



Newsletter

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More about New Mexico District Leadership Teams

Janice Bradley

Ten Mathematics District Leadership Teams (MDLT) across New Mexico are using Lenses on Learning resources to create strong mathematics programs for all students. The teams meet 4-6 times per year to study and learn collaboratively about key components of an effective math program - mathematics content and curriculum, instruction, assessment, equity, and professional development. There are Year 1 and Year 2 teams. Teams in Year 1 become aware of and build knowledge of a mathematics program by collecting data, then identifying strengths and challenges in their district. Year 1 teams create an action plan at the end of Year 1 to implement during the following year. Year 1 teams include the Cobre District, Moriarty, Ruidoso, Hobbs, and four middle schools in Las Cruces.

Year 2 MDLTs are implementing their action plan created in Year 1 and assessing results. Year 2 teams include Lovington, Cimarron, Springer, Mora, and three middle schools in Las Cruces. Year 2 teams' focus is application into practice, then reflecting on results. Teams study how their school system works together to realize their vision and goals by

studying research articles and data, and by learning together in classrooms to better understand how students think and reason about mathematics.

All team members are acknowledged for their hard work, commitment, efforts, and focus for investing time and energy toward mathematics success for all students.

In upcoming newsletters MDLT's will share how they are implementing in practice and their results.

MC² Upcoming Academies

Michelle Sterling-Rodriguez



Greetings to our MC² family and community! Once again we are rolling up on MC² summer academy time. We want to take this opportunity to share a little about the plans for academy structure and learning. Our efforts continue to revolve around creating rich standards-based learning environments in mathematics classrooms across the state. Engagement is where it's at!

Vertical Alignment sessions will focus on *proportional reasoning*, which directly builds off of last summer's theme of *multiplicative reasoning*. In addition

we will continue to offer pedagogical sessions that will specifically address cooperative learning, assessment, differentiation, ELL, and CMP Basics. This year MC² is offering a second week for teachers to continue with a study of proportional reasoning and build on topics from Week 1. Look for registrations on the MC² website at <http://mc2.nmsu.edu>. For brief overview of offerings look in this issue under "SAVE THE DATE".

Getting to Know the MC² Staff

Tom Gruszka

Professor of Applied Mathematics,
Western New Mexico University
Silver City, NM



Tom has been teaching at the college level for over 30 years. He was a math major in college (at Rochester Institute of Technology, south of Rochester, NY). During Tom's last years in college he worked for the CIA in the Washington, DC area, then at Xerox Corp. in Rochester, NY; after his first year in graduate school he worked for a consulting company in the Washington, DC area. Tom received his M.S. and Ph.D. in Applied Mathematics from the University of Arizona in Tucson. While working on his graduate degree, Tom taught a lot of undergraduate math

courses, and realized that he enjoyed teaching (something he thought he would never do). Partly what Tom enjoys about teaching is how much he learns when trying to figure out how to explain things to others; also he really enjoys interacting with students of all ages and backgrounds. Prior to coming to WNMU Tom taught for a few years at Grand Valley State University, a school in the western part of Michigan. It was there that he began to learn how to use technology in teaching. During this 30-year period Tom married and now has six children ranging in age from 10 to 22. Tom started working with MC² in 2004, then as project director of the WNMU MSP, partnered with MC² for 5 years, and for the last year has joined the MC² management team, while trying to figure out his role as mathematics coordinator for the project. Work and home life continually bring Tom craziness, chaos, and exhaustion, but also great joy in the many relationships that have blessed his life. Tom's interests include running, reading, playing with his children, playing basketball, watching MASH re-runs, and working out Sudoku puzzles. One recent pastime (along with his "partner in crime" Ted Stanford) is asking waitresses (or anyone else who doesn't immediately run away) how to compute 42 times 15 in their head. This has led to many interesting reactions and conversations, but it has yet to get us thrown out of any establishments. We await the day when these conversations lead to some free beer!

Save The Date!

Southwest-NM STEM Regional Conference

April 2nd
8:30am-3pm, O'Donnell Hall
NMSU Campus, Las Cruces

A day of great workshop sessions to get new ideas and materials for your classroom, talk to colleagues, and recharge your enthusiasm and energy. Lunch will be provided. To register email Terri at thansen@nmsu.edu or visit <http://education.nmsu.edu/sc2/>

MC² Secondary Summer Academies

June 6-10
Las Cruces, O'Donnell Hall
MC² Week 1- Grades 5-12

June 6-10 & June 13-17
Albuquerque
MC²-La Meta - Grades 5-12
Contact: Kristin Umland at umland@math.unm.edu

June 13-17
Hobbs
MC² Week 1 - Grades 5-12

June 13-17
Albuquerque
MC² IMP NM - Grades 9-12
Contact: Karla Gade at kgade@comcast.net

June 20-24
Las Vegas
MC² Week 1 - Grades 5-12

June 27-July 1
Las Cruces, O'Donnell Hall
Week 2 - Grades 5-12
OR
Hobbs/Las Vegas
Week 2 - Grades 5-12

Visit MC2.nmsu.edu for details.
Registrations are now
being accepted.

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Ted's Math Problems

- In 2009, Mark was a college student. When it came time to fill out his tax forms, his taxable income was \$7228. This means he was in the bracket where he pays 10% in federal income tax. What was Mark's federal tax for 2009?
- Then Mark graduated and got a job. On his 2010 tax forms, his taxable income is \$38,754, which puts him in the 25% tax bracket. Mark is pretty good at estimating with percentages, so he figures he'll owe a quarter of \$38,754 in tax, which he knows will be a number somewhere between \$9,000 and \$10,000. When he looks up \$38,754 in the table, however, he finds that he needs to pay only \$5875 in federal tax. Can you explain to Mark what his mistake is? (Mark tries to make sense of the situation by looking up some other numbers, shown in the following tax table, but he only gets more confused.)



Taxable Income	Tax
\$ 5,000	\$ 503
\$10,000	\$1,085
\$15,000	\$1,835
\$20,000	\$2,585
\$25,000	\$3,335
\$30,000	\$4,085
\$35,000	\$4,938
\$40,000	\$6,188
\$45,000	\$7,438

Answers to Fall 2010 Math Problems:

- How many ways can you show that $\frac{2}{3}$ is greater than $\frac{3}{5}$? Here are a few:
 - Draw two number lines going from zero to one, parallel to each other. Mark one in fifths and the other in thirds, and compare $\frac{2}{3}$ to $\frac{3}{5}$ as positions on the number line. (Or use folded fractions strips, as in *Bits and Pieces I*.)
 - Two thirds of a dollar is between 66 and 67 cents, and $\frac{3}{5}$ of a dollar is 60 cents.
 - Use a common denominator: $\frac{2}{3} = \frac{10}{15}$ and $\frac{3}{5} = \frac{9}{15}$.
 - Two thirds is one third less than one. Three fifths is two fifths less than 1. $\frac{2}{5} > \frac{1}{3}$ because $\frac{2}{6} = \frac{1}{3}$.
 - Convert to a decimal: $\frac{2}{3} = 0.6666\dots$ and $\frac{3}{5} = 0.6$.
- What mixture of punch would be in between 2 parts pineapple to 1 part orange (67% pineapple) and 3 parts pineapple to 2 parts orange (60% pineapple)?

There are a number of ways to solve this problem, but I'll tell you what Lulu did. She wants a mixture that is closer to the 67% than the 60%. She decides to double the 2:1 mixture and add it to the 3:2 mixture, which gives her a ratio of 7 parts pineapple to 4 parts orange. Just to be sure, she calculates this to be 64% pineapple.

Coaching Network



Pat Carden & Kathe Kanim

Math coaches are connecting state wide. We launched our learning with a two day coaching academy last August in Las Cruces with forty-eight coaches from as far away as Hobbs and Española. In December twenty-eight met in Albuquerque, with Connie Chené facilitating learning on the belief system and how coaches might effect change.

In January we were again forty-eight in Las Cruces, with internationally known instructional coach Jim Knight who took the coaches through two days of intense learning: a condensed version of Instructional Coaching level I. We have tentative plans for a one-day reflection of our learning near the end of the school year.

If you are a math coach and are interested in being part of the network, please contact Pat Carden at pcarden@nmsu.edu.

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MC² Elementary Summer Academies

July 26-28
Las Cruces
MC² Grades K-6
Contact Lisa Virag at
lvirag@nmsu.edu for details.

August 2- 4
Lovington
MC² Grades K-6
Contact Patti Ann at
paancell@hotmail.com for details.

Publications

1. "A reflective protocol for mathematics learning environments", **Cathy Kinzer, Lisa Virag and Sarah Morales**, will be published in the April 2011 NCTM Journal of *Teaching Children Mathematics*.

2. "Identity crisis: External coaches struggle to clarify roles and maintain focus on student learning," *By Julie Horwitz, Janice Bradley, Linda Hoy published in JSD, February 2011, Vol. 32, No. 1.*

Congratulations!

Principal's Corner

Patricia Carden

How do coaches and school leaders work together to build a successful working relationship to achieve a stronger learning environment for everyone at a school? Several districts and coaching groups have started book studies to learn about this relationship. The book they used is *Building Teachers' Capacity for Success* by Pete Hall and Alisa Simeral. This book is about a collaborative approach for coaches and

school leaders. ASCD, the publisher, has a study guide to help guide the discussion. For these questions go to <http://www.ascd.org/publications/books/109002/chapters/An-ASCD-Study-Guide-for-Building-Teachers%27-Capacity-for-Success.aspx>

Questions & Answers

Q: Where can I get more information on the Common Core State Standards Initiative?

A: Go to the New Mexico Department of Education web page, PED A-Z Directory, and look for Common Core State Standards Initiative or visit this link, <http://www.ped.state.nm.us/CCSSI/index.html>.

Q: When are NM school districts and charter schools required to implement the Mathematics Common Core Standards?

A: July 01, 2012

Q: How do I work with people who do not have the same belief system as I do about student learning?

A: Speak from research/data. Find national research and data that supports your belief system. Have a partnership conversation with the person, share the research/data and find common points of agreement.

Thank you to everyone who provided information for this newsletter issue!



MC² Recommended Readings

Following are some recommended readings from the December MC² staff survey. If you have not had a chance to give your input, the survey is still available. Please contact Sheila for the link. Thank you to those who have contributed!

Elementary and Middle School Mathematics, 7th ed., Van de Walle et. al. *This book does a beautiful job of laying out the vertical trajectory of mathematics topics.* **Doug**

The Common Core Statewide Standards. The latest set of math standards has been adopted by the majority of states and will be the blueprint for mathematics education for the next decade. **Doug**

Inside the black box: *Raising standards through classroom assessment*, by Paul Black & Dylan Wiliam, (Phi Delta Kappan, October 1998, 80(2): 139-149) – *Foundational work with formative assessment and what it looks like in the classroom.* **Bill**

The Adaptive School: A Sourcebook for Developing Collaborative Groups, 2nd edition, by Robert Garmston and Bruce Wellman. Norwood, MA: Christopher-Gordon, 2009 – *Recommended because it is the essential way relationships are cultivated for learning to happen.* **Janice**

MC² Enchilada Cook-Off!

Sheila Hills

Just for fun a group of MC² chefs decided to resolve who makes the best enchilada. Our chefs, Janine Jorgensen and Patti Ann Ancell, came prepared with theirs ready to pop in the oven while Manny Espinoza and Wanda Bulger-Tamez prepared their aromatic enchilada dishes as guests meandered in. Which enchilada dish would prevail?

Regina Watson, Diane Waller and Kim Wollard organized the Thursday evening *cook-off*, hosted at Wanda's house. This became a heated event. They created a rubric for judges to rate the enchiladas. As the judges (Edwina Hensley, Jim Dawson, Harry Shulte, Chris Wollard, and Eric Parra) eagerly gobbled up their portions, they rated each enchilada sample by texture, heat, flavor, and presentation. Not even a subtle bribe \$\$ from one contestant (who will remain anonymous) could sway the judges' decisions. All chefs in the end received kudos from the guests and our organizers presented them with stars and cookery tokens for their efforts. Janine's homemade tortillas and hot red Chile sauce filled with shredded pork captured the judges' taste buds the most. Congratulations!!!!

Stay tuned for Part II of the Chile Challenge!



Judges



Runner up -Manny



\$\$\$\$?



Regina, Kim & Diane - Organizers of Event



Champ - Janine



Chefs!!!

