

Abstract Submitted
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Understanding the Gender Gap in Introductory Physics¹ NOAH FINKELSTEIN, University of Colorado at Boulder, LAUREN KOST, STEVEN POLLOCK, University of Colorado — While it has been suggested interactive engagement (IE) techniques can eliminate the gender gap (the difference in performance between men and women on measures of conceptual learning), we find that, at our institution, the gender gap persisted from pre to posttest in IE classes (Pollock, Physical Review: ST PER. 3, 010107, 2007). This talk reports on a three-part follow-up study that investigates what factors contribute to the gender gap. First, we analyze student grades in different components of the course and find that men and women's course grades are not significantly different ($p > 0.1$), but men outscore women on exams and women outscore men on homework and participation. Second, we compare average posttest scores of men and women who score similarly on the pretest and find that there are no significant differences between men and women's average posttest scores. Finally, we analyze other factors in addition to the pretest score that could influence the posttest score and find that gender does not account for a major portion of the variation in posttest scores when a measure of mathematics performance is included. These findings indicate that the gender gap exists in interactive physics classes, but may be due in large part to differences in preparation, background, and math skills as assessed by traditional survey instruments.

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