

Co-creating Student Success in Mathematics at Bay College: Leveraging Expertise and Building Relationships



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Session Overview

- Check in
- The Bay College Story: co-creating change
- Think/Pair/Share: making change
- MiMath Reform process
- Q & A and Take-aways

Check-in: Mentimeter Survey





**Meet Jessica, aka
“Dr. J”**

Meet Bay College

- Rural community college
- Two campuses
- Student Enrollment (1,969 headcount)
- Dual-enrolled students (947)
- Pell-eligible (41%)
- Students age 25+ (25%)
- Mission: student success, community success, culture of success

Source: IPEDS data 2022-2023



Bay College: Developmental Math Pathways

Developmental Math Before Reconnect

STEM Pathway

MATH 085
Pre-Algebra

MATH 095
Basic
Algebra

MATH 105
Intermediate
Algebra

OR

MATH 098
Accelerated
Pre-and
Basic Algebra

MATH 105
Intermediate
Algebra

Liberal Arts Math Pathway

MATH 097
Mathematical
Literacy

MATH 107
Liberal Arts
Mathematics

OR

MATH 107
Liberal Arts
Mathematics

Developmental Math After Reconnect

STEM Pathway

MATH 095C and MATH 105C
Intermediate Algebra with
Support

OR

MATH 105
Intermediate Algebra

Liberal Arts Math Pathway

MATH 097C and MATH 107C
Liberal Arts Math with
Support

OR

MATH 107
Liberal Arts Mathematics

Fall 2023 Student Enrollment: STEM and Liberal Arts Math Pathways

Course	# of Students Enrolled	Passed with C or Better	Enrolled in the next math course
MATH 095C and MATH 105C	45	25	19
MATH 105	144	79	60
MATH 097C and MATH 107C	23	17	7
MATH 107	20	18	8

Fall 2024 Student Enrollment: STEM and Liberal Arts Math Pathways

Course	# of Students Enrolled	Passed with C or Better	Enrolled in the next math course
MATH 095C and MATH 105C	43	NA	NA
MATH 105	179	NA	NA
MATH 097C and MATH 107C	24	NA	NA
MATH 107	72	NA	NA

Math Reform at Bay College: Progress and Next Steps

Progress

- Increased students enrolled in MATH 107
- Reinststituted math faculty retreats
- Educated advisors
- Built relationships
- Began curricular redesign for MATH 105

Next Steps

- Link to Strategic Pillars
- Implement new instructional practices
- Create consistent approach to advising
- Reframe messaging around math
- Continue to build relationships

Think, Pair, Share: Mentimeter Prompt



Michigan Mathematics Reform



- January-March 2023: Redesign Intensive
- April-December 2023: Redesign Accelerator
- January-April 2024: Evaluation Intensive
 - Virtual in-person workshops
 - Virtual Office Hours
 - 1:1 coaching
 - Asynchronous Resources



ALMY EDUCATION
Solving your math problems®

Bringing legislation to life in the real world of higher ed

Kathleen Almy

CEO, Almy Education

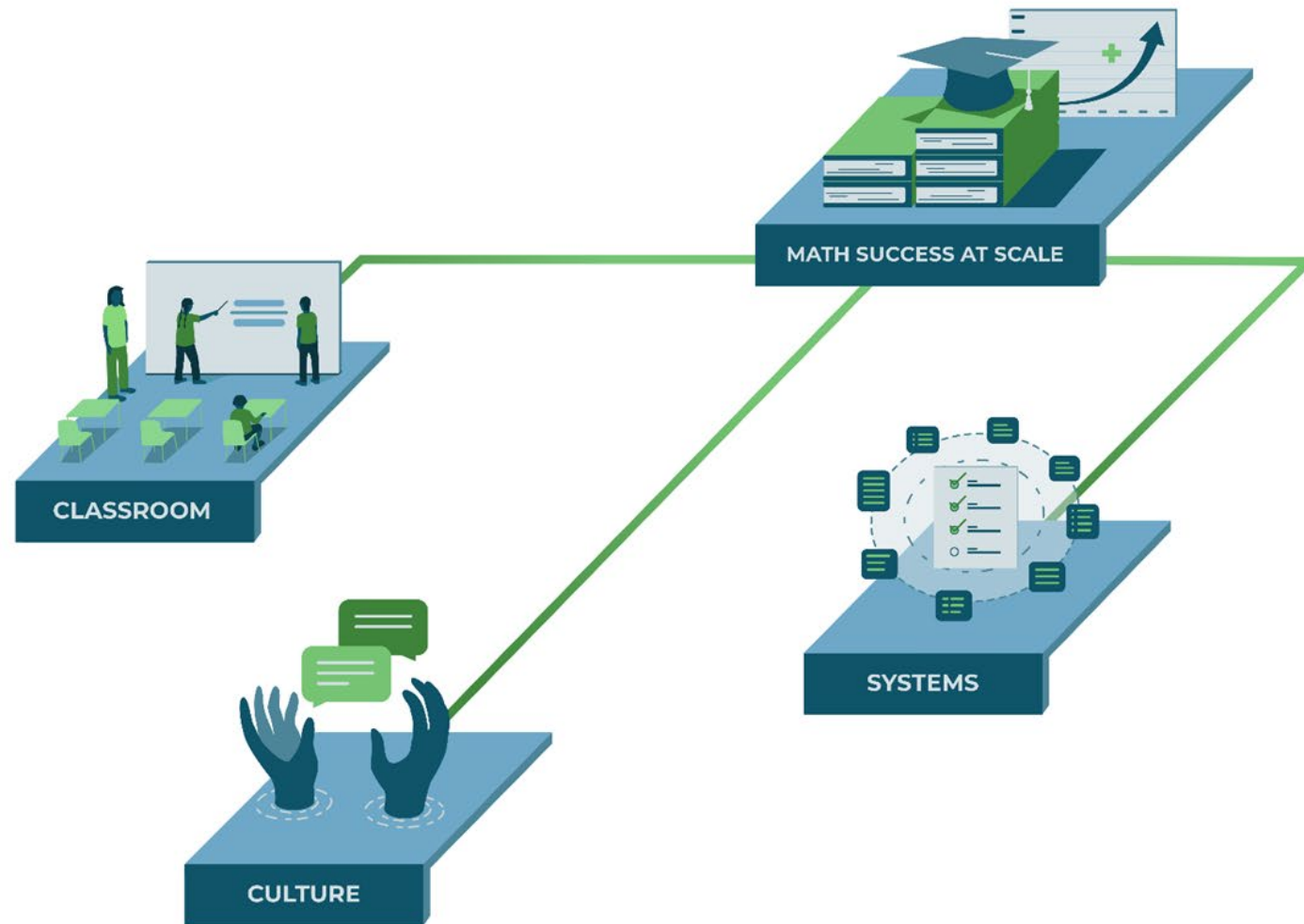


ALMY EDUCATION
Solving your math problems

My background

- 25 years teaching math; over 20 in higher education
- Reform work at college, state, and nationally since 2007
- Recently finished doctorate with dissertation on College Algebra corequisites
- Developmental textbook author
- Led state-level implementation of math legislation in Illinois for 2 years
- Full-time consultant with Almy Education (AE) serving over 40 colleges

AE Framework: Math Success at Scale



Spring 2023 - Redesign intensive to move to SCALE

Colleges bring a team with administrator, student affairs, and math faculty

Regular meetings to learn an aspect of best practices & apply to their college

Office hours to troubleshoot (not recorded)

WHAT WORKED

Productive discussions with peers weighing in

WHAT DIDN'T WORK

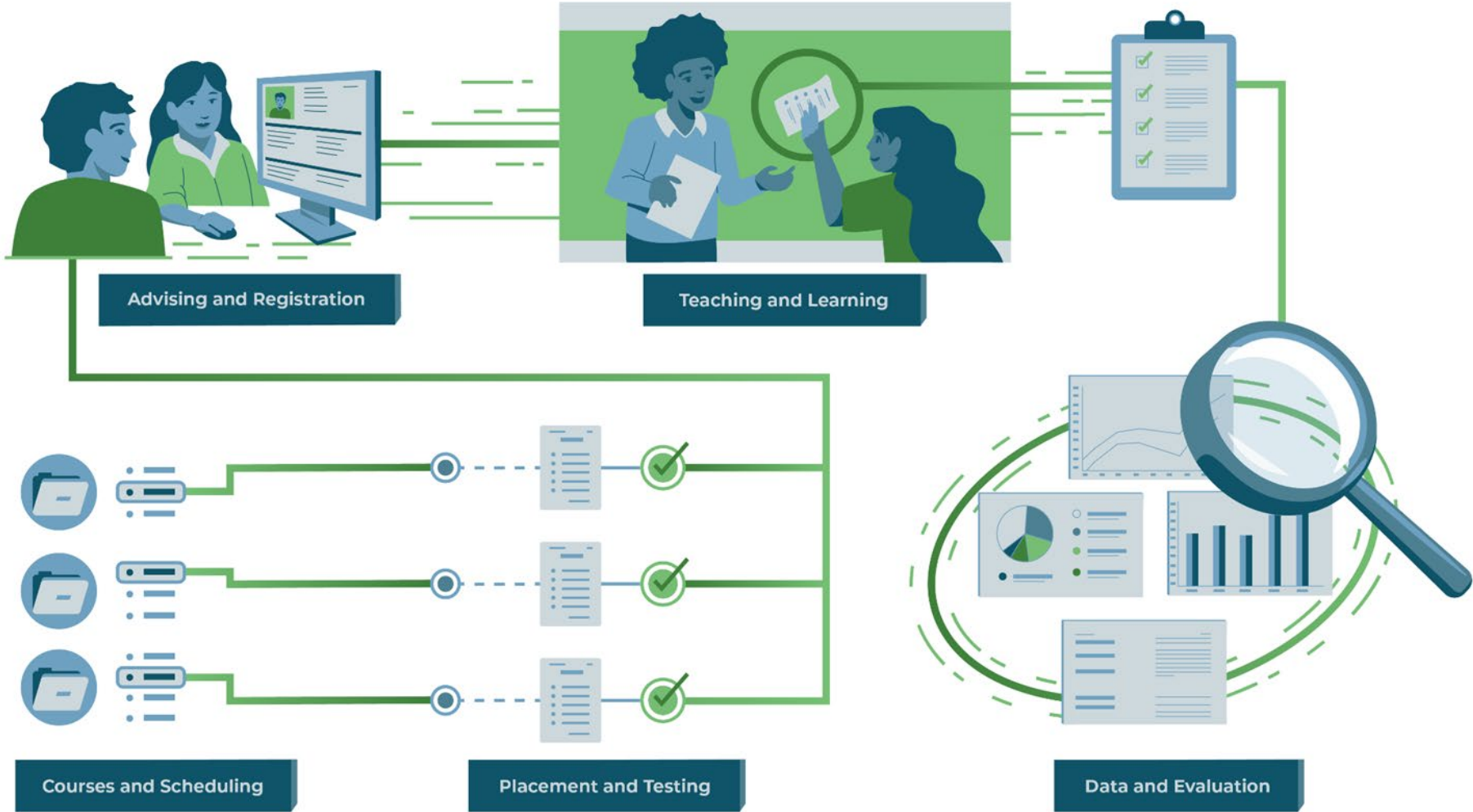
Full teams didn't always attend

Some colleges struggled to maintain progress with decisions

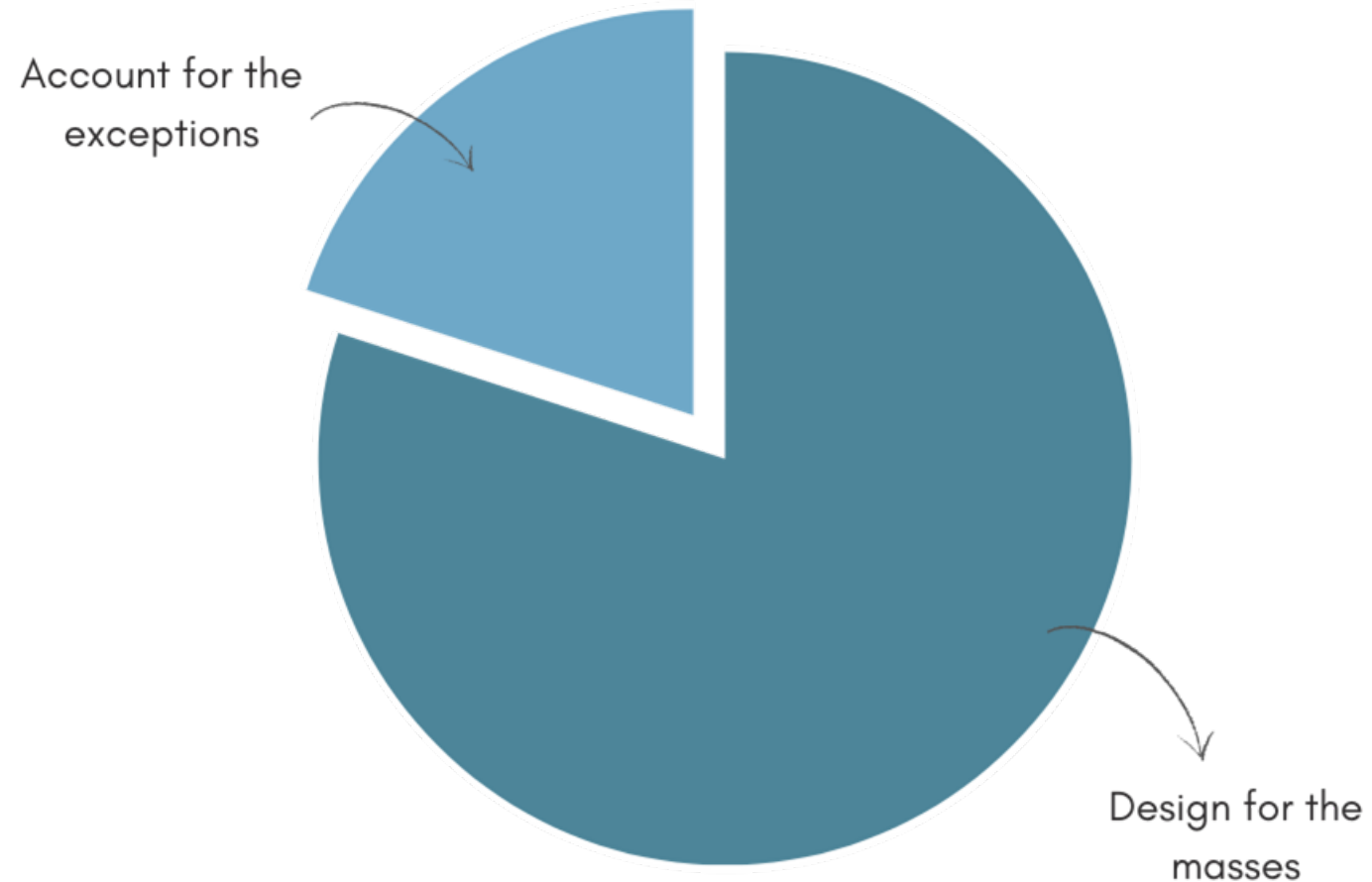
Redesign intensive: focus on strategy **before** implementation



Components of redesign



80/20 Rule for Redesign

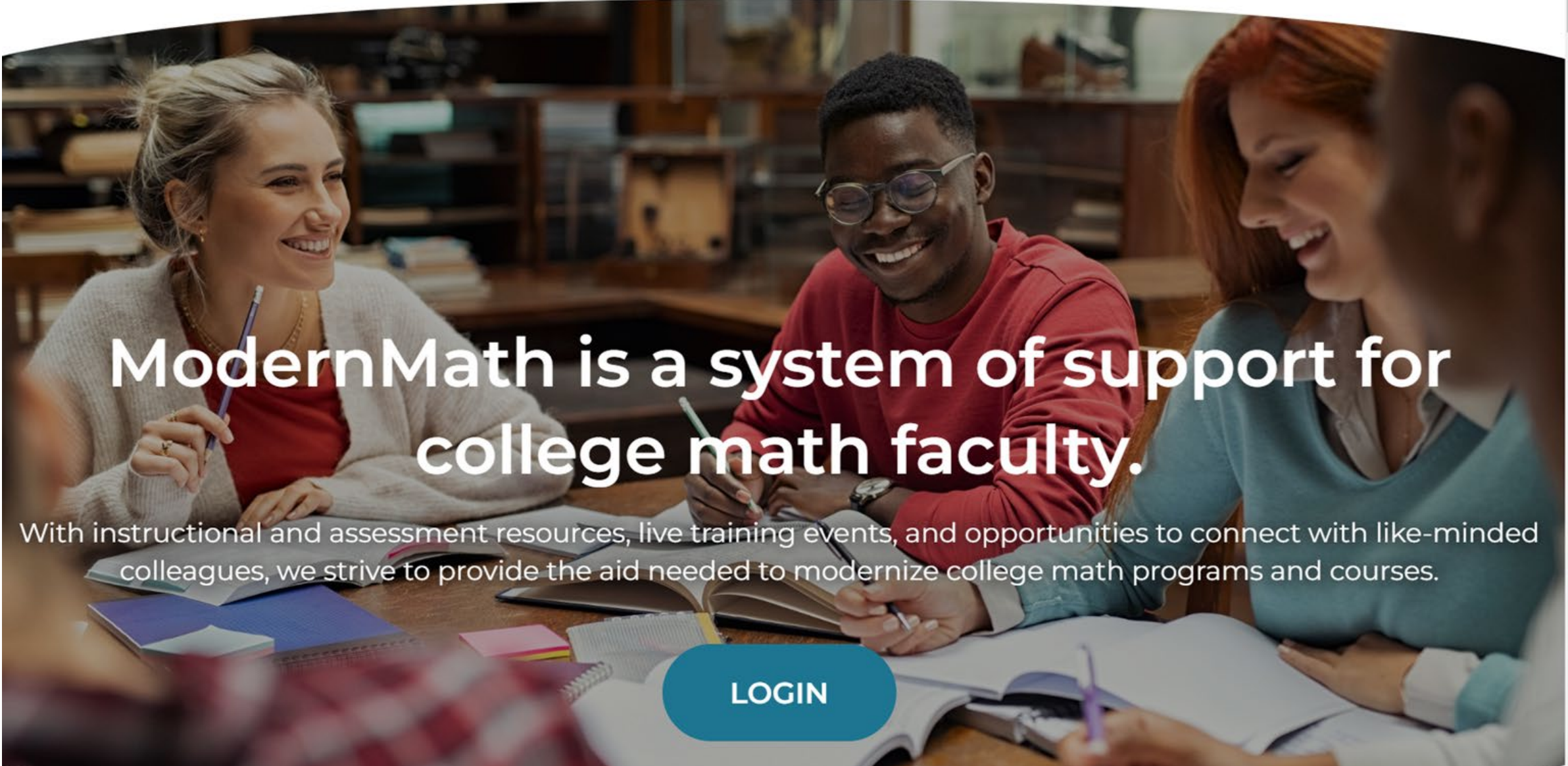


Summer & Fall 2023 - Redesign accelerator

Colleges bring a team with administrator, student affairs, and math faculty

Twice monthly meetings on systems and classroom issues

Faculty received lifetime access to ModernMath



ModernMath is a system of support for college math faculty.

With instructional and assessment resources, live training events, and opportunities to connect with like-minded colleagues, we strive to provide the aid needed to modernize college math programs and courses.

[LOGIN](#)

Summer & Fall 2023 - Redesign accelerator

Colleges bring a team with administrator, student affairs, and math faculty

Twice monthly meetings on systems and classroom issues

Faculty received lifetime access to ModernMath

Added 1:1 meetings with me and college teams to problem solve

WHAT WORKED

Productive discussions with administrators and faculty

WHAT DIDN'T WORK

Full teams didn't always attend

Some colleges struggled to maintain progress with decisions

Spring 2024 - Evaluation intensive

Colleges bring a team with administrator, student affairs, and math faculty

Regular meetings to evaluate aspect of redesign (Show, don't tell)

Office hours to troubleshoot (not recorded)

Last 2 meetings have 1:1 with me and college teams

Will follow up with 1:1 support in fall 2024

WHAT WORKED

Productive discussions with administrators and faculty

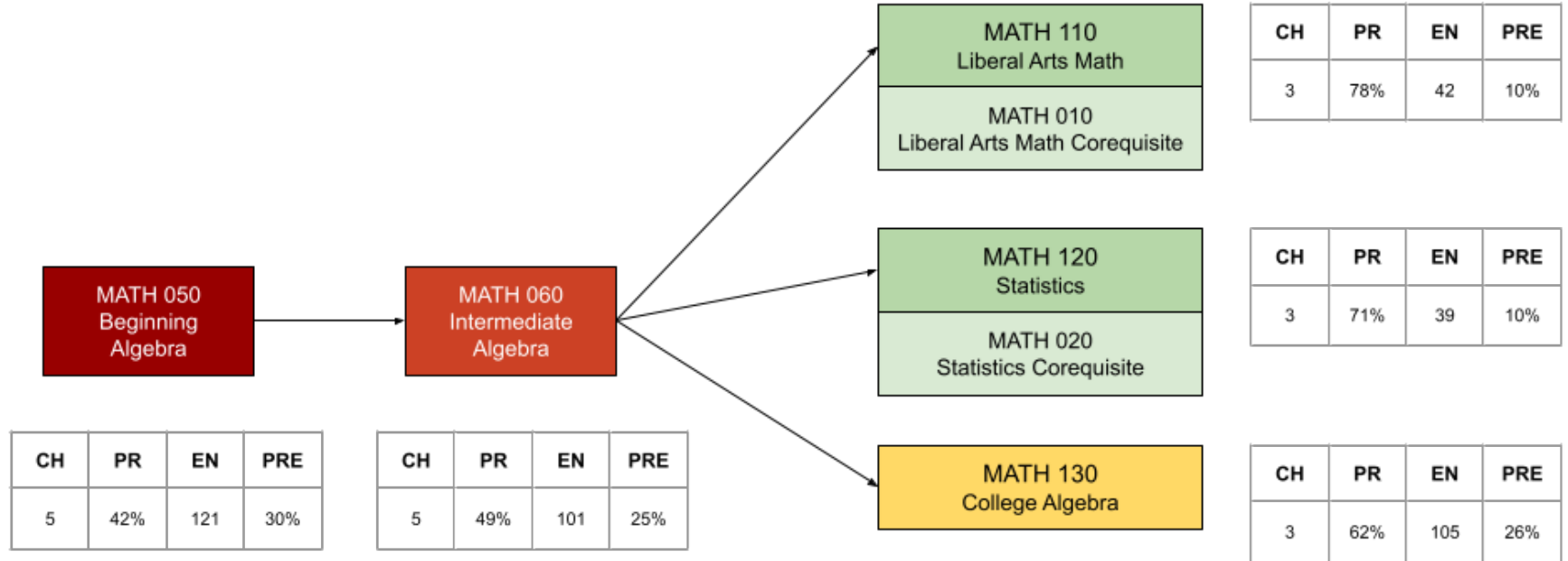
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Sample Community College Math Pathways Analysis

Example evaluation activity: pathways analysis



PASS RATES KEY	
70 - 100 %	
60 - 69%	
50 - 59%	
0 - 49%	

Note: Intensity of color indicates density of student enrollment.

Represented Enrollment
408 students

Credit Hours	Pass Rate	Enrollment	Percent of Represented Enrollment

Additional support

Workshop series specific to tribal colleges (math and English, tribal college culture)

Corequisite deep dive professional development workshop series (SP 24 & 25)

Lessons for greater progress going forward

Group discussions build community and provide crowdsourcing

But 1:1 support and accountability are needed to make and maintain progress

Building out AE group of consultants and adjusting processes based on MI work

Takeaways: Mentimeter Survey



Let's Talk!

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