

Math Redesign Synopsis & Suggestions

- Math redesign performed more favorably than the traditional model for FTIAC students who started in 090 when their progress in 090, 092, and 151 was tracked over 1.5 years (FL 2010 vs. FL 2014).
 - Cut scores were broader under the traditional model. It is possible that having better prepared students in the redesign condition may have contributed to this success. COMPASS score differences between the two groups are currently being examined.
- FTIAC students who began in 092 struggle under the redesign, with a 33% success rate during their first-try (FL 2014) compared to 70% under the traditional model (39% A-B; FL 2009).
- Individual developmental math class completion *and* math sequence progress are important indicators of student success.
- When individuals put effort into a program such as its design, implementation, teaching, or as a learner, it becomes cognitively more difficult to judge its effectiveness objectively. Confirmation bias is the tendency for people to pay attention to, interpret, and favor new information that fits with their prior beliefs, while undervaluing non-confirmatory information.
- A series of focus groups have been recently held with students to improve their experience with the College. Thus far math redesign has been spontaneously brought up by each group as the primary or secondary issue of “dislike”. They want a “regular” math class option.
- There is tension between what math faculty believes to be the most effective method for teaching students developmental math, and how MCCC students want to learn. If traditional math classes are reinstated along with the redesign classes, it may be prudent to clarify that this decision is a response to consumer demand and necessary for systematically examining the effectiveness of the two teaching methods (e.g. same cut scores, grading), rather than a faculty expertise issue.

Suggestions for Improvement

- Designate more college resources towards developmental education and the Learning Assistance Lab.
 - Supplemental instruction, smaller faculty-to-student ratio (TAs), and additional availability of tutoring.
 - Emphasize a strong developmental education teaching background in new faculty hires. Non-education graduate programs usually do not include courses on teaching.
- Ask math faculty what resources they need to be successful.
- Identify potential structural differences between 090 and 092 (class size, content?) since 090 has more student success than 092.
- Consider whether students are being placed in 092 when they should begin in 090.
 - Aside from 090 and 092 performance differences, some students have expressed not being ready for the math class they tested into.
 - Are the cut score categories and/or COMPASS placement tests adequate?
- Some Emporium programs define mastery as “A-C” rather than “A-B”. This change could be considered.
- Include dates along with the weeks on the syllabi to help students more easily keep track of where they should be in the course.
- Are there any homework modules or pre-tests that are unnecessary? Could any of the processes (e.g. testing) be more efficient?

- Separate classes from the math den if it is true that they are sometimes combined and students have to wait for help.
- Students with laptop issues could be provided with another one immediately.
 - Students have asserted that there are sometimes manufacturing defects with the laptops, and they have been blamed. Fixing the laptops or downloading the software onto an alternative machine is a long process.
- Offer traditional math sections with a grading standard congruent to the redesign program's standard to increase student satisfaction and to systematically examine the effectiveness of the two methods.
 - In reference to Dr. Feldman's comment about students becoming discouraged and quitting, math self-efficacy measures could be included throughout the course.