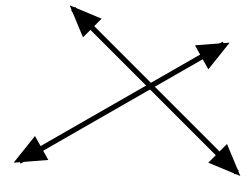




Intersection Points

“where research and practice meet”



The Newsletter of the Research Council on Mathematics Learning

Visit us on the Web at: <<http://www.unlv.edu/RCML/>>

Volume 28 Number 1

April 2003

Page 1

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.

In This Issue ...

President's Column, pages 1 & 5

Musings, pages 2 & 3

Nominations for Elections, page 3

2003 Conference Wrap Up, page 3

Business Meeting Minutes, pages 4-5

Conference Proposal Form, pages 6-7

RCML Personnel, page 8

Membership Form (at Web Site)

PRESIDENT'S COLUMN

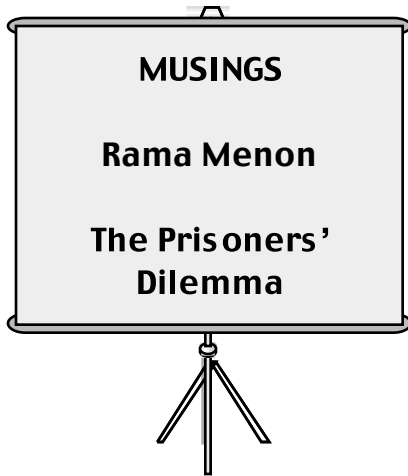
Sheryl Maxwell, President

CRUCIAL NOURISHMENT

Getting ready for a business trip to a national conference takes much thought and effort. While I have minimized the actual time I spend packing my luggage by storing frequently needed items in my suitcase, other facets of planning a trip still plague me. As I prepared for the recent RCML conference in Tempe, AZ, I needed to get some travelers checks, stop the mail, secure transportation to the airport, and determine how I could keep my menagerie of plants alive until my return. Yes, my plants concern me! Like many others, I decorate areas of our home with vegetation, enjoying each plant throughout the year. Yet, when planning for trips, I spend time considering how to assure their survival. To trust a neighbor or son to water them using just the right amount of fluid, at the precise instant when each plant needs nourishment, becomes problematic. Previously, I have written detailed directions and given these "trusted" individuals the appropriate watering schedule only to return to a plant standing in water, one limp from being forgotten, or another half-alive after "enjoying" some cool days outside in the sun. The preparation for this trip was no different. You see, each plant is unique in its need for crucial nourishment.

I suspect that professional nourishment for each of us is crucial also. Yet, because our professional lives are fraught with many activities, too frequently complicated by frantically accomplishing one deadline after another, or attending various meetings, we forget about nourishing ourselves. One way I receive crucial professional nourishment is by attending the annual RCML conference. At this year's conference, I appreciated visiting with colleagues, listened attentively to excellent keynote addresses, attended thought-producing sessions, chatted informally with new members, enjoyed the Spring weather, and took time to relax. In a nutshell, I received crucial nourishment and became rejuvenated with a new interest in my own research agenda.

A decade ago I returned to the University of Virginia to obtain my terminal degree receiving the sustenance that set the roots of my professional career. Yet, my need for enrichment continues just as periodic watering and fertilization is necessary for healthy plant development. As a result of our new College of Education Dean's desire to implement different programs, professional development (continued on page 5)



I have read John Allen Paulos' *Innumeracy* many times, and each time I read it, I get an epiphany and am amazed at how much he covers in that 180 page book. On a recent reading of it, I was struck by what he discusses in chapter 5, entitled "Statistics, Trade-Offs, and Society," and thought that one of the examples in that chapter, called the "prisoners' dilemma," might be worth discussing in the "Musings" column. But before I explore the "prisoners' dilemma," I would like to take a look at an economic model, also discussed by Paulos.

According to one version of Adam Smith's economics, if each individual seeks to maximize his or her own wealth, then the wealth of all will be maximized. This is akin to the sum of the parts being equal to the whole. But we know that in many instances, the aggregated parts do NOT sum up to a whole. For example, even if a person can perform all the different progressions of a tennis skill, such as the serve, there is no guarantee that in any given game, he or she can execute a flawless serve. Similarly, a foreign student may know all the parts of a sentence, but may not be able to string together words to form a contextually meaningful sentence. In math, there can be instances of ratios, where the sum of the ratios (as in batting averages for a whole year, etc.), may be less than an individual ratio (as in batting averages for a particular season). Or, perhaps, students might be able to recite the multiplication table accurately, but may not be able to use operation in a given situation such as a word problem.

Because there are so many instances where the sum of the parts is not necessarily the whole, we might posit that this might also be the case for Adam Smith's economic model of individual pursuit of wealth

through hard work, resulting in the well-being of society as a whole. In other words, working towards one's self interest, might, in the long run, work against one's self interests—and that is the basis of the prisoners' dilemma.

The prisoners' dilemma is usually given in the following context: two men are suspected of serious crimes but arrested for a minor crime, thereby becoming prisoners. They are separated and questioned, and each is given a choice: either confess to the serious crimes, and state both of them were involved, or remain silent. If both remain silent, *each* will get a jail term of *one year*. If one confesses, and the other doesn't, the one who confesses will be set free, and the other will be given a *five-year* jail sentence. If both confess, each will do a *three-year* jail term.

Assume I am one of the prisoners. Then my dilemma is this: If I confess and implicate my partner, that leaves me open to either my partner remaining silent (in which case I go free, and he gets five years), or my partner, also confessing and implicating me (in which case both of us will get three years). But if I remain silent, that leaves me open to my partner also remaining silent (in which case both of us will go free), or my partner confessing and implicating me (in which case he goes free, and I get five years). If I choose to look only after my own welfare, I might choose the option of confessing, and implicating him, in which case I will either go free if he chooses to remain silent, or I will get three years, if he, too confesses and implicates me. So, in either case, my selfish/individualist option would be to confess and implicate him.

Hence, the selfish option—that is looking out for oneself – (from each prisoner's perspective) would result in either a three-year or five-year term in jail. But if each of them were to remain silent, then both will get only a one-year jail term. Hence, the cooperative option that brings about the most good for *both* of them would be to remain silent. But the dilemma is that there is no guarantee that if one remains silent, the other, too, will remain silent, and so, would it not be better to confess and implicate the other, so as to either go free, or get three years?

(continued on page 3)

NOMINATIONS FOR ELECTIONS

Virginia Usnick

Interested in serving RCML? Consider running for an office on the executive board or a position on the conference committee. The Nominations Committee is seeking individuals to run for the following executive board positions: President-elect, Vice-president for Conferences, and Treasurer. Two seats on the Conference Committee are also open. Terms are two years except for President-elect. The President-elect moves into the presidency and then becomes Past-president. Self nominations are accepted. If you wish to nomination someone else, please contact that person for approval. Nominations will close June 15, 2003. Nominations may be sent to any member of the Nominations Committee: Sue Brown (browns@cl.uh.edu), Bill Speer (speerw@unlv.edu), or Virginia Usnick (vusnick@unlv.edu).

'Musings,' continued

The prisoners' dilemma discussed here represents many everyday situations (for example, decisions by spouses, businesses, the UN Security Council, etc.) where a choice has to be made, either for the common good, or for an individual's selfish interests. In other words, when two parties get together to discuss an issue, the cooperative decision would be to come to a compromise, where neither party gets *all* that was initially wanted, but each gets *part* of what was wanted.

I reiterate that the prisoners' dilemma is a good example of the use of logic in some everyday situations, as opposed to its use in some abstract academic situations. It seems to me, too, that both policy makers and other stakeholders might profit from a discussion of the prisoners' dilemma when looking at some of the latest decisions on what is considered acceptable research ("scientifically-based research"), or what is considered important criteria for accountability and student learning ("high stakes standardized testing"). Any thoughts on the wider applicability (or lack of applicability) of the prisoners' dilemma are welcome!

RECAPPING THE 2003 CONFERENCE

Virginia Usnick

Now that some time has passed since last month's conference, I have been able to unwind a bit but much of the conference still seems a blur. There were over four dozen presentations, including three keynotes and about a dozen "new" presenters. I'd like to thank everyone who participated as this conference is only successful because of you.

The Wilson Address, given by Leonard Shlain, was a resounding success. This talk honors John Wilson and is given by someone outside the field of mathematics education. Dr. Shlain's talk concerned connections between physics and art. His PowerPoint slides provided us many opportunities to visualize the connections between mathematics and art.

Since this was the 30th anniversary of RCML, as many of the founding members as possible were contacted and invited to Tempe. Two founding members joined us: Bill Speer and Jon Engelhardt. Jon also gave the closing keynote, discussing the challenges facing teacher education.

A quick review of the conference evaluations indicated the conference was an unqualified success. As with any production, there were glitches here and there, but as the saying goes, "the show must go on." And it did. For those of you who attended, I hope you enjoyed the conference. I'm sure I did...I think. Next year's conference will be hosted by Jayne Fleener and her crew in Oklahoma. Hope to see you there.

**Check out RCML and renew
your membership on the
Web at:
<http://www.unlv.edu/RCML>**

RCML Annual General Meeting Minutes – 3/7/03

President Virginia Usnick called the meeting to order at 1:20 p.m. The meeting was held in the Cochise Room at Arizona State University.

Item 1: Approval of minutes for last year's meeting

David Boliver called for approval of the minutes: seconded by Pat Lamphere Jordan.

Item 2: VP for Publications report

Dan Brahier reported the following:

Newsletter:

Three issues have been published this year. Dan thanked all members who contributed to the newsletter, in particular Rama Menon for writing Musings, Ginny Usnick for the President's Column, and Roland Pourdavood for the mailing labels. Dan further reported that the Executive Board discussed an electronic newsletter. The next newsletter will be sent via US mail and electronically as a PDF file. Dan will send each member an email informing him or her that can click on the link to access the newsletter. This will serve as a pilot on the effectiveness of sending the newsletter electronically. If members do not receive their newsletter electronically, they are to contact Dan with their correct email address. This process will enable RCML to transmit the newsletter easier, faster, and cheaper.

Web Site:

Dan thanked Ryan Speer for maintaining the Web site. Ryan does a wonderful job of updating the Web site, posting items on the site almost immediately.

Focus:

Dan thanked Jodi Harbal, his undergraduate assistant at Bowling Green State University for her assistance with *Focus* and Jean Schmittau for editing *Focus*. Dan explained the *Focus* is a product of RCML in that we provide articles for the Journal, but we not own the Journal. Dan has copy edited Winter and Spring, 2003 issues. He mention problems associated with *Focus* that were being addressed by the Executive Board.

Ginny Usnick thanked Dan on behalf of the members for his work as Vice President for Publications and presented him with a certificate of appreciation.

Item 3: VP for Conference report

Kay Wohlhuter reported the following:

Kay thanked Ginny Usnick for organizing the 2003 conference and presented her a gift of appreciation. She thanked the outgoing members of the conference committee: Claudia Pagliaro and Diana Steele and welcomed the newly elected members to the committee: Michael Naylor and Mary Enderson.

RCML conference for 2004 will be in Oklahoma, probably in Oklahoma City with a tentative date of February 19-21. The focus of the Conference is "Mathematics Education –Then, Now, and the Future." Jayne Fleener, Anne Reynolds, Sandy Johnson, and Kerri Richardson are working on the conference. Proposal forms were passed out and members were asked to submit the proposals by June 30.

Kay reported that the Executive Board is planning on introducing a Research Award at the Oklahoma Conference. Members were encouraged to complete the purple conference evaluation form and to consider hosting a future RCML Conference.

(continued on next page)

Item 4: Treasurer's report

Jayne Fleener presented the Profit and Loss report for January through December 2002: RCML had approximately \$4,000 in income generated by membership dues and \$6,000 in income generated by program registration. Expenses incurred for the 2002 and 2003 conferences, *Focus*, office supplies, plaques, postage, printing, and web master honorarium totaled approximately \$11,000. When income generated by interest and back service charges were calculated, the net result was a loss of approximately \$200 for the period January through December 2002. The assets of RCML in both operating and conference accounts are approximately \$26,000. David Davison moved that the treasurer's report be accepted and Pat Lamphere Jordan seconded the motion. The motion passed unanimously.

Item 5: Membership

Roland Pourdavood reported: RCML has 215 active members, 45 new members, and 49 expired memberships. Members will receive the Winter, 2003 *Focus* in a few weeks and are asked to look at the label on the Journal. If the date is 2002, they need to renew their membership. The membership dues are \$28. If members do not receive their 2003 copies of *Focus*, they are to contact Roland. If they are missing back copies, they should contact CMTL.

Item 6: Old Business

Ginny Usnick announced that Anne Reynolds was completing her term as secretary. She thanked Anne for her work and presented her with a certificate of appreciation.

Election Result: The following new officers were introduced: Vice President for Publication-Alan Zollman, Secretary-Sue Brown, Conference Committee members-Michael Naylor and Mary Enderson.

Nominations are needed for the following positions falling vacant in 2004: President Elect, Vice President for Conferences, Treasurer, and two members for the Conference Committee. Nominations are to be submitted to Ginny Usnick by June 15. They will be announced in the October newsletter with ballots mailed in mid November or early December.

Sheryl Maxwell thanked Ginny Usnick on behalf of RCML for her four-year commitment as President elect, President, and Past President and presented a plaque to her. Ginny reported that Sheryl was now officially president of RCML and turned to meeting over to her. Sheryl announced that it was a pleasure to serve as president of RCML.

Item 7: New Business -- There was no new business. President Sheryl Maxwell closed the meeting at 12:50 p.m.

'President's Message' continued

activities have increased at our university this year. This emphasis coincided with my desire "to do something, just for me." I chose to regularly attend the Qualitative Research Forum that meets bi-weekly during the Wednesday lunch hour. We agreed to support the presenter each time by reading the designated chapter of the *Handbook of Qualitative Research, 2nd edition*, by Denzin and Lincoln. Some days I arrived frazzled having just driven from teaching at an off-campus site 25 miles away. Yet, before each session, I dutifully read the assignment, delighted in hearing other colleague's perspective about a topic, brought in my own viewpoints, and shared the mathematics education perspective. Initially, I was the only representative from our department; however, now with my new mathematics education colleague attending too, we are affirming this research methodology.

I challenge each of you to either continue nourishing your professional career or to begin this effort by assessing your desires to determine how you can best professionally feed yourself. You can become a stronger, more vibrant mathematics educator, renewed in continuing your designated research agenda not only by properly watering your roots, but also by feeding your professional understanding with differing ideas.

2004 Conference Proposal Form

Mathematics Education - THEN, NOW, AND THE FUTURE

Oklahoma City, Oklahoma
19-21 February 2004

Mail In Speaker Proposal Form

PROPOSALS DUE JUNE 30, 2003

This is an announcement for a mathematics education conference being held in the metropolitan Oklahoma City area. Our organization seeks to stimulate, generate, coordinate, and disseminate research efforts designed to identify, understand, and affect factors that influence mathematics learning. Our conference is small (typically an attendance between 100 and 150) which allows for both formal and informal interactions. We are especially interested in "works in progress" and like to ask "have you thought about..." questions. So, we feel this conference is a wonderful opportunity for pre-tenured faculty and graduate students to present their ideas and receive feedback from some of the leading mathematics educators in the country. If you are interested in presenting your research at our conference, please print this form and submit it to the address provided below.

Name _____ Position/Title _____

Preferred Address _____

City _____ State _____ Zip _____

Telephone (work) _____

Telephone (home) optional _____

email address _____ FAX _____

(Email address will be published in program booklet unless speaker indicates otherwise.)

The foci of this conference are the historical development of mathematics education as a research discipline and our evolving roles as mathematics educators.

Title of Presentation (limit to 75 characters)

Type of Presentation: (circle one)

Single paper Panel Roundtable Other (please specify)

How will the presentation address the mission of RCML? (Mission: Stimulate, generate, coordinate, and disseminate research efforts designed to identify, understand, and affect factors that influence mathematics learning.)

(proposal form continued on next page)

Abstract of the proposal:
(suitable for inclusion in program booklet.) Limit to space provided below:

Co-presenter(s) and institutional affiliation(s):

Email(s) of Co-presenters

RCML provides overheads and screens. Additional equipment will be the responsibility of the speaker.

Mail to:
RCML - University of Oklahoma
c/o Kerri Richardson
College of Education
820 Van Vleet Oval
Norman, OK 73069

Other contact information:
Jayne Fleener, fleener@ou.edu; (405) 325-1081
Anne Reynolds, areynolds@ou.edu; (405) 325-1498
Kerri Richardson, krichardson@ou.edu; (405) 325-2599
FAX: RCML (405) 325-7390

You may email this form as an attachment to Kerri Richardson: krichardson@ou.edu. In the subject line please use: RCML Conference Proposal.

Acceptance of your proposal will be emailed. Please make sure your contact information is accurate.

PROPOSALS DUE JUNE 30, 2003

**RESEARCH COUNCIL ON MATHEMATICS LEARNING
PERSONNEL, 2002-2003**

President - Sheryl Maxwell

The University of Memphis
Phone: (901) 678-2131
Fax: (901) 624-4934
smaxwell@memphis.edu

Past President - Virginia Usnick

3935 Chinchilla Avenue
Las Vegas, NV 89121
Phone: 702-895-4219
Fax: 702-895-4898
vusnick@nevada.edu

VP-Conferences - Kay A. Wolhuter

Department of Education
120 Montague Hall
University of MN--Duluth
Duluth, MN 55812
(218) 726-8588
kwohlhut@d.umn.edu

VP-Publications - Alan Zollman

Alan Zollman
Northern Illinois University
Dept. of Mathematical Sciences
DeKalb, IL 60115
815-753-6750
zollman@math.niu.edu

Secretary - Sue Brown

Sue Brown
University of Houston
Curriculum and Instruction
2700 Bay Area
281-482-1805
Houston, TX 77058
browns@cl.uh.edu

Treasurer - M. Jayne Fleener

M. Jayne Fleener
University of Oklahoma
College of Education
820 Van Vleet Oval
Norman, OK 73019
fleener@ou.edu
(405) 325-1081
(405) 325-7390 (fax)
www.ou.edu/education/ilac/fleener.htm

Membership - Roland Pourdavood

Cleveland State University
1333 Rhodes Tower
Euclid Avenue @ E. 24th St.
Cleveland, OH 44115-2440
r.pourdavood@csuohio.edu

Focus Editor - Jean Schmittau

School of Educ and Human Development
SUNY-Binghamton
P.O. Box 6000
Binghamton, NY 13901-6000
607-777-2727 (O)
607-777-4209 (H)

Newsletter Editor - Daniel Brahier

124 Life Science Building
Bowling Green, OH 43403
419-372-0339 (O)
419-874-2836 (H)
419-372-7291 (FAX)
brahier@bgnet.bgsu.edu
Internet: <http://ernie.bgsu.edu/~brahier>

Web Site Editor - Ryan Speer

Perrysburg, OH 43551

Intersection Points -- RCML Newsletter

Daniel Brahier - Editor

1 24 Life Science Building

Bowling Green State University

Bowling Green, OH 43403

ADDRESS CORRECTION REQUESTED