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Torina Lewis*, 223 James P. Brawley SW, Atlanta, GA 30314. *A Propensity Score Matching Analysis of the Effects of Assessment and Learning in Knowledge Spaces (ALEKS) on Student Achievement at a Historically Black University.*

We applied recent advances in propensity-score matching (PSM) to quantify the effectiveness of Assessment and LEarning in Knowledge Spaces (ALEKS) delivered as a corequisite model in Differential Calculus at a Historically Black College and University. Specifically, we examined whether students enrolled in a redesigned Differential Calculus course achieved higher final exam grades, or recorded a higher course average than closely matched students with selected covariates after using ALEKS. In order to avoid the selectivity problem, the “MatchIt” package in R was used to analyze student data from fall 2016 – spring 2019. Results indicate that implementing ALEKS as a corequisite approach in Differential Calculus showed an enhancement of student mathematical skills and a moderate positive relationship between the final course grade earned and the number of topics mastered. Moreover, the corequisite approach yielded a moderate effect on spring 2018 final exam scores, but the effect on final course grades was minimal. (Received September 17, 2019)