MATH PATH SURVEY REPORT: 2010

EXECUTIVE SUMMARY

Pasadena City College's Math Path program has served hundreds of students since it was created in Fall 2006. It is a math "compression program" comprised of two math classes (and, at the pre-transfer levels, two support classes) in one term. **Previous evaluations have shown that twice as many students who have completed a Math Path class transfer to 4-year colleges than a comparable group of PCC students.**

This evaluation study seeks to answer the question: **"Is Math Path effective in changing students' attitudes towards math that are related to math anxiety?"**

The *Attitudes Towards Math Inventory* (ATMI) survey was administered during the Spring 2010 term to Math Path students and a comparison group of PCC students taking the first course in the Math Path sequences: Math 402--prealgebra; Math 125--beginning algebra; Math 8--pre-calculus; Math 5A—calculus; or Math5C--calculus. The final sample (N=122) included 60 Math Path and 62 comparison participants.

Findings

A mixed-model ANOVA found that from the beginning to the end of the Spring 2010 term…

1. Math Path students had an increased sense of self and enjoyment of mathematics and reduced mathematics anxiety
2. The comparison group reported increased math anxiety and decreased enjoyment of mathematics through the term
3. Math Path students completed their semester with improved attitudes towards mathematics
4. Math Path students were two classes closer to transfer-level math and were better positioned to succeed in math than a comparable PCC math student

Our findings suggest that Math Path should be supported and grown because of its ability to move students through the various math sequences faster than a comparable group of PCC students.

Note

The selection bias introduced by the recruiting process reduces our ability to make more definitive statements about any differences in effects between these groups as a result of Math Path. It is entirely possible that only the selected, motivated students will reap the improvements in attitudes towards math. Given this caveat, the lack of change in the comparison group provides qualified support that these changes do not occur in non-Math Path PCC students taking the first class in the Math Path sequences and that these attitude changes are related to their involvement in Math Path.

Prepared by:
Michael A. Harnar, M.A.
Patricia Quinones
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Claremont Graduate University