QUAD PROGRAM

Assessment

As the Quad Coordinator, I spend most of the year working on QUAD program assessment and looking at the proficiency requirement which I will discuss in the next section.

After meeting with Dr. Heather McGovern, Director of Institute for Faculty Development, I decided to focus on Q1 assessment and look at the core Q1 courses that freshman students take in their first year at Stockton. There are seven main Q1 courses freshmen complete: Quantitative Reasoning (BASK 1203), Statistics (CSIS 1206), Algebraic Problem Solving (GNM 1125), College Algebra (GEN 1135), Intermediate Algebra (GEN 1126), Precalculus (MATH 1100), and Calculus (MATH 2215). Three schools, NAMS, GENS, and BSNS, are in charge of these courses. After contacting programs within these schools regarding the type of assessment they are undertaking for these Q1 designated courses, I have discovered that only GENS has done any significant work regarding assessment of Q1 courses.

In GENS, the BASK math program had BASK 1203 students complete questionnaires and tests at the beginning and again at the end of the fall 2009 term. The questionnaire data was entered and analyzed in spring 2010. The pre-and post-tests contained both multiple choice and open-ended questions.

BASK mathematics faculty members met in spring 2010 and scored the open-ended items using previously developed rubrics. Both the questionnaire and test data were analyzed. According to the data, students enrolled in fall 2009 BASK 1203 made significant progress in improving their mathematical skills and understandings (Goal C.2 of QUAD Assessment). However, little change was found in the area regarding confidence/attitudes towards mathematics and mathematics teaching and learning (Goal C.1 of QUAD Assessment). The latter results are not surprising given BASK students’ general attitudes and fear of mathematics. Future plan in GENS is to assess Algebraic Problem Solving (GNM 1125) and Developmental Math (BASK 1113), a non-bearing college credit math course.

In NAMS and BSNS, there have been no significant attempts to assess the core Q1 courses named above. I am working with the NAMS and BSNS faculty members from the QUAD Central Task Force to get more completed within these schools/programs.

In fall 2009 and spring 2010, I requested that Q1 and Q2 faculty add three questions (see below) to their IDEA forms. By adding these questions, I am gathering data related to the following goals:

Goal B: Increase student experience with the power of mathematical thinking.

Goal C: Improve the learning of quantitative skills and concepts for all students.
I have requested a group report from Dr. Heather McGovern and I am still waiting on that information.

Q1 & Q2 courses — Additional IDEA questions

48. How much of this course was devoted to quantitative reasoning? Goal B.1)

   1: 0-19%    2: 20-39%    3: 40-59%    4: 60-79%    5: 80-100%

49. As a result of this course, I am more confident in doing math and/or quantitative reasoning. (Goal C.1)

   1: Strongly Disagree   2: Disagree   3: Neither Disagree nor Agree   4: Agree   5: Strongly Agree

50. As a result of this course, my math and/or quantitative reasoning skills have improved (Goal C.2)

   1: Strongly Disagree   2: Disagree   3: Neither Disagree nor Agree   4: Agree   5: Strongly Agree

In addition to the above data, I have requested information from Joseph LoSasso in Student Records regarding our recent graduating seniors. I have asked for the number of Q courses taken by students in the various schools and the grades received in those courses. I plan on analyzing this data to see how well the QUAD program has achieved Goal A: Increase student experience with the power of mathematical thinking as well as look at the effectiveness of the current minimum grade proficiency policy which is discussed in the next section.

Lastly, I participated in the 2010 Summer Assessment Institute and have planned on developing questions that will be used in a focus group on the studying the effectiveness of the QUARD program. I also will be working on a questionnaire which will assess student awareness of mathematics and its applications in many fields of study.