Student scores from fall 2010 traditional sections were compared to student scores in redesign sections from fall 2011. Students in redesigned sections scored significantly higher overall in course competencies when compared to students in traditional sections.

The competencies and the percent increase in scores from the traditional to redesign course were as follows:

- Real numbers and Operations increased from 67% to 84%—a 25% increase.
- Algebraic Expressions increased from 53% to 81%—a 33% increase.
- Linear Functions and Graphs increased from 47% to 81%—a 72% increase.
- Linear Equations/Inequalities increased from 53% to 87%—a 64% increase.

(The fifth competency, Modeling and Critical Thinking, was unique to the redesigned course and did not have an equivalent in the traditional course.)

Other Impacts on Students

- Redesign students performed better in college-level Math for Liberal Arts with a success rate of 100 percent versus 59 percent for traditional students.
- According to student comments from course evaluation forms based on a five-point scale, students enjoyed the computer lab setting (4.1), believed they were better at math at the end of the course (4.2), felt prepared for college-level math (4.0), liked the immediate feedback on homework and tests (4.4), and felt the critical-thinking activities helped to tie the material together (3.9).

Conclusions

The improved learning outcomes and subsequent success rates indicate that the developmental math redesign is having a positive impact. NSCC faculty expect this trend to continue as the team continues to modify course content and delivery. The changes to the developmental math program most likely will extend into other college-level math courses.