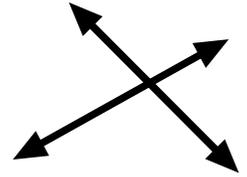




Intersection Points

“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/>

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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

Sheryl Maxwell, President

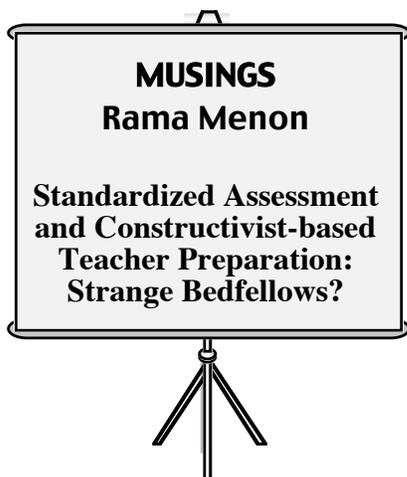
BAGS OR BAGGAGE?

Friends of mine are leaving an area where they have lived for the past eight years. In her last e-mail message, she described her process of sorting, packing, giving away, and throwing away items—decisions, decisions. These items might be categorized into *bags* of the past that we need to carry into the future, versus the *baggage* of the past that simply weigh us down and prevent us from accomplishing new goals. As we move through life's adventures we are constantly evaluating items, discarding the unneeded items, but taking the items that have potential for help with new adventures. These actions are much like sorting through the information and knowledge encountered in the classroom and organizations—some beneficial, other aspects burdensome.

Each semester the students in my mathematics methods class could be characterized as carrying both *bags* and *baggage*. Part of my job as a mathematics educator is to help them sort through the stuff they bring into the class in preparation for their move to become effective teachers. As mathematics educators we are aware of *bags* that

are advantageous for them to prepare for teaching, however, *baggage* will cause them to become overburdened stalling their progress forward. Likewise, within any organization *bags* and *baggage* exist. *Bags* and *baggage*—it is not easy to sort out the difference.

During the past years of being the President of RCML, I have been sorting through the archives of documents created by past executive committees and dedicated officers. Although the task has been daunting at times, I find that through reading the history I learn much. Last February, I even surprised members of the Executive Committee with new notebooks containing the latest version of the RCML Handbook, complete with Constitution, By-Laws, Officer's Responsibilities and Related Activities. You see, all of us didn't have copies of these items handed down from previous officers, so we were not clearly informed about our duties in the particular office we held. As we read these documents, we quickly noticed problems. In some instances, we were unaware of our responsibilities—surprise! There were things that we were doing that were dictated by convenience. Some aspects conflicted, while other (continued on page 3)



Many math educators follow constructivist principles and encourage their pre-service teachers to apply such principles to the teaching of math in schools. But when these pre-service teachers reach schools, they find it a struggle to adapt constructivist principles to teach mathematics, and say they are constrained by the standardized exams their students have to be prepared for. Frequently, they cite lack of time in schools as the reason for not implementing what they have learned about the teaching of math. They quickly become disillusioned with what they have learned about the teaching of math during their college coursework, and believe that it is unrealistic to apply constructivist principles to teaching math in schools. Very soon, they become enculturated to the algorithmic, worksheet oriented practice of teaching mathematics.

One of the many reasons why these new teachers may not be able to implement what they were taught could be a lack of confidence and a lack of pedagogical and content knowledge of math. Another reason could be the myriad challenges faced by a beginning teacher just to survive the first few years of teaching—which oftentimes has little to do with the teaching of math per se (for example, classroom management might be a problem). Yet another reason could be the school climate, and the expectations of accountability as assessed by scores in standardized math exams.

What can be done to address this seeming incompatibility between what was learned in pre-service mathematics courses in college and what is happening in the “real” world of schools? I suggest it would be a great help to such teachers if some, or all of the following were available:

1. Credible research (read “scientifically based” research in the current ethos of NCLB and the Department of Education’s guidelines for research funds) that shows constructivist-based approaches do lead to better performance in standardized math exams. Of late, detractors of the constructivist approach have been vociferous in their complaints that no credible research supports the constructivist approach, and that such approaches have not resulted in stellar performances in standardized math exams. (Of course, the detractors seldom have any research support for their claims either!) Much as we would not like to subscribe to the much-vaunted “scientifically based” research as the only credible research, we do need to take the initiative to use such “scientifically based” research to support our claims.
2. Ongoing professional development courses that focus on using the principles learned in college pre-service courses in actual classroom situations. Such professional courses have to be ongoing, so as to cover a variety of school math topics, and give greater confidence to the teachers of the efficacy of such approaches.
3. Videotapes or DVDs of actual teachers successfully implementing the principles of effective math teaching learned during pre-service courses. On witnessing actual teachers implementing such approaches, the new teachers can gain more awareness, knowledge, and confidence that such approaches do work in the real world.
4. Resources such as lesson plans that show how constructivist based lessons might be combined with standardized type of evaluation/assessment items. Since beginning teachers need a lot of guidance and support, such resources should be very helpful to them.
5. Mentor teachers and a collegial network that are supportive of the new teachers trying out some of the teaching principles they have learned in pre-service courses. Such sharing will improve professionalism and collegiality, and serve to ameliorate the sense of isolation and lack of support many beginning teachers might feel.

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‘President’s Message’ continued

items were not being done as prescribed. I have challenged the officers to look at their respective areas and note their responsibilities and activities in accordance with the Constitution and By-Laws. This year they began the process of accomplishing their duties being careful not to tamper with the existing Constitution or By-Laws.

Can you also help us sort through the items so we carry only needed *bags* into the future years and get rid of the *baggage* that should be changed or discarded? The following information may prove helpful to you. The Constitution deals with (I) The name of the organization, (II) RCML's purpose, (III) Membership, (IV) General Organization, (V) Association Meetings, (VI) Nominations and Elections, (VII) Amendment to this Constitution, and (VIII) Adoption. The By-Laws to the Constitution articulate (I) Membership, (II) Executive Committee, (III) Committees, (IV) Business Affairs, (V) Nominations and Elections, (VI) Amendments to these By-Laws. For example, have you wondered why the elections are held in the fall each year? Article V, Section 2, (*Election Procedure*) of the By-Laws states "Ballots will be distributed to regular members about seventy-five days prior to the annual business meeting. Those ballots postmarked at least forty-five days prior to the annual business meeting will form the basis for election."

As regular members of RCML you have voice in the happenings in RCML. According the Article VII of the Constitution, "Amendments to the Constitution can be submitted to the Executive Committee, [by any regular member], not less than sixty days prior to the annual business meeting. These proposed amendments shall be considered by the Executive Committee with recommendations to the regular members at the annual meeting. Approval of a Constitution's amendment requires two-thirds majority of regular members voting by mail ballot." Likewise, according to Article VI of the By-Laws, "The Executive Committee shall distribute in writing all proposed amendments to the By-Laws together with its recommendations for approval or rejection to the regular members not less than thirty days prior to the annual business meeting of the Council." This information means that if amendments to the Constitution or By-Laws are to be considered at the

February meeting, a process is followed. The regular members will be notified in the December issue of *Intersection Points* about the Executive Committee's recommendations. "Proposed amendments to the By-Laws, are further amended or disproved at the annual business meeting of the Council by means of simple majority of those regular members present and voting." Additionally, "any editorial changes to the By-Laws . . . become effective three months after they are reported in the Newsletter."

As my friend has discovered, sorting through the *bags* and *baggage* and discarding the unneeded items help us relive the past, put things into perspective, and move forward into the future. Can you help us achieve similar results for RCML as we move into 2005, with a new RCML President, several different officers, and visions for increased collaborative efforts?

‘Musings,’ continued

6. A specific time for new teachers to meet colleagues and discuss difficulties they have faced or are facing, and also to discuss teaching strategies that have worked. Such consistent, sustained, and hopefully immediate feedback will go a long way to minimize the feeling of helplessness and frustration that beginning teachers might feel.

I have given a few suggestions that I believe might alleviate the seeming incompatibility between what we “preach” in pre-service courses at college, and what our new teachers “practice” in schools. I am sure there are many more suggestions that might be offered, and such suggestions would certainly be more than welcome.

Research Council on Mathematics Learning Thirty-Second Annual Conference Little Rock, Arkansas 24-26 February 2005

We are looking forward to welcoming you to Little Rock for the thirty-second annual RCML conference. We hope you will enjoy the scholarship and fellowship as well as take advantage of some of the opportunities to experience Arkansas hospitality.

We have over fifty speakers who will be participating in the conference. There are several features of the program that are especially exciting. To get conversations started, we will begin on Thursday with three birds-of-a feather discussion groups. Following a reception of light hors'douvers, we will facilitate groups dining at the Market Place, which has a variety of ethnic foods. To reach the Market, one may walk or take a short trolley ride across the river.

Dr. Michael Naylor, one of our own members, will open Friday morning with a special session. If you have heard Michael, you are aware of how he makes mathematics come alive. If you have not heard him speak, then you are in for a treat!

A special part of Arkansas' history is its Ozark heritage. Before Friday's dinner, Jaynette Huff will present "Mix it up---Arkansas, Mathematics, and Quilts." These 3 seemingly unrelated topics are blended together in this presentation by Jaynette with her quilts. We will **learn** a bit about the state of Arkansas and the Ozarks through various quilt block designs and patterns; **see** how mathematics flows through the whole quilting process (designing, drafting, cutting, figuring yardages, etc), and **experience** the beauty of fabric, thread, color, and hours of labor lovingly woven together in quilts. Jaynette has published several books and articles about quilting. Several of her quilts have been juried into international quilt shows. From 1992-2001, she was the owner and operator of Idle-Hour Quilts and Design. In 2001 she closed the shop to quilt full time, write quilt-related books, and teach quilting to others. Prior to her work with quilting, Jaynette taught business management courses at several universities in Arkansas.

After dinner our Wilson Lecturer, Dr. David Peterson, professor of mathematics at the University of Central Arkansas, will present mathematics and music. David and his wife, Donna, are notable in Arkansas for their knowledge of Ozark music and dance. They will share traditional dance in music with various musical instruments (some that David has made). You will enjoy this lively form of mathematics!

Dr. Constance Kamii opens Saturday with another special session. Dr. Kamii is well known for her work in mathematics education. She has published numerous articles and has presented her work nationally and internationally.

(continued on page 5)

Little Rock Conference, cont'd

We are also working on a tour of the Clinton Library and other sites in the Little Rock area. If you plan to stay until Sunday, there is the possibility of a trip to Hot Springs.

Information about registration is located at the RCML Web site. Hotel accommodations can be made by calling the Wyndham Riverfront in North Little Rock at the toll free number, 1-866-657-4458 or the hotel directly at 501-371-9000. In order to receive the conference rate discount, be sure to indicate you are registering for the RCML conference and register before 31 December 2004.

We plan to continue the soliciting of exemplary papers for awards and possible publication in our journal. Award categories are the same as before: Most Outstanding Young Career Research, Most Outstanding Empirical Research, and Most Outstanding Historical/Theoretical Research. Full papers are due by 5 January 2005.

We are extremely excited about the conference and hope to see you in Little Rock. We are hoping our conference plays out, as our organization has evolved, as an opportunity to visit our past and mentor the next generation of outstanding mathematics education scholars for the future. See you in Little Rock.

Mark Your Ballots!

Bea Babbitt

As an insert to this issue of *Intersection Points*, you will find the ballot for the Fall 2004 elections. The slate includes the following candidates:

Vice President for Publications

Rama Menon, California State University, Los Angeles
Anne Reynolds, Kent State University, Ohio

Secretary

Kim Hartweg, Western Illinois University
Diana Perdue, Virginia State University

Conference Committee Position 1

Robert Capraro, Texas A & M
Frances Thompson, Texas Woman's University

Conference Committee Position 2

Keith Adolphson, Eastern Washington University
Jeff Shih, University of Nevada, Las Vegas

Questions regarding RCML were presented to each of the candidates. You can access their responses via the RCML Web site at <www.unlv.edu/RCML>. Please vote and mail your ballots with a postmark no later than **3 December 2004** to Bea Babbitt at the address on the ballot.

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PERSONNEL, 2004-2005**

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