Unmathematical and Unaware of It: Proficiency’s Link to Metacognition
Sidra Van De Car and Tatiana Ballion, Valencia College

Abstract:

Helping students to reach proficiency is one call of AMATYC’s IMPACT document. Metacognitive training underlies an individual's ability to reach proficiency in a domain, but many students enter the two-year mathematics classroom lacking such training. As educators, we can best affect our students' learning process by teaching them the fundamentals of how to be mathematical learners. A review of the research highlights the importance of focusing on metacognition in the mathematics classroom as a progression towards helping students reach mathematical proficiency. A discussion of employing metacognitive teaching strategies is introduced.

Sidra Van De Car is a professor of mathematics at Valencia College, where she has taught for nearly two decades. She holds PhDs in both mathematics, and applied experimental and human factors psychology. Sidra has served in officer positions for the local chapter of the MAA and FTYCMA, and helps facilitate faculty development in the tenure process at her institution.

Tatiana Ballion is an adjunct professor of psychology at Valencia College. She holds a PhD in applied experimental and human factors psychology, with research interests in various aspects of cognition and learning.