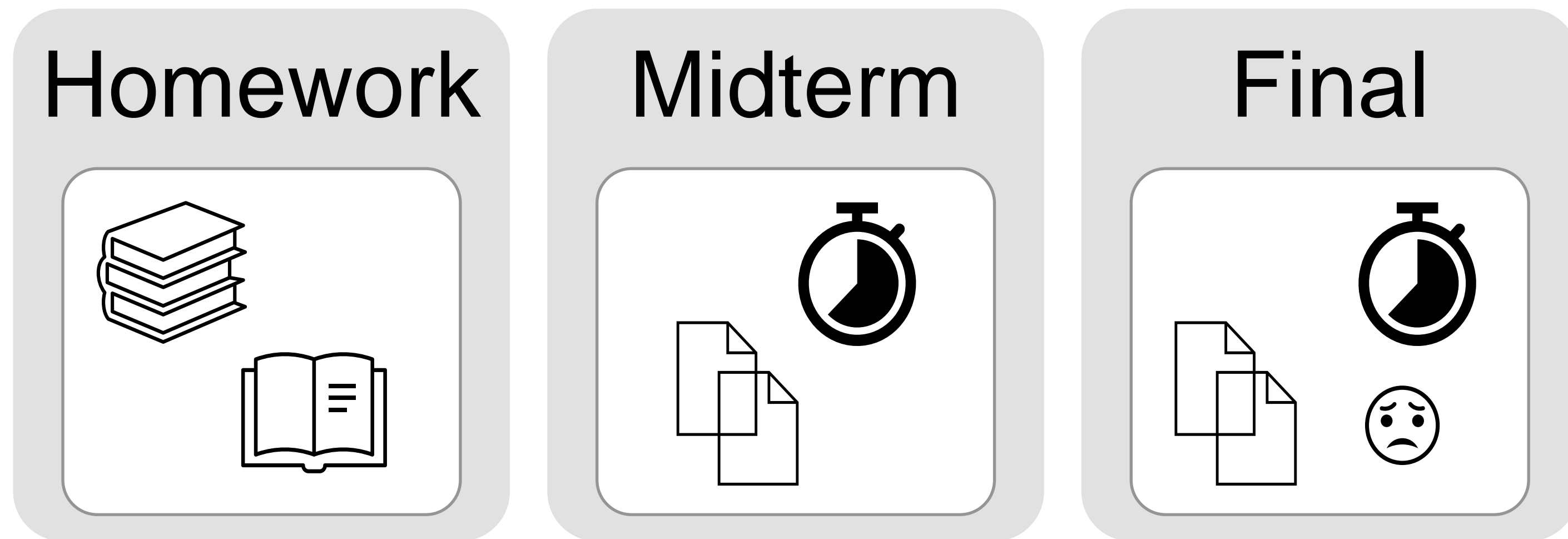


Unpacking Grading & Feedback in Upper-Division Physics

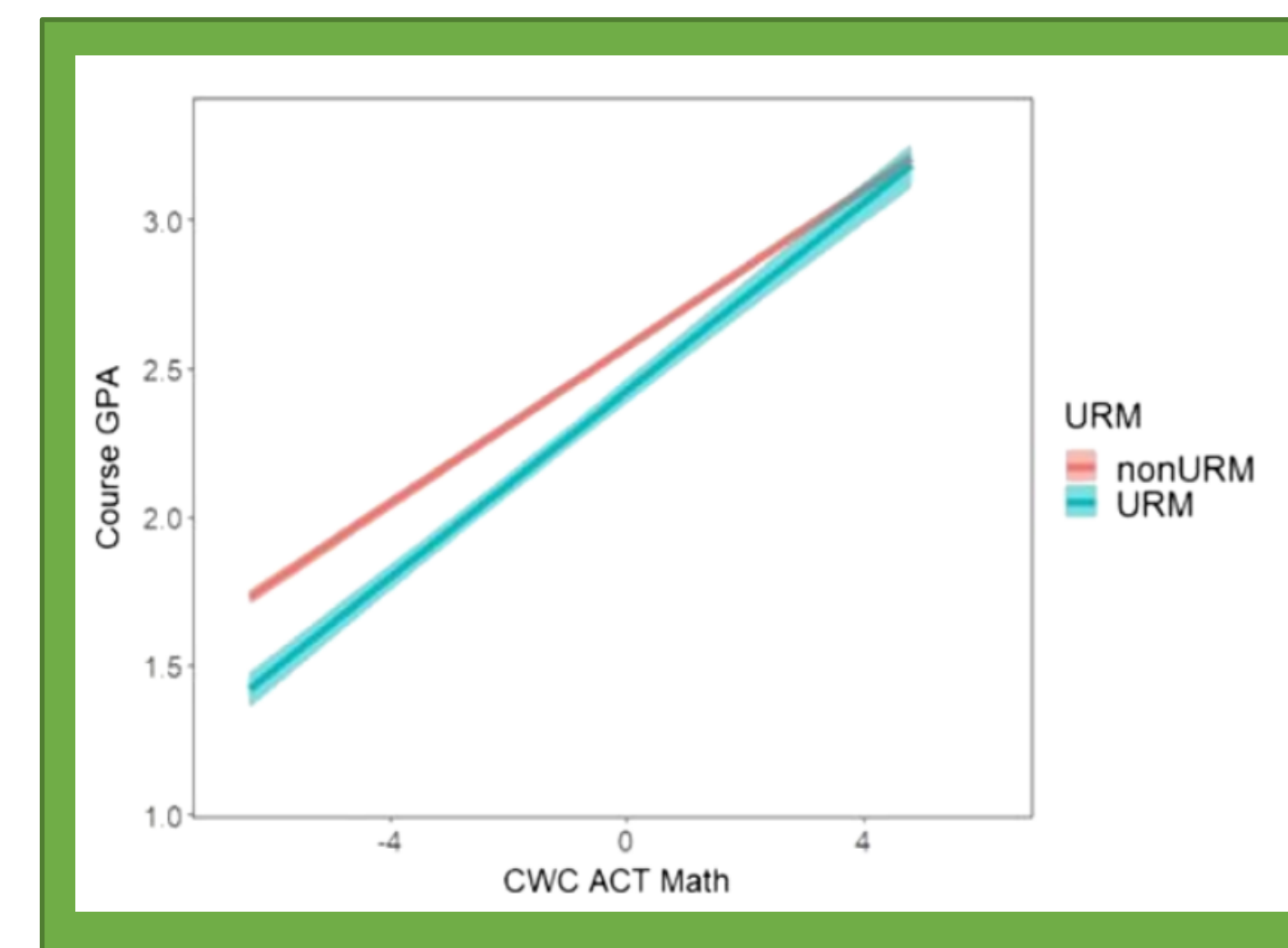
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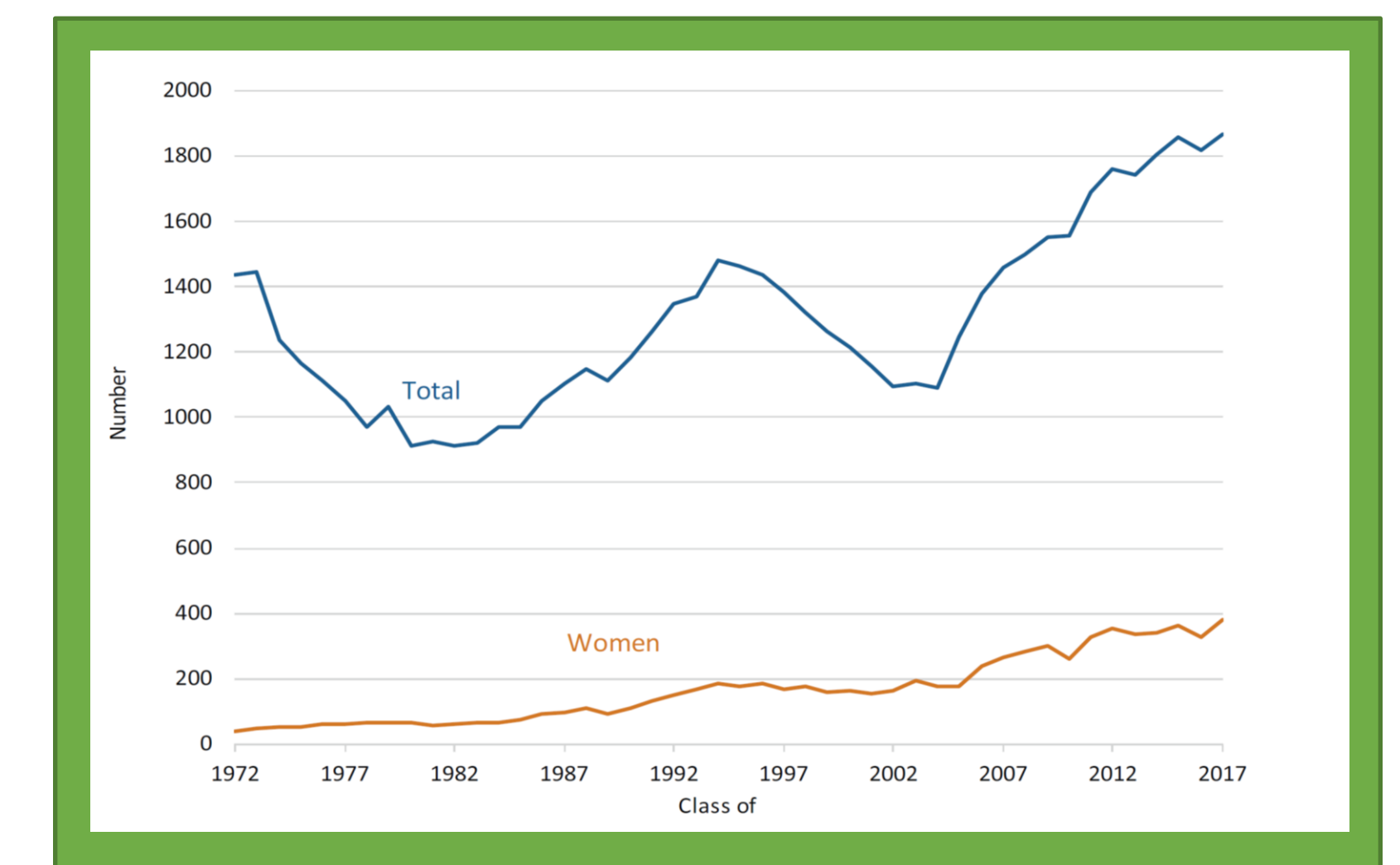
Upper-Division Physics Assessment



Known Outcomes



URM students with equivalent ACT scores receive lower grades¹



Fewer women earn physics PhDs compared to men²

Semi-Structured Interview with Four Upper-Division Physics Students

R
MISCOMMUNICATION

I
STANDARD

G
CORRECT ANSWER vs.
UNDERSTANDING

S
STRICT

T
STRUCTURE

R
ONE-SIDED



No Reported Impact

“I feel like sometimes the professors who are super rigid lose focus of the fact that we're here to learn things and not just, I mean assessments are important, but learning is the most important thing...”

What about not grading³ and just giving feedback?

“I think the verbal is a lot better because you can show or tell why you did it versus just like them just critiquing what you did...”

“... maybe you won't feel horrible for doing terrible on a quiz or a test or whatever if it's given by a person... especially when somebody is friendly, like it makes the stakes feel less high and kind of helps, like not be extremely pressured...”

“I think I definitely like, engaged with it more to be honest...I can just watch this video real quick as opposed to looking through notes...you didn't waste time on things you didn't need to do which is nice.”

How has written feedback impacted your learning or study habits in your upper-division STEM courses?

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¹Heckler et al., “Grades, grade component weighting, and demographic disparities in introductory physics”, 2020, ²AIP, “Women in Physics and Astronomy”, 2019, ³Blum et al., “Ungrading”, 2020