

## Dr. Mark Driscoll Receives Ross Taylor/ Glenn Gilbert National Leadership Award

**Dr. Mark Driscoll was presented with the**

Ross Taylor/Glenn Gilbert National Leadership Award at the NCSM Conference in San Diego.

Mark Driscoll is one of the leading researchers in the field of mathematics education and currently serves as Central Director in School Improvement Programs at the Education Development Center.

**Mark Driscoll was born just outside of Boston,**

Massachusetts from Irish stock, with both grandparents from Ireland, a mailman for a dad, and a household engineer for a mom. Mark attended a Catholic grade school and high school. This year's honoree moved to the next level pretty quickly becoming part of a cohort of eight students recruited by Boston College after the junior year of high school. Mark entered college at the age of 16 and earned an undergraduate degree in mathematics.

When asked about the choice of mathematics, our honoree told a story that keeps so many of us in the field of education—it was due to two teachers that he chose and stuck with the field of mathematics. In high school, Mark was in the honors program and had the same teacher for three years—Father John Whitney Sullivan. Mark said, “I loved his passion and got some of it myself!” In college, Mark ran into another teacher, Paul Sally, and again acknowledged that this teacher was “bright, passionate and all about mathematics. I was blessed. You never hear people talk about a teacher because they knew the mathematics, it is always some other connection. But Paul Sally was all about the content.”

After completing the undergraduate degree, Mark went on to graduate school working on a PhD in mathematics from Washington University in St. Louis. However, it was the tumultuous times known as the 60's. Mark was not drafted into military service at the time, but felt compelled to give back in some way as an alternative to fighting in war. He took on projects in St. Louis involving tutoring young people who needed assistance. That experience turned into a passion—an alternative way to give back.

**With a great deal of idealism and hard work, Mark Driscoll and a group** of courageous teachers renovated a warehouse in St. Louis and started a high school—Logos High School. During that time, Mark also continued studying, earning that PhD from Washington University. The Logos School was intended to take kids off the street and really teach them. Mark says, “That’s where I learned how to teach!” This was during the 70's and—long before the phrase Professional Learning Communities came into being—this group did just that. Someone donated a video camera and the staff videoed the most difficult class and watched the result as a full staff on Thursday afternoons, working together to figure out what might make a difference for kids. Mark Driscoll was at the forefront in using the philosophy of Carl Rogers, utilizing student communication skills groups, emphasizing communication and the importance of listening.

While working in St. Louis, Mark came across a K–6 curriculum based on the concept that young people can do powerful mathematics if the representation is right. With this piquing Mark's interest, our honoree was hired to write research that would be within reach for elementary and secondary mathematics for the National Council of Teachers of Mathematics. With that one step, Mark was connected to the mathematics education world forever. He looked around and



Dr. Mark Driscoll

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 19, and 23 for photos from the  
 42nd NCSM Annual Conference  
 in San Diego, CA

## From the NCSM President



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## The Common Core State Standards are here...Now what?

**By the time you read this, the final version of the Common Core State Standards (CCSS) will have been released and many states will be immersed in the process of adopting them. So what do these standards mean for us, as mathematics education leaders? And what will NCSM do to support your work?**

The CCSS are a milestone in the standards movement that began just over 20 years ago with the release of the NCTM *Curriculum and Standards for School Mathematics* in 1989. Curriculum coherence and higher expectations for all students were the goals of the original standards, as they are for CCSS. As part of the 1989 standards writing team, I vividly remember the group's discussion about standards, rather than curriculum, as a vehicle to accomplish this goal, given that education is a state, not a federal responsibility. That CCSS came about because state leaders *asked* for common standards, recognizing that the current system of individual state standards could not provide the coherence and focus necessary to significantly improve mathematics education nationally, is a major step forward.

**The CCSS provide a strong foundation for our work as mathematics education leaders**—ensuring that high expectations are set for every student, and that every student has access to rigorous, high quality mathematics curricula and instruction to attain these expectations—as called for in our Mission Statement and *PRIME Leadership Framework*. However, for this potential to be realized, we as mathematics education leaders need to work proactively to help those whom we lead and influence to interpret the standards fully, and develop coherent, comprehensive plans for implementation.

One of the greatest potential benefits of CCSS is that instructional materials would provide more focused, coherent treatment of mathematics content, since publishers would no longer have to develop materials that satisfy the standards of 50 different states. This coherence and focus will happen only if, during the state-adoption process, any state-determined “additional” standards enhance, rather than undermine, the coherence and focus of CCSS. Please urge your state leaders and boards of education to maintain the coherence of CCSS, and explicitly argue against introducing additional standards that (1) move expectations of fluency with particular content to earlier or later grades, and (2) add substantial amounts of different content to grades.

**Another strength of CCSS is its strong emphasis on conceptual understanding and the mathematical practices.** For this “standards” emphasis to translate into “instructional” emphasis, we need to provide professional development to help teachers and leaders understand “understanding.” *What are students who understand particular content able to do? How can this understanding be assessed? How can instruction promote understanding?* We also need to help teachers and leaders integrate the mathematical practices into their instruction and encourage them to provide adequate time for this integration to occur.

**Standards are only a starting point; assessments are another critical component.** The U.S. Department of Education's Race to the Top Assessment Program, with its call for a common, high-quality assessment system that “covers the full range of [the CCSS] standards, elicits complex student demonstrations or applications of knowledge and skills where appropriate, and provides an accurate measure of student achievement across the full performance continuum”<sup>1</sup> has the potential to support, rather than hinder, our efforts. Again, we as leaders need to proactively prepare teachers and administrators to assess conceptual understanding and mathematical practices, effectively interpret and use assessment results, and incorporate formative assessment into their practice.

NCSM is committed to supporting your work by addressing issues regarding CCSS implementation in our professional development opportunities, including our Annual Conference, Leadership Academies and Seminars, and in our electronic and print publications. We also plan to develop related tools and materials (e.g., guide for selection of instructional materials aligned to PRIME and CCSS) to help you in your local efforts. We are also investigating collaborations with ASSM, AMTE, and NCTM around the implementation of CCSS.

If there are particular activities or resources you would find useful, please email me with your suggestions. Our mission is to support you.

<sup>1</sup> Race to the Top Assessment Program, Application for New Grants, Comprehensive Assessment Systems, CFDA Number: 84.395B, April 6, 2010.

was back in Boston doing research and working with the Ford Foundation and others building groups of teachers learning together. He helped urban teachers prepare for the changes to come with the emerging standards movement in mathematics.

**In 1985, Mark Driscoll was introduced to NCSM. Ross Taylor convened NCSM** groups several times a year, establishing collaborations that consistently included Mark. He began working on projects directly connected to urban NCSM members through the Urban Mathematics Collaborative Project. According to one of his nominators, “As Director of Technical Assistance, Mark organized the mathematics directors of 16 partner districts into a professional learning community and was able to obtain funding to address cutting edge issues.” In 2004 Mark Driscoll took the reigns of the *NCSM Journal* and truly turned it into the masterpiece that we see today. Recently, our honoree has been working to raise mathematics achievement for English Language Learner (ELL) students. Much as Mark did in the 70’s, he has once again focused on mathematics coaching for the classroom and how this can be used and reshaped for various situations. Mark is currently challenging us to recalibrate our thinking about learning and mathematics. Mark believes that it is time to return our country’s focus to the teaching of geometrical thinking before high school. Mark is part of a writing group for the What Works Clearinghouse on Mathematical Problem Solving of the United States Department of Education. The underlying sub theme is to make research on learning and teaching mathematics accessible to practitioners. When Mark headed the design team for *Fostering Geometric Thinking*, he changed the landscape of mathematics education.

On a personal note, 12 years ago on a Thursday night, 6:30 PM to be exact, at spin class, Mark was distracted by a lovely woman, Sue, who has now been his wife for 10 years. They currently reside in Harvard Square. Mark says at some point in his life he learned the meaning of his name and thought it was very appropriate—in the Gaelic language, it means translator/interpreter—however it could also mean “*magic music*” according to an inebriated Harvard professor. One of the nominators says Mark is “indeed a rock star of the mathematics education world, with the discography of important publications to prove it.”

One of Mark’s nominators said it best: “Consideration of Mark for this award ought to include both the many contributions he has already made to mathematics education in urban schools and districts, and the clear devotion he has shown to continuing his work himself and in developing the careers of others in the field to do so. I count myself lucky to be among those who call Mark Driscoll a colleague and a friend. The more I work with him, the more I realize that I am among many who share this privilege. Far from feeling less “special” because my association with the honoree is not especially unique or exclusive, I feel even more honored to be part of the very large circle of mathematics educators who have had the opportunity to be part of the difference Mark has made in our field.” It was with great pride that we presented this year’s Ross Taylor/Glenn Gilbert National Leadership Award to Dr. Mark Driscoll.

***I am very grateful ... and touched to be the first winner of the award with Ross Taylor’s name on it.***

I first met Ross in the 1980’s at a conference. At the time, I was working at CEMREL, a company in St. Louis. A short while after the conference, I called Ross and said, “Let’s stay in touch.” He said: “Why, sure, Mark. I’d like your phone number, please.” I obliged. Not too long after that, CEMREL went out of business. I moved back to Massachusetts to a small company on the North Shore, outside of Boston. I made sure to call Ross to tell him CEMREL had gone out of business and that I was relocated. Once again, Ross said: “Mark, I’d like your new phone number.” Once again, I obliged.

About a year later, this company also went out of business, and I moved to EDC. I called Ross to tell him what had happened. This time, there was silence on his end of the phone, and then Ross said: “Well, Mark, of course I want your new phone number, but—just to let you know—this time I’m writing it in pencil.”

In the end, I am grateful to say, I didn’t cause EDC to go belly up. Instead, I’ve spent over 20 satisfying years there, working with many very smart, very nice people, from whom I’ve learned an immense amount. Their influence is embedded in this award.

***Let me say a few words about my perspective on leadership. Early in my career, I had the good fortune to attend a presentation by the great Dutch mathematics educator, Pierre van Hiele. In the course of his talk, he said that a central aspiration in his teaching of young students was to be surprised each day by a student’s thinking. I loved***

***... continued on next page***

## **Dr. Mark Driscoll Receives Ross Taylor/ Glenn Gilbert National Leadership Award**

*Continued from page 1*



**Left to right: Awards Chair,  
Donna Simpson Leak, recipient  
Mark Driscoll, and President  
Diane Briars**

## **Dr. Mark Driscoll Responds**

**[Mark Driscoll’s response  
is excerpted from  
his acceptance speech.]**



**Dr. Mark Driscoll Responds***Continued from previous page*

***“From that point on, I worked with the belief that, if a student puts a lot of effort into a problem, no matter how confused the work appears to be, that student deserves my best effort to understand the thinking.”***

that idea. I also have come to realize it connects to leadership in the following way: To lead effectively, I believe one needs to be willing and able to be influenced by others. And “others” includes students. Let me tell you quickly about four students who influenced me, served as guides for leadership.

**BILLY** was one of my students in St. Louis—recently returned to school from being on the streets. With most of our former drop-out students, we needed to find out what they knew and didn’t know. During one of these assessment sessions, Billy surprised me by consistently deciding that longer decimals were smaller in value than shorter decimals. By that I mean: it didn’t matter what numbers were in the decimal places—longer decimals were smaller in value than shorter decimals. I asked him to tell me why. Billy said: “I sort of remember one of my teachers saying that ‘the farther out you go in a decimal, the smaller the number.’ He had the words of the mnemonic right, but had skewed the intended meaning. I realized, from that point on, that the meaning I intend is not necessarily the meaning taken by others. In my work, this experience led to a guiding belief that teaching mathematics must be based on understanding how mathematics is learned.

Now let’s flash forward to the 1990’s. (You are probably thinking: Of course he’s skipping to the 1990’s. He spent the 1980’s trying to shut down small companies.)

**DAVIS** was a Milwaukee middle school student, whose teacher Dorothy I met sometime in the mid-1990’s. The Urban Mathematics Collaboratives gave birth to several derivative projects, and Milwaukee was involved in three of them. I was visiting a meeting for one of the projects and Dorothy showed me a piece of student work by Davis. “I have no idea what he did,” she said. It was an eight-part problem involving a step function called, “Sneaking Up the Line.” With almost no words, Davis had answered each part with extensive use of hash marks. I had the time—I think it was snowing, so only a small group of teachers were attending—so Dorothy and I stared and stared, determined to find something. Gradually, his thinking became apparent to us, and we saw that his hash marks represented a consistent, effective procedure.

From that point on, I worked with the belief that, if a student puts a lot of effort into a problem, no matter how confused the work appears to be, that student deserves my best effort to understand the thinking. For our leadership work, Davis convinced me that we needed better tools for analyzing and discussing student work, so that the student thinking is revealed. One direction this took us was to apply our habits-of-mind frameworks for algebraic and geometric thinking.

**ANA** was a former English Language Learner (ELL) in Lawrence, Massachusetts, whom we videotaped as part of our Fostering Geometric Thinking project about five years ago. On the taped problem solving session, she did a geometric dissection of a parallelogram, then turned to the question, “Will your method work for any parallelogram?” Ana drew a smaller, mathematically similar version of the parallelogram she’d dissected, then took scissors in hand and repeated her method successfully. “The answer is ‘yes,’” she said. I watched the videotape of this seven or eight times until it hit me that the word “any” has a privileged meaning in mathematics—meaning “all” or “every”—which it doesn’t always have in everyday English.

If I ask a friend, “Do you have **any** iced tea?” I don’t mean, “Do you have **all** the iced tea?” Ana influenced me to update the belief Billy helped me adopt. Now I realized I have to be careful about the language used to convey my intended meaning. Further, the imperative for our work and leadership was a two-part imperative:

1. To learn more about how language acts as a cognitive tool, in addition to its role as a communication tool, and thus shapes mathematical thinking;
2. To develop tools for teacher education that can help us attend to language more effectively.

**JOSE** was classified as ELL in New York City three years ago when we led a monthly seminar for teachers from his school. In response to a prompt to “describe your method,” Jose surprised us by elegantly describing his method of solving a geometry problem, not with words, but with a series of diagrams—first this move, then this one, etc. Thanks to him, I developed a belief in the effectiveness of diagrams as an intermediate bridge between mathematical thinking and verbal/symbolic representation of that thinking. Jose’s inspiring effort made it apparent to us that schematic diagrams can open doors of opportunity for ELLs to be engaged in challenging mathematical work. And that guides our efforts today.

***And so I close with the message: Let students and their mathematical thinking be a guide and influence for your leadership work.***

Thank you very much.

**The 2010 NCSM Annual caucuses generated some very interesting** discussions on important issues facing mathematics education. Here are a few of the major concerns discussed by the mathematics leaders from the provinces and states.

1. The Common Core Standards were certainly the top subject of concern to members. These core standards are getting closer to the official release to the nation. NCSM and its members are actively engaged in providing feedback.
  - You can find the 3/10/2010 draft of the common core standards at [www.corestandards.org/](http://www.corestandards.org/)
  - The entire mathematics community has offered significant feedback to the document and has offered general support for setting a target for states in mathematics education.
  - You can see NCSM's response to the latest draft at [mathedleadership.org](http://mathedleadership.org).
  - Stay tuned for plans for a common assessment. There are reports of \$350 million set aside for competitive bidding involving two consortia of states.
  - Watch for federal funding in the form of "Race to the Top" and "Teacher Incentive" funds to encourage performance-based compensation.
2. Members attending the caucuses addressed the issue: "How can we support Professional Learning Communities (PLC) and other mathematics education leadership initiatives in times of financial crisis?" States experiencing financial funding challenges are seeing substantial cutbacks in programs supporting collaboration. While research supports the effectiveness of PLCs as a way to improve teaching and learning, funding may put that support in jeopardy. Several NCSM members suggested teachers were still participating in the PLC process, even in light of lack of support. Clearly, financial issues facing education in general was a common theme.
3. Members expressed their support of the *PRIME Leadership Framework* and their need for tools to aide in dissemination. This NCSM document has become a standard for directing and measuring growth of leadership by leaders in many districts, provinces, and states. There was a strong voice of support for continuing dissemination of the *PRIME* document. Members suggested continuing support for implementing *PRIME* as well as developing resources to improve the implementation of the *PRIME Leadership Framework*. Suggestions included more conferences, webinars, and videos to support the project.
4. Membership issues were discussed. How can we ensure members are getting good value for their membership? The heart of this issue is answering the question, "What resources should NCSM concentrate on to ensure that mathematics leaders are improving their effectiveness?" Comments praised the work of NCSM for its annual conference (hailed by most as clearly the best conference for mathematics education leaders), for its initiative in setting forth the *PRIME Leadership Framework*, and compliments for the quality of its professional development for leaders at summer institutes and prior to the NCTM Regional Conferences. The discussion turned to ways in which NCSM could improve. Caucus attendees made several suggestions for change.
  - Initiate an introductory session and gathering for new members to network with people in their regions.
  - Plan receptions, arrange discussions, help schedule meals where people with similar interests or job descriptions can meet and have discussions with people with similar interests or job descriptions.
  - Schedule a meal function where seating is arranged by job description (mathematics coaches, district supervisors, department leaders, and teacher leader tables).
  - If you were unable to attend the caucus this year, your NCTM regional director is looking to hear your ideas. You can find their contact information on the web at [mathedleadership.org/about/board/directors.html](http://mathedleadership.org/about/board/directors.html).

**The NCSM Board depends upon the caucus sessions to enable continuous** improvement of the organization. The above is a compilation of the results from all 10 NCSM regional caucuses.

## Caucus Report on Issues in Mathematics Education



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**"How can we ensure members are getting good value for their membership? The heart of this issue is answering the question, 'What resources should NCSM concentrate on to ensure that mathematics leaders are improving their effectiveness?'"**

## The 2010 Ross Taylor/ Glenn Gilbert Award



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## You Have Submitted a Proposal to Speak; What's Next?



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**Members of the National Council of Supervisors of Mathematics (NCSM) are** leaders in the field of mathematics education. One of those members who gave especially of his time and energy was Glenn Gilbert. A mathematics teacher and supervisor from Boulder, Colorado, Glenn was a leader among supervisors and a long time member of NCSM. Glenn served as NCSM Treasurer and Board Member from 1976 until his untimely death in 1981.

In 1982, the Glenn Gilbert Award was first established to honor its namesake and to provide a vehicle to annually recognize a person who exhibited the same kind of unique and dedicated contributions to mathematics education. In 1995, the name of the award was changed to the "Glenn Gilbert National Leadership Award" to further recognize Glenn's legacy and capture the respect and stature that the award symbolizes within the mathematics education community.

Another dedicated member, Bennett "Ross" Taylor was a part of the heart and soul of NCSM for the past four decades, a "Leader of Leaders" in mathematics education, and a driving force behind the birth of NCSM. Ross led the first planning and organizational meeting of NCSM in Minneapolis in 1969 and served as the second President of the organization from 1971-1973. When mathematics education was faced with a national "basic skills" movement, he led the 1976 development of the enormously influential NCSM Position Paper, *New Basic Skills*, which redefined basic skills to include problem solving and the use of calculators.

Ross's legacy lies in the hearts, minds, and actions of all who benefited from his leadership, his work, his actions, his passion, his purpose, his voice, and his courage. In 2009 the NCSM Board, with the support of the NCSM Past Presidents, honored Bennett "Ross" Taylor's immense contributions to NCSM by renaming its most prestigious award, the Ross Taylor/Glenn Gilbert National Leadership Award.

The renaming of the award to the "Ross Taylor/Glenn Gilbert National Leadership Award" further exemplifies the prestige of this national recognition and further distinguishes the unique dedication and contribution of its recipients. It is most fitting that this award should now bear the name of two mathematics educational giants, Ross Taylor and Glenn Gilbert. The very first recipient of the Ross Taylor/Glenn Gilbert National Leadership Award is Mark Driscoll [see story on page 1].

**Making the difficult decision of who receives the honor is the NCSM Awards Committee:**

Dan Dolan, *Connecticut*  
Linda Fulmore, *Arizona*  
Mary Alice Hatchett, *Texas*  
Laurie Braga Jordan, *Illinois*  
Eric Milou, *New Jersey*

Bryan Scott Ruehl, *Maryland*  
Patricia Taepke, *California*  
Vicky Hand, *Louisiana*  
Mona Toncheff, *Arizona*

We extend thanks to the members of the committee for their time and dedication.

***I am always struck by the lack of student attention to reading directions.***

Often they look for numbers in a word problem and then perform some operation with them, just to get an answer, even if it makes little sense. Similarly, as a former state coordinator for the Presidential Awards for Excellence in Mathematics Teaching program, it was commonplace for applicants to submit whatever they wanted, failing to read the directions that clearly specified what elements were to be submitted, details on length, page set-up, editing of videos, and letters of recommendation. Many times an application was ranked low, or even disqualified, for having missing elements.

***Last year, I was on the conference committee that evaluated speaker proposals*** for this year's NCSM Annual Conference in San Diego. We used a rubric matched to the criteria listed on the Guidelines and Instructions pages of the Speaker Application.

Every proposal was given a numerical rating for each of the criteria and then a total point value was calculated. Since the number of proposals submitted was far greater than the number of slots available, only those proposals that received a high combined score were put in the program. This meant that many proposals with missing or weak elements incurred lower scores and were not considered for presentation.

Communication is my goal this year at NCSM, hoping that with a clear open process, and communication of this process to members, positive outcomes will happen.

***We expect to have a strong program in 2011 in Indianapolis, and I look forward to reading your proposal. We will consider each one carefully and communicate with you as quickly as possible. Thank you for being willing to contribute to the 43rd Annual NCSM Conference.***

***My intention is to spotlight a leader who has remained close to the classroom***

while developing as a mathematics education leader. Tor Ormseth has worked for the El Rancho Unified School District in Pico Rivera, California, since 1990. Prior to that time, he spent two years in the People's Republic of China teaching English and three years at the RAND Corporation as a researcher. He has taught mathematics at both the middle and high school levels and been a department chair. Tor is now an instructional coach for his district's Mathematic/Science Partnership (MSP) grant, a position where he can directly impact classrooms. He is also a participant in the Los Angeles County Office of Education's Mathematics Leadership Network.

**SARA MUNSHIN:** *Tell us about the journey from classroom teacher to educational leader.*

**TOR ORMSETH:** After getting "settled" as a teacher (maybe after four to seven years' experience) you start seeing issues that need to be solved, first at the school level, and then district-wide. For example, at the school level, coordinating curriculum across grade levels, determining course offerings, and setting up intervention programs, all require coordination of a group of teachers and the development of a school-wide philosophy that will guide such choices. By philosophy, I mean a shared perspective about the goals of mathematics education and some common agreement about what makes for effective mathematics instruction.

Connections with outside learning opportunities were critical; I attended summer institutes and workshops sponsored by various organizations. It's really important to get in touch with others who share the same concerns and passion for mathematics education that you do. Relationships developed at a local university paid off for me personally and for our school, as they are now the IHE partners for our MSP grant and an excellent source of prospective teachers. I think membership in professional organizations is really important: California Math Council (CMC), National Council of Teachers of Mathematics (NCTM), and most recently (for me), NCSM. There are a lot of good ideas out there, and our job as educators is to find out about them, collaboratively sort through them, and figure out what to apply to the situation in our own districts.

**SARA MUNSHIN:** *How can someone at the district level support site level improvement in student mathematics achievement?*

**TOR ORMSETH:** At the district level, I think it's critical for district leaders to have a sense of what happens in the classroom on a day-to-day basis. That's why I've clung to my role as an instructional coach, so that I am actually working with children on a regular basis. Then you have to integrate that with the administrative and policy environment at each successive level—site, district, and even state. Communication has to go both ways: district leaders need to understand what happens in the classroom; and at the same time, classroom teachers need to be aware of larger issues that impact what they can or should be doing in the classroom.

**SARA MUNSHIN:** *What challenges do you face in your work?*

**TOR ORMSETH:** **Challenge #1:** Providing quality, meaningful professional development on a consistent basis. Teachers are good at sniffing out PD that's a waste of time. The challenge is to create a structure that provides effective, research-based PD that also connects directly to the challenges teachers face each day. Classroom coaching seems to be a very promising strategy for doing this.

**Challenge #2:** Maintaining the commitment to quality professional development and instruction in the face of the most severe budget pressures that anyone can remember experiencing. While we have to be realistic about what can be accomplished with limited resources, we also have to keep focused on the fact that ultimately, we're still responsible for helping our students succeed in mathematics. Tools that have shown their effectiveness in doing so must be taken seriously as district leaders sit down to make their difficult decisions about budgets.

**SARA MUNSHIN:** *What words of wisdom do you have for those who read the article, especially those who are new teacher leaders?*

**TOR ORMSETH:** Have a perspective on mathematics teaching that can be communicated simply and clearly to all stakeholders. Ours is "standards-based, balanced instruction" by which we mean a mathematics program which reflects the rigor of the California mathematics standards and which also incorporates conceptual learning and problem-solving to accompany the procedural fluency which typically dominates mathematics lessons.

***NCSM Member  
Spotlight  
on Tor Ormseth***



***Instructional Coach  
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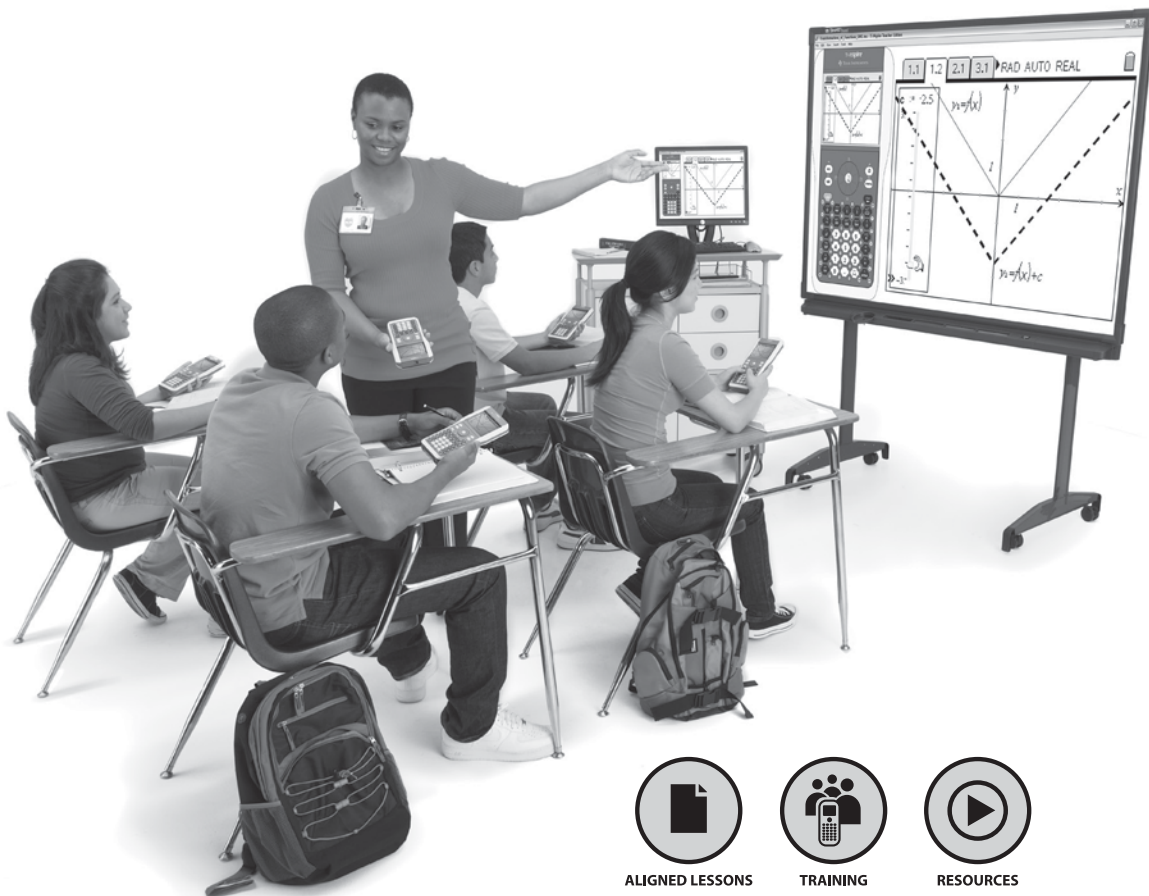
***"While we have to  
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responsible for helping  
our students succeed  
in mathematics."***

***... continued on page 9***



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Work together: While the last decade has increased pressure on educators tremendously in terms of accountability, working with standards and state tests, etc., so too have the opportunities to collaborate, share ideas, and open up our classrooms to each other. It's vitally important for teacher leaders to tap into the energy and creativity that are released when teachers have the opportunity to work together in well-structured ways.

Always bring professional development back to mathematics content and how students think: In our work with teachers at all grade levels (our project extends from 3rd grade through high school Algebra I), we begin by solving mathematics problems and then move into a discussion of student solutions and possible misconceptions. This is important for a variety of reasons: First of all, teachers for whom mathematics is not a strong subject benefit from the time spent developing the mathematics. Those with stronger mathematics backgrounds (like high school teachers) usually need to "unpack" the mathematics from the standpoint of a student learning it for the first time. And finally, the discussion throughout professional development needs to focus on student thinking—we know we're teaching it, but are students really learning it?!

**SARA MUNSHIN: Thank you, Tor.**

*I thoroughly enjoyed the NCSM Annual Conference. I sincerely appreciate receiving the Iris Carl Grant so I was able to attend and glean so much valuable information on mathematics leadership.*

*There were so many strands and sections to choose from that I decided to focus on Curriculum Leadership, Teaching and Learning Leadership, Assessment Leadership and Developing Teachers. I attended Mike Schmoker's keynote address and learned that mathematics teachers must analyze what we teach and how we teach it. We must also learn how to assess student learning using formative and summative assessments. The most effective way to provide teachers with the professional development to do these three things is by creating a professional learning community where we plan lessons, teach the lessons, assess the impact of the lessons, and adjust the instruction.*

David Webb provided excellent information on the "Assessment Pyramid" and how to use it as a tool to get students to higher levels of thinking. Tim Kanold gave a fabulous presentation on leadership utilizing the *PRIME* axioms. He said having a vision and strategy are key to effective implementation for leaders. Teamwork and communication require working with the three C's: character, competence, and chemistry. Assessment and evaluation require a leader who will keep the vision on course and confront anyone who is drifting from that vision. His closing question was, "What life are you waiting for?" I also attended sections on professional learning communities, reasoning and sense making, student growth data, and technology.

*As I reflect on the conference I realize how important a vision is for effective implementation of any mathematics initiative. The leader must assist in making the vision a living entity. All decisions should be made according to the vision. Goals and strategies developed, then monitored and measured. Get the right people on board!*

*Thank you, Iris Carl, for this amazing opportunity!*

## **NCSM Member Spotlight on Tor Ormseth**

*Continued from page 7*

## **Reflections on the 42nd NCSM Annual Conference San Diego, CA**



**By Lisa Scott**

**Recipient of the  
2010 Iris Carl Grant**

**Teacher on Special Assignment,  
Billings Public Schools, Montana**



### **Please make a contribution to the Iris Carl NCSM Mathematics Leadership Fund**

*Iris would be proud to know you are continuing her effort to involve leaders in mathematics education equity. Make a check to NCSM or, to use your credit card, please include the following information:*

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## Ralph's Problems



By **Ralph Connelly**  
 Former NCSM Regional Director  
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*"A sincere and heartfelt thank you to those of you who sent thoughts/ideas to me for this column, which, as you'll soon see, I am delighted to use. And to those who've been thinking about doing so, but haven't as yet, it's never too late—there's always another deadline lurking just around the corner."*

**HOORAY!! Well, I've learned something that professional panhandlers in** major metropolitan areas have always known—begging works!! (if persistent enough! ☺)

A sincere and heartfelt thank you to those of you who sent thoughts/ideas to me for this column, which, as you'll soon see, I am delighted to use. And to those who've been thinking about doing so, but haven't as yet, it's never too late—there's always another deadline lurking just around the corner.

**In the last newsletter, I featured the "squares on a chessboard" problem, and** mentioned one extension could be to consider how many rectangles of different sizes could be found. Melfried Olson wrote with an excellent suggestion for "turning that extension around," namely:

"How many squares would be found on a board that is not a square? Consider a board such as a 7 x 9 board, a 3 x 12 board, or an  $m \times n$  board. Nice things happen here as well."

In an amazing coincidence, a full 66 2/3% of those who submitted ideas to me (I won't reveal here the total number of submissions! ☺) actually gave me problem ideas whose solutions were extremely similar, giving me the idea/theme for this issue's column.

So, thank you to my fellow Kent State University grad Bill Speer for this one:

**"THE DINNER PARTY"** may help to break down dogmatic thought and increase the importance of attending to premises or axioms. Here goes:

1. Two friends, Neighbor A and Neighbor R, decide to have a dinner party for two at Neighbor A's place.
2. Neighbor A prepares five dishes for the dinner. Neighbor R prepares three dishes.
3. Both agree that the individual dishes are equal in value and effort, so, clearly, both agreed that Neighbor A contributed more dishes, and hence, a bigger share, to the party.
4. Neighbor Q comes by and wants to join in, but doesn't have any dishes to contribute to the feast—Neighbor Q does, however, have money to contribute.
5. They debate for awhile and all three decide that \$4 is a fair share to pay to join into the party.

*Question:* How should Neighbor A and Neighbor R split the \$4 that Neighbor Q contributed in a fair way? Of course, they COULD just do \$2 and \$2 but would that be fair to Neighbor A who contributed more food than did Neighbor R?

[**NOTE:** Usually, after a bit of thought and a little sharing it is advisable to announce that the answer is NOT \$2.50 for Neighbor A and \$1.50 for Neighbor R.]

And again to Melfried Olson for this one:

**"RICEBALLS AND GOLD COINS"**—Kimo and Moki stopped by the side of the road to eat. Kimo had seven riceballs and Moki had five. A traveler came by and asked them to share their food with him. They agreed, and the three shared the riceballs equally. After they had finished, the traveler got up, thanked Kimo and Moki, and left 12 gold coins in payment for his meal. Kimo, who originally had seven riceballs, thought he should get seven of the coins and Moki should get five—the same numbers as their original riceballs. Moki, however, thought the coins should be split six and six, because the rice had been shared equally.

They could not agree, so they asked a local wise person what to do. With what solution do you think the wise person responded?

With Kay Gilliland's blessing (thank you, Kay!), I'm going to change the format slightly in this issue, and leave you, the reader, to "ponder" the above problems for a while. For those of you not in a "pondering" mood—don't fear—the answers are elsewhere in the newsletter—Kay will tell you where! ☺ [Note from the Editor: No I won't. You have to find them, thus encouraging you to look at the rest of the newsletter. ☺ KG]

**I'm sure readers can immediately see the similarities in the two problems** (and in their solutions). Bill adds the following suggestion for a powerful extension:

"When they arrive at the correct solution for the parameters given, extrapolate this to a merger in a large corporation where partners bring different assets to the bargaining table."

Again, THANK YOU for these terrific problem ideas! And to those of you who are thinking, "Heck, I've got problems that are as good as those." You are ABSOLUTELY RIGHT!! So why not submit them, and see them in a future newsletter! ☺

**The 42nd NCSM Annual Conference was a huge success. The 1,370 attendees** enjoyed outstanding sessions, from talks on the *Common Core Standards*, the *PRIME Leadership Framework* and coaching, to the perennial favorites on curriculum, instruction, and assessment.

The Sponsor and Technology Showcases offered opportunities for participants to learn, have hands-on experiences, and take away new resources, technology, and other support materials. The Tuesday afternoon Regional Caucuses allowed for important networking and discussions to support the work of NCSM. Special Interest Group sessions on Wednesday provided a venue for those with like job responsibilities or like interests to build community and collaborate on next steps.

New this year was the NCSM Business Meeting which provided information about NCSM projects and initiatives, newly released position papers, website enhancements, and the current financial status of the organization.

**If you were not able to attend, we missed you and hope to see you in** Indianapolis in 2011. Thanks again to all who attended and especially our many sponsors, volunteers, and speakers.

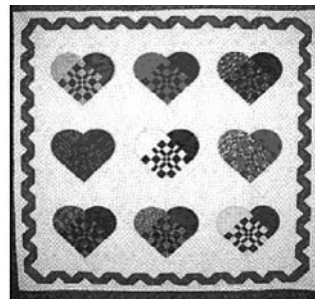
**Studies involving quilts provide students with concrete links between** contemporary life and history because they serve as artifacts acting as tools that help to retell family stories and past events. Quilts are often passed down from one generation to another. The original material comes from scraps of clothing and leftover articles often found in the home. There is a sense of personal heritage and history evident in the quilt that comes through when shared by the owner. In this context, quilt geometry definitely reflects the history and mathematics of the people who created them, people who may not be traditionally thought of as worthy of study.

Quilting is an art form enjoyed primarily by women in many countries. From an ethnomathematical perspective, women in both the U.S. and Brazil created quilts in order to have a voice; to express political, social, and religious beliefs. Though it is primarily an art form now, the African-American connection to quilting in both countries was entwined with the struggle for freedom and liberation.

**Two hundred years ago, most quilters lacked the opportunity to adequately** express themselves through writing. They initially used skills they had to express themselves through elaborate quilts and related work. It was in this way that quilting became an outlet for the expression of women's thoughts, dreams, feelings, life experiences, and became a commentary on social, political, and community events.

Even today, people have created quilts to express their opinions on various causes as well as to remember people or events. The AIDS Memorial Quilt was initiated in 1987 by Randy Shilts to remember friends and loved ones who had died of AIDS. The AIDS quilt is now so large that it can no longer be shown together in one piece, so parts of the quilt are displayed in schools, libraries, and public places around the world in honor of World AIDS Day. This is a very important aspect of an ethnomathematics program because it is the validation of the mathematical practices of a particular cultural group that is often deemphasized or left out of history of people (D'Ambrosio, 1990; Rosa & Orey, 2006).

**Focus on the origin of the fabric, that is, where it comes from, is another** important ethnomathematical perspective. For example, during the colonial period in the U.S., fabric stores were not well established and most definitely were not accessible to people from all socio-economic levels. Fabrics were very expensive because fibers from plants and animals used in quilting had to be gathered, cleaned, spun, and woven by hand. A look at these processes allows for a deeper



**World AIDS Day, December 1, 2009—Red ribbons and Swedish hearts by TanteLeah**

## NCSM "Shines" in San Diego



**By Linda M. Fulmore**  
42nd NCSM Annual Conference  
Program Chair  
Mathematics Education  
Consultant  
lfulmore@yahoo.com

## Quilts and Ethnomathematics



**By Milton Rosa, Ed.D. (left) and Daniel C. Orey, Ph.D. (right)**

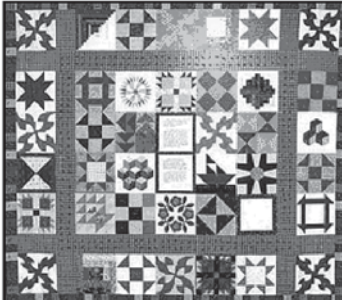
**Milton Rosa, Ed.D.**  
milrosa@hotmail.com  
**Daniel C. Orey, Ph.D.**  
orey@csus.edu

**"Two hundred years ago, most quilters lacked the opportunity to adequately express themselves through writing. They initially used skills they had to express themselves through elaborate quilts and related work."**

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## Quilts and Ethnomathematics

Continued from previous page



A quilt holding coded information that helped slaves escape to freedom in the Northern states

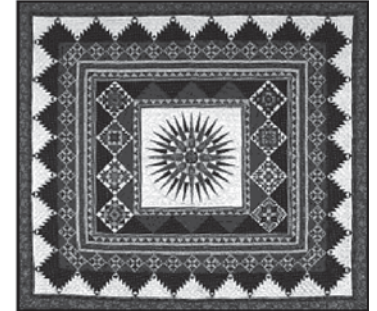
“Besides their use as warm blankets, quilts reminded immigrants of their family and friends who remained behind.”

understanding and comprehension about the roles people had in colonial times and it allows for an appreciation for the ease with which people obtain manufactured fabric products today. Besides their use as warm blankets, quilts reminded immigrants of their family and friends who remained behind.

Another ethnomathematical perspective to be considered is related to the codes in quilts that are part of a longstanding tradition going back to Africa and the encoding of textiles there. The African precedent is that in textiles, designs have meaning, and according to Eglash (2002), geometrical African textile designs may have traveled to the Americas with the slaves.

During the time of slavery in the U.S. and Brazil, most everything that was “African” was forbidden. Enslaved Africans were prohibited from drumming, speaking in their native languages, or learning to read and write in English (Wilson, 2002, p. 5). They were also prohibited from placing any “African” design on a quilt. According to Rosa and Orey (2009), “what was shrewdly, indeed very creatively done by those who wanted to communicate, was to take American quilt patterns and give these patterns meaning” (p. 57).

**Quilts could be used to transcend the problems of one’s immediate environment** because they warm the body and the spirit by using colors “that had special meanings, represented the heavens, their ancestors, the spirits, the land, the people and/or secret societies from different tribes” (Wilson, 2002, p. 6). This was one way of bringing a new form of life into slave cabins or into the lives of those who were enslaved. Quilt patterns, and especially those that are called improvisational, are composed of fragments, remnants of cloth; so fractured cloth comes together and creates something new. This is really a metaphor that addresses what happened during the time of slavery because in spite of the difficulty, in spite of families being torn apart, there was always a coming together with the hope of liberation, and emancipation.



Two African quilts



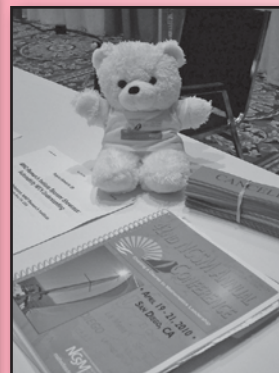
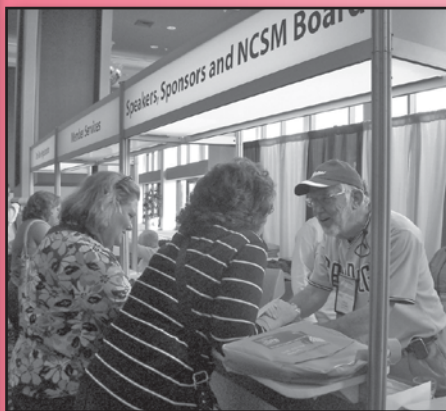
D’Ambrosio, U. (1990). *Etnomatemática [Ethnomathematics]*. São Paulo: Editora Ática.

Eglash, R. (2002). *African fractals: Modern computing and indigenous design*. New Brunswick, NJ: Rutgers University Press.

Rosa, M. & Orey, D. C. (2006). *Abordagens atuais do programa etnomatemática: Delineando-se um caminho para a ação pedagógica [Current approaches in the ethnomathematics as a program: Delineating a path toward pedagogical action]*. *BOLEMA*, 19(26), 19–48.

Rosa, M. & Orey, D. (2009). *Symmetrical freedom quilts: the ethnomathematics of ways of communication, liberation, and art*. *Revista Latinoamericana de Etnomatemática*, 2(2). 52–75.

Wilson, S. S. (2002). *The secret quilt code*. *Traditional Quiltworks*, 79, 6–9.



**The National Governor's Association and the Council of Chief State Officers** have completed a final draft of the Common Core Standards for English Language Arts (ELA) and Mathematics for K–12 education. The idea is to have a set of “common core” ideas that all states will agree to work with as they assess student progress. Forty-eight states have agreed to review these standards. This initiative has received a strong push forward by the U.S. Department of Education. In fact, the Department of Education is holding \$4.3 billion in Race to the Top stimulus grants to states for improving school education; however, in order to qualify for this money states will have to agree to adopt the aforementioned Common Core Standards in both ELA and Mathematics.

Whether or not they received Race To The Top (RTT) money in the first round, most states still appear to be on track to implement the Common Core Mathematic Standards as part of their continuing effort to win RTT money. Within each state, each of the three school levels—elementary, middle, and high—will have implementation issues with which to contend. However, while at least 85% of the content in each grade from Kindergarten to 8th grade is established by the Common Core Standards, the sequence of content is much less determined in grades 9 to 12 and therefore may be individually determined by the states.

**This situation provides the opportunity to structure a high school mathematics curriculum** that is more coherent and connected than is present in the preponderance of U.S. schools. The Common Core Initiative has provided examples of different sequences through the Common Core high school content and suggests there might be other such paths. However, while the offered examples of non-traditional paths provide a mixture of mathematical topics at each grade level, the suggested paths do not enlighten states or districts as to how (or if) these topics can form a cohesive whole. This is especially important as one of the stated goals of the new standards is to be internationally benchmarked and we remain the only major industrial country with a layer cake approach to high school mathematics.

In the U.S. we do have the expertise and talent to attack this issue. If we do not utilize it quickly, the result may be a return by states to a curricular path that has not worked well in the past. Therefore, we have decided to gather a small group of experts who have worked on the issue to provide at least one model of a rigorous forward-looking, non-traditional (research-based) high school mathematics program incorporating the content guidance of the Common Core Standards.

**We feel it is critical that people with strong content knowledge and extensive materials development experience** be involved in the creation of secondary school pathways. We also recognize the centrality of NCTM in these researches and discussions. As a consequence, our meeting to be held in mid-June with NSF support, will bring together people with demonstrated expertise in secondary school curriculum design—including mathematicians, teachers, and mathematics educators—with the intent to provide guidance to states and districts on how to present their high school students with a range of possible experiences compatible with the Common Core Standards and best practices as shown by evidence-based research. NCSM, NCTM, and Math is More will widely disseminate the results of these discussions so as to promote thoughtful reform—stay tuned.

## Math is More Update: Toward A New Non-Traditional High School Curriculum

By Solomon Garfunkel and Eric Robinson



Solomon Garfunkel  
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## Eblasts, Nominations, Postcards, and Voting ... Oh My!



By **Kim Hall**  
NCSM Nominations Chair  
Director of Professional  
Development for  
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District, California  
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**Thanks to all for participating in the election process—you nominated** leaders to run, the nominating committee vetted the candidates, the candidates agreed to run for office, and you took time to consider the final slate of candidates carefully and cast your vote. The nominations and election process keeps NCSM strong, ever-growing, and relevant—rotating leaders in such a way that the organization moves forward, on course, with just the right amount of turning the reigns over to successors who build on the work of the predecessors.

**Our 2010–2011 election process is complete. New officers were inducted in April 2010:**

- **SUZANNE MITCHELL**, 2010–2011 President Elect, begins four years of NCSM service
- **DENISE WALSTON**, 2010–2011 Second Vice President, begins two years of NCSM service
- **VALERIE MILLS**, 2010–2013 Central 1 Regional Director begins three years of NCSM service
- **MARI MURI**, 2010–2013 Eastern 1 Regional Director begins three years of NCSM service
- **TED HULL**, 2010–2013 Southern 2 Regional Director begins three years of NCSM service

Successors are stepping in without missing a beat. Their commitment and resolve strong to carry out the mission and vision of NCSM—providing professional learning opportunities necessary to support and sustain improved student achievement.

We introduced the officers you elected in the winter 2009–2010 issue of this newsletter.

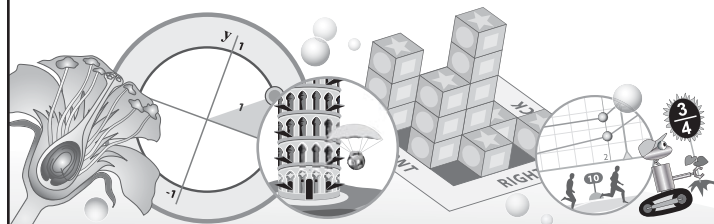
The beauty of NCSM is its relational and collaborative nature. Get to know the new officers and the rest of their Board colleagues. Contact them. Their web pages

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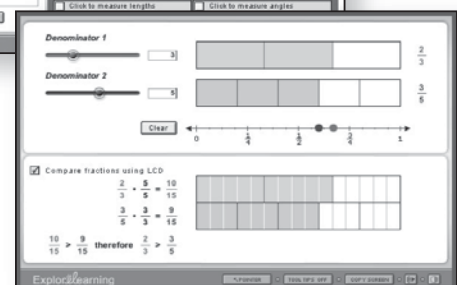
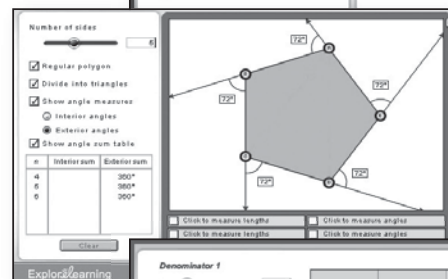
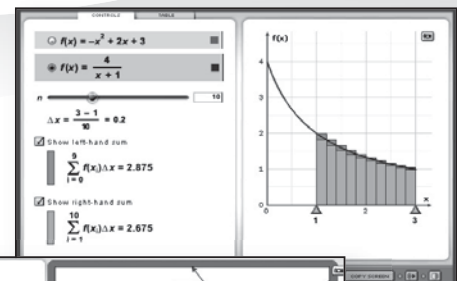
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include messages, contact information, calendar updates, and useful links. Share ideas, news, and opportunities with them. Collaborate with them. Each Board member, new and returning, will be engaged with projects and initiatives in addition to the specific duties associated with their respective positions. They are catalysts and collaborators. Each will need your help and ideas and each will be keen in finding out about your work, challenges, and successes. Each will be looking to work with you.

**You have nominated people who are ready for the 2011 open Board positions:**

- **SECOND VICE PRESIDENT**
- **REGIONAL DIRECTOR, CENTRAL 2** (IA, KS, MN, MO, NB, ND, SD, WI)
- **REGIONAL DIRECTOR, EASTERN 2** (DC, DE, MD, NJ, PA, WV)
- **REGIONAL DIRECTOR, WESTERN 2** (AFO/FPO, AS, CA, FM, GU, HI, MH, MP, OR, PW, WA)

You identified leaders you have worked with, encountered, or watched that you are confident are ready to contribute to NCSM. Some are beginning their careers. Others are well established. Each is doing outstanding work with passion, spirit, and energy. Some may not even know they are ready, but you do. These are the people who have “the right stuff”—the desire, the time, the commitment, the expertise, the ability to collaborate, and the capacity to move others to action.

The nominations committee will review your nominations and create the 2011 slate of candidates. The NCSM Website will be updated late this summer with the candidates’ background, statements, and perspectives. You will also meet them in the fall Newsletter.

**The next two steps in the election process are as easy as they are important.**

- **BE READY TO VOTE.** Be sure you are eligible to vote—you need be a member in good standing as of August 15, 2010 to vote in the 2011 election.
- **CAST YOUR VOTE.** Voting begins September 15 each year and ends October 15. Cast your vote online. Polls close October 15, as they do each year. Results will be available winter 2010–2011.

### **Solution to Ralph’s Problem**

*(look elsewhere in this issue to find the solution to “Riceballs and Gold Coins”)*

**THE DINNER PARTY:** All agree that \$4 is a fair share to join the party. That means the party has an agreed value of \$12 (three people at \$4 a share). So, the eight dishes must be worth \$1.50 each. That means Neighbor A contributed, in value, five dishes at \$1.50 each, or \$7.50 and Neighbor R contributed three dishes at \$1.50 each, or \$4.50 in value. To make sure they are all “paid” a fair share, Neighbor A would get \$3.50 and Neighbor R would get \$.50 from the \$4 contributed.

### **Eblasts ...**

*Continued from previous page*

**“You identified leaders you have worked with, encountered or watched that you are confident are ready to contribute to NCSM. Some are beginning their careers. Others are well established. Each is doing outstanding work with passion, spirit, and energy. Some may not even know they are ready, but you do.”**



**Photos from the 42nd NCSM Annual Conference • San Diego, California**

# NCSM Spon

**NCSM gratefully acknowledges the generous support and 42nd NCSM Annual Conference and other NCSM Without their support NCSM would not be able to offer summer leadership academies, and fall regional seminars are encouraged to personally express**

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**Re-teaching vs. Re-engagement**

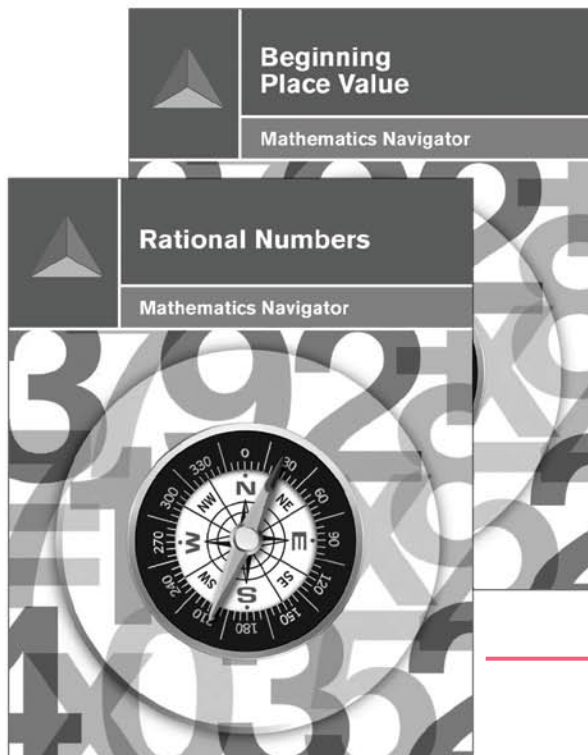
- Teach the unit again
- Address basic skills that are that are missing.
- Do the same or similar problems over.
- Practice more to make sure student learn the procedures.
- Focus mostly on underachievers.
- Cognitive level are usually lower.

- Revisit student thinking.
- Address conceptual understanding.
- Examine task from different perspective.
- Critique student approaches/solutions to make connections.
- The entire class is engaged in the math.
- Cognitive level are usually higher.

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**If you had the good fortune of being able to join your colleagues in San Diego** at the NCSM 2010 Annual Conference, what was the primary reason you attended? The number one response received on the NCSM 2009 Annual Conference (Washington, D.C.) evaluation was, *“To attend presentations for my own professional growth.”* This was followed by the second most received response of, *“To network with other leaders attending and/or speaking at the conference.”*

Attending presentations and networking at a conference can provide a sense of renewed passion and affirmation for our calling as educators and leaders. In the course of a few days, our heads are filled with a myriad of ideas and inspirations. Some of these we can put into practice “on Monday,” while, all too often, many ideas and plans need to sit for a while, as we resume the tasks and daily demands of our jobs.

Thank goodness for technology! Because we live in the 21st Century, we have the ability to extend our conference experience and continue our conversations long after we have returned home. And, for those not able to attend the conference in person, technology allows us to “virtually” attend presentations, and to network with other leaders online.

**NCSM’s tools for online learning and networking include podcasts, e-mail lists,** and several social networking environments. Mathematics education leaders can listen to major sessions from the Atlanta, Utah, Washington, D.C., and (soon) San Diego conferences on the NCSM Website as well as the NCSM podcast channel in iTunes® ([mathedleadership.org/resources/podcasts.html](http://mathedleadership.org/resources/podcasts.html)). These recordings can also be downloaded to personal mp3 players for later listening. The next time you take a walk in the park, why not bring presenters like Lucy West or Iris Weiss along with you?

NCSM established the “NCSM Annual Conference Connection” in 2009 as an extension of the NCSM Website (visit [grou.ps/mathedleaders](http://grou.ps/mathedleaders)). Presenters, attendees, and mathematics educators are invited to use this interactive website as a social tool for professional conversation about conference topics, in the context of mathematics education. We hope you will choose to participate and help us expand this social network into an active exchange of best practices and ideas that will serve to further our work as mathematics education leaders.

For those of you just “dipping your toes” into social networks, NCSM has also established a presence on Twitter®. Twitter is a great place to get started since participant experience on Twitter is simple. It doesn’t require you to be a “net” expert. You don’t even have to join or sign up. To keep up to date on mathematics education leadership events and information, follow the “tweets” from NCSM by visiting [twitter.com/mathedleaders/](http://twitter.com/mathedleaders/).

NCSM is also “on” Facebook® ([facebook.com/mathedleadership/](http://facebook.com/mathedleadership/)). As with Twitter, you can view the information posted to our Facebook page without signing up or joining. If you decide to join Facebook, be sure to become our “fan” so that you will be able to interact with your NCSM friends and colleagues.

Lastly, NCSM has also established a group at LinkedIn®. While not as active as our other online networks, it provides yet another forum for professional information exchange. For links and details, please visit the NCSM Social Network information page at: [mathedleadership.org/networks/](http://mathedleadership.org/networks/).

**These online social networking tools will allow you to continue conversations** started in San Diego. And, at the same time, you may discover that these interactions will provide “just in time” learning opportunities that push you beyond traditional professional development. Hope to see you online!

## Technology Helps the Learning Continue After the Conference Has Ended



**By Charlene Chausis**  
NCSM Technology Consultant  
Adlai E. Stevenson High School  
Lincolnshire, Illinois



**Photos from the 42nd NCSM Annual Conference • San Diego, California**

## Coaching Matters: Balancing Support and Challenge



By Grace Kelemanik  
Leader,  
Coaching: A Matter of Influence  
Summer Institute  
Center for Leadership  
and Learning Communities  
Education Development Center  
(EDC)

*“The goal of coaching is to bring about change in teachers’ practice so teachers are more effective with more students. Change requires not only gaining new knowledge and learning new skills, it requires shifting beliefs and well-established practices. It requires transformational learning.”*

**Consider your coaching practice. Where would you place yourself along the support and the challenge dimensions when it comes to teacher development or transformation? Are there times when you tend toward one or the other? Are there teachers with whom you find yourself being more supportive or whom you challenge more? What is your natural tendency—to support or to challenge?**

**The goal of coaching is to bring about change in teachers’ practice so teachers are more effective with more students.** Change requires not only gaining new knowledge and learning new skills, it requires shifting beliefs and well-established practices. It requires transformational learning. Some researchers argue that optimal learning environments are those offering a healthy mix of support and challenge (Kegan). If that’s true, then as coaches we need to be adept at both of these facets of coaching. It has been my experience that when working with teachers we naturally tend toward one or the other. In this column, I’d like to provide a structure for reflecting on this duality of coaching.

Before going any further, let me share working definitions for support and challenge. In *NCSALL’s Research Findings: Transformational Learning in Adulthood*, Kegan and his colleagues define support as “joining, affirming or acknowledging where a person is, how s/he thinks or feels” and challenge as “gently challenging how a person feels and thinks with the hope of raising questions, pushing the limits of one’s current ways of thinking and exposing the learner to new perspectives.” Stop for a minute and reflect on those two definitions. Does one or the other resonate more fully with you? When you think of your coaching interactions with teachers, do you find yourself providing more support, more challenge, or equal measures of each?

**Inspired by Kegan’s work, my colleagues and I developed a frame and activity to help coaches reflect on how they approach their work.** We often use this activity at the start of our coaching institute to provide participants with the opportunity to review their coaching actions and reflect on what that says about their approach to coaching and the beliefs that underlie their work.

Consider the two-by-two matrix with a support scale along one dimension and a challenge scale along the other. The support scale indicates the degree to which a coaching action is aimed at listening to and understanding the teacher’s perspective. The challenge dimension quantifies the level to which a teacher considers alternative perspectives, questions their own, and ultimately shifts behaviors or beliefs.

We use the matrix with coaches to think about the extent to which their coaching actions are grounded in an understanding of the teachers’ perspective: their feelings, concerns, and questions, and the extent to which their actions prompt teachers to consider views that cause them to question and ultimately shift their own perspective. In our coaching institute we use the following activity built around the support/challenge matrix to kick off an exploration of mindsets and work with communication skills. I invite you to engage in the activity and consider how you might use or adapt it for your own work with coaches.

A Coaching Matrix

CHALLENGE	High		
	Low		
		Low	High
		SUPPORT	

### THE ACTIVITY FOR REFLECTION

- List.** Reflect on your coaching work this past year. How do you spend your time? Make a list of all the things you do in your role as coach (e.g. model lessons, observe classes and provide feedback, order curriculum materials, etc.). It might be helpful to look over your work calendar to see how your time is spent.
- Sort.** Place the entries on your list in the two-by-two coaching matrix. In doing so think about the impact those actions have on the teachers with whom you work. Do the teachers feel listened to and understood? Do they reconsider and/or change habituated practices?
- Analyze.** Consider your completed matrix. Where is your coaching work situated? Is there an empty cell? Do one or two cells hold the lion’s share of your work? Does your work tend toward one dimension more so than the other?
- Reflect.** What do your actions say about your comfort level and/or your capacity to provide support and to challenge the teachers whom you coach? What might this say about your mindsets regarding the role of a coach or adult development? Are there coaching capacities you would like to develop?

... continued on next page

I encourage you to try this activity yourself. Try it with the coaches with whom you work. If you adapt the idea, I'd love to hear about the adaptations and how the activity was received.

**As math educators we face the daunting challenge of ensuring that all** students learn meaningful mathematics. For most of us, this will inevitably require calling into question some deeply held beliefs, considering alternative perspectives and making changes in our current practice. In short it will require transformational learning. Support and challenge are two key ingredients to bring about transformational learning.

Kegan, R. (1994). *In over our heads: The mental demands of modern life*. Cambridge, MA: Harvard University Press.

Kegan, R. & Lahey, L. (2001.) *How the way we talk can change the way we work: Seven languages for transformation*. San Francisco, CA: Jossey-Bass.

Portnow, K., Popp, N., Broderick, M., Drago-Severson, E. & Kegan, R. (1988). *NCSALL's research findings: Transformational learning in adulthood*. Focus on Basics Connecting Research & Practice, 2(D).

Recently I received a letter from Fern Tribbey, a mathematics coach, regarding her use of the NCSM position papers that I would like to share with you. — **KIT NORRIS**

***I am relatively new to coaching, but I have been a department chair in Illinois*** for many years. I have recently retired, and I began consulting in neighboring districts. The position papers have served me extremely well as I work to support teachers in the teaching and learning of mathematics.

***Last year, I began using the paper, Improving Student Achievement in Mathematics for Students with Special Needs*** with teachers to stimulate their thinking, increase collaboration, and as a lead into co-teaching for the following year. The middle school is located in DuPage County in a very changing neighborhood. It is now a low-income, high minority school with a lot of students labeled as needing special education as they enter the middle school. When I began to work with the teachers, both general and special educators, the expectations for the students on Individualized Educational Programs (IEPs) were extremely low. Most teachers expected these students to learn the mathematics facts and little else.

I began my work with the teachers by asking them to read the position paper on special needs. After highlighting the fact that equity is not just about race, I facilitated a group discussion regarding high expectations for all and how these teachers can make this happen. The next step focused on the creation of the curriculum map for grades 6–8. Both the general education mathematics teachers and the special education teachers collaborated to complete this map. Teachers next worked on the essential topics including student learning targets, and the teachers all agreed that every child will have the opportunity to learn this material.

***This year each general education teacher was paired with a special*** education teacher for their team. The students with IEPs and also other at-risk students were split among four sections (two per team) at each grade level. There also was a mathematics support class added to the students' schedule for any students who were struggling. This support class is also co-taught. The position paper was the tool I used to make this happen. The principal was totally behind me in this endeavor! Last August, the teachers were apprehensive. They have now witnessed increased achievement, students' rising self-esteem in mathematics, and the teachers have discovered they enjoy working with each other. It all started from the paper: *Improving Student Achievement in Mathematics for Students with Special Needs*.



**Fern Tribbey**

I give my sincere thanks to Fern Tribbey for sharing her story. Her work may have started with the position paper, but we know that to make progress it took her efforts, the support of the principal, and a team of caring professional teachers in mathematics and special education.

If you have used any of the position papers to further your work, please contact me. I would love to hear how these papers are serving our membership. Our next paper, entitled *Improving Student Achievement in Mathematics by Promoting Positive Self-Beliefs* will be available this June. — **KIT NORRIS**

## Coaching Matters

Continued from previous page

## Impact of an NCSM Position Paper: A Coach's Story



**Kit Norris**

**NCSM Position Papers Chair**  
norriskit@aol.com

***"I began my work with the teachers by asking them to read the position paper on special needs."***

## News from the Triangle Coalition



By Linda Gojak

Director

Center for Mathematics and  
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As a member of the Triangle Coalition, NCSM receives regular updates on the activities of the member organizations. Some items of special interest to NCSM members are summarized below.

**The 2010–2011 Albert Einstein Distinguished Educator fellows have been selected.** The Albert Einstein Distinguished Educator Fellowship Program offers current public or private elementary and secondary mathematics, technology, and science classroom teachers with demonstrated excellence in teaching an opportunity to serve in the national public policy arena. Fellows provide practical insight into establishing and operating education programs. Fellowships increase understanding, communication, and cooperation among legislative and executive branches and the science, mathematics, and technology education community.

The 31 new Fellows—the largest cohort in the history of the program—will report to Washington, D.C. this August to begin their 11-month Fellowship. They were selected from a nationwide pool of educators after an extensive interview process. During their term, the 2010–2011 Fellows will work at the National Science Foundation, NASA, the National Oceanic and Atmospheric Administration (NOAA), and the Department of Energy. In addition to submitting a written application, each was brought to Washington, D.C. for personal interviews with organizations seeking to host a Fellow. Following a two-day interview process, these organizations selected their top candidates, and those chosen for positions were notified. [[www.trianglecoalition.org/ein.htm](http://www.trianglecoalition.org/ein.htm)]

**The National Impact Report on the Math and Science Partnership Program (MSP)** was released recently by the National Science Foundation (NSF). Launched in 2002, the MSP at NSF is a research and development effort to build capacity and integrate the work of higher education with that of K–12 to strengthen and reform mathematics and science education. The MSP seeks to improve student outcomes and significantly reduce achievement gaps in the mathematics and science performance of diverse student populations. The expectation is that effective innovations in mathematics and science education will be disseminated into wider practice.

Through the MSP, NSF awards competitive, merit-based grants to teams composed of institutions of higher education, local K–12 school systems, and additional supporting

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partners. According to the report, as measured on state assessments, schools participating significantly in MSP projects continued to show improvement in student mathematics and science proficiency during two years over a four-year time period. The sustained increase in mathematics proficiency was found to be statistically significant at the elementary, middle, and high schools levels.

A new solicitation for the MSP was also recently released. NSF expects to make an estimated 17–27 total MSP awards, including three to five Targeted Partnerships, three to five Institute Partnerships, five to seven MSP-Start Partnerships, three to five Phase II Partnerships, and three to five RETA awards, pending availability of funds. The anticipated funding amount is approximately \$42,000,000 in FY2011, pending availability of funds for the MSP. [www.nsf.gov/ ]

**The New Media Consortium (NMC) has released the “2010 Horizon Report: K–12 Edition,”** the second in an annual series of reports focused on emerging technology use in elementary and secondary education. The report identifies and describes six emerging technologies that will likely have a significant impact on K–12 education in the next one to five years, including cloud computing, collaborative environments, game-based learning, mobile devices, augmented reality, and flexible screen technology. The report also outlines key trends associated with adoption of these technologies, including:

- Technology is increasingly a means for empowering students, a method for communication and socializing, and a ubiquitous, transparent part of students’ lives.
- Technology continues to profoundly affect the way we work, collaborate, communicate, and succeed.
- The perceived value of innovation and creativity is increasing.
- There is increasing interest in just-in-time, alternate, or non-formal avenues of education, such as online learning, mentoring, and independent study.
- The way we think of learning environments is changing.

This report has been released with a companion toolkit to foster a dialogue at educational institutions about how emerging technologies can improve learning in K–12 education. The report and accompanying toolkit was produced by the NMC in collaboration with the Consortium for School Networking (CoSN), with support from Hewlett Packard (HP). [www.nmc.org/]

### **Solution to Ralph’s Problem**

*(look elsewhere in this issue to find the solution to “The Dinner Party”)*

**RICEBALLS AND GOLD COINS:** The traveler contributed 12 gold coins for four riceballs, making the riceballs “worth” three coins each. Since Kimo contributed “three extra,” he should get nine coins, and Moki, who contributed “1 extra,” would get three coins.

Or, put another way: Of the four riceballs the traveler ate, three must have come from Kimo and one from Moki. Hence  $3/4$  of the payment should go to one and  $1/4$  to the other.

### **News from the Triangle Coalition**

*Continued from previous page*



**Photos from the 42nd NCSM Annual Conference • San Diego, California**

## Why “Quick” Doesn’t Work in Education



**By Dr. Paula Hidalgo**  
**Director of Product**  
**Development, Math Solutions**  
**PhD Applied Linguistics, BA/**  
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Dr. Paula Hidalgo is the Director of Product Development for Math Solutions, in charge of publications and the design, development, and delivery of new online products. Prior to this position, she was the Vice President of Design and Development in the Curriculum Professional Development group of Pearson. Earlier, Dr. Hidalgo led the design and development of Enhancing Instruction in Science and Enhancing Instruction in Mathematics along with several other professional development offerings at Pearson Achievement Solutions. She was an Education Consultant for LessonLab before it was acquired by Pearson. Dr. Hidalgo managed the development of online materials and organizational initiatives at Quisic Corporation. Before that, she was an associate at McKinsey and Company, a leading management consulting firm. Dr. Hidalgo has served as an educational researcher on a variety of large-scale educational initiatives at the University of California, Los Angeles, while completing her doctorate program. She holds three teaching credentials, a bachelor’s and a master’s degree in education, a master’s degree in psychology, and a PhD in applied linguistics. She has taught and is fluent in five languages.

**One of the most striking surprises I had when I first came to live in the U.S.** was how geared toward “quick fixes” the U.S. culture really is. The messages reinforcing this tendency are ubiquitous, not just in commercials, but in the way people talk and think. Feel tired? Try this energy drink. Can’t afford it? Put it on a credit card! Want to learn a language? Take this two-week course! I still find it surprising when people buy quick fixes and expect to get long-term results.

**Education is no exception. Tightened budgets, time constraints, and** constituent demands make districts reluctant to invest in long-term solutions, particularly when it comes to professional development. Unfortunately, some K–12 education stakeholders fail to grasp what it takes to create lasting change, especially when it involves supporting and fostering effective teaching, ensuring student improvement, and showing data that explains the causal relationship between the two. Other districts, on the other hand, know that to change student performance they must change teaching, but they fail to give teachers the time, resources, and flexibility to do so. These three elements are crucial. We are now going through a great time in the history of American education as far as funding is concerned. Significant resources are being made available to districts and many of those resources are expected to be used to enhance teacher effectiveness. However, is time being taken into the equation adequately? Do districts feel they have enough flexibility to assess where the resources are most needed and to select the highest quality professional development, even if that means years (not days) of commitment? In these times of abundant resources, we need to be sure school districts also have time and flexibility when they make their decisions about professional development.

By and large, teachers teach the way they were taught. Indeed, the report on the first Trends in International Mathematics and Science Study (TIMSS) video study, which examined mathematics teaching, concluded teaching is a cultural activity: It is learned implicitly, hard to see from within the culture, and hard to change (Stigler, Gonzales, Kawanaka, Knoll, & Serrano, 1999). So if teaching is a cultural activity, and teachers have an “apprenticeship” of over 15 years by the time they become teachers (observing and absorbing habits from their teachers since Kindergarten), how can we reasonably expect to change teaching with a single workshop?

Many districts have no problem shelling out a few hundred or even a few thousand dollars to send teachers to workshops to learn new lessons or classroom activities. The activities may, in fact, be very good. But, unless the district provides follow-up and monitors the process afterward, how can district leaders determine if the new activities are helping students learn? How can district leaders know if the results are long lasting? Furthermore, what instruments do they use to measure results to ensure these questions can be answered accurately?

For example, say 30 mathematics teachers attend a one-day workshop. When they go back to their classrooms, do teachers have the content knowledge to connect the activities to mathematics core ideas to help students develop conceptual understandings? Can teachers effectively answer students’ questions? Can teachers ask probing questions to elicit and challenge student ideas and predictions, to help students make connections among concepts, to explore and rectify student misconceptions, and to help students apply the ideas to real-world situations? If the answer to any of these questions is, “I don’t know,” or “no,” then there is an opportunity to complement the initial training with follow-up professional development that will ensure teachers have the support they need to continue to strengthen their content understanding and their pedagogical content knowledge to foster and facilitate student learning.

**The follow-up can be in a face-to-face or online format. Both formats can be** very effective if the learning experience is properly planned and delivered. One example of online follow-up is online coaching sessions (Math Solutions ePD Coaching) through which teachers will deepen their understanding of the topics they learned in the workshop by applying what they learned to their own classroom. An expert facilitator guides teachers in the implementation of new activities or lessons and helps them analyze the results of the implementation (student work, formative assessment, teachers’ own impressions). These activities allow teachers to use what they have learned and refine it for their own students based on the results they obtained with their group. The sessions are about 90 minutes in length, and since they are online, they can be done from anywhere with an Internet connection. During these sessions,

... continued on next page



teachers share their experiences, collaborate and discuss their practice and their achievements, and consult with colleagues and the expert facilitator about various aspects of their instruction. Learning, after all, is not done in a vacuum. It is a gradual process that takes place in a social setting. These sessions, done regularly throughout the school year, constitute meaningful sustainable, collaborative, and embedded professional development. Similar sessions can be done in a face-to-face format.

***Far too many school districts treat professional development like a vaccine.***

They send teachers to get one shot of professional development and then expect it to be good for life. But, changing the culture of teaching requires more than a three-hour workshop or even a three-day workshop. We must initiate and effect a culture shift in K–12 education. Little meaningful reform can take place unless we change our demand for quick fixes—especially as it relates to educating, cultivating, and refining our classroom educators.

Time is our friend, not our enemy. We must look beyond the idea of quick fixes to the idea of long-term change. With every professional development program or resource we introduce into our schools, we must not only ask, “What will this do for us today?” but also, “What will this do for us five years from now?” If we can’t answer both questions, we should rethink that investment. Education is, after all, an investment in the future.

The transition will not be easy. But time is on our side—if we let it be.

Stigler, J. W., P. Gonzales, T. Kawanaka, S. Knoll, & A. Serrano. (1999). *The TIMSS videotape classroom study: Methods and findings from an exploratory research project on eighth-grade mathematics instruction in Germany, Japan, and the United States*. NCES 1999-074. Washington, D.C.: National Center for Education Statistics.

***Why “Quick” Doesn’t Work in Education***

*Continued from previous page*

***“Time is our friend, not our enemy. We must look beyond the idea of quick fixes to the idea of long-term change.”***

***Brief Book Reviews***

***Steven Leinwand: “I’ve been in awe of middle school teachers whose planning and classroom***

*management routines kept students thoroughly engaged in mathematical thinking for 47 uninterrupted minutes. And I’ve been wowed by the diversity of approaches to solving a problem that is cultivated in classes that tangibly value multiple ways of thinking.”* In *Accessible Mathematics* Leinwand voices what we all know: instruction—what teachers actually do in the classroom—makes the difference. His book focuses on ways teachers can initiate shifts in practice that will enable them to provide the high-quality mathematics instruction that “can and does work for far more students.” Leinwand chooses a quick review for his first instructional shift. He gives an example of six questions he asks orally while students write answers, followed by a complete explanation of the instructional reasons for this choice and the follow-up discussion of the answers. Leinwand turns next to classroom questions, from literal to inferential to evaluative. *What might happen? Does this make sense? Can you explain?* All types of questions are necessary for all students. This takes time, and Leinwand reminds us that “... less really is more! Racing through a jam-packed curriculum and a 700-page textbook is senseless if we know ahead of time that fewer than half are likely to succeed...” The next eight teaching shifts will be as welcome to mathematics education leaders as are the first two. Leinwand follows the teaching shifts with a word on the necessity of careful, deliberate planning, important items to consider, a planning template, and a sample lesson plan. He lists the essential things teachers, administrators, supervisors, and other professionals do to ensure the shifts made will be effective. He even includes a section on the five elements driving the success of Singapore Math. Leinwand has packed this book with straightforward methods and ideas you can, with confidence, share with the teachers you know.

Leinwand, S. (2009). *Accessible mathematics*. Portsmouth, NH: Heinemann.

How do you respond when a teacher comes to you to say, “I have some students who are really into mathematics, but I don’t have time for them; I wish I could work with those boys and girls in some other setting where they could really explore the challenge and beauty of mathematics.” Stankova and Rike provide the response: Math Circles. In their book, *A Decade of the Berkeley Math Circle*, they describe weekly after school meetings with students who come to the sessions for the love of mathematics. There are no attendance lists, no tests, no being forced to do anything. There are boys and girls learning from outstanding mathematicians exploring complex concepts through challenging problems. Stankova and Rike describe the circle meetings and the art of being a mathematician; they provide a complete explanation of 12 typical sessions. The book concludes with a further discussion of Math Circles in Eastern Europe and the United States, the problems of history and power, and the need for creative thinkers well prepared in mathematics.

Stankova, Z. & Rike, T. (2008). *A decade of the Berkeley math circle*. Providence, RI : Mathematical Sciences Research Institute (MSRI) and the American Mathematical Society (AMS).

Reviews by Kay Gilliland, NCSM Newsletter Editor and Past President

## Important Information for Mathematics Educators

**NOTE:** Special thanks to *Triangle Coalition Electronic Bulletin* [[www.trianglecoalition.org](http://www.trianglecoalition.org)], Jerry Becker [Jerry-P-Becker-Big-L@listserv.siu.edu], and *California Online Mathematics Education Times* (COMET) [[www.comet.cmpso.org/](http://www.comet.cmpso.org/)]. Since nearly all the information contained in the NCSM Newsletter section entitled *Important Information for Mathematics Educators*, is time-sensitive, NCSM has decided to make these items available more quickly by putting all of them into the NCSM eNEWS on the Internet. Now and in the future, consult NCSM eNEWS for items that used to be available in this newsletter section.

**The National Science Foundation has released the National Impact Report** on the Math and Science Partnership Program (MSP). According to the report, as measured on state assessments, schools participating significantly in MSP projects continued to show improvement in student mathematics and science proficiency over the four-year time period from school year 2003–04 to 2006–07. The sustained increase in mathematics proficiency was found to be statistically significant at the elementary, middle, and high schools levels. A new solicitation for the MSP was also recently released. NSF expects to make an estimated 17–27 total MSP awards, including three to five Targeted Partnerships, three to five Institute Partnerships, five to seven MSP-Start Partnerships, three to five Phase II Partnerships, and 3–5 RETA awards, pending availability of funds. The anticipated funding amount is approximately \$42,000,000 in FY2011, pending availability of funds for the MSP program. [[www.nsf.gov/](http://www.nsf.gov/)]

**The Expanding Your Horizons (EYH) Network was recently named recipient** of the prestigious 2010 National Science Board (NSB) Public Service Award as an organization that has made significant contributions and impact in public understanding of science, technology, engineering, and mathematics (STEM). The award ceremony took place at the U.S. State Department in Washington, D.C. on May 4, 2010. “We are excited to honor The Expanding Your Horizons Network with the NSB Public Service Award in recognition of its decades-long commitment to the early development of interest in mathematics and science among young girls,” said Dr. Steven Beering, NSB Chairman. “We are thoroughly impressed with The Network’s impact on the lives of hundreds of thousands of young women, having grown from a small grassroots activity to a nationwide organization.”

The NSB Public Service Award honors individuals and groups that have made substantial contributions to increasing public understanding of science and engineering in the U.S. These contributions may be from a wide variety of areas including mass media, education and/or training programs, entertainment, and non-profit and for-profit corporations.

The Expanding Your Horizons (EYH) Network is a non-profit organization dedicated to encouraging young women to pursue science, technology, engineering, and mathematics careers. The EYH Network coordinates over 86 hands-on mathematics and science conferences in 33 states, as well as Thailand, China, Singapore, Malaysia, Brussels, and Geneva each year. Since 1976, 775,000 young women have participated in EYH conferences. Participants are now professional women scientists, some of whom are working in chemical and civil engineering, for example, at places like the Lawrence Livermore National Laboratory, Network Appliances, and Elan Pharmaceuticals. [[www.ExpandingYourHorizons.org](http://www.ExpandingYourHorizons.org)]

The NSB is the 25-member policymaking body for the National Science Foundation and advisory body to the President and Congress on science and engineering issues. [[www.nsf.gov/nsb](http://www.nsf.gov/nsb)]

**A group of high-powered policymakers and educators gathered in** Washington, D.C. earlier this year to build support for a new vision of educational assessment that is less a snapshot of students’ one-time performance and more like good instruction itself. Led by Stanford University professor Linda Darling-Hammond, a panel of experts outlined a comprehensive system that includes summative and formative tests of higher-order thinking skills, reflecting a marketplace they say places increasing value on such skills. They urged a move away from pages and pages of multiple-choice tests that demand factual recall, and toward the development of a set of deeper, more analytical questions, tasks, and projects that ask students to solve and discuss complex problems. [[www.edweek.org/ew/articles/](http://www.edweek.org/ew/articles/)]

**The American Association of University Women (AAUW) recently released** a comprehensive report examining the underrepresentation of women in STEM fields, particularly the physical sciences and engineering. *Why So Few? Women in Science, Technology, Engineering, and Mathematics* was funded in part by a grant from the National Science Foundation. *Why So Few?* summarizes eight key research findings that point to environmental and social barriers that continue to block women’s participation and progress in science, technology, engineering, and mathematics. The report also includes current statistics on girls’ and women’s achievement and participation in these areas and offers new ideas for what can be done to more fully open scientific and engineering fields to girls and women. [[www.aauw.org/learn/research/whysofew.cfm](http://www.aauw.org/learn/research/whysofew.cfm)]

**To help combat the alarming high school dropout rate among American** students, AT&T and America’s Promise Alliance (the Alliance) have announced a \$1 million contribution to fund a re-granting initiative led by the Alliance that will provide young people nationwide with the opportunity to develop and implement their own program ideas for increasing graduation rates. The AT&T contribution is one of the first major gifts to support Grad Nation, the next phase of the Alliance’s highly successful Dropout Prevention Campaign. A 10-year initiative, Grad Nation is focused on mobilizing Americans to end the dropout crisis. This work will pay special attention to areas of the country where the need is the greatest, especially communities surrounding the nation’s 2,000 lowest-performing high schools, which account for approximately 50 percent of all young people who drop out of school. [[www.americaspromise.org/](http://www.americaspromise.org/)]

# ***NCSM Professional Learning Opportunities***

**— Learning and Leading Together Throughout the Year —**

***Save the dates and register today for yearlong professional learning.***

Looking for ways to stay on top of the professional challenges you face as a mathematics education leader? NCSM is the answer. NCSM provides leaders with professional learning opportunities to support and sustain improved student achievement in mathematics.

Visit [mathedleadership.org](http://mathedleadership.org) for more information and to register online.

## ***Summer Leadership Academies—Stomping on the GAP!***

Stomping on the GAP! is NCSM's newest leadership academy and is based upon the 12 leadership indicators described in the *PRIME Leadership Framework*, NCSM's ground-breaking publication. This exciting three-day academy provides specific support and plans to develop the individual, collective, and necessary actions to "stomp on the achievement and access gap" in your school or district. The academy attracts aspiring and seasoned mathematics education leaders, teachers, coaches, and administrators. Come, intensively study, and learn how to help every colleague and teacher erase gaps in mathematics achievement for every student population; work interdependently in a collaborative learning community; implement research-informed best practices for equity, teaching, learning, and assessment; use effective instructional planning and teaching strategies; implement the intended curriculum with effective intervention; and implement highly effective summative and formative assessment practices. Be inspired, be motivated, and be prepared for 2010–2011. Register today at [mathedleadership.org](http://mathedleadership.org).

**June 15–18, 2010: Illinois Mathematics and Science Academy, Aurora IL**

**June 22–25, 2010: Harris County Department of Education Conference Center, Houston TX**

**August 16–19, 2010: Stuyvesant High School, New York NY**

## ***Fall NCSM Leadership Seminars—Mathematics Leadership at Work: Developing Commitment to Reform in the New Decade***

Only have one day to spare for your professional growth in October? Plan to spend a day with NCSM. Our one-day seminars examine what really matters when it comes to erasing inequities in student learning and achievement in mathematics. Seminar presenters actively engage participants and guide them through adaptable research-informed practices, strategies, models, and concepts that effective mathematics education leaders need to know and integrate into their work. Leave the seminar with practical and inspired ideas and actions that will prepare you to lead and support others throughout the year. If you are a coach, teacher leader, administrator, specialist, coordinator, mentor, director, supervisor, or someone who influences and or supports others in mathematics education—this seminar is for you. Join us. Visit [mathedleadership.org](http://mathedleadership.org) to register today!

**October 6, 2010: Denver CO**

**October 13, 2010: Baltimore MD**

**October 27, 2010: New Orleans LA**

## ***Winter Professional Learning Opportunities—All Over the World***

Our NCSM Google Calendar allows you to view international, regional, provincial, state, and local learning opportunities hosted by NCSM, NCSM Regional Directors, and other mathematics education leaders. Each entry includes a contact and/or URL to access further details. Discover just what you're looking for throughout the year. Browse through the NCSM calendar at [mathedleadership.org](http://mathedleadership.org) and make your plans.

## ***Spring NCSM Annual Conference—On Track for Student Success: Mathematics Leaders Making a Difference***

Whether you're a first-timer or a veteran of many NCSM annual conferences, plan to join 2011 mathematics education leaders from around the world at the 43rd NCSM Annual Conference. This year's STEM strand will give you a chance to envision the future of education and pick up ideas on how to "educate to innovate." Immerse yourself in three days of provocative sessions led by practitioners, researchers, experts, distinguished presenters, celebrated speakers, and people at the forefront of change in mathematics education leadership. Enlarge your network of colleagues who can assist you in building and supporting your local mathematics program. Submit a speaker proposal and share with others how you are making a difference. The deadline to submit an online proposal to speak is June 7. For developing details, visit [mathedleadership.org](http://mathedleadership.org).

**April 11–13, 2011: Indianapolis IN**

## Write for the NCSM Journal



By **Linda Ruiz Davenport**  
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*The NCSM Journal of Mathematics Education Leadership is published twice* yearly, in the spring and fall. The editor and the members of the review panel are interested in manuscripts that address issues of leadership in mathematics education. We want to publish articles from a broad spectrum of formal and informal leaders who practice at local, regional, national, and international levels. Categories for submittal include:

- Key topics in leadership and leadership development
- Case studies of mathematics education leadership work in schools and districts or at the state level and the lessons learned from this work
- Reflections on what it means to be a mathematics education leader and what it means to strengthen one's leadership practice
- Research reports with implications for mathematics education leaders
- Professional development efforts including how these efforts are situated in the larger context of professional development and implications for leadership practice
- Brief commentaries on critical issues in mathematics education
- Brief reviews of books of interest to mathematics education leaders

We also invite readers to submit letters to the editor regarding any of the articles published in the journal. We want to hear about your reactions, your questions, and the connections you are finding to your work. Selected letters will be published in the journal with your permission.

Let us know if you would like to review manuscripts. Please include your areas of interest and expertise.

**Submission/Review Procedures: Submittal of items should be done** electronically to the journal editor. Submission should include (1) one Word file with the body of the manuscript without any author identification and (2) a second Word file with author information as you would like to see it in the journal. Each manuscript will be reviewed by two members of the NCSM Review Panel and one editor. Timelines for submission and publication follow.

... continued on next page

Can your students solve this equation?

$$4x + 3 = 3x + 9$$



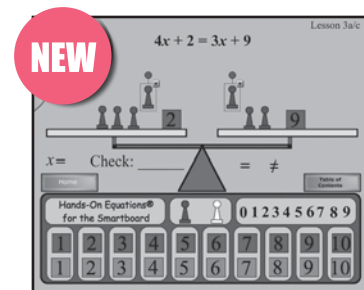
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**SPRING ISSUE TIMELINE**

*July 1:* Manuscripts are due and sent to reviewers  
*December 1:* Manuscript reviews are completed  
*January 1:* Final manuscript edits are due  
*February 1:* Journal goes to print  
*March 15:* Journal is mailed to NCSM members

**FALL ISSUE TIMELINE**

*January 1:* Manuscripts are due and sent to reviewers  
*June 1:* Manuscript reviews are completed  
*July 1:* Final manuscript edits are due  
*August 1:* Journal goes to print  
*September 15:* Journal is mailed to NCSM members

Permission to photocopy material from the *NCSM Journal of Mathematics Education Leadership* is granted for instructional use when the material is to be distributed free of charge (or at cost only), provided that it is duplicated with the full credit given to the authors of the materials and the *NCSM Journal of Mathematics Education Leadership*. This permission does not apply to copyrighted articles reprinted in the *NCSM Journal of Mathematics Education Leadership*.

***The delegates and designated leaders of NCTM Affiliates voted at their 61st***

Annual Delegate Assembly in San Diego to make the following recommendations to NCTM Board of Directors.

- Eastern Caucus—Be it resolved that the Delegate Assembly recommends to the NCTM Board of Directors that: NCTM should expand its Affiliate Rebate Program for new members and renewals to include all methods of membership registration and payment.
- Southern Caucus—Be it resolved that the Delegate Assembly recommends to the NCTM Board of Directors that: NCTM, as the leading voice for mathematics teachers, continues to advocate in the ongoing development, implementation, and assessment of the Common Core State Standards (CCSS) for Mathematics, and that NCTM increase the level of communication of their involvement in the process.

The NCTM Board of Directors will vote on these recommendations at a future Board meeting.

***Write for the  
NCSM Journal***

*Continued from previous page*

***NCTM Report***

*By Jerry Cummins  
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***Rebate for NCSM When You Join NCTM!***

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Visit <http://www.nctm.org/membership>.

Complete the renewal form (or online application), and choose NCSM to receive the rebate. NCTM will send the rebate funds to NCSM. This will be of considerable benefit to NCSM at no additional cost to you.

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- ✓ Free subscriptions to one of NCTM's award-winning journals
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- ✓ Free publications

***Give NCSM a boost. Renew your NCTM membership now!***

## *The NCSM Mission and Vision*

### **NCSM Mission Statement:**

The National Council of Supervisors of Mathematics (NCSM) is a mathematics leadership organization for educational leaders that provides professional learning opportunities necessary to support and sustain improved student achievement.

### **NCSM Vision Statement:**

NCSM envisions a professional and diverse learning community of educational leaders that ensures every student in every classroom has access to effective mathematics teachers, relevant curricula, culturally responsive pedagogy, and current technology.

### **To achieve our NCSM vision, we will:**

- N**—Network and collaborate with stakeholders in education, business, and government communities to ensure the growth and development of mathematics education leaders.
- C**—Communicate to mathematics leaders current and relevant research, and provide up-to-date information on issues, trends, programs, policies, best practices, and technology in mathematics education.
- S**—Support and sustain improved student achievement through the development of leadership skills and relationships among current and future mathematics leaders.
- M**—Motivate mathematics leaders to maintain a life-long commitment to provide equity and access for all learners.

**The Role of Your NCSM Board:** As representatives of the membership, the NCSM Board establishes goals, and creates and reviews new projects and initiatives that advance the mission and vision of the organization. The Board monitors the achievement of existing goals and projects to ensure their continued alignment with the mission and vision.

For more information about NCSM, visit [mathedleadership.org](http://mathedleadership.org) today!

NCSM is an affiliate of the National Council of Teachers of Mathematics (NCTM).

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## *About Your NCSM Newsletter*

The purpose of the *NCSM Newsletter* is to advance the mission and vision of NCSM by informing the membership of the on-going activities of the Council, by providing up-to-date information about issues, trends, programs, policy and practice in mathematics education, and by promoting networking and collaboration among NCSM members and other stakeholders in the education community. Your *NCSM Newsletter* is published four times a year—fall, winter, spring, and summer—and is mailed to NCSM members only, as a benefit of your NCSM membership.

The *Newsletter* is mailed US Postal Service Periodicals Postage Rate from Hayward CA. Permission to photocopy material from the *NCSM Newsletter* will be granted for instructional use when the material is to be distributed free of charge (or only at cost), provided it is duplicated with full credit given to the authors of the material and the *NCSM Newsletter*. This permission can be obtained by writing to: Terri Belcher, NCSM Executive Director at the address below.

Please send *Newsletter* articles and comments to:  
Kay Gilliland, NCSM Managing Newsletter Editor,  
14240 Skyline Blvd, Oakland CA 94619-3626,  
[GillilandK@mac.com](mailto:GillilandK@mac.com).

Send all other inquiries to: NCSM, 6550 Vallejo St Ste 202,  
Emeryville CA 94608-1112,  
tel: (510) 601-6276, fax: (510) 547-6276, or email: [tbelcher@berkeley.edu](mailto:tbelcher@berkeley.edu).



## Membership Application and Order Form

Use this form to renew a membership, join NCSM, update information, or order items. Complete this form and return with payment. The information you provide will be used by the NCSM office for member communication, mailing lists and the NCSM Membership Directory.

### Please Print Legibly or Type

NCSM sometimes provides its mailing list to outside companies. These companies have been approved by NCSM to send catalogs, publications, announcements, ads, gifts, etc. Please check the box below to be removed from mailing lists. In addition, by checking this box, only your name without contact information will be included in the NCSM Directory.

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Country: \_\_\_\_\_

Email: \_\_\_\_\_

Please check all that apply. I am a leader in mathematics education at the following levels:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> National                                | <input type="checkbox"/> State Department                           | <input type="checkbox"/> Coach/Mentor                  |
| <input type="checkbox"/> Regional (more than one state/province) | <input type="checkbox"/> Board of Education                         | <input type="checkbox"/> Consultant                    |
| <input type="checkbox"/> State/Province                          | <input type="checkbox"/> Superintendent                             | <input type="checkbox"/> Curriculum Specialist         |
| <input type="checkbox"/> District/County/City                    | <input type="checkbox"/> District Curriculum & Instruction Director | <input type="checkbox"/> Education Technology Provider |
| <input type="checkbox"/> Building                                | <input type="checkbox"/> Principal                                  | <input type="checkbox"/> Pre-Service Educator          |
| <input type="checkbox"/> University/College                      | <input type="checkbox"/> Department Chair                           | <input type="checkbox"/> Professional Developer        |
| <input type="checkbox"/> Senior High School                      | <input type="checkbox"/> Curriculum Leader                          | <input type="checkbox"/> Publisher                     |
| <input type="checkbox"/> Junior High/Middle School               | <input type="checkbox"/> Resource Teacher                           | <input type="checkbox"/> Student                       |
| <input type="checkbox"/> Elementary School                       | <input type="checkbox"/> Grade-Level Leader                         | <input type="checkbox"/> Teacher                       |
| <input type="checkbox"/> Pre-Kindergarten                        | <input type="checkbox"/> Teacher Leader                             | <input type="checkbox"/> Other _____                   |
| <input type="checkbox"/> Government Agency (NSF, DOE, etc.)      | <input type="checkbox"/> Author                                     |  |

Since designations vary over time, check the one you feel best describes you: (Optional)

- |   |   |  |  |
|---|---|--|--|
| <input type="checkbox"/> African American/Black | <input type="checkbox"/> Asian American   | <input type="checkbox"/> European American/White | <input type="checkbox"/> Hispanic/Latino |
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- Yes  No

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 35-44  
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**Gender:**

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**NEW FOR 2010:** If you are 65 years of age or older AND have been an NCSM member in good standing for 15 years or more, you may be interested in and eligible for Emeritus Membership. Find out more by visiting mathedleadership.org or calling NCSM Member and Conference Services.

**National Council of Supervisors of Mathematics**

**6000 E Evans Ave #3-205**

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**~ Calendar Reminders ~**

**For further information about NCSM events,  
visit our website:  
*mathedleadership.org***

**2010**

- July 1 ..... Fall NCSM Journal manuscript deadline**
- August 5 ..... NCSM Fall Newsletter submissions close**
- August 15 ..... Last day to join NCSM or renew NCSM membership and be eligible to vote in the 2011 NCSM open-Board position election**
- August 16–19 ..... NCSM Leadership Academy, New York, New York**
- September 15 ..... Voting begins for the 2011 NCSM open-Board position election**
- October 5 ..... NCSM Winter Newsletter submissions close**
- October 6 ..... NCSM Regional Leadership Seminar, Denver, Colorado**
- October 13 ..... NCSM Regional Leadership Seminar, Baltimore, Maryland**
- October 15 ..... Voting ends for the 2011 NCSM open-Board position election**
- October 27 ..... NCSM Regional Leadership Seminar, New Orleans, Louisiana**
- November 1 ..... 2011 Iris Carl Conference Travel Grant applications close**
- November 1 ..... 2011 Ross Taylor/Glenn Gilbert Award nominations close**