



Math in the Middle benefits teachers

Twenty-six middle level teachers have graduated from the Math in the Middle Institute Partnership. Not only did they learn more math than typical middle level math teachers are expected to know, they enhanced their pedagogical knowledge as well. We asked members of our first graduating cohort: Is there anything you are doing in your mathematics teaching this year you would say comes from having participated in Math in the Middle. Some of the responses are printed below.

“A lot of things are happening because of my participation in Math in the Middle. The biggest change has been the use of Habits of Mind problems. These problems have encouraged students to look more deeply at all kinds of math problems. Habits of Mind problems get my students to: discuss a variety of problem-solving strategies; work on explaining their thinking in a clear, concise manner; develop algebraic and geometric thinking and see how the two are connected; and improve their presentation skills. **Virginia Clark, Waverly Middle School**



“Because of my M² background I have been asked to serve on the district-wide mathematics curriculum committee which is selecting new mathematics textbooks this year. It is a wonderful experience to view and analyze the wide variety of materials available for the teaching and learning of mathematics in our schools today.” **Natalie Jenkins, High Ability Learning Coordinator, Gering Public Schools**



Gordon-Rushville Middle School seventh-grade Math Mania students have learned that math rocks. Math Mania is a 45-minute exploratory class that provides experiences to broaden students’ conceptual understanding of mathematics. Activities include intense problem solving and learning to apply mathematical strategies in games. Student favorites include Sierpinski’s triangle, probability and using math to create art. The Math Mania class is devoted to Habits of Mind type problems, which instructor Stacie Lefler attributes to her participation in Math in the Middle. **Submitted by Stacie Lefler, Math Mania teacher, Gordon-Rushville Middle School**



“I have challenged my students more this year than I have ever done before. I never had the confidence in myself or my students to try some of the different, more challenging things we do. My curriculum, overall, is more challenging. I find myself questioning the students instead of telling the students...The bottom line is that I am having more fun teaching this year due to the fact that Math in the Middle is paying off for me and my students. It is a great feeling!” **Kyle Poore, Crete Middle School**



“I am having my seventh-grade students describe what is happening in a problem that would lead to a recursive rule. I am also having them describe what is happening that would tell about a recursive rule and then write the recursive rule. I have used several Math in the Middle problems to do this, such as the clothesline problem and the S problem. I use nouns and adjectives to teach or review the concepts of decimals, fractions, variable expressions and square root expressions.” **Janet Schlattmann, Alliance Middle School**



“I have totally changed everything I do. I am more prepared. I have taught concepts to my students that I never thought they could do. I always check for understanding. I have them write in their journals so they can write their feelings down.” **Danielle Swanson, special education teacher, Alliance Middle School**



Action research papers available online

In the November issue of this online newsletter, we featured a story on the action research projects Math in the Middle teachers conduct in their classrooms. The final papers from many of the Cohort 1 participants are now available to read online at: <http://scimath.unl.edu/MIM/researchproj.html>.



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NU-Teach offers professional development opportunities

During the selection of our fourth, and most likely final, cohort of Math in the Middle participants, we experienced a great demand for the program.

This gave us dramatic evidence of the need for professional development opportunities for math (and science) teachers at all levels. In response to that demand we have developed NU-Teach, a new initiative to assist teachers in strengthening their mathematical, scientific and computer knowledge for teaching.

For Summer 2007, we have scheduled eight courses: five in mathematics or mathematics education, one in physics, one in astronomy and one in computer science. The math courses are listed below.

Math 825T - Topics in Real Analysis for Secondary Math Teachers (3 cr.), taught by Dr. Gordon Woodward, 8 a.m. to noon, June 18-22 and June 25-29, UNL.

TEAC 880P - Instructional Technology for Secondary Math Teachers (3 cr.), taught by Dr. David Fowler, 1 p.m. to 5 p.m., June 18-22 and June 25-29, UNL.

Math 800T - Math as a Second Language (3 cr.), taught by Dr. Cheryl Olsen with ESU teachers Sandi Snyder and Virginia Clark, 8 a.m. to 1 p.m., June 11-14 and June 25-28, Norris High School.

Math 802T - Functions, Algebra and Geometry (3 cr.), taught, in conjunction with Lincoln Public Schools, by Delise Andrews, Kristin Johnson and Dr. Jim Lewis, 8 a.m. to 3:30 p.m., June 18-22 and June 25-29, Lux Middle School.

Math 808T - Concepts of Calculus for Middle Level Teachers (3 cr.) taught, in conjunction with LPS, by Dr. Michelle Homp and Sherry West, 8 a.m. to 4:30 p.m., June 11-15, Lux Middle School.

For more information on the courses or to read about the science and computer education courses, visit the NU-Teach Web site at:

http://www.unl.edu/gradstudies/teachneb/nu_teach.shtml.

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To register or for more information contact Jason Cruise in the office of Graduate Studies at 402-472-2845 or via e-mail at jasoncruise.graduate@unl.edu.

Housing and a meal plan are available for those who wish to stay on campus. Contact Sharon Penry for more information at 402-472-9312 or spenry2@unl.edu.

Study shows no edge for students using technology-based reading and math products

An online Education Week article reports that a \$10 million federal study of 15 educational software products has found no discernible difference in achievement between students who used the programs and those who didn't. The findings are in a report to be presented to Congress on the first year of the two-year, federally funded study. The research adhered to the U.S. Department of Education's standards for scientific rigor. Software products were selected in four math and reading categories, including 6th grade pre-algebra and 9th grade algebra. The study team recruited school districts with large proportions of students in poverty, and compared classes overseen by teachers who used the technology with classes of teachers who taught using different methods. Trained classroom observers monitored how well the software was implemented. Researchers measured student achievement by standardized test scores.

The study does not disclose individual performance results for each product, but only aggregated findings.

The full article can be found at:

http://www.edweek.org/ew/articles/2007/04/04/32software_web.h26.html.

Moore honored by UNK

Linda Moore, a member of the second cohort and a teacher at Lexington High School, was recently honored as the Cultural Unity Conference Educator of the Year by the University of Nebraska at Kearney. Moore was nominated by former students who are now education majors at UNK.



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