Quantitative Reasoning Focus Group Questions v8

Introduction:

Welcome Faculty Members. Thank you each for participating in this Focus Group. The topics and questions we'll cover today are entirely based upon feedback provided by your fellow faculty members who previously complete the QR Assessment Worksheets and Instructor Feedback Forms. Through our discussion today, we hope to arrive at recommendations and future actions that will help faculty teach and students learn quantitative reasoning. **To protect your interests and invite candor, we will reference your comments anonymously as "a participant said…." We ask that you help us to ensure confidentiality by also maintaining the anonymity of your colleagues' contributions.

1. Critical Thinking

Faculty referenced some students' difficulty with critical and abstract thinking.

a. How can we improve students' critical thinking in mathematics?

b. What specific types of instruction can be offered to introduce critical thinking?

c. What approaches have you taken in this area and found to be effective?

d. By a show of hands, how many of you would be interested in a workshop on this topic? _____

2. Abstract Thinking
Faculty also mentioned students' difficulty with abstract thinking, which includes:

- *using variables that could stand for more than one value in an equation in addition to concrete numbers that have a set value,*
- *using imaginary numbers, such as the square root of -1,*
- *using a formal system of logic such as doing a geometry proof, or*
- *representing complex systems through a simpler model.*

a. How can we improve students' abstract thinking in mathematics?

b. What specific types of instruction can be offered to introduce abstract thinking?

c. What approaches have you taken in this area and found to be effective?

d. By a show of hands, how many of you would be interested in a workshop on this topic? _____

3. Real-World Problems
Faculty report incorporating real-world problems into their coursework that pique students' interest and help students learn quantitative reasoning skills.

a. Do you find incorporating real-world problems that students relate to into your courses as an effective strategy? _____ Why?

b. If the College were to develop a repository of real-world problems that can be used in your courses, how many of you would use it? _____

c. By a show of hands, how many of you would you be willing to share your real-world problem sets with others in a repository? _____

d. How many of you would be interested in a workshop on this topic? _____

4. Pre-Requisites
Faculty discussed issues with pre-requisite policies and their administration.

a. Have you found students enrolled in your courses that have not met the pre-requisite course requirements?

b. How frequently has this occurred?

c. What suggestions do you have to improve this?

5. Faculty Concerns
From the checklist of faculty concerns about issues that hinder student learning that you filled out today, the highest ranked problems are: _____ and _____.

From earlier focus groups: #1: Students did not prepare for class
                               tie for #2: Poor attendance
                               tie for #2: Inability to apply prior learning from previous semesters

a. What suggestions do you have to resolve these problems? (ask multiple times, for each problem)

b. Faculty in an earlier focus group brought up the issue of grade inflation as a cause that contributes to students' inability to apply prior learning from previous semesters. What do you think of that assertion?

c. What are some ways that we might be able to address the issue of grade inflation?
What do you think of an idea that was proposed for using a cutoff grade on a common exam as a possibility for successful completion of a course?

6. Personal Attributes
Multiple faculty referenced students' lack of confidence, and corresponding anxiety surrounding math assignments.

a. How many of you identify students' lack of confidence as a serious impediment to their success in your course? _____

b. What techniques do you use to help students overcome their lack of confidence or anxiety?

c. (If needed) Do students' confidence in the course noticeably increase the more they practice with the course materials? _____

d. How many of you would be interested in a workshop on this topic? _____

7. Academic Foundation in Math and English
Multiple faculty referenced students' lack of academic foundation in math and English.

a. How many of you see a relationship between student English skills and their success in mathematics? _____

b. How do students' lack of foundation in English affect their math skills?

c. What strategies/techniques do you do use to address this?

d. How can you incorporate short or informal writing activities into your classes or assignments?

e. Can you think of any ways to collaborate with English or ESL faculty, or writing tutors to address this?

f. How many of you would be interested in a workshop on this topic? _____

8. Use of Technology
From the checklist on Online Learning Tools and Technology Learning Aids that you filled in today, we'd like to follow up on your responses.

a. The more popular learning tools are: _____ and _____.

How do you get the most out of using My Math Lab in your class?

How do you get the most out of using the Khan Academy in your class?

How do you get the most out of using _____ in your class?

b. (If appropriate) The following tools were specifically listed as ones that you <u>do not</u> recommend: _____ and _____. Could you give a little more detail on how they are problematic?

(At this point, we'd like to address any additional trends or issues to clarify that arose on the forms….)

c. Are there tools that you added to the checklist that you want the college to purchase?

d. How can the college better support your use of online learning platforms?

9. Conclusion
a. Are there any other topics you would like to discuss related to student learning in quantitative reasoning?

b. Should the IDS 105: College Success course be required for all students? _____ Should it be required early in the student's enrollment?

Thank you very much for your participation. The Assessment Team will combine the information generated from all of the focus group sessions to recommend courses of action to the college leadership. We will keep you posted as this work progresses.