RCML as a result of my advisor Dr. Reeder's encouragement in 2007. I have assisted the conference committee during the OKC Conference. I have also been attending and presenting at every conference since that time.

Describe other related experiences that you believe qualify you for this office. Assisting the Conference Committee during the OKC Conference gave me an in depth view of what organizing a conference entails. I believe I can draw on my past experience in assisting the Conference Committee in order to serve at this position.

Election Ballot – Fall 2010

The ballot must be “postmarked” on or before **1 DECEMBER 2010**
PLEASE VOTE!

Please email your ballots to Kay Wohlhuter

kwohlhut@d.umn.edu

OR print this page and mail it to:

Kay Wohlhuter
University of Minnesota-Duluth
EduE 150
412 Library Drive
Duluth, MN 55812

Secretary

_____ Darlinda Cassel, University of Central Oklahoma

_____ Megan Che, Clemson University

Conference Committee (vote for two)

_____ Keith Adolphson, Eastern Washington University

_____ Nancy Cerezo, Saint Leo University

_____ Lynn Columba, Lehigh University

_____ Bob Drake, University of Cincinnati

_____ Mikhail Turegan, Oklahoma City Community College



MEMBERSHIP DUES

Just a friendly reminder that membership fees are due on 1 January 2011. To renew a membership please send \$35.00 to Mary Swarhout (information given below).

Please direct those wanting to join RCML to our website

<http://www.unlv.edu/RCML/memberform.html>

On the website they can fill out a short form, print it off and then fax or mail that form to Treasurer Mary Swarhout.

Dr. Mary B. Swarhout, Treasurer

Research Council on Mathematics Learning
Sam Houston State University

Math and Statistics Dept., PO Box 2206

Huntsville, TX 77341-2206

Office: (936) 294-3708

Fax: (936) 294-1882

RCML 2010 Officers

President, 2009-2011

Anne Reynolds
Kent State University
Kent, OH 44242
areynol5@kent.edu

President-Elect

Kay A. Wohlhuter
University of MN Duluth
Duluth, MN 55812
kwohlhut@d.umn.edu

VP Conferences, 2010-2012

Stacy Reeder
University of Oklahoma
Norman, OK 73019
reeder@ou.edu

VP Publications, 2009-2011

Sheryl Maxwell
University of Memphis
Memphis, TN 38152
smaxwell@memphis.edu

Secretary, 2009-2011

Juliana Utley
Oklahoma State University
Stillwater, OK 74078
juliana.utley@okstate.edu

Treasurer, 2010-2012

Mary Swarhout
Sam Houston State University
Huntsville, TX 77341
Swarhout@shsu.edu

Membership Chair

Mary Swarhout
Sam Houston State University
Huntsville, TX 77341
swarhout@shsu.edu

Investigations Editor

Jean Schmittau
SUNY-Binghamton
Binghamton, NY 13902
Jschmitt@binghamton.edu

Intersection Points Editor

Elaine Young
Texas A&M University-Corpus Christi
Corpus Christi, TX 78412
elaine.young@tamucc.edu

Webmaster

Ryan Speer
Perrysburg, OH 43551
speer99@yahoo.com