



Resolution of the AMERICAN MATHEMATICAL ASSOCIATION OF TWO-YEAR COLLEGES on
Addressing Factors Critical to Student Success

The primary emphasis of most developmental mathematics programs is to expand conceptual best practices that are prerequisite to college mathematics. However, there are other constructs that often interfere with a student's ability to learn mathematics.

One of the goals of a developmental mathematics program should be to improve the ability of students to learn mathematics; as a result, factors that interfere with learning should be addressed.

Therefore, AMATYC recommends the following should be endorsed as standard best practices in a developmental mathematics program:

- Minimize the time lapse between mathematics courses in college studies and emphasize an early start to these studies.
- Emphasize the importance of number sense and computational fluency, especially with rational numbers.
- Stress the benefits of review and implement review modules prior to placement assessment.
- Implement instruction of the attributes of study skills, such as time management and motivation.
- Increase mathematics self-efficacy to reduce mathematics anxiety.
- Offer support systems to students to create social relationships, clarify goals, increase commitment, promote college know-how, and make college life feasible.¹
- Prioritize in the curriculum the ability to solve problems and read mathematics.
- Emphasize and assess a balance of both conceptual understanding and procedural skills.
- Support risk-taking so students learn that failure can lead to successful problem solving.
- Give frequent assessments and encourage self-assessment and reflection.
- Create a classroom environment that fosters a growth-oriented mindset.
- Accentuate the value of class attendance in maximizing student achievement.
- Bridge the gap for under-represented student populations by acknowledging and addressing the disparity in privilege and the inequitable access to resources required for mastery in mathematics.²

Faculty should receive full institutional support for implementing the above best practices.

The goal of maximizing students' successful attainment of skills critical to expand career options and to promote good citizenship^{3, 4} can be realized with enhanced basic mathematics skills, greater self-efficacy, improved self-regulated learning, and increased persistence.^{5, 6}

¹ M. Karp, "A Holistic Conception of Nonacademic Support: How Four Mechanisms Combine to Encourage Positive Student Outcomes in the Community College," *New Directions for Community Colleges*, no. 175; Wiley Periodicals Inc. (Fall 2016): 33-42.

² *IMPACT*, 10-14.

³ *IMPACT*, 53.

⁴ *IMPACT*, 89-90.

⁵ *IMPACT*, 20-26.

⁶ *IMPACT*, 31-34.