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NebraskaMATH September 2009 Newsletter

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"NebraskaMATH September 2009 Newsletter" (2009). *NebraskaMATH Materials*. 9.

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September 2009

Fast Moving Educational Initiatives

On both state and national fronts, there are some education issues appearing on the radar screen which will, in the not-so-distant future, have a significant impact on teachers, schools (and, of course, students) across the state of Nebraska.

Some of these issues include:

- The revision of the Nebraska State Standards in mathematics (spearheaded by the Nebraska Department of Education) in order to establish a statewide mathematics assessment;
- The unveiling of eight educational goals by Governor Dave Heineman (see below), including raising high school graduation requirements and closing the achievement gap between minority and white students;
- The fact that Nebraska is among the 49 states (as of June 2009) that have joined the Common Core State Standards Initiative, a state-led process to develop a set of core standards in language arts and mathematics for grades K-12 leading to a common assessment.

In the next several installments of the NebraskaMATH newsletters, we will attempt to unpack some of these issues, identify the key players involved and describe how they might affect Nebraska schools and classrooms. Furthermore, along with its partners, UNL and NebraskaMATH leaders are planning to host a **Nebraska Summit on Mathematics Education on December 14, 2009** where we will invite presentations and discussions among personnel invested in educating Nebraska's students. Watch for more details in future newsletters.

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NebraskaMATH Summer Activities

From June through August, over 200 teachers from across Nebraska returned to the classroom as learners enrolled one or more of the professional development courses offered as part of the Math in the Middle or NebraskaMATH grants or through the new, locally-funded Nebraska Math & Science Summer Institutes. As part of NebraskaMATH, thirty-five elementary teachers gathered in June for two weeks to begin coursework towards a K-3 Math Specialist Certification as part of the Primarily Math program. Fifty-four algebra teachers (some from as far as Gering, NE) gathered on UNL's campus for two weeks in either June or July to take Algebra for Algebra Teachers and Cognition & Instruction for Algebra Teachers, the first courses in the Nebraska Algebra program.

In Lincoln, thirty-two teachers completed the Math in the Middle program and earned their Master's degrees, while in Omaha, twenty OPS teachers completed four Math in the Middle courses, reaching the 'half-way' mark on their journey to earning a master's degree.



Bryan Pilakoski & Ryan Shumann participate in the first cohort of Nebraska Algebra.

...Continued on page 3

From page 1:

The Nebraska P-16 Initiative and the Eight Goals for Education

Speaking for several State leaders, Governor Dave Heineman announced these eight new educational goals to improve academic performance of students (see http://www.journalstar.com/news/local/article_4a1a318a-90d8-11de-a5f7-001cc4c002e0.html for a summary of the press conference):

1. Require four years of English and three years each of math, science and social studies in Nebraska districts by 2014-15 school year.
2. Eliminate academic achievement gap between Nebraska's K-12 white students and black, Hispanic and Native students.
3. Develop a data system that can confidentially track a student's progress from preschool through post-graduate degree attainment and entry into the workforce to help align resources with strategic goals.
4. Increase Nebraska's high school graduation rate to 90 %.
5. Improve state's college-going rank to the top-10 tier nationally.
6. Provide affordable access for Nebraska students to attend Nebraska's post-secondary institutions.
7. Improve time-to-degree completion and increase graduation rates of Nebraska's post-secondary institutions.
8. Increase by 5 percent the number of teacher education graduates in the areas science, technology, engineering and mathematics (STEM) within Nebraska postsecondary institutions.

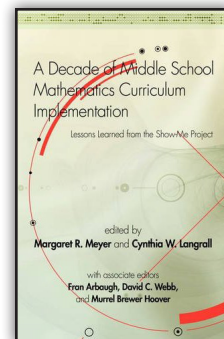
One of the organizations working to achieve these eight goals is the Nebraska P-16 Initiative. The Nebraska P-16 Initiative is a coalition of twenty-seven Nebraska organizations in business, government and education which work together to improve success for students from preschool through college. Governor Heineman chairs this initiative, with co-chairs representing the senior partners: Senator Greg Adams, Chair of the Nebraska Legislature's Education Committee; Roger Breed, Commissioner of Education; Liz Koop, President and CEO of the EducationQuest Foundation; and J.B. Milliken, President of the University of Nebraska.

The leaders of the Nebraska P-16 Initiative are currently forming committees to address each of the eight goals. For more information about the Nebraska P-16 Initiative, visit the Web site at <https://p16.nebraska.edu/>.

Book Review:

Is your school considering a new math curriculum?

A recent publication has been made available to individuals and institutions seeking guidance on successful strategies for mathematics curriculum selection and implementation. The book, by Margaret Meyer and Cynthia Langrall, is entitled *A Decade of Middle School Mathematics Curriculum Implementation: Lessons Learned From The Show-Me Project*. Reviewer Carol A. Rodano, adjunct professor of mathematics education and middle-school mathematics teacher in New Jersey, states "Any school district that is considering an adoption of a new mathematics program will find this book to be a valuable resource. Middle schools districts who have already adopted [a] standard-based mathematics curricula will find a great deal of useful information to help them with professional development. Any mathematics educator, teacher, supervisor or administrator will find this book extremely informative about lessons learned about curriculum implementation over the last ten years...."

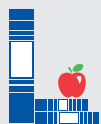


A full review of the book is available at:
<http://edrev.asu.edu/brief/aug09.html#9>.

Meyer, Margaret R. and Langrall, Cynthia W. (2008). *A Decade of Middle School Mathematics Curriculum Implementation: Lessons Learned From The Show-Me Project*. Charlotte, NC: Information Age Publishing. **Pages: 298 Price: \$39.99 ISBN: 978-1-60752-012-2**

Pure mathematics is the world's best game.
It is more absorbing than chess, more of a
gamble than poker, and lasts longer than
Monopoly. It's free. It can be played any-
where - Archimedes did it in a bathtub.

~Richard J. Trudeau, Dots and Lines



NebraskaMATH is supported by the National Science Foundation grant DUE-0831835, with additional support from the Center for Science, Mathematics and Computer Education, located at the University of Nebraska-Lincoln.

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NebraskaMATH Summer Activities, from page 1:

UNL partnered with ESUs 10, 13, 8 and 7 to offer three NebraskaMATH courses in locations accessible to teachers in western and rural areas of Nebraska. Forty-two mathematics teachers enrolled in courses in Norfolk, Scottsbluff and Kearney. Courses for mathematics, statistics, science and computer science teachers were also completed by Nebraska teachers on UNL's campus at discounted tuition rates.

Later this month, NebraskaMATH personnel be meeting with ESU representatives, NDE representatives and other leaders in education to seek advice as to how the NebraskaMATH partnership and UNL's Center for Science, Mathematics and Computer Education can best partner with ESUs to support Nebraska's math and science teachers. We will share information about additional professional development opportunities that result from this discussion in later issues of the NebraskaMATH newsletter.



Teachers work with geometric shapes as part of the Primarily Math course held on the University of Nebraska-Lincoln campus this summer. Clockwise from top right: Lisa Bartz, Kina Stefka, Megan Fleishman, and Kelly Dockweiler.

Highlight on Action Research Mathematical Communication within a Daily Small-Group Learning Environment

by Amy Wilson, M² Cohort 3



Abstract: In this action research study of a fifth grade mathematics classroom, I investigate how a daily small-group learning environment influenced students' ability to communicate their mathematical thinking in verbal and written form. I discovered that a small-group atmosphere provided more opportunities for direct instruction. I also found that the emphasis on communication helped students to articulate their thinking more clearly when they wrote and spoke of their mathematical ideas. Most students preferred to work in small groups because they appreciated the support of their peers. Students felt they were more likely to ask teammates for help when they had questions as compared to a traditional classroom setting. The research supports the value of small-group settings in the mathematics classroom where students work with their homework teams on a daily basis and where presentations are used as a communication tool for students to share their thinking related to specific problems assigned.

To read Amy's full paper and other action research papers from the Math in the Middle Program, see <http://scimath.unl.edu/MIM/ar.php>.

Save the date!
Nebraska Summit on
Mathematics Education
December 14, 2009



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Congratulations to Math in the Middle Grads!

On Friday, August 14, thirty-two teachers from the fourth cohort of Math in the Middle earned their Master's Degrees. These teachers have not only developed their mathematical knowledge for teaching and enhanced their pedagogical skills, they have created a community of peers that will assist them as they return to their classrooms.

Following is a list of our graduates, including their ESU, school, and city of residence:

- | | |
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| <ul style="list-style-type: none">π Teena Andersen, ESU 2, West Point Elementary School, Pilgerπ Ali Arndt, LPS, Lux Middle School, Lincolnπ Katherine Bohac, ESU 7, East Butler Public Schools, Valparaisoπ Michael Bomar, ESU 2, Wahoo Middle School, Wahooπ Mary Alice Carlson, LPS, Mickle Middle School, Lincolnπ Mindy Fichtner, ESU 10, Gibbon Elementary School, Kearneyπ Michael Ford, ESU 10, Elm Creek Public Schools, Kearneyπ Jeremy Fries, ESU 6, Crete High School, Lincolnπ Stephanie Fuehrer, ESU 11, Holdrege Middle School, Holdregeπ Michaela Goracke, ESU 9, Harvard Public School, Harvardπ Marlene Grayer, OPS, Alice Buffett Magnet Middle School, Omahaπ Marilyn Hein, ESU 5, Diller-Odell Jr./Sr. High School, Fairburyπ Shayne Hite, ESU 16, Perkins County Elementary, Grantπ Scott Johnsen, ESU 15, Medicine Valley Jr./Sr. High School, Curtisπ Brian Johnson, ESU 4, Nebraska City Middle School, Nebraska City | <ul style="list-style-type: none">π Gretchen Long, ESU 1, Umonhon Nation Public School, Missouri Valleyπ Michelle Looky, LPS, Culler Middle School, Lincolnπ Corie Lubash, LPS, Park Middle School, Lincolnπ Sheila McCartney, ESU 9, Lawrence/Nelson Jr.-Sr. High, Nelsonπ Ryon Nilson, ESU 1, Creighton Community Schools, Creightonπ Marci Ostmeyer, ESU 7, Cross County Middle School, Osceolaπ Maggie Pickering, LPS, Irving Middle School, Lincolnπ Lori Pierce, ESU 8, Verdigre Attendance Center, Verdigreπ Edie Ronhovde, ESU 2, Fremont Middle School, Fremontπ Lindsey Sample, ESU 6, Milford Elementary, Lincolnπ Mary Schneider, ESU 11, Holdrege Middle School, Holdregeπ Cathy Jo Schultz, ESU 2, West Point Elementary School, West Pointπ Amy Solomon, ESU 10, Lexington Middle School, Kearneyπ Geri Steinbrink, ESU 11, Arapahoe Elementary School, Arapahoeπ Jessica Thompson, ESU 9, Superior Jr/Sr High School, Mankatoπ Lexi Wichelt, ESU 9, Hastings Middle School, Kearneyπ Brandee Wilson, ESU 16, Arthur Elementary School, Lemoyne |
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