



# Faculty Workshop Co-Requisite Math Instruction

*Ohio Mathematics Initiative 2019-2020*



Department of  
Higher Education

 **OhioHigherEd.org**





# AGENDA

- **Overview of Co-Requisites in Mathematics**
- **Instructional Delivery in Co-requisite Math**
- **Online Co-Requisite Courses: The Good, Bad, and Ugly**
- **Audience Reflection and Feedback**
- **Learning Behaviors: College Level Expectations for Underprepared Students**
- **Audience Reflection and Feedback**
- **Conclusion**

**\*Copies of slides will be available online**



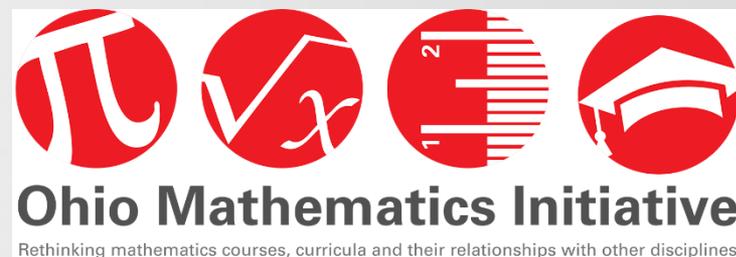
# Participating Today

- ✓ **Keep audio muted. Unmute your mic when needed.**
- ✓ **Use chat functionality for technical issues and ad hoc questions.**
- ✓ **Virtually raise your hand in the participant window next to your name for questions.**
- ✓ **Open interactive components in separate web tab or on mobile phones.**



# Ohio Mathematics Initiative Subgroup 1

- **Goal to improve student success in entry level courses by exploring new and alternative college-level math pathways**
- **Led by Ohio math faculty**
- **Resource and forum for questions and discussion on co-requisite math**





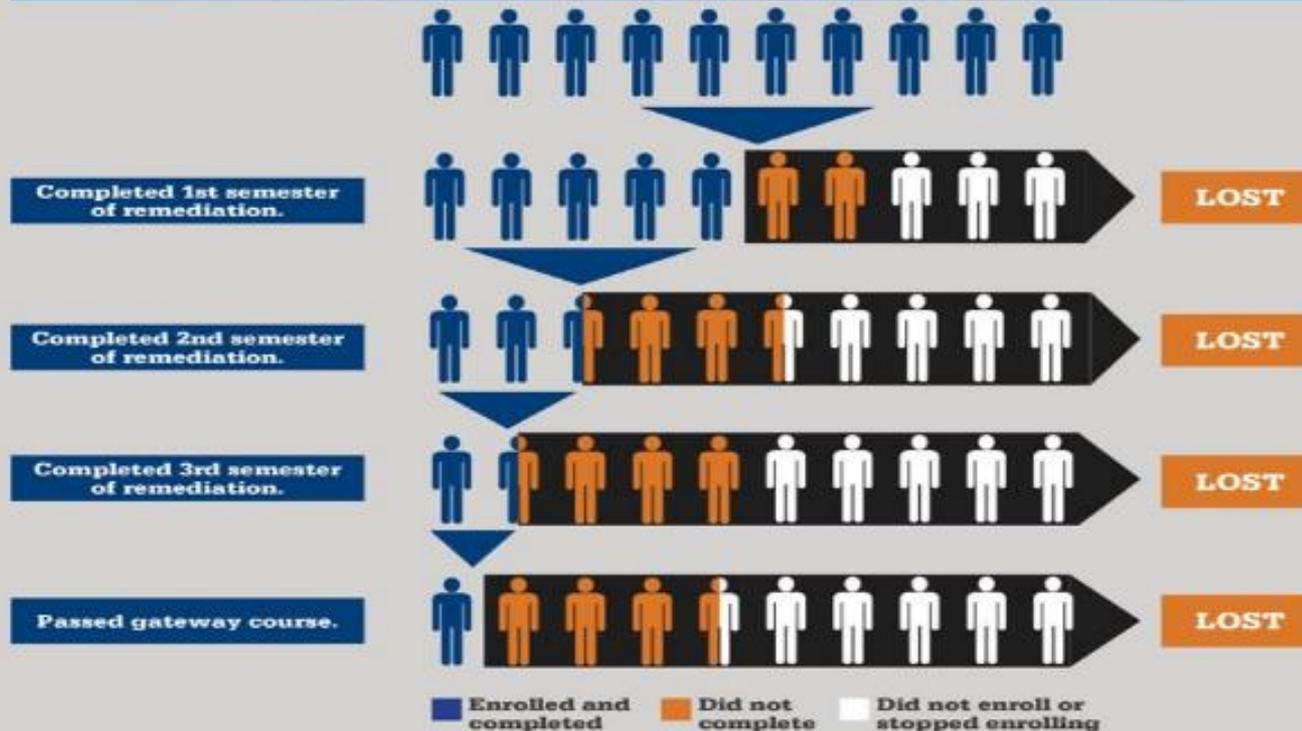
# What is the challenge?

Too few students placed in  
traditional systems of  
remediation successfully  
complete gateway  
mathematics



## Remediation: The effect of attrition.

Students assigned 3 or more semesters of **math** remediation.



**KNOW THIS** The remediation system is broken. More students quit than fail.

Source: Hughes, K., Edgcombe, N., & Snell, M. (2011). "Developmental Education: Why and How We Must Reform It." New York: Columbia University, Teachers College, Community College Research Center. Presentation given at the 2011 League for Innovation in the Community College Annual Conference.



## Co-requisite Remediation

- Students enroll in entry level college-level courses while simultaneously participating in mandatory extended class periods or customized, just-in-time academic support.
- Academic support is aligned to learning objectives of the gateway course.
- Not just adding a traditional developmental course to a gateway course.



# Multiple Models

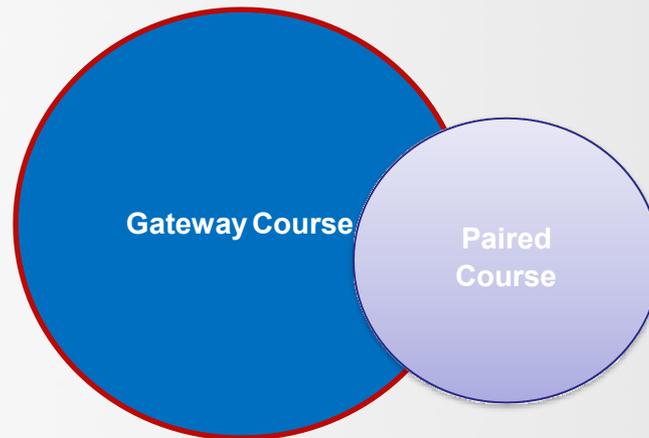
- Paired course
- 101 Plus
- Technology-mediated

[https://www.ohiohighered.org/sites/default/files/uploads/B2S/MathCo-RequisiteDevelopmentModels\\_101618.pdf](https://www.ohiohighered.org/sites/default/files/uploads/B2S/MathCo-RequisiteDevelopmentModels_101618.pdf)



# Paired Course Model

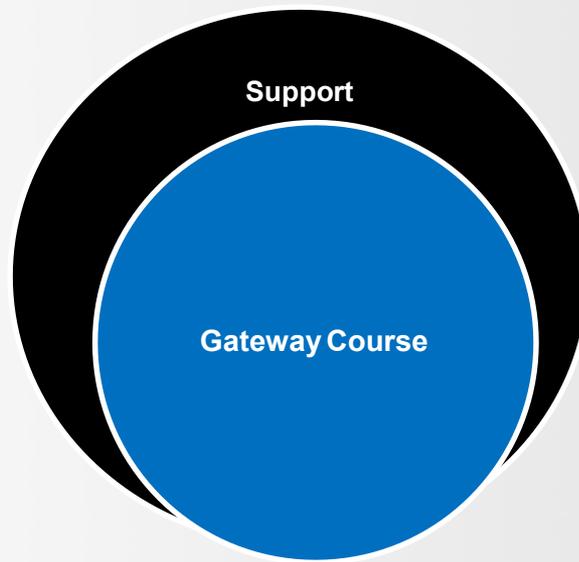
- Provides support skills in ***a separate course*** aligned to the learning objectives of the gateway course. The separate course is paired with the gateway course and delivered in the same semester.





# 101 Plus Model

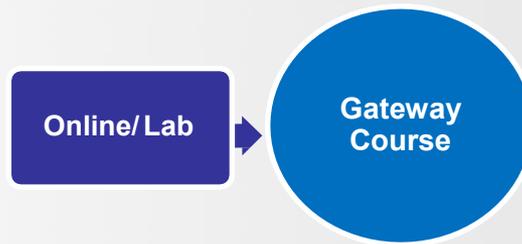
- Offers academic support as an extension of the gateway course





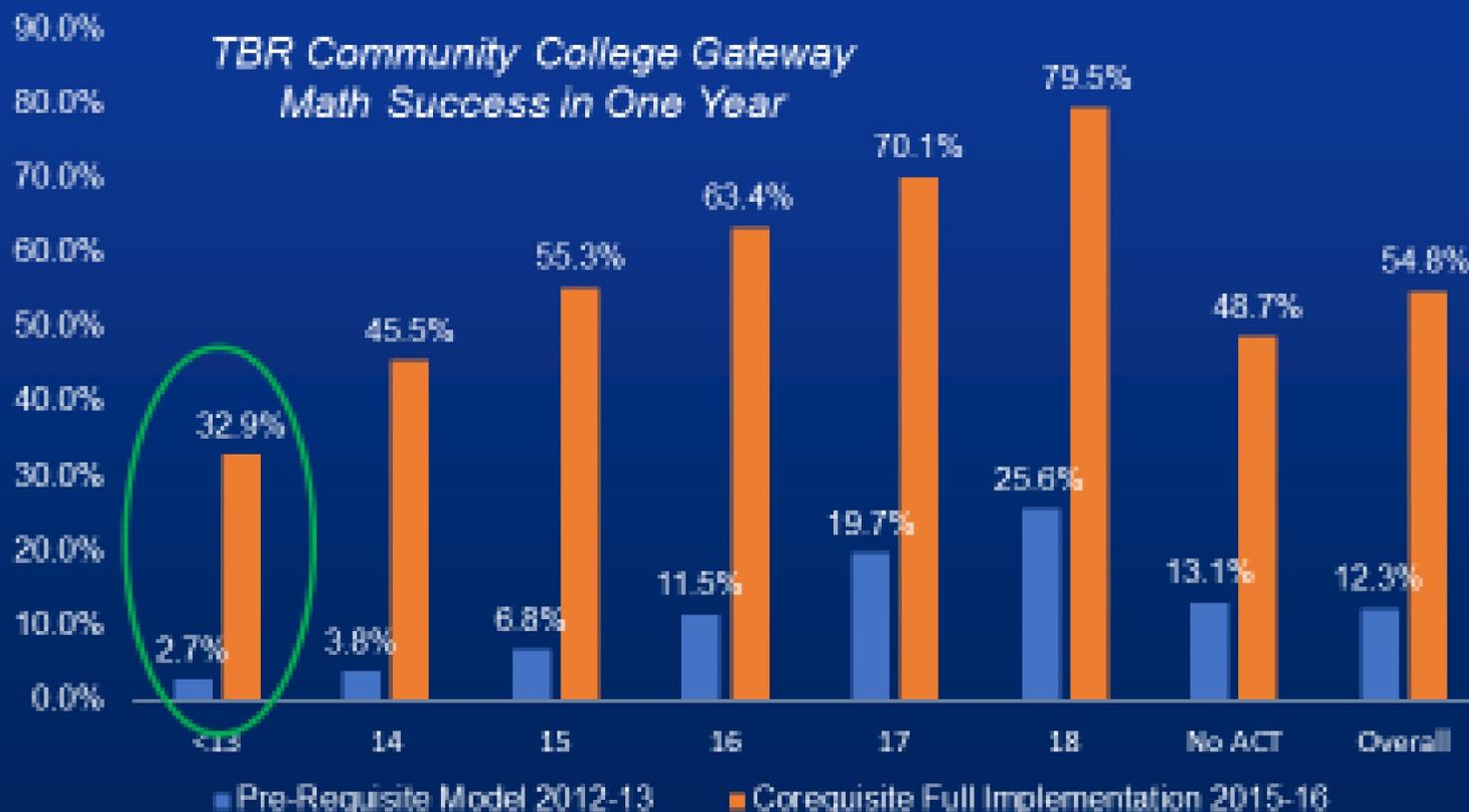
# Technology-Mediated Model

- Requires students to complete online lab support.





## Corequisites Result in Dramatic Improvements In Gateway Course Success



Tennessee Board of Regents  
Danley, 2016



# Survey

[www.menti.com](http://www.menti.com)

Code: 72 72 61

In implementing math co-requisites at your institution, how challenging are...?

- ✓ Academic mindset/ learning behaviors
- ✓ Balancing faculty workload
- ✓ Faculty buy-in/support
- ✓ Online/hybrid instructional options
- ✓ Professional development and instructional resources



# Implementing Co-Requisite Math

- ✓ Curricular design and alignment to programs of studies
- ✓ Placement guidelines
- ✓ Course registration and transcription processes
- ✓ Scheduling
- ✓ Advising and course enrollment
- ✓ Faculty assignment, workload, and professional development
- ✓ **Instruction**
  - ✓ Delivery
  - ✓ Soft Skills Support/Learning Behaviors



# Thank You

**Calista H. Smith**

**Consultant, Co-Requisite Math Initiatives**

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**513-252-8129**



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# Instructional Delivery

**Brian Cafarella, Sinclair College**



# Instructional Delivery

Tyler Maley, Marion Technical College



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# Online Delivery of Math Co-Requisites

Linda Hunt, Shawnee State University



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# Additional Resources

**Suggestions from previous faculty workshops**

# Using Open Educational Resources

## *Identifying quality open educational resources (OER)*



<https://ohiolink.oercommons.org/hubs/OOEC>



# Statistics Course Content

Introductory statistics course developed through the Ohio Department of Higher Education OER Innovation Grant. The course is part of the Ohio Transfer Module and is also named [TMM010](#). For more information about credit transfer between Ohio colleges and universities please visit: [www.ohiohighered.org/transfer](http://www.ohiohighered.org/transfer).

### Team Lead

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## *Other Resources to Aid Instruction*



- <https://edpuzzle.com/>



### LMS Integrations

Edpuzzle is now integrated with **Canvas**, **Schoology**, **Moodle**, **PowerSchool** and **Blackboard**, among others, so students can do their edpuzzles right from your LMS!

- <https://edpuzzle.com/whats-new>



- <https://www.aleks.com/>

## *Other Resources to Aid Instruction*



- <https://flglobal.org/>



- <http://scaleinstitute.com/>



- <https://www.learningscientists.org/>



# Your Thoughts

**Menti.com, Code 72 72 61**

**What instructional strategies and tactics have been most helpful for you?**

**What challenges do you anticipate next year?**



# Learning Behaviors

**Sandra Robinson, University of Toledo**



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# Nearpod.com

For this presentation go to:  
Nearpod.com and use the code XEUIB



# Resources

## Co-Requisite Remediation

<https://www.ohiohighered.org/B2S/co-requisite-remediation>

## Ohio Mathematics Initiative

<https://www.ohiohighered.org/math>

## Ohio Strong Start to Finish

<https://www.ohiohighered.org/SSTF>



# National Strong Start to Finish: University of Cincinnati feature

Brief: [https://strongstart.org/sites/default/files/resource-center/pdfs/2020\\_04\\_08-SSTF-Steps to Success Ricardo-Moena v3.pdf](https://strongstart.org/sites/default/files/resource-center/pdfs/2020_04_08-SSTF-Steps%20to%20Success%20Ricardo-Moena%20v3.pdf)

Podcast: <https://strongstart.org/deepening-understanding/resource-library/new-approach-mathematics-increased-success-rates-all>



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# THANK YOU FOR JOINING US

Take a moment to complete this survey. Click link from chat window.

<https://www.surveymonkey.com/r/May1CoReqMath>

Questions?

Contact Calista at [csmith@highered.ohio.gov](mailto:csmith@highered.ohio.gov)