

Wahpe Woyaka pi

(Talking Leaf)

South Dakota Council Teachers of Mathematics Newsletter

Presidential Ponderings

Conference Highlights

“What a great experience!”

“Best one ever!”

“What a fantastic group of participants!” from a featured speaker.

“I’ll be back next year!”

I’m talking, of course, about the recent SDCTM/SDSTA annual conference. The planning team assembled a large slate of speakers, covering all grade levels. Presenters brought fantastic ideas and information. Attendees learned, laughed and shared.

A fantastic opening event, the math sharing session always makes my top-ten list of favorites. It’s wonderful to sit down with people who “get it.” I love the suggestions that are put forward and the activities that are discussed. The ideas shared comprise a gift freely given from one classroom to another.

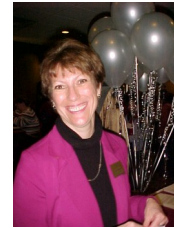
The “Share the Classroom Treasures” exchange experienced great success. I saw many interesting articles come and go. I predict a new life for materials that might otherwise have been discarded. What a great idea! Plans are to make this an annual event. Keep your eyes open for items that you would like to “recycle” next year. I already have a box set aside. Each time I think of something, I add it to the growing pile.

Over and over, conference attendees mentioned the excellence of the presentations. Our featured speakers provided outstanding sessions for their participants. Once again, South Dakota’s finest (that’s you) presented outstanding sessions by and for South Dakota’s educators. Truly, the conference could not succeed without the enthusiastic participation of our members.

As school districts begin the requisition/budget process for next year, please remember to set aside funds and time to attend next year’s conference. We anticipate registration costs will remain unchanged for 2010. It’s a great professional development experience at a bargain price. Next year’s conference will be Feb. 4-6, 2010. Mark your calendars and plan to attend!

DOE Hosts Dakota STEP Workgroups

South Dakota’s Department of Education provides many upcoming opportunities for teachers to work on mathematics content standards and statewide assessments. Throughout the year, DOE hosts workgroups to review and revise items from the Dakota STEP test. Teachers from various grade levels, along with special education teachers and teachers of English language learners, are needed. Participants help shape the future of South Dakota’s standards and assessment system. The Department of Education reimburses expenses and pays a stipend. School districts receive reimbursement for substitute pay if a substitute is needed.



continued on page 2

SPRING 2009

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Inside this issue:

<i>Presidential Ponderings, continued</i>	2
<i>Call for PAEMST Nominations</i>	3
<i>SDCTM’s Friend of Mathematics Award</i>	3
<i>Sioux Falls TI-Nspire Workshop Information</i>	4
<i>SDCTM’s Distinguished Service Award</i>	5
<i>Crossroads will host the 2010 SDCTM/SDSTA Conference</i>	6
<i>Teacher Prep Students share impressions of the annual conference</i>	7
<i>Math Specialists Roam South Dakota</i>	8-10
<i>Summer Symposium</i>	10
<i>SDCTM Membership Form</i>	11
<i>SDCTM Contact Info</i>	12

Calendar Notes:

- April 3, 2009
SD Standards Revision Committee application deadline
- May 1, 2009
Application Deadline for the 2009 PAEMST
- June 19, 2009
SDCTM Summer Symposium
- February 4-6, 2010
SDCTM/SDSTA joint conference in Huron



*“... the experience
changed the way I
think about
and teach
mathematics.”*

Presidential Ponderings, *continued*

These workgroups provide teachers with opportunities to utilize their experience to impact education in South Dakota. More information is available at www.sdctm.org. Application deadlines are rapidly approaching. Please consider joining this important work!

Mathematics Content Standards Revision

Summer 2009 marks the beginning of the revision process for South Dakota Math Content Standards. As part of a seven-year cycle, the current standards will be revised and re-written. Following the initial revision process, the new standards will be pilot-tested in selected South Dakota classrooms during the 2009-2010 school year. Then will then be presented for State Board of Education approval during the winter of 2011. Participation in the standards-writing process provides a fantastic professional development opportunity for educators.

My participation in the 2004 cycle truly marked a turning point in my professional practice. Intense but extremely rewarding, the experience changed the way I think about and teach mathematics. Nominations for participation are currently open and the following are encouraged to apply: elementary teachers, middle school teachers, high school teachers, special education teachers, parents, university professors, pre-service teachers, and other stakeholders. Check <http://www.sdctm.org/> for information and links to application materials. South Dakota needs your voice in this critically important work!

Time Flies!

The end of the school year fast approaches. As I look back at the goals I set for myself and my classroom last fall, I am quickly running out of year. There is never enough time to accomplish all that I would like. Onward!

Cindy Kroon
SDCTM President

Share the Wealth!

*South Dakota Teachers have so much to offer one another!
Please share an activity or classroom “trick” that works
for you with SDCTM members!*

Email submissions to: smcquade2@sfcss.org



Nominations for 2009 PAEMST

Know a Great 7-12 Math Teacher? Nominate him or her to receive the Presidential Teaching Award!

We're looking for outstanding 7-12 math teachers for the 2009 Presidential Awards for Excellence in Mathematics and Science Teaching. The awards are sponsored by the White House and administered by the National Science Foundation.

Every year up to 108 National Awardees each receive a \$10,000 award, a paid trip for two to Washington, DC to attend a week-long series of networking opportunities and recognition events, and a special citation signed by the President of the United States.

The program is now accepting nominations of 7-12 teachers for the nation's highest honor for mathematics and science teachers. Anyone can nominate a teacher. Teachers should submit completed application materials by May 1, 2009. For more information, including nomination and application forms, please visit www.nsf.gov/pa or www.sdctm.org and click on the awards link.

Nominate an outstanding secondary teacher for the 2009 PAEMST.



Amy Knudson, Becky Kitts, and Marcia Farrand, SD's state finalists for the 2008 Elementary Presidential Award for Excellence in Mathematics Teaching.

O[†]Gorman High School Receives FOM Award

At the SDCTM/SDSTA Conference banquet, O[†]Gorman High School was recognized as a Friend of Mathematics. The award recognizes individuals/organizations who have provided invaluable service to the South Dakota Council of Teachers Mathematics. On behalf of O[†]Gorman High School, principal Kyle Groos accepted the award. SDCTM greatly appreciates the service and hospitality that O[†]Gorman has provided to the organization over the years, including space for a Summer Symposium and meeting rooms for our spring/summer board meetings.

The Friend of Mathematics award recognizes individuals/organizations who have provided invaluable service to the SDCTM.



Cindy Kroon, SDCTM President & Kyle Groos, O[†]Gorman High School Principal



*Check out TI's
website for
registration
materials.*

www.education.ti.com

TI-Nspire Workshops return to Sioux Falls

Hello, Everyone!

We again have the privilege of being selected as a host site for TI-Nspire workshops for the summer of 2009! Please check out the website below for registration materials, and for more information.

Here is the slate for our TI-Nspire week in Sioux Falls:

June 29-30: Getting Started with TI-Nspire

Subject Sessions: Algebra I; Geometry; Advanced Math; Physics.

These will be an introduction to Nspire, and will be separate workshops that are specific to one of the four subjects listed.

July 1-3: Using TI-Nspire in the Classroom

Subject Sessions: Same as above.

Basically, the first two days are for beginners on Nspire, and the last three days are for people who are already somewhat familiar with Nspire's functionality. You can enroll in both sessions, if you wish. If you have already attended an entire 3-day Nspire workshop, then you can just enroll in the 3-day subject-specific one, if you wish.

I'm confident that there will be college credit available from the University of Sioux Falls.

Let me know if you have questions.

Thanks, Everyone, and have a great day!

Jeff Lukens

Check out this website:

www.education.ti.com/educationportal/sites/US/homePage/index.html

Share the Classroom Treasures

“Sharing” the treasures was so popular this year, that it will be back for next year’s conference. As you sort through your treasures and “pack up” for the summer...don’t forget about the conference. Start a “save it for the conference” box and plan to bring all your “extras” to the Share the Classroom Treasures, scene 2.

PLEASE - No Textbooks or broken/non-working equipment. Although it may feel like yours, make sure it is. If it's marked "School Property", please leave it in school.



SDCTM's Distinguished Service to Mathematics Award

SDCTM's 2009 Distinguished Service Award was presented to Dr. Christine Larson February 6, 2009 during the annual SDCTM/SDSTA Joint Professional Development Conference Banquet in Huron, SD. Dr. Larsen was chosen because of her work with pre-service mathematics teachers. She is the math placement coordinator at SDSU in Brookings.

Dr. Larson graduated from Aberdeen Central HS, Augustana College, and Montana State University in Bozeman. Since receiving her doctorate at MSU, she has been at SDSU, where she is one of the two advisors to the SDSU-NCTM group. As a Professor of Mathematics, she encourages math education students to become professionally active as well as good classroom teachers.

Dr. Larson has been instrumental in giving South Dakota Math teachers such opportunities as Math on the Move, Astro Math, Math Counts, and CMP training. She has won the F. O. Butler Faculty Award for Teaching at SDSU.

She is very active in the Brookings community also. She is in book clubs, teaching at her church and teaching at the elementary school attended by her two children: Jace, a fourth grader, and Zander, a first grader. Outside of mathematics, Chris's favorite activity is keeping the official book for the SDSU Women's basketball team. She has done this for the last 15 years.

SDCTM is proud to recognize Dr. Christine Larson for her work in K-C mathematics education.



Christine & Jean share a laugh as Jean presents Christine with her award at the banquet.



Jean Gomer & Christine Larson

Chris teaches math at SDSU and is very involved with preparing tomorrow's math teachers.



“Our liaisons with the Crossroads, especially Brenda and Millie, have helped us do what it takes to meet the needs of our organizations.”



Thank you, Jean!

We appreciate all you do as SDCTM/SDSTA Conference Coordinator!!!

To Huron, or Not to Huron. . . That Is the Question!

By Jean Gomer, Conference Coordinator

Every year, someone asks the question, “Why is the conference always in Huron?” That someone is obviously not on the Joint Conference Board as they all know what I am going to respond. There are several reasons including it is easier, it is cheaper, and Huron is so accommodating.

First of all, for the past 17 years, the Huron Chamber of Commerce, the Crossroads Hotel, and now the Huron Events Center has gone out of their way to accommodate the needs of an ever changing conference. SDCTM had its conference in Huron for a few years before the consolidation with SDSTA for the purpose of putting on a better conference. In those first years, when our attendance went from 200 to over 700 in one year, the HCC/Crossroads found us 14 extra meeting rooms within walking distance of the Crossroads at no extra cost to the Conference Committee. This included a long standing agreement with the Presbyterian Church that ended only when the new Events Center was completed. They also helped us scale back when the NSF money disappeared and we struggled to make ends meet and still keep a quality conference. Our liaisons with the Crossroads, especially Brenda and Millie, have helped us do what it takes to meet the needs of our organizations.

Another reason we stay in Huron is that it is just plain easier. SDSTA and SDCTM are organizations that are run by volunteers. We all know that doing something the second time is easier than figuring out how to do it the first time. Imagine trying to allocate space for sessions in a strange facility, or coordinating meals with someone you don’t know, or straightening out the room situation when you discover that a featured speaker doesn’t have a room with the third desk clerk you have talked to in two days. These are all things that the Joint Conference Committee does not have to deal with. One phone call or email usually takes care of any “crisis.”

Finally, the bottom line usually ends up being money, and this is not exception. About every three years, Sioux Falls and/or Rapid City contacts us trying to lure us away from Huron. What I do is send them a list of the things that Huron provides and ask them what incentive they can offer to make us consider changing our venue. Sometimes they don’t even respond. Most of the time, they send me a polite note, suggesting that I am exaggerating what we get from the Crossroads/Huron Events Center. Trust me I am not. We pay nothing for meeting rooms, get reasonable rates on our meals, provide all available sleeping rooms at the Crossroads to our participants at the same rate, and we get complimentary suites to use as office space. Until the last couple of years when we had so many requests for LCD projectors, they also provided all AV equipment free. Even now, thanks to TIE and the HEC we still do not pay for AV equipment. Many national conferences now pass that cost on to presenters at anywhere from \$25-50/hour for the use of an LCD projector. These things add up to big dollars in the overall budget. Since we need this conference to be self-supporting, money has to be a factor in our decision making process. And that is why we stay in Huron.

I realize that this is more information than some of you really need or want, but I think that it is important to address a question that doesn’t seem to go away. I think you also need to go out of your way to thank any SDCTM or SDSTA Board member that you see for the time and energy that they put into making this Joint Conference such a great event. We, in South Dakota, are unique in having an annual Joint Conference, especially one that is coordinated by volunteers. What is even more important is the quality of that conference. See you there in February of 2010.



SDCTM/SDSTA Conference...a place for math prep students as well

I had a really good time at the South Dakota Council for Teachers in Mathematics Conference that I attended in Huron. I thought that there were a lot of different choices for the sessions. If you did not like one of the sessions you could still find one to go to. If you were interested in going to a couple of different sessions, then you could check to see if one of the sessions was offered at a different time that you could possibly attend. Even though I am not currently a mathematics teacher, I am working towards a degree so that one day I can teach; I still find this conference very beneficial for a couple of reasons. One of the reasons is that I can learn from teachers that have been in the field for a while. They are going to have experience and be able to share what works and what does not work. Another reason is that you get to meet teachers from schools around the state. Another reason is that you get to hang out with people that are interested in the same things that you are.

Some of the sessions that I attended that I really enjoyed were Motivating the Unmotivated; Fractions, Fractions, Fractions; Hands-On Geometry, and Games and Activities for Prealgebra & Algebra. I think in all of these session they were very beneficial and I learned a lot. I think I will be able to use the information that I learned as I continue to work on getting my degree, but also as I become a teacher. I am very glad for the opportunity to be able to go to the conference. I also really enjoyed Dr. Ed Porthan and his talk on Boats, Streams, and Dreams. It gave me a lot of information to think about in my own life, but also to teach my children once I have my own classroom.

I'm excited to try all the engaging techniques learned from SDCTM in my student teaching experience and future years of teaching.

Jacque Boyle

Favorite Link Spotlight

This is pretty slick. I needed some graph paper recently and found this link on SDCTM's webpage (www.SDCTM.org).

You get to set the paper size, margins, units (cm/inches), lines per cm or inch, thickness of the lines, whether or not you want the axes in bold, etc.

http://www.classbrain.com/artteensb/publish/create_custom_graph_paper.shtml

“I'm excited to try all the engaging techniques learned from SDCTM in my student teaching experience and future years of teaching.”



Math Specialists Roam South Dakota to Help Elementary Teachers

By Sean Cavanagh
Reprinted with permission

Roxane M. Dyk's office is located in the town of Platte, in South Dakota, though in reality, her office is her car. Ms. Dyk estimates she's spent three out of every four days this fall on the road, putting 1,200 miles on her 2001 Dodge Stratus over a recent 10-day period.

Ms. Dyk is not making sales calls—she's visiting schools. She's one of several roving mathematics specialists who work with the state to provide training to elementary teachers, a group of educators who often need considerable help in that subject.

State and local school leaders, as well as professional organizations, have paid increasing attention to improving the math skills of early-grades teachers in recent years. That renewed emphasis has emerged in response to federal testing mandates in elementary school math and also to the recognition that students stand little chance of succeeding in secondary math topics if they flounder in the subject's more basic content.

Most elementary teachers are generalists who are asked to cover all subjects—math, science, reading, social studies—at their grade level. Many have completed only one or two college-level courses in math, coursework they might barely remember.

Three years ago, South Dakota officials set out to overcome those hurdles through the creation of a professional-development and mentoring program called [South Dakota Counts](#). The program tries to build teachers' confidence and content knowledge in math. It also encourages them to teach math in a different way, prodding students to explain their answers orally and in writing as ways to increase their depth of knowledge of basic arithmetic and other topics.

The South Dakota program begins in the summer, when Ms. Dyk and math specialists from around the state meet with select elementary teachers at a weeklong seminar. Throughout the school year, the specialists meet with smaller groups of teachers from their assigned regions.

Ms. Dyk said she speaks to the teachers in her group about how students benefit from talking about solutions to math problems rather than just churning out answers. She then asks the teachers to try that verbal approach themselves.

"Once you ask them, 'Can you explain how you did that?,' you see there are a lot of misconceptions out there," Ms. Dyk recalled. "They had never had to visualize what they knew. It was just memorization."

South Dakota officials refer to that process of written and oral explanation as "cognitively guided instruction," or CGI. After meeting with groups of teachers in her region, Ms. Dyk begins the work that really racks up the miles on her car. She travels to schools to observe individual teachers in class and offer them suggestions. The idea is that those educators, once they've received that help, will become "teacher leaders," who can work with elementary colleagues in their build-ings.

Talking Through Lessons

One teacher-leader Ms. Dyk has worked closely with is Sheryl Muckey, a 4th



South Dakota Counts math specialist Roxane M.

Dyk works with Colin Lagge on a math problem in a 4th grade class at Corsica Elementary School.

—Photo by Dave Eggen/inertia for Education Week



grade teacher in the 165-student Corsica School District 21-2. Ms. Muckey's math background is typical of many elementary teachers'. She took a few courses in college, but that was about 25 years ago. She says she did not need help with math content so much as she wanted ideas on how to present lessons in new ways and deepen students' understanding.

Some of Ms. Dyk's advice focused on individual problems. After observing one class, Ms. Dyk suggested that the teacher use certain numbers, like 22, when discussing place value, so that it would be easier for students to "hear" the 10s and ones being said. Other suggestions were aimed at having Ms. Muckey ask more probing questions of students and prove their math knowledge. Ms. Dyk recommended that her students explain in writing why answers to various math problems were true or false. Ms. Dyk also encouraged the Corsica teacher to have the students keep math journals, with words and drawings describing solutions to math problems.

"It's things I don't always think of," Ms. Muckey said. "You teach kids for 20 years, you do certain things automatically."

South Dakota Counts has helped teachers in 100 districts; 180 teacher-leaders are participating. The program is financed with a \$900,000-per-year grant from the U.S. Department of Education's Title II program, which supports state and local professional-development ventures.

Improving elementary math education, and the skills of teachers who deliver math content, has received increased attention from policymakers and advocacy organizations in recent years.

Two years ago, a major professional organization, the National Council of Teachers of Mathematics, published ["Curriculum Focal Points for Prekindergarten Through Grade 8 Mathematics,"](#) a document that seeks to provide educators with clearer direction on the most essential math topics they need to cover.

And earlier this year, the [National Mathematics Advisory Panel](#), a group commissioned by President Bush to report on effective strategies for preparing students for algebra and advanced math, recommended a more focused curriculum in prekindergarten through 8th grade. Students in those grades need strong grounding in fractions, whole numbers, and elements of geometry and measurement, the panel concluded.

Demand for Assistance

Early-grades teachers seek help from many sources. About 40 percent of the NCTM's conference workshops, publications, and online materials are devoted to pre-K-5 teachers, said James Rubillo, the executive director of the 100,000-member organization, based in Reston, Va. The NCTM targets math specialists, teacher-leaders, and curriculum supervisors in particular, reasoning that they are most effective in helping their colleagues, he added.

Demand for help from elementary teachers, especially at the pre-K-2 level, has risen in recent years, Mr. Rubillo said. Those early-grades teachers often say, "Help us understand the reasons behind the procedures," the NCTM official said in an e-mail. "Help us make sure that we teach mathematics with more understanding than we experienced ourselves."

Pinpointing the math content that is most crucial to elementary math teaching has also been a focus of the National Science Foundation, a federal agency that subsidizes research projects across the country on a wide variety of math and science education topics.

"South Dakota Counts has helped teachers in 100 districts; 180 teacher-leaders are participating."

"Help us understand the reasons behind the procedures..."

Much of the research on elementary-level math educators focuses on cultivating a "deep



“South Dakota officials have sought to build that understanding on several fronts...”

Math Specialists Roam South Dakota to Help Elementary Teachers...continued

understanding tied to the math they’re actually teaching,” said Joan Ferrini-Mundy, the director of the NSF’s division of research on learning in formal and informal settings.

South Dakota officials have sought to build that understanding on several fronts, said Stephanie Weideman, the director of the office of curriculum, technology, and assessment for the state education department. In addition to the teacher-to-teacher training provided by South Dakota Counts, the state has worked with Black Hills State University to establish a “math specialist” endorsement for educators who want to be recognized for their skills and their ability to mentor others.

Many students “didn’t have the skills necessary when they left elementary school to continue to improve at the middle and high school level,” Ms. Weideman said. “We worked to make sure we gave them the strong foundation, so they could perform at a high level cognitively when they got to the high school level.”

Coverage of mathematics, science, and technology education is supported by a grant from the Ewing Marion Kauffman Foundation, at www.kauffman.org.

As first appeared in Education Week, October 29, 2008. Reprinted with permission from Editorial Projects in Education.

2009 Summer Symposium — Mark your Calendars!

- What?** One day symposium on using Geometer’s SketchPad as a tool in your algebra class
- Why?** To enrich your students’ experience and understanding of algebra
- When?** June 19, 2009
- Where?** Dakota Wesleyan University, Mitchell, SD
- Who?** Taught by Dr. Rocky Von Eye for all who are interested. The pace will be adjusted to the skill level of the attendees. No prior knowledge of SketchPad is necessary.
- Credit?** College credit will be available ...but not free.
- Contact?**

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Brenda Danielson	brenda.danielson@k12.sd.us
Steve Caron	steve.caron@k12.sd.us



Print a copy of this form. Mail with check payable to SDCTM to:

Diana McCann
41876 Apple Tree Road
Springfield, SD 57062

Name _____

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Subjects or Grades Taught _____

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