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Reducing the gender gap in the physics classroom[1] MERCEDES LORENZO, IES Universidad Laboral , CATHERINE CROUCH, Swarthmore College, ERIC MAZUR, Harvard University — We investigated whether the gender gap in conceptual understanding in an introductory university physics course can be reduced by teaching with interactive engagement methods that promote in-class interaction, reduce competition, foster collaboration, and emphasize conceptual understanding. To this end, we analyzed data from the introductory calculus-based physics course for non-majors at Harvard University taught traditionally or using different degrees of interactive engagement. Our results show that teaching with certain interactive strategies not only yields significantly increased understanding for both males and females, but also reduces the gender gap. The greater the interaction, feedback, collaboration, and emphasis on understanding, the greater the reduction in the gender gap. In the most interactively taught courses, the pre-instruction gender gap is gone at the end of the semester.

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