

Effects of jocular instructional methods on attitudes, anxiety, and achievement in statistics courses*

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Abstract

This investigation examines the effects of using humor as a systematic teaching strategy to improve attitudes, reduce anxiety, and increase achievement in introductory undergraduate and graduate statistics courses. A single-sample pretest-posttest design was employed to measure changes in attitudes and anxiety and their relationships to achievement levels. Three incidental samples of 142 students were selected to test the humorous instructional intervention. Statistically significant t-ratios in the predicted directions and practically significant effect sizes were found for attitudes toward course content and anxiety for all classes. These affective characteristics also had moderate correlations with composite achievement.

Introduction

Among all of the courses students take during their academic careers, which one would receive the highest number of votes for super-boring, ultra-difficult, and most anxiety producing (that triple threat)? While I have not conducted a formal survey, the hearsay evidence I have gathered over more than 20 years of teaching methodology courses should put statistics courses near the top. Students probably drag more negative baggage into their required introductory statistics course than any other. That baggage may contain: (1) math anxiety associated with low math ability or self-esteem, (2) computer anxiety due to lack of computer proficiency and experience, and (3), worst of all, negative attitudes toward statistics resulting from their lack of interest in the subject, perceived uselessness of statistics to their field or career goals, and/or the sometimes true, but