

**MOMATYC**  
Missouri Mathematical Association of Two-Year  
Colleges

2019 Spring Conference



Metropolitan Community College – Penn Valley  
Campus

April 5-6, 2019



**Thursday, April 4<sup>th</sup>, 2019**

<b>6:30 to 10:00 pm</b>	<b>Conference Check – In and Reception</b> Studio 6 - Kansas City
<b>Hospitality Room</b>	<i>Join us for snacks, drinks, and conversation!</i>

*Breakfast is provided at Studio 6 Hotel each morning.*

**Friday, April 5<sup>th</sup>, 2019**

<b>8:00 – 8:30 am</b>	<b>Conference Check – In</b> Metropolitan CC, Penn Valley Campus
PV EC 019	
<b>8:30 – 10:20 am</b>	<b>Keynote Session: The Arithmetic and Algebra of Clocks</b> Dr. Andrea Rothbart On Friday, April 5, you'll leave the real number system and move to the world of mods, where we'll solve assorted arithmetic and algebra problems. Sometimes the algebra will appear familiar, and other times.... well.... when you leave an algebraic field, strange stuff can happen. You may want to bring scratch paper, because we'll be solving the problems collectively.
PV EC 019	

Notes:

## Breakout Session #1

**10:30 – 11:20 am**

Marissa Geyer,  
Knewton  
Education

Dr. Becky  
Moening,  
Knewton  
Education

PV EC 005

### **Redesigning the Math Curriculum with Corequisite Courses: Planning & Practice**

The co-requisite model is built to offer support to students as they need it and recent implementations of the co-requisite model have found great success. Co-requisite pairings offer personalized, just-in-time remediation to students at times of relevance throughout the semester. In this session, we'll explore the challenges and opportunities presented by redesigning the math curriculum to incorporate corequisite courses and know how Knewton's alta courseware can help.

Brandy Englert,  
St. Louis  
Community  
College, Forest  
Park

PV EC 006

### **That's Not in My Notes!**

If you collect or review student notes in developmental classes you've probably noticed they treat their math notes more like creative writing. Examples are often not labeled or incomplete and very rarely do they include explanations or justification for the steps used to solve the problem. This often leads to students feeling like taking notes is pointless since the homework looks nothing like them. This session will provide examples and discuss the methodology behind implementing guided notes in developmental math classes to help students build good note taking skills.

<p>Samantha Fay, Crowder College</p> <p>PV EC 007</p>	<p><b>Crowder College’s Path on the QR Pathway</b></p> <p>In spring 2017, Crowder College piloted a new course, Math 125 – Quantitative Reasoning, in preparation for the state’s new Quantitative Reasoning pathway. This new class focuses on student group-work and includes a spreadsheet component. Come learn about our steps from pilot to today, including the development and refinement of the co-requisite support course, the training and implementation across five campuses, the online class, and the 8-week cohort class.</p>
<p>Gavin Waters, Missouri Western State University</p> <p>PV EC 008</p>	<p><b>Jupyter Notebooks</b></p> <p>An introduction to Jupyter notebooks and other open source resources. Primarily applicable in teaching Introduction to Data Science, Python for Data Analysis, and Bayesian Data Analysis. Bring a laptop if you would like to work alongside.</p>

Notes:

## Breakout Session #2

11:30 – 12:20 pm

Tim Wilson,  
Pearson

PV EC 005

### **What do you know about...Adaptive Learning and other Co-Req Solutions**

We will run through why to use adaptive learning and the multiple ways MyLabMath can be set up to be adaptive. We will also discuss how these capabilities can be used in Co-Req models as well as other tools within MyLabMath that address Co-Req and Pathway needs.

Jacob Lewellen,  
Ozarks Technical  
Community  
College

Lindsey Fuentes,  
Ozark Technical  
Community  
College

PV EC 006

### **Online Mathematics Tutoring: Lessons Learned**

In 2008, OTC started online math tutoring. In this session, the Director of our tutoring center will explain its origins as well as all its iterations. A tutor that has tutored online for over 10 years will also be there to answer questions from her perspective. Participants will then play a game to simulate the online tutoring environment to understand the different challenges involved. Participants will also receive a copy of OTC's tutoring handbook.

Gavin Waters,  
Missouri Western  
State University

PV EC 007

### **Using Machine Learning for Placement Exams**

A data heavy representation of the success MWSU has had since instituting a Mathematics Placement Exam. I will illustrate how the set up the exam and why it's important to use.

<b>12:30 – 1:20 pm</b> PV EC 019	<b>Lunch</b> <i>Enjoy a boxed lunch and visit with your colleagues</i>
<b>1:30 – 2:00 pm</b> Atrium area outside of PV EC 019	<b>Visit with Vendors</b>

Notes:

### Breakout Session #3

2:00 – 2:50 pm

Hannah  
Bullard,  
Hawkes  
Learning

PV EC 005

#### **Math Pathway Prep & Corequisite Support**

The math pathways initiative created a challenge to implement strategies that support and accelerate developmental-level learning while providing robust curricular content. Join this presentation to learn about successful corequisite implementation structures, newly enhanced course materials that offer contextualized review, and pre-pathway math literacy courses designed to prepare students for any future math path way curriculum. Learn how to use data on class and individual student performance, most commonly missed questions, and time-on-task activity to identify intervention points for at-risk students.

Erik Anderson,  
Missouri  
Department of  
Higher  
Education

Jude Kyoore,  
University of  
Missouri –  
Columbia

PV EC 006

#### **Meaningful and Timely Mathematics: Measuring the Impact of Remediation Reform and Math Pathways in Missouri**

Since 2014, the Coordinating Board for Higher Education and the Missouri Department of Higher Education, under the direction of HB 1042, have been working to replicate best practices in remediation to improve student retention and degree completion. This presentation will focus on the impact of remediation reform and the implementation of math pathways at Missouri's public postsecondary institutions to date, looking at the structural changes already underway and the effect of student success. Data for this presentation come from the MDHE's Annual Report on the Condition of College and Career Readiness.

<p>Kim Granger, St. Louis Community College – Wildwood</p> <p>PV EC 007</p>	<p><b>Making Sense of Math with Math Mnemonics</b></p> <p>Although the focus in math instruction needs to be on deep understanding of math concepts, there are some things that simply need to be memorized such as factoring patterns, exponent and log rules, and derivative and integration formulas. This session will focus on techniques and mnemonic procedures that can help students memorize formulas and other necessary math facts. Examples will be shared from pre-algebra through calculus.</p>
<p>Mike Lueke, St. Louis Community College, Forest Park</p> <p>PV EC 008</p>	<p><b>OER is More than Just Textbooks (but there are a lot of those too)!</b></p> <p>There is increasing attention on Open Educational Resources (OER) nationwide, and as a result the options are changing rapidly. Come and see – and share – some new developments in OER and how you might be able to use them in your classes.</p>

Notes:

## Breakout Session #4

3:00 – 3:50 pm

Tim Wilson,  
Pearson  
Education

PV EC 005

### **Learning Science: How Can We Use Technology to Implement Best Practices**

We will explore learning strategies from two key books on learning science, “Make It Stick” and “Small Teaching.” This will be an active discussion around the findings in the book and brainstorming methods that can be used to implement best practices in courses.

Trisha White,  
Ozarks  
Technical  
Community  
College

PV EC 006

### **Where Have All the Developmental Students Gone? Helping Students Succeed in College Level Math Courses**

Developmental education is not going away; it is shifting into college level courses. Unprepared students come to college lacking confidence and non-cognitive skills. These things present the biggest barriers to student success. Effective instructors are called upon to do more than help students improve skills. They must inspire confidence, encourage good choices, and model a new way of thinking. In this session, we will discuss strategies, tips, and technologies that can help instructors cultivate responsibility, reliability, and most of all, hope in their students.

<p>Melissa Wittmer, Ozarks Technical Community College</p> <p>PV EC 007</p>	<p><b>How to Use Remind – The Best Free Texting Tool for Educators!</b></p> <p>Do your students ignore your emails? Does the thought of sharing your phone number with students scare you? Are you ready to transform communication with your students? Remind is a free texting app that allows you to send messages to students that they can't miss – without sharing your phone number! In this presentation, we will look at the basics of setting up Remind and the advanced features like adding files, photos and setting up Groups Chats.</p>
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<p><b>MOMATYC Annual Business Meeting</b></p>	
<p><b>4:00 – 5:30 pm</b></p>	
<p>PV EC 019</p>	<p>Join President Mike Lueke for MOMATYC's annual business meeting. Receive updates from our parent organization, AMATYC, elect new board members, and hear the treasurer's report.</p>

<p><b>6:00 – 10:00 pm</b></p>	
<p><b>Tower Tavern, KC</b></p>	
<p>Appetizers are served at Tower Tavern! Cash bar. Karaoke for those who love to show off their talent. Or feel free to explore KC with a group!</p>	

MOMATYC thanks the 2019 Gold Sponsor for their support of this year's conference:



Pearson

*Breakfast is provided at Studio 6 Hotel*

<b>Saturday, April 6, 2019</b>	
<b>Breakout Session #5</b>	
<b>9:00 – 9:50 am</b>	
Sarah Sexton, East Central College PV EC 007	<b>Great Ideas: Using POGIL to Elevate Student Learning</b> Process Oriented Guided Inquiry Learning (POGIL) is an instructional strategy that provides opportunities for students to develop both content and key process skills simultaneously. POGIL classrooms consists of small, self-managed teams working on intentionally designed materials to master concepts. Learn how POGIL helps restructure the classroom environment and enhances student learning.
Csilla Tasi, and Brian Swink, Northwest Missouri State University PV EC 008	<b>Co-requisites: Strategies for Success</b> From their four years of experience, Csilla Tasi and Brian Swink will share the most important elements of a successful co-requisite class. They will talk about study skills, mindset-change and the different tactics that they developed in their co-requisite classes.

Notes:

## Breakout Session #6

10:00 – 10:50 am

<p>Kim Granger, STLCC – Wildwood  PV EC 006</p>	<p><b>Discussion Boards for Online Math Classes</b> Best practice for teaching online suggests that online students will benefit from participation in engaging online discussion boards. In this session, participants will have the opportunity to share ideas on discussion board prompts. Participants will not only leave with discussion board prompts that can be used this semester but will also leave with a better understanding of how to create engaging prompts with the purpose of improving student success and retention in online classes. (By the way, some of these prompts can also be used in face-to-face algebra and quantitative reasoning courses!)</p>
<p>Tim Chappell, Southwest Baptist University  PV EC 007</p>	<p><b>Utilizing Text and Technology to Drive Student Engagement within Statistics</b> In this session, Tim Chappell, Assistant Professor at Southwest Baptist University, will discuss how he keeps his statistics courses dynamic and engaging with the support of the Navidi/Monk solution. Tim will share his tips and tricks to support meaningful interactions between students and technology, fostering true curiosity that guides students from understanding, to mastery, to real-world application.</p>
<p>Mike Lueke, STLCC – Forest Park  PV EC 008</p>	<p><b>Make Your Assessments Cheater Proof: Give Students the Answers!</b> We can break free of our reliance on technology and encourage more mathematical thinking and justification by changing our assessments to focus less on symbolic manipulation – something machines do readily anymore, and more on mathematical processes and interpretation. Come see and share some examples of how instructors can create assessments that free us up to do new things with our teaching!</p>

## Lunch and Closing Session

11:00 – 12:15 pm

PV EC 019

### **Roundtable Discussion – Best Practices in CoRequisite Support**

Trisha White, OTC, and Brandy Englert,  
STLCC – FP

Like it or not, Co-requisites for college level math classes are here. Join board members Trish and Brandy for a roundtable discussion of best practices and lessons learned so far.

Be sure to stay for BBQ from Q39 and win attendance prizes!

Notes:

Thank you for attending this year's MOMATYC Conference!