Supportive Strategies in STEM Education

Bernard D. Santarsiero, Office of the Vice Provost for Diversity, University of Illinois at Chicago bds@uic.edu

Most often achievement gaps and lack of student success are perceived to be derived from cognitive factors, i.e., that students are not as well prepared for a course through poor training of prerequisites, or they lack development of higher-level learning processes like memorization, reasoning, application, analysis, or evaluation. We now recognize that non-cognitive factors are also important, and that resources other than remedial training can foster significant improvements in successful student outcomes. We will discuss these non-cognitive factors and new strategies and approaches that promote an inclusive classroom and improved learning experience in STEM courses.

We acknowledge support for the L@S GANAS (Latinos Gaining Access to Networks for Advancement in Science) Initiative from the U.S. Department of Education Hispanic-Serving Institutions—Science, Technology, Engineering, or Mathematics (HSI-STEM) and Articulation Programs.