What Math Do I Take? Addressing Placement Strategies for Students

FCS Mathematics Huddle 4
Placement/Advising

Huddle Members

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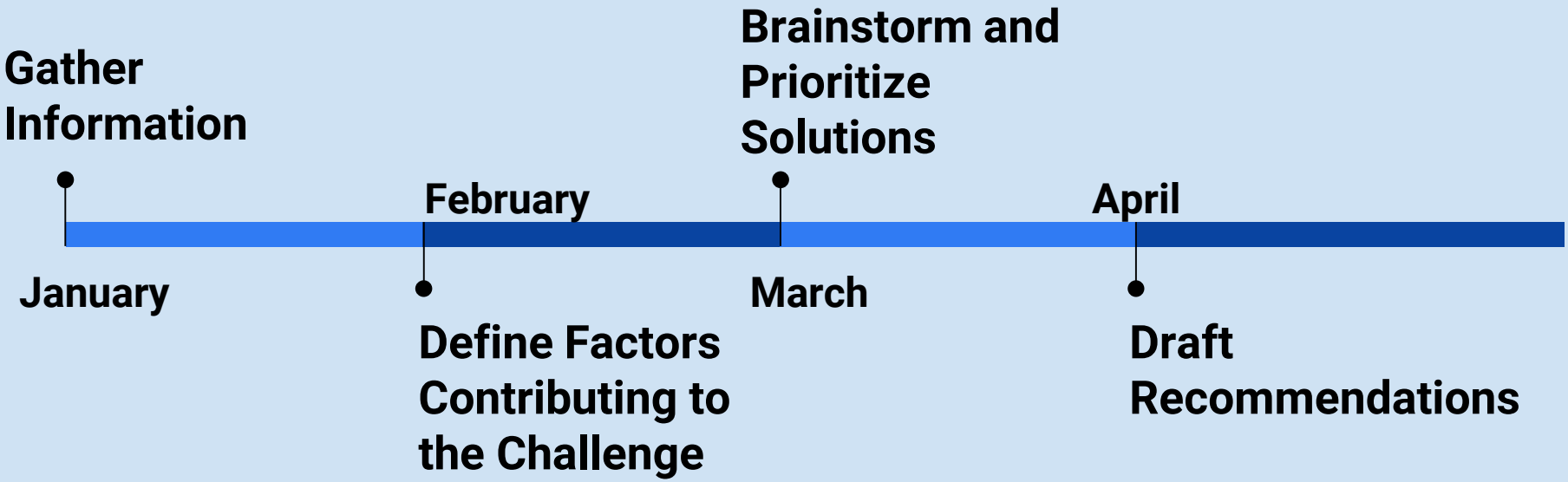
The Process

FCS Huddle: Placement/Advising



Gather Information

- Reviewed Literature
- Attended Conferences/Webinars
- Collected Data from Florida College System
- Interviewed Academic Advisors

Factors Contributing to the Challenge

- Math Pathways Implementation
- Math Course Placement
- Advisor Ratios/Self Advising

Recommendations

- Create common mathematics pathways by aligning mathematics courses to programs, meta-majors and careers in Florida.
- Use a multiple measures model to help improve placement.
- Increase the availability of advising resources and enlist the help of mathematics faculty, where appropriate.

Pathways Recommendation

Create common mathematics pathways by aligning mathematics courses to programs, meta-majors and careers in Florida.

Pathways Background

- Many students majoring in non-STEM and non-business majors are currently advised to take MAC 1105 College Algebra as their first mathematics college-level course. Academic advisors often see this course as a need or “safe course” to satisfy the “Gordon Rule.”

- FCS Data MAT 1033 Success Rate: 2016-17: 57.1%
  2017-18: 56.6%

Pathways Background (continued)

MAC 1105 College Algebra should be used as a gateway course for programs which require it, i.e. STEM as well as certain business and health programs of study.

Pathways Implementation

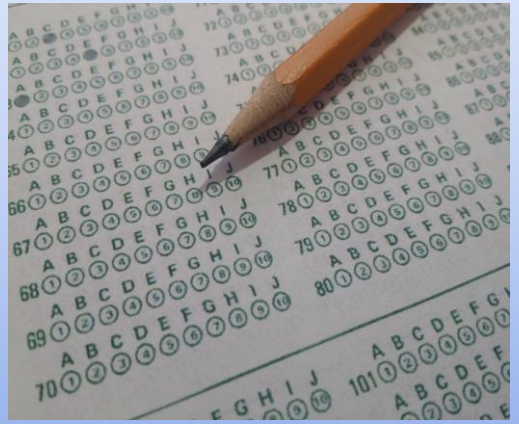
Statewide adoption of multiple mathematical pathways based on major groupings. Examples:

- Algebra/Calculus
- Statistical and Quantitative Reasoning pathways, i.e. Quantway and Statway.

Pathways Implementation

Ensure math alignment with majors and careers. Where appropriate, consider revising the current six semester hours of mathematics coursework to include quantitative reasoning/analysis courses relevant to the student’s area of study.

Multiple Measures Placement Recommendation



Use a “multiple measures” model to help improve placement, especially in mathematics.

Background to Multiple Measures

Research shows that more community college students pass college-level courses in mathematics and English when multiple measures (e.g., high school grade point average, placement test scores, level of courses taken, etc.) are used to appropriately place students.

Background to Multiple Measures (continued)

Multiple measures have greater effect compared to one single instrument to determine student placement. The more information gathered about student the better one’s placement becomes. In practice, students are currently placed in courses based on their exemption status and, sometimes, common placement testing.

Multiple Measures Implementation

Allow institutions to use a multiple measures formula to make recommendations for student placement. Track the success of students based on the multiple measures recommendation so institutions can adjust the formula to enhance success. Use digital tools to develop a formula, collect transcript data and monitor student success.

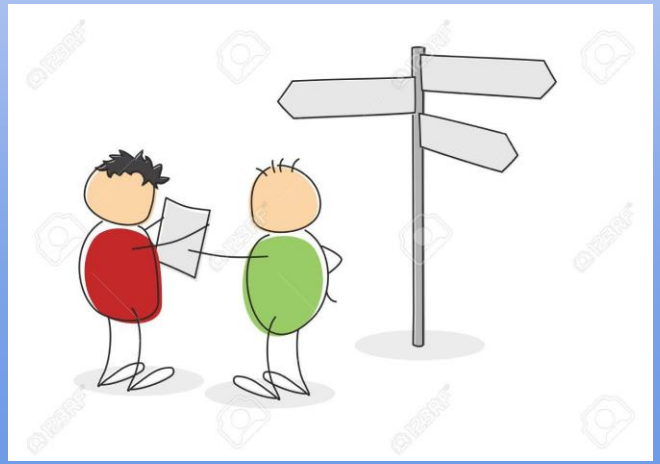
Possible Measures for Multiple Measure Placement

Current research suggest the use of some of the following factors:

- **Standardized test** (SAT, ACT, PERT, ACCUPLACER, etc.)
- **High school data** (HSGPA, HS Math GPA, HS Algebra GPA, Foreign Language, etc.)
- **Non-cognitive data** (Grit, Growth Mindset, etc.)

Advising Recommendation

Students need more opportunities and support for selecting the ideal pathway to achieve career goals with the help of advising resources. Increase the availability of advising resources and enlist the help of mathematics faculty, where appropriate.



Advising Background

- The median student to advisor ratio for 2 year colleges as suggested by the National Academic Advising Association (NACADA) is 1:441. In the FCS, the advisor to student ratios are on average 1:690 [as reported via a survey of the Council of Student Affairs in 2018 (n=27)].

- This ratio, coupled with students' competing obligations leaves students with little time to meet with an advisor. As a result, many students self-advise and prefer to use online resources throughout their program of study.

Advising Background (continued)

Mathematics departments serve almost all students in a college, but either do not have mathematics specialist advisors or only enough to serve students that are mathematics majors. Mathematics faculty are subject matter experts and can provide informal guidance to students on appropriate mathematics courses for which to take.

Advising Implementation

Ensure course lists are available for students electronically that show what students are eligible to take along with indicating progress to graduation. Require students to complete mathematics in a timely and appropriately sequenced manner. Consider requiring students to either update their advising with the program or see an advisor in person before they can register every semester.

Advising Implementation (continued)

Use innovative strategies such as providing professional development for faculty to engage in informal, constructive conversations with students about mathematics advising. Ensure faculty and staff are aware of existing resources for graduation planning and meta-major selection found on Florida Virtual Campus. Train more individuals to aid advisors in the advising process and improve communication channels to reach students.

Closing and Questions

Thank you all for attending