New Models with Increased Student Success

Redesigning Developmental Education

Scaling Corequisite Remediation Spanning the Divide

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Remediation



Too many students start college in remediation.

61% in 2-year institution

28% in 4-year, nonflagship institution

African Americans, Hispanics and Pell Students are Over Represented 2-year Students



4-year Non-Flagship Students



Most are in Math – Far Too Many Require Both Math and English



Access to College or Remediation

For too many students, a remedial class is their first and their last college experience.

The System Does Not Work, Particularly for African Americans



Few Graduate or Transfer

Of 2-year students enrolled in remediation:

11% graduate in 3 years

 18% transfer to 4-year institution (with or without a degree) in 4 years

Remediation



Student attrition is at the heart of the matter...

Remediation: The effect of attrition.



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

Source: Hughes, K., Edgecombe, 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.

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Corequesite Support

The Corequisite Strategy

More <u>time on task</u> and help for students when they need it (just in time)

One Semester Redesigned Gateway



Traditional Remediation Results



One Semester Scaled Results



SUCCESS AT SCALE

Academic Support as a Corequisite

Math Pathways Aligned to Programs of Study

Purpose, Not Placement

Math Pathways

College Algebra's <u>Only</u> Purpose: Preparation for Calculus



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Math Is Aligned with Meta-Majors



50% of Students Placed In Remediation Could Pass a Gateway Course

End Use of Traditional Placement



Student Placement Data

With Corequisite, Most in College-Level



Student Placement Data

Determining Student Purpose

- Identify Career and Academic Goals
- College Readiness Academic and College Skills
- Determine a Broad Area of Study or Meta-Major
- Enroll in the Right Gateway Courses

Guiding Objective

Students complete gateway courses and enter programs of study in their first academic year

A Model Pathway



Redesigning Developmental Mathematics

THE **New Mathways** PROJECT

a Charles A. Dana Center higher education initiative

The Charles A. Dana Center at The University of Texas at Austin **New Mathways** PROJECT



We are **NOT** trying to "get students through math" more quickly.

The Charles A. Dana Center at The University of Texas at Austin



We are **NOT** trying to "get students through math" more quickly.

- We **ARE** trying to:
- 1) Increase and accelerate student success in mathematics

AND

2) Teach mathematics content and skills that will be of value to students in their lives and careers

The Charles A. Dana Center at The University of Texas at Austin



...a mathematics course or sequence of courses that students take to meet the requirements of their program of study.

The concept of math pathways applies to pathways for college-ready and underprepared students.

The Charles A. Dana Center at The University of Texas at Austin



A new vision for the student experience in math...

THE **New Mathways** PROJECT

Multiple pathways aligned to specific fields of study

Acceleration that allows most students to complete a college-level math course in one year or less

Intentional use of strategies to help students develop skills as learners

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2

3

Curriculum design and pedagogy based on proven practice

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Texas Results

For students enrolling in developmental education courses:	All FTIC, Community College Students (THECB)	NMP Pathways				
	AY 2013	AY 2014				
Developmental Education Completion	24% in one year	64% in one semester				
Gateway Course Completion	8% in one year	23% in one year				
Gateway Course Completion: Subset of Colleges using Back to Back Math*	n/a	43% in one year				
*Back to back math is an evidence-based strategy in which students are encouraged to enroll in a college- level math course in the semester immediately following the completion of their developmental coursework.						

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New Mathways

PROJECT

Completion of Gateway Math by ACT Sub-score Community College Pre-requisite Model vs. Co-requisite Pilots Results of TBR Co-requisite Mathematics Pilot



TENNESSEE BOARD OF REGENTS

In the past, for every 100 students attempting Math remediation...



CHANGING LIVES MAKING INDIANA GREAT





Contact Information

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- General information about the Dana Center: www.utdanacenter.org
- Higher Education work:
 www.utdanacenter.org/higher-education/
- To receive monthly updates about the NMP, contact us at: mathways@austin.utexas.edu



Colorado case study

Context from a system in math, reading, and English

Colorado Community College System

35 CAMPUSES BELONGING TO 13 COLLEGES SPANNING COLORADO



Our Recommendations

- Student advising and multiple measures as part of placement
- Multiple delivery strategies are good
- Math^{*}
 - Redesigned courses to only cover content necessary for the college level course
 - Multiple pathways available to students based on their career/major interest
- CCR
 - Integrate ENG and REA to create CCR
 - Student opportunity to enter a 100 level class no later than their second term in enrollment

How to make recommendations

- External pressure and support
- Structure that allows some kind of centralized decision making
- Bringing representatives from multiple colleges, multiple disciplines, and functional areas
- Review of literature and multiple best practices
- Opportunities for feedback, particularly from faculty
- Commitment from external sources to change

Traditional ENG & Redesign CCR comparison

ENG AY13successfully completed college English		CCR AY15	successfully completed college English
	(1 year)	One level	30%
Three levels below	5%	below Plus extra support	5
Two levels below	18%	One level below	31%
		Co-requisite	31%
One level below	34%	to College	5
		Co-requisite to ENG	93%

Math historical AY13

Course AY13	successfully completed college math (1 year)	Course AY15	successfully completed college math
Four levels below	3%	One level below – QR or Stats	11%
Three levels	9%	One level below - Algebra	27%
Two levels	17%	Co-requisite to CTE	78%
below One level below	200%	Co-requisite to QR or Stats	90%
	3070	Co-requisite to Algebra	82%

Implementation lessons

- Rutgers external evaluation and SME review
- Successful implementation of the redesign depends on continued effort in the following areas:
 - Systematic data collection and analysis at each college, in the service of ongoing evaluation and improvement
 - Sustained attention to curriculum and instruction within the newly constructed courses and pathways
 - Continued capacity building across CCCS, with particular attention to the variation in colleges' internal capacity to engage in curricular reform and ongoing evaluation

Panel questions

- How do we scale this to improve student success?
- How do you mobilize institutions?
- How do you engage faculty in the planning and implementation?

