Improving Student Success through Deepening GTAs’ Meanings.

At many universities, courses leading up to calculus are taught by graduate teaching assistants (GTAs). These typically novice instructors face the challenge of teaching ideas foundational to calculus, yet our data suggests GTAs often hold impoverished meanings for those ideas themselves. We share data revealing the varied meanings held by GTAs regarding average rate of change, angle measure and the sine function, before and after being involved in an intervention designed to support them in developing richer meanings for these and other ideas found in algebra and pre-calculus courses. We highlight aspects of the intervention and corresponding materials focused on deepening the content knowledge of these instructors which have contributed to increased student success. (Received September 21, 2016)