

1154-97-2719

Cameisha Clark*, 223 James P. Brawley SW, Atlanta, GA 30314, and **Daniel Teodorescu** and **Torina Lewis**. *Gender Differences in the Use and Effectiveness of Adaptive Learning in Calculus I at a Private HBCU*. Preliminary report.

The study established whether the implementation of Assessment and LEarning in Knowledge Spaces (ALEKS) - a web-based, artificially intelligent adaptive learning and assessment system improved male student mastery of learning outcomes, retention, and persistence rates in undergraduate Science Technology Engineering and Mathematics (STEM) degree programs at a higher rate than female students at a private Historically Black Colleges and Universities HBCU. The system was implemented as a corequisite model to assist students that struggled with precalculus concepts. Ten sections of Calculus I averaging 30 students, were exposed to the intervention from spring 2018 - spring 2019. Students navigated ALEKS precalculus content while simultaneously studying Calculus I concepts. We examined whether the adaptive learning technology was more effective with helping male students gain the necessary knowledge to be successful in Calculus I. (Received September 17, 2019)