BRIDGE TO SUCCESS IN MATH PROGRAM

Shortening the Path to Transfer Level Mathematics
LEARNING OUTCOMES FOR TODAY

- Describe MiraCosta College’s program that addresses a large population of students who place into basic skills mathematics courses

- Summarize a distinctive partnership between Instruction and Student Services to improve student success

- Understand the implementation and results of the Bridge to Success in Math Program at MiraCosta College
FRAMING THE BRIDGE TO SUCCESS IN MATHEMATICS PROGRAM

- Program genesis

- Cross divisional partnership

- Based on effective practices from the field
  - Miami Dade College Shark Academy, Refresh Program at Saddleback College, Math Jams, summer bridge programs, etc.

- Initial pilot project funded using Basic Skills Initiative (BSI) budget, transitioned to Student Success and Support Program (SSSP)
STARTING THE CONVERSATION

- We have a problem!

- Based on all students who tested between March 1, 2010 and February 28, 2015

- Population size of 27,943 students, though not all students took all tests

- First test attempts only

- 77% in Basic Skills Mathematics courses

- Math 64 16%

- Math 30 34%

- Math 20 12%

- No Placement 15%

- Transfer 23%
OUR SOLUTION

BRIDGE TO SUCCESS IN MATH PROGRAM
GOALS

- Shorten the path to transfer-level mathematics at the assessment level
- 7 day review course before re-assessment
- Completion will increase likelihood of placing higher
PROGRAM DESIGN

▪ Curriculum
  › Based on topics covered on assessment tests

▪ Time
  › 28 Total hours at 4 hours per day for 7 days
  › 2 hours of instruction with math faculty
  › 2 hours review, practice, and hands on problem solving with Instructional Aides

▪ Comprehensive review on the last day of the program before taking placement test
PROGRAM DESIGN

- Three levels are offered:
  - Pre-algebra
  - Elementary Algebra
  - Intermediate Algebra

- High demand for Intermediate Algebra

- Tracking students in their successive math classes
CHALLENGES AND DISCOVERIES

CHALLENGES
- Space
- Faculty time commitment
- Enrollment/Sign up
- Recruitment/Marketing

DISCOVERIES
- Nurturing Faculty to match the needs of a basic skills student
- Human connection vs. software
- Improved placement outcomes after intensive, but relatively short timeframe of 6 to 8 days

CHANGES MADE
- Orientation
- Math Anxiety
- Counseling component
OUR FRAMEWORK: STUDENT SUPPORT (RE)DEFINED
Students have a goal and know how to achieve it

Goal of Bridge to Success in Math Program – shorten the path towards college level mathematics

“I took the placement test at MiraCosta and scored extremely low, the counselor recommended I take the Bridge To Success Math preparation class and retake the placement test, with hopes of placing into a higher level class. I followed her advice and I am very grateful for it! I skipped 2 classes by scoring a lot higher then I did on the previous test. A 92% to be exact!” - Misty B.
FOCUSED  Students stay on track and focus on their educational goal

7 day program, 4 hours each day

“I am so thankful for this program the two hours of lecture and then another two hours of review really did help because in a regular math class you are expected to review on your own but with this summer program you were guaranteed to walk out the door understanding the whole lecture of that day.” - Jagayra B
NURTURED  Students feel somebody wants and helps them to succeed

Professor Leila Safaralian and her Instructional Aide team

“I think what Professor Safaralian brings to the class is what made it possible she took the time to fully help us understand how fun math can be and how to pass. And she brought along great help - just wow. Thank you from the bottom of my heart thank you! You all made it possible for me to be able to graduate in time!” – Victoria H.
ENGAGED  Students actively participate in class and review sessions

Program includes 2 hours of group review session

“Having lecture and review right after is what really helped me understand everything.”
– Addie S.
CONNECTED  Students feel like they are part of the college community

Cross divisional partnership between Instruction and Student Services

By working together across divisions students are connected to important support services and they learn the importance of preparing for tests and assessments as a core building block for their educational future.
Students’ skills, talents, abilities and experiences are recognized…

Students successfully meet their goal!

“I highly recommend this program to students that want to test into college level math classes and especially to any veterans that have recently left the military.” – Luis H.

“Words cannot explain how thankful I am for this math program, when I had lost most hope in myself to be able to pass math 30, a bridge to success was like my hero, to not give up!” – Karla P.
OUTCOMES – ALL COHORTS (ORIGINAL PLACEMENT VS. POTENTIAL SEMESTERS SAVED)

TOTAL STUDENTS  184

<table>
<thead>
<tr>
<th>Placement Level</th>
<th>Students</th>
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</thead>
<tbody>
<tr>
<td>1 level higher placement</td>
<td>62</td>
</tr>
<tr>
<td>2 levels higher placement</td>
<td>73</td>
</tr>
<tr>
<td>3 levels higher placement</td>
<td>49</td>
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</tbody>
</table>
The average 3-year pass rates (2011 - 2014) for students in math courses overall is 58%, and in specific courses as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Pass Rate</th>
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<tbody>
<tr>
<td>MATH 30</td>
<td>57%</td>
</tr>
<tr>
<td>MATH 64</td>
<td>58%</td>
</tr>
<tr>
<td>MATH 103</td>
<td>62%</td>
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MORE OUTCOMES - EQUITY

Results
Post
BTSM

- White: 49% College Level, 6% Math 30, 20% Math 64, 25% No Placement
- Other: 48% College Level, 8% Math 30, 20% Math 64, 4% No Placement
- Omit: 13% College Level, 7% Math 30, 13% Math 64, 60% No Placement
- Hispanic: 41% College Level, 8% Math 30, 25% Math 64, 3% No Placement
- Filipino: 14% College Level, 29% Math 30, 14% Math 64, 43% No Placement
- Black: 44% College Level, 19% Math 30, 25% Math 64, 13% No Placement
- Asian: 50% College Level, 13% Math 30, 13% Math 64, 25% No Placement
- American Indian/Alaskan Native: 17% College Level, 17% Math 30, 17% Math 64, 50% No Placement

Legend:
- College Level
- Math 30
- Math 64
- No Placement
- No Post Test
STUDENT SUCCESS STORIES

WATCH STUDENT VIDEO
QUESTIONS?

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