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Title: Objective and Subjective Predictors of Overall Student Performance in a Research Methods and Statistics Course

Abstract: Research analysis and design is a core component of an undergraduate psychology degree. Factors that influence individual performance in this course are of great interest to both teachers and students. This study examined the potential of several relevant individual factors to predict students' overall performance in such a course. Psychology (PSYC) 3510 is the first part of a two-semester quantitative course sequence composed of approximately half research methods and half statistics required for all Psychology majors. We operationally defined overall performance as students' final grades. We hypothesized that pre-assessment skills quiz scores, attendance, difficulty ratings of statistical concepts, and confidence in the ability to learn math would be positively correlated with overall performance. We hypothesized students' comfort with math ability and their difficulty ratings of research methods would not be correlated with overall performance. We collected data from 73 students in one section of PSYC 3510 during Fall 2012 . Data included self-reported responses to a questionnaire on the first day of class and daily difficulty ratings of concepts, as well as students' attendance, pre-assessment skills quiz scores, and final grades in the course. Bivariate correlations support our hypothesis that students with higher attendance and higher pre-assessment skills quiz scores had higher overall performance. Confidence in the ability to learn math, while positively correlated, was not statistically significant in predicting overall performance. Furthermore, comfort with math ability and research methods difficulty ratings did not correlate with overall performance. Contrary to our hypothesis, higher statistics difficulty ratings predicted lower overall performance from students. Implications of these findings for instructors and students are discussed.

KEYWORDS: student performance, difficulty ratings, statistics, research methods, attendance