

Proposal

George Sherman

With computer-based math emporiums serving many post-secondary students who are assigned developmental coursework, the need to evaluate the predictive value of math placement criteria for math emporium courses presented an opportunity for research. This quantitative, predictive, correlational study explored how accurately the predictor variables of students' ACT/SAT math component scores, local math assessment results, and unweighted high school GPAs foretold the criterion variable of students' final math grades in MATH 100, an entry-level, residential, developmental math course taught through a private university's math emporium. The research relied on archival data pulled from the university's system of records, and the samples included 565 students for the 2017-2018 academic year, 1,168 students for the 2016-2017 year, and 1,500 students for the 2015-2016 year who for the first time attempted residential MATH 100 and earned a grade without withdrawing. Multiple linear regression results with a 95% confidence interval for 2017-2018, 2016-2017; and for 2015-2016 all yielded significant values. High school GPA was the most accurate of the three predictors while ACT/SAT math component and local assessment scores took turns as the second most accurate. This study portrays developmental math placement as operating in a dynamic and somewhat unpredictable environment, and it aligns with other studies suggesting multiple method placement practices are better than single method practices as it suggests little difference exists between placement effectiveness for math emporiums versus other venues. The manuscript closes with recommendations for further research.