Exploring gender, employment, year, major, and student beliefs about learning physics of college physics students

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Abstract

Specific beliefs and attitudes of physics students have been shown to correlate with conceptual knowledge gains, and student retention in physics courses has been correlated to favorable beliefs. In this study, 170 undergraduate physics students and 50 graduate physics students will be surveyed to explore whether other student variables are related to their attitudes and beliefs about learning physics. Using a modified version of the Colorado Learning Attitudes about Science Survey (CLASS), the relationship between student beliefs about physics and several student variables will be examined. Gender, age, ethnicity, year of study, major, weekly working hours, and whether the student supports any dependants are of interest. Five semi-structured interviews will trianglate and extend our data.