

Focus on Fractions for Algebra Success

Cheryl Ooten, Santo Ana College

Abstract

Focus on Fractions research assessed how important fraction fluency is to beginning algebra success for community college students. A quantitative study employed path analysis with data from student surveys (demographics, self-efficacy beliefs, and behaviors) along with placement-test conceptual subscores and final course grades with a sample of 563 diverse students in Southern California. Direct and indirect predictors of a higher course grade included higher ratings of student self-efficacy beliefs about math skills, understanding of fractions, and reasoning with fractions and higher fraction and decimal subscores on the placement exam. Self-efficacy beliefs were stronger predictors than placement-exam subscores. This research demonstrates that students not fluent in fractions lack skills vital for beginning algebra success establishing the value of fraction interventions and good fraction teaching tools at all levels.



Cheryl Ooten has over 35 years' experience teaching mathematics (21 years at Santa Ana College) and a recent PhD in education. She now works with community college Mathematics, Engineering, Science Achievement (MESA) and Reentry programs and as a K–8 classroom volunteer. A lifelong continuing interest in lowering math anxiety and raising classroom math excellence led to her authoring *Managing the Mean Math Blues*.