

Summit Room, 9:10 – 10:30 AM, Keynote Address Best Practices for Creating an Active and Engaging Online Learning Environment

#### Dr. RaKissa Manzanares, Colorado University, Denver

RaKissa Manzanares is an Assistant Professor C/T in the Department of Mathematical and Statistical Sciences at the University of Colorado Denver (UCD) where she has been a faculty member since 2007. She completed her Ph.D. in Mathematics Education from the University of Northern Colorado in 2006 and her undergraduate studies at Colorado State University Pueblo in 1999. Dr. Manzanares' research areas focus on four primary areas: mentoring, innovative teaching, embodied cognition, and the development of attitudes and beliefs about mathematics and the learning of mathematics.

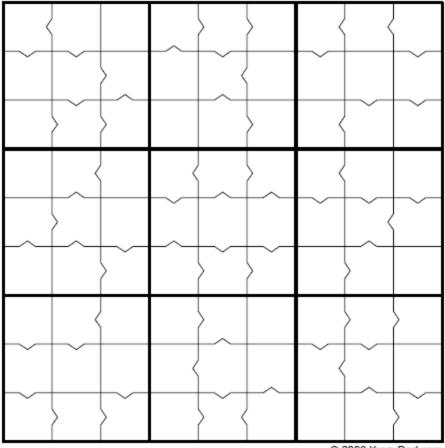
In 2013 RaKissa received the Excellence in Teaching award for the College of Liberal Arts and Sciences as well as the campus award for UCD. Dr. Manzanares is involved in a number of graduate teacher training and mentorship initiatives at UCD. She is a co-PI for the Promoting Success in Early College Mathematics through Graduate Teacher Training (PSECM-GTT) project funded by the NSF.

Dr. Manzanares is also highly involved and committed to the mathematical education of preand in-service teachers. RaKissa's interests extend beyond the classroom to empowering young people to become self-advocates and leaders in their lives and communities. She spent four years volunteering for Colorado Youth at Risk (CYAR) mentoring, coaching, and facilitating workshops designed for high school students and their mentors. RaKissa was awarded the 2011 Circle of Champions award for her continued dedication and contributions to CYAR.

How do we create an online learning environment that is more or as active and dynamic as our traditional brick and mortar classrooms? How can we supplement our current traditional classroom environments to encourage more engagement with the material outside of the classroom? How do we engage students in a dialogue about mathematics with their instructor and classmates utilizing an online learning platform? This keynote address will examine these questions as well as provide a variety of best practices to support mathematics instructors in developing learning environments (online, hybrid, and traditional) that keep students engaged and active with the content.

Tough Jigoku Puzzles by KrazyDad, Book 35

# Jigoku #2



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Fill in the blank squares so that each row, each column and each 3-by-3 block contain all of the digits 1 thru 9.

> and < connections between squares indicate that one number is greater than or less than another. If you use logic you can solve the puzzle without making guesses.

Need a little help? The hints page shows a logical order to solve the puzzle. Use it to identify the next square you should solve. Or use the answers page if you really get stuck.

For more puzzles, visit www.krazydad.com/puzzles

### 10:40 - 11:30 AM, Session 1

M3510 *The Warehouse* Holly Ashton, Gwen Wiley, David Lawton, PPCC

We will bring and share tactile activities we have tested in Math for Liberal Arts, College Algebra, Trig and Pre-calculus. Construction tips, storage and accessibility ideas, and what we have learned in the process will be shared

**M3610** Concurrent Enrollment: A Liaison Conversation Tracy Lawrence, ACC

This will be a discussion forum for sharing ideas, asking questions, and making suggestions that would ideally improve the quality and consistency for awarding college credits to dual enrolled high school. Topics will include, but are not limited to: instructor support, site visits, academic integrity, instructor qualifications, curriculum alignment, professional development, and compensation, This session has information for both the college liaison as well as, the concurrent enrollment instructor.

**M3710** *Getting the Most out of MML* Pearson Education

#### Skill Builders:

When students are struggling with their assigned homework, additional adaptive exercises are provided that help each student improve their skills until they are able to complete the assignment. The adaptive engine tracks each student's performance and delivers questions to each individual that adapt to his or her level of understanding. Instructors who assign adaptive practice will now be able to see data for their students' completed Skill Builder activities including: time spent per question, recommendations per question, and students' level of preparedness.

#### Workspace:

Workspace captures how the student got to his/her answer, not just the answer itself. It provides step-by-step feedback and hints as students work through questions. Students can access Workspace assignments anywhere. It provides a native mobile experience with handwriting recognition on a tablet or typing interface on a laptop.

### 11:35 AM – 12:15 PM, Lunch and Business Meeting AMATYC Update Summit Room

Intermediate Killer Sudoku Puzzles, Volume 6, Book 33

11		6	10	18			12	
12					17		9	
10		23		10	5			11
12	44					41		
			14	23				11
5					5		9	
11		10	18		13			14
12				9				

## Killer Sudoku #2

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"The best thing about animals is that they don't talk much -- Thornton Wilder

Fill in the blank squares so that each row, each column and each 3-by-3 block contain all of the digits 1 thru 9.

The dotted lines indicate areas which also contain a non-repeating set of digits. These squares can be added together to produce the sums shown in the clues.

Be sure to use the answers page if you get stuck!



For more puzzles, visit krazydad.com

### 12:15 - 1:05 PM, Session 2

**M3510** Developing Conceptual Understanding and Critical Thinkers in an Introductory Statistics Course

RaKissa Manzanares, CU Denver

Teaching an introductory statistics course is a great opportunity to develop critical thinking skills in our students. Further a major objective of such a course should include activities that help students to become more critical consumers of statistical information. One approach to developing these types of critical thinking skills is to provide students with opportunities to look back at what summary statistics and graphical summaries tell them about the sample data and the concepts they are studying. This activity based session will focus on activities designed to develop both critical thinking and conceptual understanding of the big ideas in an introductory statistics course.

#### M3610 How Mathematics Transforms the World

Gary Rockswold, Emeritus Professor of Mathematics, Minnesota State University, Mankato

Mathematics is a discipline that is often focused on detail. This presentation takes a look at the Big Picture, discussing what mathematics does and how it influences our world. It concentrates on the forest rather than the trees, so to speak. The presentation covers many different subject areas and topics, where mathematics is essential to their success. This presentation is a PowerPoint, multimedia presentation that I have given on several occasions both as keynote addresses and also in breakout sessions. People tend to enjoy it because it takes a broad view of what we do as mathematicians and why mathematics will become even more important in the future. Please let me know if you need any more information.

**M3710** Math Pathways and Support Classes Alicia Turner, Jason Burke, Teresa Adams, CCD

CCD implemented Math Pathways in fall of 2016. The goal is to place students early in their academic careers into a math course that is required for their degree choice. The result is an increase in statistics and math for liberal arts classes and a decrease in college algebra. Each gateway course has a support lab associated with it for students that have not shown college readiness. MAT 093 is a support class for MAT 121 College Algebra. At risk students enroll in MAT 093 to support the learning that occurs in MAT 121. It is a lab class and is designed to be active. We focus on pre-requisite skills as well as current MAT 121 content. Attendance is a component of MAT 093 along with just in time teaching and coverage of current content.

### 1:15 – 2:05 PM, Session 3

**M3510** *Tips & Tricks in Teaching Developmental Math* **Mike Parcha, PPCC** 

I will be presenting Developmental Math in fun and creative ways using a whiteboard and markers in an interactive lecture format. Attendees will participate as students as well as be able to share their own ideas as educators. The goal is to inspire and encourage one another and our students to learn, love, and enjoy math.

**M3610** Web Accessibility, New Courses, and Custom Tools Hawkes Learning

Hawkes Learning will present new corequisite courses aligned with STEM and non-STEM pathways, an overview of web accessibility basics, and new features for course customization, including the latest innovation in question-authoring technologies: Question Builder. Win a \$25 Amazon gift card!

### 2:15 - 3:05 PM, Session 4

**M3510** Low-Tech/High-Engagement Math Class Activities Gayle Krzemien, PPCC

This past year I have worked on developing ways to have my students in MAT 050 and MAT 055 engage more with their classmates for deeper learning.

Not being very tech savvy like some of my colleagues, my goal has been to develop activities using simple and easily accessible materials that can be used for numerous concepts in MAT 050/055/121. Most can be completed in small groups in no more than 15-20 minutes of class time.

This session will incorporate extensive participation by the attendees in small groups to experience different activities and then brainstorm briefly on how each might lend itself to concepts in each of the three suggested courses.

I plan to set up several "stations" so the groups can rotate to each activity, experience it, and then have a short debrief on how the members think it might be applied in their classes.

All activity materials and instructions, as well as the collective brainstorming of participants will be disseminated after the conference so participants can personalize them for their classroom needs as well as sharing them with institutional colleagues who had not attended this session.

**M3710** *Think Different<sup>TM</sup>, Teach Different* Heidi Barrett & Danielle Staples, ACC

ACC was the recipient of a CCCS innovation grant where ACC received 120 iPads, five charging cars and four days of Apple Training. ACC has used this training to become more familiar with the iPad and to learn best practices for teaching with iPads.

ACC has had quite the learning curve integrating iPads in our College Algebra classrooms and we would like to share our experience with our colleagues. Lessons will range from working with IT to establish the infrastructure, working with our novice users (both students and staff), changing settings within platforms like MyMathLab, using apps to enhance mathematical communication and supplementing instruction in D2L.

A brief outline of our presentation:

- Welcome and Background
- Overview of Classroom Cart and Distribute iPads
- Using Notes and Apple TV
- Using MyMathLab
- Using Photos and Explain Everything

### 3:05 – 3:30 PM Closing and Social Time Gourmet Snacks Sponsored by Pearson Education Summit Room

Happy Hour for Retirees Jeff Berg, Marilyn Frydrych, Nancy Swartz 3:45pm - ?? Platte River Bar & Grill (right across Santa Fe from ACC) 5995 S Santa Fe Dr.