



Educational Implications of Evaluating Attitudes toward Statistics in a Sample of First-Year Psychology Students in Portugal

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Abstract

Instructors of courses in statistics for the humanities and social sciences often find that their students have a very wide array of attitudes about the contents of this discipline. In fact, many students begin their study of statistics with a pattern of negative attitudes about it. Evidently, a pattern of negative attitudes can inhibit the process of learning of the curriculum contents of the discipline, while favorable attitudes are associated with more effective and enduring learning's of statistical concepts and techniques. Apart from the effect of attitudes on learning the course contents, the current knowledge society requires that citizens have statistical literacy to sail smoothly through the increasing complexity of our information-rich world. Recent reforms of the statistics curricula emphasize the need to promote the importance and/or instrumentality value of statistical concepts for an informed and critical participation in society. Measuring attitudes toward statistics can have many implications for the proper assessment of the new learning goals just mentioned. In this work we'll present psychometric data on a measure of attitudes toward statistics recently translated into Portuguese - Survey of Attitudes Toward Statistics (SATS-36). That scale was administrated on a sample of about 140 first-year students enrolled in the degree program in Psychology, at an historical university of Portugal. In general, our results show that the questionnaire can be used to assess respondents' attitudes about teaching and learning of statistics, at an appropriate level of reliability (Cronbach alpha's range from .61 to .82) and validity (statistically significant correlations, in the range of .17 to .58, were obtained among different SATS's scores and external conative, affective and cognitive indicator's). Finally, we discuss some of the psycho-educational implications of the results for the assessment and modification of the attitudes that the students have about learning statistics in higher education courses.