

ZMATH 2016b.00161

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Using the expectancy value model of motivation to understand the relationship between student attitudes and achievement in statistics.

Stat. Educ. Res. J. 11, No. 2, 72-85, electronic only (2012).

Summary: We tested a model of the relationship between attitudes toward statistics and achievement based on Eccles' Expectancy Value Model. Participants ($n = 149$; 83% female) were second-year Australian university students in a psychology statistics course (mean age = 23.36 years, SD = 7.94 years). We obtained demographic details, past performance, attitudes, and expectancies in week 2, and attendance records (effort) and course marks (achievement) at the end of semester. Path analysis was conducted via AMOS 19. The final model fit well and explained 40% of the variance in achievement. Past performance (22%), effort (8%), and expectancies (2%) made significant direct contributions. There were significant indirect contributions by each attitude component. Cognitive competence made the largest indirect contribution.

Classification: C25 C35 K45 K75 K85 M75

Keywords: statistics education research; statistics attitudes; statistics achievement

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