The Impact of the Mathematics Across the Community College (MAC³) Project on Students’ Learning and Attitudes about Mathematics. Preliminary report.

The Mathematics Across the Community College Curriculum (MAC³) project (NSF DUE #0442439) is a national dissemination project, led by the American Mathematical Association of Two-Year Colleges (AMATYC). This presentation will share the findings of the student attitudinal surveys from the first two years of the grant. Students in MAC³ courses complete a 21-statement survey on the first and last day of class. Results from matched pre-post surveys for 521 students in 32 courses over this time period indicate that the interdisciplinary, student-centered mathematics materials and methods developed at the MAC³ Summer and Winter Institutes are effective in meeting the MAC³ project goals of improving student mathematics learning. At the conclusion of MAC³ courses, students reported that they liked math more, were more interested in it and had a clearer understanding of its role in their lives than they had at the beginning of the courses. They also were more likely to believe that interdisciplinary courses enhance learning in both mathematics and the paired subject. These positive results suggest that the MAC³ approach is effective in improving students’ attitudes towards mathematics and their perceptions of their learning for a broad range of students. (Received September 21, 2007)