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Gender gaps in a first-year physics lab

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It has been established that male students outperform female students on almost all commonly-used physics concept inventories. However, there is significant variation in the factors that contribute to this gender gap, as well as the direction in which they influence it. It is presently unknown if such a gender gap exists on the relatively new Concise Data Processing Assessment (CDPA). To get at estimates of the gap, we have measured performance on the CDPA at the pre-test and post-test level in the first-year physics lab at the University of British Columbia. We find a gender gap on the CDPA that persists from pre- to post-test and that is as big as, if not bigger than, similar reported gaps. That being said, we ultimately claim no evidence that female students are less capable of learning than their male peers, and we suggest caution when using gain measures alone to draw conclusions about differences in science classroom performance across gender.

Author: Dr DAY, James (University of British Columbia)

Co-authors: Mr KUMAR, Dhaneesh (University of British Columbia); Dr BONN, Doug (University of British Columbia); Dr STANG, Jared (University of British Columbia); Dr HOLMES, Natasha (Stanford)

Presenter: Dr DAY, James (University of British Columbia)

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